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Surface Water Supply of the United States 1961–65

Part 12. Pacific Slope Basins in Washington

Volume 1. Pacific Slope Basins in Washington Except Columbia River Basin

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GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1932

Prepared in cooperation with the State of Washington and with other agencies

U.S. DEPARTMENT OF THE INTERIOR
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WALTER J. HICKEL, *Secretary*

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William T. Pecora, *Director*

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PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Washington and with other agencies, by personnel of the Water Resources Division, E. L. Hendricks, chief hydrologist, G. W. Whetstone, assistant chief for Reports and Data processing, under the general direction of G. A. Billingsley, chief, Reports Section, and B. A. Anderson, chief, Data Reports Unit.

The data were collected and computed under the supervision of L. B. Laird, district chief, Water Resources Division, Tacoma, Wash.

CONTENTS

Page
Preface.. III
List of gaging stations, in downstream order, for which records are published....... VI
Scope of work.. 1
Cooperation.. 1
Division of work... 1
Definition of terms and abbreviations.. 2
Downstream order and station number.. 3
Explanation of data.. 3
Accuracy of field data and computed results.................................... 6
Other data available... 7
Publications... 7
Records of discharge collected by agencies other than the Geological Survey......... 11
Gaging-station records... 12
Discharge at partial-record stations... 669
  Crest-stage partial-record stations.. 669
Index.. 675

ILLUSTRATIONS

Page
Figure 1. Map of the United States showing area covered by the volumes in the series on surface-water supply.. 8
Plate 1. Map showing location of gaging stations..............................In pocket

PACIFIC SLOPE BASINS NORTH OF COLUMBIA RIVER

BEAR RIVER BASIN Page

Bear River near Naselle, Wash.......... 12

NASELLE RIVER BASIN

Naselle River near Naselle, Wash.......... 14
  Salmon Creek near Naselle, Wash.......... 17
  South Fork Naselle River near Naselle, Wash.......... 21

NORTH NEMAH RIVER BASIN

North Nemah River near South Bend, Wash.......... 22
  Williams Creek near South Bend, Wash.......... 23

WILLAPA RIVER BASIN

Willapa River at Lebam, Wash.......... 24
  Fork Creek near Lebam, Wash.......... 27
Willapa River near Willapa, Wash.......... 30
  South Fork Willapa River near Raymond, Wash.......... 33

SMITH CREEK BASIN

Smith Creek:

  Clearwater Creek near Raymond, Wash.......... 36
Smith Creek near Raymond, Wash.......... 37

NORTH RIVER BASIN

North River near Brooklyn, Wash.......... 39
North River near Raymond, Wash.......... 42

CHEHALIS RIVER BASIN

Chehalis River near Doty, Wash.......... 45
  South Fork Chehalis River at Boistfort, Wash.......... 48
  South Fork Newaukum River near Onalaska, Wash.......... 52
    North Fork Newaukum River near Forest, Wash.......... 55
  Newaukum River near Chehalis, Wash.......... 58
  Skookumchuck River near Centralia, Wash.......... 62
Chehalis River near Grand Mound, Wash.......... 65
  Rock Creek at Cedarville, Wash.......... 68
Chehalis River at Porter, Wash.......... 72
  Cloquallum River at Elma, Wash.......... 76
  East Fork Satsop River near Elma, Wash.......... 80
  Satsop River near Satsop, Wash.......... 83
  Wynoochee River above Save Creek, near Aberdeen, Wash.......... 87
  Wynoochee River above Black Creek, near Montesano, Wash.......... 90

HUMPTULIPS RIVER BASIN

Humptulips River near Humptulips, Wash.......... 93

QUINAULT RIVER BASIN

North Fork Quinault River near Amanda Park, Wash.......... 96
Quinault River at Quinault Lake, Wash.......... 97

HOH RIVER BASIN

Hoh River near Forks, Wash.......... 100
Hoh River at U.S. Highway 101, near Forks, Wash.......... 103

QUILLAYUTE RIVER BASIN

Soleduck River (head of Quillayute River) near Fairholm, Wash.......... 106

DICKEY RIVER BASIN

Dickey River:

  East Fork Dickey River near La Push, Wash.......... 109
Dickey River near La Push, Wash.......... 111

HOKO RIVER BASIN

Hoko River near Sekiu, Wash.......... 113

CLALLAM RIVER BASIN

Clallam River near Clallam Bay, Wash.......... 115

EAST TWIN RIVER BASIN

East Twin River near Pysht, Wash.......... 116

ELWHA RIVER BASIN

Elwha River:

Lake Mills at Glines Canyon, near Port Angeles, Wash.......... 119
Elwha River at McDonald Bridge, near Port Angeles, Wash.......... 120

SIEBERT CREEK BASIN

Siebert Creek near Port Angeles, Wash.......... 125

DUNGENESS RIVER BASIN

Dungeness River near Sequim, Wash.......... 128

SNOW CREEK BASIN

Snow Creek near Maynard, Wash.......... 132

DUCKABUSH RIVER BASIN

Duckabush River near Brinnon, Wash.......... 135

HAMMA HAMMA RIVER BASIN

Hamma Hamma River near Eldon, Wash.......... 138
  Jefferson Creek near Eldon, Wash.......... 141

SKOKOMISH RIVER BASIN

North Fork Skokomish River below Staircase Rapids, near Hoodsport, Wash.......... 144
North Fork Skokomish River near Hoodsport, Wash.......... 147
  Deer Meadow Creek near Hoodsport, Wash.......... 149
North Fork Skokomish River near Potlatch, Wash.......... 152
  South Fork Skokomish River near Hoodsport, Wash.......... 155
  South Fork Skokomish River near Potlatch, Wash.......... 157
  South Fork Skokomish River near Union, Wash.......... 160
Skokomish River near Potlatch, Wash.......... 163

TAHUYA RIVER BASIN

Tahuya River:

  Gold Creek near Bremerton, Wash.......... 166

PACIFIC SLOPE BASINS NORTH OF COLUMBIA RIVER--Continued

DEWATTO RIVER BASIN Page

Dewatto River near Dewatto, Wash.......... 169

DOGFISH CREEK BASIN

Dogfish Creek near Poulsbo, Wash.......... 172

CHICO CREEK BASIN

Chico Creek near Bremerton, Wash.......... 175

PURDY CREEK BASIN

Purdy Creek at Purdy, Wash.......... 178

BURLEY CREEK BASIN

Burley Creek at Burley, Wash.......... 180

MINTER CREEK BASIN

Minter Creek:
  Huge Creek near Wauna, Wash.......... 183

SHERWOOD CREEK BASIN

Sherwood Creek:
Mason Lake near Union, Wash.......... 186

GOLDSBOROUGH CREEK BASIN

Goldsborough Creek near Shelton, Wash.......... 189

KENNEDY CREEK BASIN

Kennedy Creek near Kamilche, Wash.......... 192

DESCHUTES RIVER BASIN

Deschutes River near Rainier, Wash.......... 195
Deschutes River near Olympia, Wash.......... 198

WOODLAND CREEK BASIN

Woodland Creek near Olympia, Wash.......... 201

MCALLISTER CREEK BASIN

McAllister Springs (head of McAllister Creek) near Olympia, Wash.......... 204

NISQUALLY RIVER BASIN

Nisqually River near National, Wash.......... 207
  Mineral Creek near Mineral, Wash.......... 210
Alder Reservoir at Alder, Wash.......... 213
Nisqually River:
La Grande Reservoir at La Grande, Wash.......... 216
Nisqually River at La Grande, Wash.......... 217
  Ohop Creek:
  Ohop Lake near Eatonville, Wash.......... 223
  Ohop Creek near Eatonville, Wash.......... 226
Nisqually River near McKenna, Wash.......... 229
  Tanwax Creek:
  Tanwax Lake near Kapowsin, Wash.......... 231
Nisqually River at McKenna, Wash.......... 233
  Muck Creek at Roy, Wash.......... 236

CHAMBERS CREEK BASIN

Chambers Creek:
  Flett Creek at 74th Street, at Tacoma, Wash.......... 239
  Flett Creek below Flett Springs, at Tacoma, Wash.......... 240
  Flett Creek at Tacoma, Wash.......... 243
  Leach Creek near Fircrest, Wash.......... 246
  Leach Creek near Steilacoom, Wash.......... 249
Chambers Creek below Leach Creek, near Steilacoom, Wash.......... 252

PUYALLUP RIVER BASIN

Puyallup River near Electron, Wash.......... 255
Puyallup River near Orting, Wash.......... 259
  Carbon River near Fairfax, Wash.......... 262
    South Prairie Creek near Enumclaw, Wash.......... 265
    South Prairie Creek at South Prairie, Wash.......... 267
  White River near Greenwater, Wash.......... 270
  White River at Greenwater, Wash.......... 271
    Greenwater River at Greenwater, Wash.......... 274
  Mud Mountain Reservoir near Buckley, Wash.......... 277
  White River near Buckley, Wash.......... 280
    Boise Creek above reservoir, near Enumclaw, Wash.......... 286
    Boise Creek below millpond, near Enumclaw, Wash.......... 288
    Boise Creek near Enumclaw, Wash.......... 290
  White River near Sumner, Wash.......... 292
    White River tributary:
    Lake Tapps near Sumner, Wash.......... 295
      Lake Tapps diversion at Dieringer, Wash.......... 296
Puyallup River at Puyallup, Wash.......... 299

DUWAMISH RIVER BASIN

Green River (head of Duwamish River):
  Sunday Creek:
    Snow Creek near Lester, Wash.......... 303
  Friday Creek near Lester, Wash.......... 306
Green River near Lester, Wash.......... 310
  Green Canyon Creek near Lester, Wash.......... 314
  Smay Creek near Lester, Wash.......... 317
  North Fork Green River near Palmer, Wash.......... 320
  North Fork Green River near Lemolo, Wash.......... 323
Howard A. Hanson Reservoir near Palmer, Wash.......... 324
Green River below Howard A. Hanson Dam, Wash.......... 327
Green River near Palmer, Wash.......... 332
Green River at purification plant, near Palmer, Wash.......... 335
  Icy Creek near Black Diamond, Wash.......... 337
  Newaukum Creek near Black Diamond, Wash.......... 339
  Big Soos Creek:
    Lake Sawyer (head of Covington Creek) near Black Diamond, Wash.......... 342
  Big Soos Creek above hatchery, near Auburn, Wash.......... 346

PACIFIC SLOPE BASINS NORTH OF COLUMBIA RIVER--Continued

DUWAMISH RIVER BASIN--Continued

Page
Green River near Auburn, Wash. 349
Green River at Tukwila, Wash. 352

LAKE WASHINGTON BASIN

North Fork Cedar River near Lester, Wash. 355
South Fork Cedar River near Lester, Wash. 358
Cedar River below Bear Creek, near Cedar Falls, Wash. 361
Cedar River near Cedar Falls, Wash. 364
Rex River near Cedar Falls, Wash. 367
Canyon Creek near Cedar Falls, Wash. 370
Cedar River at Cedar Falls, Wash. 381
Middle Fork Taylor Creek near Selleck, Wash. 384
North Fork Taylor Creek near Selleck, Wash. 387
Taylor Creek near Selleck, Wash. 390
Cedar River near Landsburg, Wash. 393
Rock Creek at State Highway 5A, near Ravensdale, Wash. 397
Rock Creek near Maple Valley, Wash. 399
Cedar River at Renton, Wash. 403
May Creek near Renton, Wash. 406
May Creek at mouth, near Renton, Wash. 407
Coal Creek near Bellevue, Wash. 408
Mercer Creek near Bellevue, Wash. 410
Juanita Creek near Kirkland, Wash. 413
Issaquah Creek (head of Sammamish River near Issaquah, Wash. 415
Issaquah Creek near mouth, near Issaquah, Wash. 418
Sammamish Lake:
Tibbetts Creek near Issaquah, Wash. 420
Pine Lake near Issaquah, Wash. 422
Sammamish Lake near Redmond, Wash. 425
Sammamish River:
Bear Creek:
Cottage Lake near Redmond, Wash. 428
Evans Creek above mouth, near Redmond, Wash. 431
Sammamish River near Woodinville, Wash. 434
Bear Creek at Woodinville, Wash. 435
North Creek near Bothell, Wash. 436
Sammamish River at Bothell, Wash. 439
Swamp Creek at Kenmore, Wash. 441
Lyon Creek at Lake Forest Park, Wash. 443
Lake Ballinger (head of McAleer Creek) near Edmonds, Wash. 445
McAleer Creek at Lake Forest Park, Wash. 448
Thornton Creek near Seattle, Wash. 450

SNOHOMISH RIVER BASIN

Tye River (head of Snohomish River):
South Fork Skykomish River (continuation of Tye River) near Index, Wash. 453
Skykomish River near Gold Bar, Wash. 456
Wallace River at Gold Bar, Wash. 459
Sultan River:
Spada Lake near Startup, Wash. 462
Sultan River near Startup, Wash. 463
Woods Creek near Monroe, Wash. 467
Middle Fork Snoqualmie River near Tanner, Wash. 470
North Fork Snoqualmie River near Snoqualmie Falls, Wash. 473
Calligan Creek near Snoqualmie, Wash. 476
Hancock Creek near Snoqualmie, Wash. 477
North Fork Snoqualmie River near North Bend, Wash. 478
South Fork Snoqualmie River above Alice Creek, near Garcia, Wash. 481
South Fork Snoqualmie River at Edgewick, Wash. 484
Boxley Creek near Cedar Falls, Wash. 487
Rattlesnake Lake at Cedar Falls, Wash. 498
South Fork Snoqualmie River at North Bend, Wash. 501
Snoqualmie River near Snoqualmie, Wash. 504
Tokul Creek:
Beaver Creek near Snoqualmie, Wash. 507
Raging River near Fall City, Wash. 508
Patterson Creek near Fall City, Wash. 510
Griffin Creek near Carnation, Wash. 513
North Fork Tolt River near Carnation, Wash. 516
South Fork Tolt River near Index, Wash. 519
Phelps Creek near Index, Wash. 522
South Fork Tolt River near Carnation, Wash. 523
Tolt River near Carnation, Wash. 526
Stossel Creek near Carnation, Wash. 529
Snoqualmie River near Carnation, Wash. 531
Cherry Creek near Duvall, Wash. 534
Snohomish River near Monroe, Wash. 537
Pilchuck River:
Little Pilchuck Creek near Lake Stevens, Wash. 539
Snohomish River at Snohomish, Wash. 542
Quilceda Creek near Marysville, Wash. 545

TULALIP CREEK BASIN

Lake Goodwin (head of Tulalip Creek) near Silvana, Wash. 548
Tulalip Creek:
Lake Shoecraft near Tulalip, Wash. 551

STILLAGUAMISH RIVER BASIN

South Fork Stillaguamish River near Granite Falls, Wash. 554
North Fork Stillaguamish River:
Squire Creek near Darrington, Wash. 558

PACIFIC SLOPE BASINS NORTH OF COLUMBIA RIVER--CONTINUED

STILLAGUAMISH RIVER BASIN--Continued

Page
- South Fork Stillaguamish River--Continued
  - North Fork Stillaguamish River near Arlington, Wash.......... 561
- Stillaguamish River:
  - Pilchuck Creek near Bryant, Wash.......... 564

SKAGIT RIVER BASIN

- Skagit River at international boundary, near Hope, British Columbia.......... 567
  - Big Beaver Creek near Newhalem, Wash.......... 570
  - Ruby Creek below Panther Creek, near Newhalem, Wash.......... 572
- Ross Reservoir near Newhalem, Wash.......... 574
  - Thunder Creek below McAllister Creek, near Newhalem, Wash.......... 577
  - Thunder Creek near Newhalem, Wash.......... 579
- Skagit River:
- Diablo Reservoir near Newhalem, Wash.......... 582
  - Stetattle Creek near Newhalem, Wash.......... 583
- Gorge Reservoir near Newhalem, Wash.......... 586
- Skagit River at Newhalem, Wash.......... 587
  - Newhalem Creek near Newhalem, Wash.......... 590
- Skagit River above Alma Creek, near Marblemount, Wash.......... 593
  - Cascade River:
    - South Fork Cascade River at South Cascade Glacier, near Marblemount, Wash.......... 596
      - Salix Creek at South Cascade Glacier, near Marblemount, Wash.......... 599
  - Cascade River at Marblemount, Wash.......... 602
  - Sauk River above Whitechuck River, near Darrington, Wash.......... 605
  - Sauk River near Sauk, Wash.......... 608
  - Baker River:
  - Baker Lake at upper Baker Dam, near Concrete, Wash.......... 611
  - Baker River:
  - Lake Shannon:
    - Sulphur Creek near Concrete, Wash.......... 612
  - Lake Shannon at Concrete, Wash.......... 614
  - Baker River at Concrete, Wash.......... 615
- Skagit River near Concrete, Wash.......... 618
  - Alder Creek near Hamilton, Wash.......... 621
  - Day Creek below Day Lake, near Lyman, Wash.......... 624
  - Day Creek near Hamilton, Wash.......... 626
  - Day Creek near Lyman, Wash.......... 628
  - Nookachamps Creek:
    - East Fork Nookachamps Creek near Big Lake, Wash.......... 629
    - East Fork Nookachamps Creek near Clear Lake, Wash.......... 632
- Skagit River near Mount Vernon, Wash.......... 634

SAMISH RIVER BASIN

- Samish River near Burlington, Wash.......... 637

NOOKSACK RIVER BASIN

- Nooksack River below Cascade Creek, near Glacier, Wash.......... 640
- Nooksack River near Deming, Wash.......... 643
  - Middle Fork Nooksack River near Deming, Wash.......... 644
  - South Fork Nooksack River near Wickersham, Wash.......... 645
    - Skookum Creek near Wickersham, Wash.......... 648
- Nooksack River at Deming, Wash.......... 651
- Nooksack River near Lynden, Wash.......... 654
  - Fishtrap Creek at Lynden, Wash.......... 657

FRASER RIVER BASIN

- Fraser River:
  - Sumas River:
    - Chilliwack River near Vedder Crossing, British Columbia.......... 660
      - Sleese Creek near Vedder Crossing, British Columbia.......... 663
  - Sumas River near Huntingdon, British Columbia.......... 666

SURFACE WATER SUPPLY OF PACIFIC SLOPE BASINS IN WASHINGTON EXCEPT COLUMBIA RIVER BASIN

SCOPE OF WORK

This volume is one of a series of 37 reports presenting records of stage, discharge, and content, of streams, lakes, and reservoirs in the United States during the 1961-65 water years. Since 1888, when the U.S. Geological Survey first studied streamflow in relation to problems of irrigation, similar records have been obtained at more than 17,500 gaging stations in the 50 States. On September 30, 1965, the Geological Survey and cooperating organizations were maintaining 9,100 gaging stations. Partial-record stations for low flow or for floodflow have been operated at many other points. The records for the 1961-65 water years at gaging stations and partial-record stations in Pacific Slope basins in Washington except Columbia River basin are given in this report.

COOPERATION

Many State, municipal, and private organizations have cooperated with the Geological Survey in this work by either furnishing or helping to collect data. Organizations that supplied data are acknowledged in station descriptions, and organizations that assisted in the collection of data through cooperative agreements with the Survey in Washington are as follows:

> State Department of Conservation; State Department of Fisheries; State Department of Game; State Department of Highways; City of Seattle Departments of Lighting and Water; City of Tacoma Department of Public Utilities, Light and Water Divisions, and Department of Public Works; Cities of Aberdeen, Bremerton, Enumclaw, Everett, Kent, and Olympia; Municipality of Metropolitan Seattle; Intercounty River Improvement District; and Snohomhish County P.U.D. No. 1; Washington Public Power Supply System; Skagit and Whatcom County Boards of Commissioners; King County Water District No. 97; King and Skagit County Engineers.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army; the United States Department of State; and the National Parks Service, U.S. Department of the Interior.

The following organizations aided in collecting records: Crown Zellerbach Corporation; Puget Sound Power and Light Co., and Rayonier, Inc.

On waters adjacent to the international boundary certain gaging stations are maintained by the United States (or Canada) under agreement with Canada (or the United States) and the records are obtained and compiled in a manner equally acceptable in both countries. These stations are designated as "International gaging stations."

DIVISION OF WORK

The stream-gaging work was done by the Water Resources Division of th Geological Survey under the direction of personnel shown in the Preface. The data for stations in Washington were collected and prepared for publication in the district office located at 1305 Tacoma Avenue South, Tacoma, Washington 98402.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied herein only to those gaging stations where a continuous record of discharge is obtained.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimes will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Discharge is the volume of water in a stream which passes a given point in a unit of time.

Cubic foot per second (cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Cubic feet per second per square mile (cfsm) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Runoff in inches (in.) shows the depth to which the drainage area would be covered if all the runoff a given time period were uniformly distributed on it.

Acre-foot (ac-ft) is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch from 1 square mile.

Stage-discharge relation is the relation between gage height (the stage of the stream in relation to a reference gage) and the amount of water flowing in a channel, expressed as volume per unit of time.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Contents is the volume of water in a reservoir. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Drainage area of a stream above a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing area, within the area unless otherwise noted.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records is in a downstream direction along the main stem. All stations on a tributary entering above a main-stem station are listed before that station. A station on a tributary that enters between two main-stem stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a gaging station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in the listing of gaging stations in the table of contents of this report. Each indention represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations and the rank of the tributary on which each gaging station is situated.

The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the uppermost tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost tributary to the tributary.

As an added means of identification, each gaging station and partial-record station has been assigned a number. Numbers have been assigned in the same downstream order as described in this report. In assigning station numbers, no distinction is made between partial-record stations and regular gaging stations; the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 12-1190.00, includes the part number "12" plus a 6-digit number. In this report the nonessential zeros are not shown. For example, the complete number 12-1190.00 will appear as 12-1190, just to the left of the station name.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used as needed to supplement base data in determining the daily flow. Records of stage are obtained from a water-stage recorder that gives a continuous graph of fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge, (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs, and by other methods), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharges are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and on notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by rapid change in stage. If so, the rate of change in stage is used as a factor in determining discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts of the country the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute the daily discharge. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins.

The data in this report generally comprise a description of the station, and tables showing the daily discharge and monthly and yearly discharges of the stream. Records are published on a water year basis which begins on October 1 and ends on September 30.

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations on revisions of the previously published record. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "Location" for some stations, is that determined and used by the Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at present site. Under "Gage" are given the type of gage currently in use and the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of records available. The reference to "datum of 1929" and adjustments of other years are to the datum and adjustments of the U.S. Coast and Geodetic Survey. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given, usually in tabular form, the maximum instantaneous discharge and gage height for the current water years (1961-65); the minimum instantaneous discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum instantaneous discharge if it is abnormally low); and the minimum gage height if it is also abnormally low. For stations for which peak discharges are published, all independent peaks above the selected base and the time of occurrence and corresponding gage heights are published in the first table under "Extremes." The base discharge, which is given in parentheses in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate table following the table of peaks. In the paragraph following the current data, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at the gaging station is given under "Remarks."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such reports are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "Revisions (water years)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are concerned in the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The daily table gives the discharge corresponding to the daily mean gage height unless there are large or rapid changes in the discharge during a day. For days having large or rapid changes, discharge for the day is computed by averaging the mean discharge for several parts of the day. For digital recorders, the daily mean discharge is always the average of the discharges at each punched reading. For stations equipped with non-recording gages, the daily discharge corresponds to once-daily readings of the gage or to the mean of twice-daily readings; but for periods of rapidly changing stage, the discharge is determined from gage-height graph based on gage readings.

In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "MEAN" gives the average flow in cubic feet per second during the month. On the line headed "MAX" the figures are the maximum daily discharges for the months, not the momentary maximum discharges. Likewise, the line headed "MIN" are the minimum daily discharges for the months. Discharge for the month may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches, or if the flow is appreciably affected by regulation by upstream reservoirs.

In the yearly summary below the monthly summary, the figures of maximum are the maximum daily discharges for the calendar and water years; likewise, the minimums are the minimum daily discharges.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "Remarks" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

In earlier reports the figures of daily mean discharge, computed manually, were usually rounded to tenths below 10 cfs, but the rounding rules were not rigid; some discharges were given to hundredths if the accuracy was sufficiently good and others were rounded to whole numbers if the accuracy was poor. In this report, however, most of the tables of daily mean discharge are tabulated by a computer which rounds the figures solely on basis of the magnitude of the discharge. Therefore, zeros to the right of the decimal point should not be construed to indicate an accuracy greater than is stated in the "Remarks" paragraph.

Discharge at some stations, as indicated by the monthly mean, may vary widely from natural runoff, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

OTHER DATA AVAILABLE

Data collected at partial-record stations are given at the end of this report. Data for partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are given in special tables following the tables of partial-record stations.

Information of a more detailed nature than that published for most of the gaging stations is on file in the district offices, such as discharge measurements, gage-height records, and rating tables. Many gaging-station records have been analyzed to give several statistical summaries, mainly: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. Under "Remarks" of the station description, reference is made to water-quality records collected on a regular basis for that station. Results of the data collected are published in water-supply papers entitled "Quality of Surface Waters of the United States," and in annual reports issued by States beginning with the 1964 water year. These annual reports are entitled, "Water Resources Data for (state). Part 2, Water Quality Records." Information on the availability of electronic computer analyses, unpublished data, or quality of water records may be obtained from the district offices listed on page 1.

PUBLICATIONS

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Prior to 1951, there were 14 volumes in the series; one for each of the 14 parts whose boundaries coincided with certain natural drainage lines within the conterminous United States. From 1951 to 1960, there were 20 volumes in the series, including one each for the States of Alaska and Hawaii.

This report marks the beginning of a new series of water-supply papers to be published on a 5-year basis. This series covers the 5-year period October 1, 1960, to September 30, 1965. To meet interim requirements, streamflow and related data have been released by the Geological Survey in annual reports, beginning with the 1961 water year, by State. These reports are entitled, "Water Resources Data for (state), Part 1. Surface Water Records." Distribution of these reports is limited and primarily for local

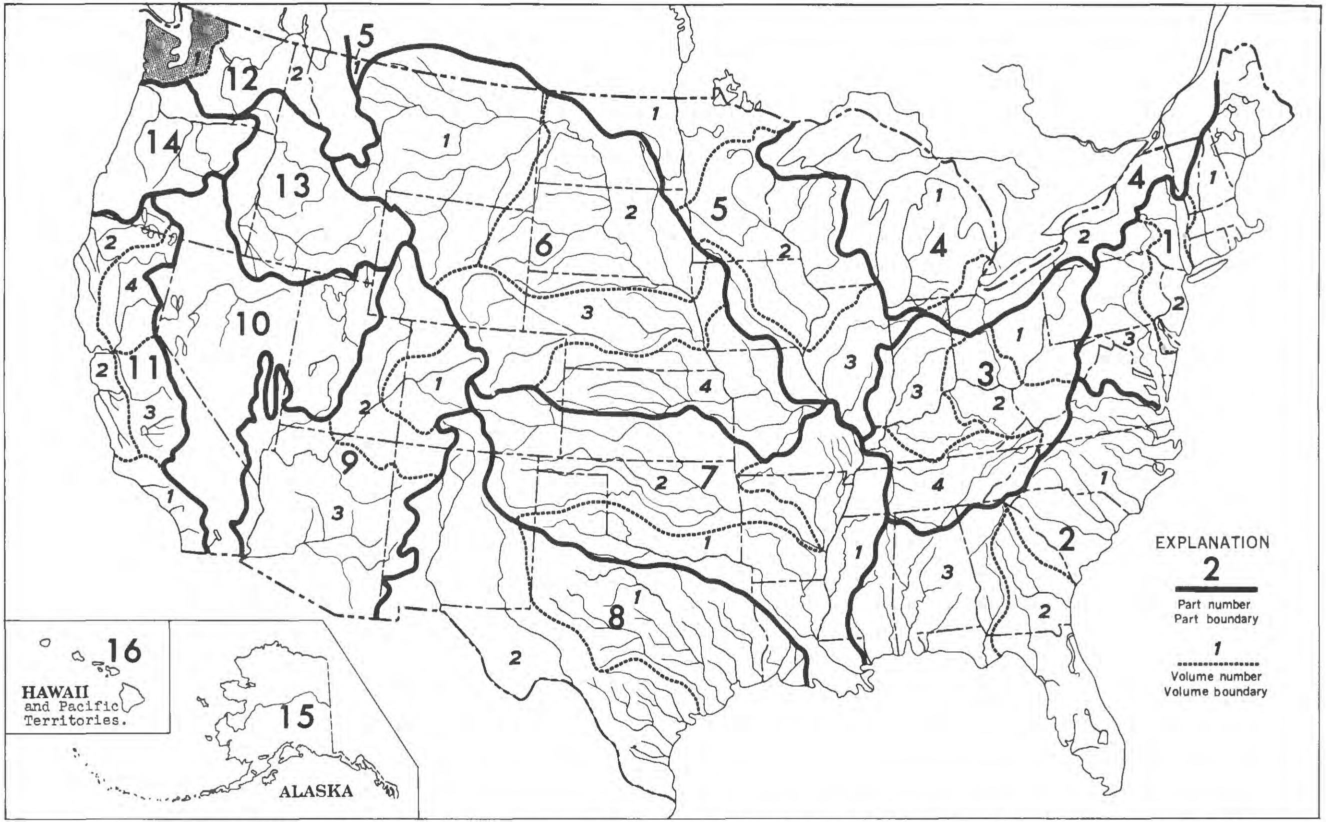
EXPLANATION
2
Part number
Part boundary
1
Volume number
Volume boundary
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
HAWAII
and Pacific
Territories.
ALASKA

Figure 1.--Map of the United States showing area covered by the volumes in the series on surface-water supply. The area covered by this report is shaded.

needs. Any revision or corrections found necessary to the records published in these annual State reports have been made and published herein without reference.

This series of 5-year water supply papers consists of 37 volumes. The boundaries of the various parts and volumes within the parts are indicated in the following list and on the map in figure 1.

Part 1. North Atlantic slope basins, in three volumes:
  Volume 1: Basins from Maine to Connecticut
  Volume 2: Basins from New York to Delaware
  Volume 3: Basins from Maryland to York River
Part 2. South Atlantic slope and eastern Gulf of Mexico basins, in three volumes:
  Volume 1: Basins from James River to Savannah River
  Volume 2: Basins from Ogeechee River to Carrabelle River
  Volume 3: Basins from Apalachicola River to Pearl River
Part 3. Ohio River basin, in four volumes:
  Volume 1: Ohio River basin above Kanawha River
  Volume 2: Ohio River basin from Kanawha River to Louisville, Kentucky
  Volume 3: Ohio River basin from Louisville, Kentucky, to Wabash River
  Volume 4: Ohio River basin below Wabash River
Part 4. St. Lawrence River basin, in two volumes:
  Volume 1: Basins of streams tributary to Lakes Superior, Michigan, and Huron
  Volume 2: St. Lawrence River basin below Lake Huron
Part 5. Hudson Bay and Upper Mississippi River basins, in three volumes:
  Volume 1: Hudson Bay Basin
  Volume 2: Upper Mississippi River basin above Keokuk, Iowa
  Volume 3: Upper Mississippi River Basin below Keokuk, Iowa
Part 6. Missouri River basin, in four volumes:
  Volume 1: Missouri River basin above Williston, North Dakota
  Volume 2: Missouri River basin from Williston, North Dakota, to Sioux City, Iowa
  Volume 3: Missouri River basin from Sioux City, Iowa, to Nebraska City, Nebraska
  Volume 4: Missouri River basin below Nebraska City, Nebraska
Part 7. Lower Mississippi River basin, in two volumes:
  Volume 1: Lower Mississippi River basin except Arkansas River basin
  Volume 2: Arkansas River basin
Part 8. Western Gulf of Mexico basins, in two volumes:
  Volume 1: Basins from Mermentau River to Colorado River
  Volume 2: Basins from Lavaca River to Rio Grande
Part 9. Colorado River basin, in three volumes:
  Volume 1: Colorado River basin above Green River
  Volume 2: Colorado River basin from Green River to Compact Point
  Volume 3: Lower Colorado River basin
Part 10. The Great Basin
Part 11. Pacific Slope Basins in California, in four volumes:
  Volume 1: Basins from Tia Juana River to Santa Maria River
  Volume 2: Basins from Arroyo Grande to Oregon State line except Central Valley
  Volume 3: Southern Central Valley basins
  Volume 4: Northern Central Valley basins
Part 12. Pacific Slope basins in Washington, in two volumes:
  Volume 1: Pacific Slope basins in Washington except Columbia River basin
  Volume 2: Upper Columbia River basin
Part 13. Snake River basin
Part 14. Pacific Slope basins in Oregon and Lower Columbia River basin
Part 15. Alaska
Part 16. Hawaii and other Pacific areas

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be purchased or consulted as follows:

1. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, who will, on application, furnish lists giving prices. A list of Geological Survey publications may also be obtained by applying to the Director, Geological Survey, Washington, D. C. 20242.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the offices of the Water Resources Division of the Geological Survey. The address of the office for the area covered by this report is given of page 1.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams. Most of these reports are out of print, but bay be available for consultation in the district offices and in public libraries.

Streamflow data for the years 1884-1901, in reports of the Geological Survey

(A - Annual Report; B - Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information	1844 to September 1890
12th A, pt. 2	. . . . do	1844 to June 30, 1891.
13th A, pt. 3	. . . . do	1884-92.
14th A, pt. 3	Monthly discharge.	1888-93.
B 131. . . .	Descriptions, measurements, gage heights, and ratings. . . .	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140. . . .	Descriptions, measurements, gage heights, ratings and monthly discharge.	1895.
WSP 11. . .	Gage heights.	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1895-96.
WSP 15. . .	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
WSP 16. . .	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge.	1897.
WSP 27. . .	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
WSP 28. . .	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge.	1898.
WSP 35 to 39.	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge.	1899.
WSP 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22nd A, pt. 4	Monthly discharge.	1900.
WSP 65, 66. .	Descriptions, measurements, gage heights, and ratings	1901.
WSP 75. . . .	Monthly discharge.	1901.

Reports on surface water supply containing records from 1899 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained.

Numbers of water-supply papers containing results of stream measurements in Pacific slope basins in Washington except Columbia River basin, 1899-1960

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	38	1912	332-A	1925	612	1937	832	1949	1152
1900	51	1913	362-A	1926	632	1938	862	1950	1182
1901	66,75	1914	392	1927	652	1939	882	1951	1216
1902	85	1915	412	1928	672	1940	902	1952	1246
1903	100	1916	442	1929	692	1941	932	1953	1286
1904	135	1917	462	1930	707	1942	962	1954	1346
1905	178	1918	482	1931	722	1943	982	1955	1396
1906	214	1919-20	512	1932	737	1944	1012	1956	1446
1907-8	252	1921	532	1933	752	1945	1042	1957	1516
1909	272	1922	552	1934	767	1946	1062	1958	1566
1910	292	1923	572	1935	792	1947	1092	1959	1636
1911	312	1924	592	1936	812	1948	1122	1960	1716

Records for the area covered by this report have been compiled through September 1950 and for the period October 1950 to September 1960 and published in Water-Supply Papers 1316 and 1736, respectively. These reports contain a summary of monthly and annual discharges for all previously published records as well as some records not contained in the annual series of water-supply papers. All records were re-examined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

WSP	Title
771.	Floods in the United States, magnitude and frequency.
847.	Maximum discharges at stream-measurement stations through September 1938.
968-B	Floods of the Puyallup and Chehalis River basins, Washington.
1227-D. . . .	Summary of floods in the United States during 1951.
1320-E. . . .	Summary of floods in the United States during 1953.
1370-C. . . .	Summary of floods in the United States during 1954.
1527	Floods in the Skagit River basin in Washington.
1530	Summary of floods in the United States during 1956.
1652-C. . . .	Summary of floods in the United States during 1957.
1687	Magnitude and frequency of floods in the United States.
1750-B. . . .	Summary of floods in the United States during 1959.
1820	Summary of floods in the United States during 1962.

Reports giving records of chemical quality and temperature of surface water and suspended-sediment loads of streams in the area covered by this volume for the water years 1941-65 are listed below:

Numbers of water-supply papers containing water-quality records in the Pacific Slope basin in Washington except Columbia River, 1941-65

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1941	942	1946	1050	1951	1200	1956	1453	1961	1885
1942	950	1947	1102	1952	1253	1957	1523	1962	1945
1943	970	1948	1133	1953	1293	1958	1524	1963	1951
1944	1022	1949	1163	1954	1353	1959	1645	1964	1959
1945	1030	1950	1189	1955	1403	1960	1745	1965	1966

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

Records of discharge have been collected by other agencies at numerous sites throughout the United States that are not published by the Geological Survey. The Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, Washington, D. C. 20242, maintains an index of such sites. Information on records available in specific sites can be obtained upon request.

BEAR RIVER BASIN

12-0095. Bear River near Naselle, Wash.

Location.--Lat 46°19'50", long 123°54'36", on line between secs.21 and 22, T.10 N., R.10 W., on right bank 3 miles upstream from crossing on U.S. Highway 101 and 5 miles southwest of Naselle.

Drainage area.--11.7 sq mi.

Records available.--January 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 15 ft (from topographic map). Prior to June 25. 1963, at site on left bank at same datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (700 cfs), January 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 3, 1963	0030	* 440	4.64	Jan. 25, 1964	0600	* 972	6.83	Nov. 30, 1964	2230	850	6.45
								Jan. 2, 1965	0600	808	6.28
Nov. 7, 1963	1800	745	5.92	Nov. 3, 1964	2100	1,060	7.30	Jan. 23, 1965	1500	885	6.59
Jan. 1, 1964	1200	700	5.74	Nov. 24, 1964	0600	1,010	7.08	Jan. 28, 1965	1830	* 1,150	7.50
								Feb. 16, 1965	1000	758	5.97

Annual minimum discharge, January 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Sept. 8, 1963	6.6	2.46	1965	Sept. 5, 7, 8, 1965	5.5	1.91
1964	Oct. 2, 1963	7.0	2.47				

1963-65: Maximum discharge, 1,150 cfs Jan. 28, 1965 (gage height, 7.50 ft); minimum, 5.5 cfs Sept. 5, 7, 8, 1965 (gage height, 1.91 ft).

Remarks.--Records good except those prior to June 25, 1963, and those for the period Nov. 3 to Apr. 19, 1965, which are fair. No regulation or diversion above station. Records of water temperatures for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				310	63	74	113	60	16	18	9.7	9.2
2				380	152	69	96	71	17	15	9.7	9.2
3				300	318	64	99	63	17	13	9.2	8.7
4				200	220	62	154	70	18	18	9.2	8.2
5				150	194	57	140	117	21	15	9.2	7.8
6				120	158	54	180	84	17	13	8.7	7.8
7				98	129	50	163	74	16	13	8.7	7.4
8				84	107	46	149	63	18	15	8.2	7.0
9				72	92	44	125	54	19	14	8.2	7.0
10				62	81	42	105	48	17	17	8.2	8.2
11				52	74	42	88	44	15	15	8.2	8.2
12				46	69	40	72	41	15	13	7.8	7.8
13				43	68	36	62	38	14	12	7.8	10
14				43	62	42	57	36	13	12	7.8	10
15				42	58	39	56	33	12	12	7.4	18
16				40	64	54	53	31	12	10	7.4	14
17				38	92	45	49	29	11	9.7	7.4	10
18				37	194	44	57	27	10	9.2	7.4	8.7
19				36	199	116	90	26	9.7	8.7	8.2	7.8
20				34	161	88	78	26	9.2	8.2	8.2	7.4
21				33	121	71	68	25	9.2	16	8.7	7.4
22				32	97	62	63	24	10	37	8.2	9.2
23				31	81	56	60	22	9.2	20	7.4	15
24				30	72	51	60	21	12	16	18	10
25				28	90	56	58	20	18	14	32	8.2
26				26	117	62	53	20	13	13	19	7.8
27				26	88	79	49	19	12	12	12	7.4
28				26	83	138	46	18	11	12	10	7.4
29				24	------	156	48	17	20	11	9.2	7.4
30				23	------	138	46	16	25	10	8.7	7.4
31		------		38	------	129	------	16	------	10	8.7	------
TOTAL				2,504	3,304	2,106	2,537	1,253	436.3	431.8	308.5	269.6
MEAN				80.8	118	67.9	84.6	40.4	14.5	13.9	9.95	8.99
MAX				380	318	156	180	117	25	37	32	18
MIN				23	58	36	46	16	9.2	8.2	7.4	7.0
CFSM				6.91	10.1	5.80	7.23	3.45	1.23	1.18	.850	.767
IN.				7.96	10.50	6.69	8.06	3.98	1.37	1.36	.98	.86
AC-FT				4,970	6,550	4,180	5,030	2,490	865	856	612	535

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0095. Bear River near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.4	134	79	540	225	140	42	58	24	21	28	22
2	7.0	152	68	295	165	92	46	51	23	21	27	24
3	7.8	123	60	187	126	119	40	46	23	20	46	21
4	9.2	125	53	143	108	237	41	44	41	20	30	19
5	13	113	58	161	90	188	41	46	31	20	24	18
6	15	125	62	308	78	138	37	41	41	19	22	17
7	13	398	54	184	68	109	35	41	56	17	21	18
8	11	342	62	129	61	119	34	37	56	17	20	20
9	9.2	211	56	121	55	119	46	46	48	16	20	18
10	8.7	220	51	101	62	148	58	47	43	15	18	16
11	12	163	49	86	56	216	81	43	42	15	17	16
12	20	172	45	78	55	175	73	43	37	15	18	15
13	66	244	42	109	59	136	62	40	34	14	18	15
14	45	330	41	101	59	200	59	36	34	20	16	17
15	31	249	44	143	106	175	78	33	31	33	15	15
16	24	192	107	237	130	132	68	31	35	20	15	16
17	21	206	74	320	142	126	61	30	59	20	15	29
18	20	165	74	220	195	106	55	28	68	18	17	19
19	18	252	194	252	146	88	49	26	54	16	16	24
20	32	194	345	206	115	88	46	57	47	17	15	33
21	74	154	216	165	93	80	43	54	42	20	13	25
22	252	180	175	163	80	72	64	52	38	18	13	41
23	175	402	147	140	67	64	47	43	35	16	13	32
24	360	288	121	458	59	58	43	40	32	15	13	28
25	187	300	121	750	52	59	43	36	30	15	16	26
26	121	325	117	335	48	62	48	34	27	14	21	24
27	86	254	121	209	44	52	46	31	28	13	20	23
28	101	172	136	165	51	48	44	30	25	13	28	21
29	96	125	111	232	80	44	46	28	24	13	28	24
30	129	97	94	177	------	42	49	26	22	13	36	114
31	109	------	123	256	------	41	------	24	------	16	26	------
TOTAL	2,080.3	6,407	3,100	6,971	2,675	3,473	1,525	1,222	1,130	540	645	750
MEAN	67.1	214	100	225	92.2	112	50.8	39.4	37.7	17.4	20.8	25.0
MAX	360	402	345	750	225	237	81	58	68	33	46	114
MIN	7.0	97	41	78	44	41	34	24	22	13	13	15
CFSM	5.73	18.3	8.55	19.2	7.88	9.57	4.34	3.37	3.22	1.48	1.76	2.13
IN.	6.61	20.37	9.85	22.16	8.50	11.04	4.85	3.88	3.59	1.70	2.03	2.38
AC-FT	4,130	12,710	6,150	13,830	5,310	6,890	3,020	2,420	2,240	1,070	1,280	1,490

CAL YR 1963: TOTAL 24,737.5 MEAN 67.8 MAX 402 MIN 7.0 CFSM 5.79 IN 78.59 AC-FT 49,070
WAT YR 1964: TOTAL 30,518.3 MEAN 83.4 MAX 750 MIN 7.0 CFSM 7.12 IN 96.96 AC-FT 60,530

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	70	55	574	260	217	86	24	52	21	10	6.7	5.9
2	64	51	342	650	155	76	22	44	20	10	7.0	5.9
3	55	398	209	370	122	68	21	49	19	10	7.4	5.9
4	47	470	148	211	140	61	20	74	18	9.5	7.0	5.9
5	41	195	117	188	227	54	18	74	18	9.5	7.0	5.9
6	36	122	99	167	181	49	22	66	17	9.5	6.7	5.9
7	34	93	92	152	153	45	31	58	17	9.5	6.3	5.5
8	34	73	108	200	178	42	25	51	17	9.5	6.7	5.5
9	44	58	92	175	144	39	22	47	17	9.5	7.0	5.9
10	35	52	88	249	120	36	21	42	16	10	6.7	5.9
11	31	59	85	197	100	34	20	39	20	9.5	6.3	5.9
12	29	72	80	152	156	32	19	36	19	9.0	18	5.9
13	29	73	73	124	229	31	20	33	17	8.6	21	5.9
14	34	59	100	115	206	30	20	31	18	8.2	11	40
15	40	52	102	115	169	28	19	33	16	8.2	8.2	34
16	41	47	88	111	557	28	19	51	15	8.2	7.4	21
17	37	42	78	99	338	27	21	35	14	7.8	7.0	14
18	34	37	70	92	208	26	24	31	14	7.8	6.7	11
19	31	34	68	83	162	24	169	33	14	7.4	15	9.5
20	29	32	67	81	126	22	138	52	13	10	21	9.0
21	27	29	166	115	119	20	96	39	13	10	13	8.2
22	25	58	572	95	125	25	76	35	12	8.6	10	8.2
23	24	156	375	391	108	23	64	33	12	7.8	8.2	8.4
24	24	680	337	290	95	20	82	32	12	7.4	7.8	8.6
25	23	312	177	191	84	22	68	30	12	7.0	7.4	8.6
26	24	259	308	273	91	21	59	28	11	7.0	8.2	9.0
27	24	171	256	458	118	21	51	27	11	7.0	7.8	9.5
28	26	124	186	873	99	31	46	25	11	7.0	7.8	9.0
29	26	150	144	668	------	44	42	24	11	7.0	7.4	8.6
30	31	474	121	620	------	30	44	24	10	7.0	6.7	8.6
31	31	------	100	378	------	25	------	22	------	6.7	6.3	------
TOTAL	1,080	4,487	5,414	8,143	4,727	1,120	1,323	1,250	455	264.2	280.7	301.1
MEAN	34.8	150	175	263	169	36.1	44.1	40.3	15.2	8.52	9.05	10.0
MAX	70	680	574	873	557	86	169	74	21	10	21	40
MIN	23	29	67	81	84	20	18	22	10	6.7	6.3	5.5
CFSM	2.97	12.8	15.0	22.5	14.4	3.09	3.77	3.44	1.30	.728	.774	.855
IN.	3.43	14.26	17.21	25.88	15.03	3.56	4.21	3.97	1.45	.84	.89	.96
AC-FT	2,140	8,900	10,740	16,150	9,380	2,220	2,620	2,480	902	524	557	597

CAL YR 1964: TOTAL 29,912 MEAN 81.7 MAX 750 MIN 13 CFSM 6.98 IN 95.03 AC-FT 59,330
WAT YR 1965: TOTAL 28,845.0 MEAN 79.0 MAX 873 MIN 5.5 CFSM 6.75 IN 91.69 AC-FT 57,210

12-0100. Naselle River near Naselle, Wash.

Location.--Lat 46°22'25", long 123°44'30", in SW¼SW¼ sec.1, T.10 N., R.9 W., on right bank 2½ miles upstream from Salmon Creek and 3½ miles east of Naselle.

Drainage area.--54.8 sq mi. Area at site used prior to Jan. 1, 1962, 55.3 sq mi.

Records available.--May 1929 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 24 ft (by barometer). Prior to Jan. 11, 1957, staff gage and crest-stage gage at site 1,350 ft downstream at present datum. Jan. 11, 1957, to Dec. 31, 1961, wire-weight gage and crest-stage gage at site 1,200 ft downstream at present datum. Jan. 1, 1962, to Mar. 28, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--36 years, 430 cfs (311,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	a2400	4,170	9.33	Nov. 19, 1962	a1730	* 10,500	d17.77	Dec. 1, 1964	0030	* 5,370	12.80
Feb. 21, 1961	a1100	* 7,090	12.44	Jan. 25, 1964	0300	* 5,600	13.05	Jan. 28, 1965	2030	5,340	12.77
(b)	-	* 2,850	c 8.28	Nov. 24, 1964	0600	4,320	11.50				

a About.
b Nov. 22 or Dec. 24, 1961.
c From high watermark in well.
d From floodmarks.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.24-27, 1961	22	1.67	1964	Oct. 3, 1963	37	3.85
1962	Oct. 5, 1961	25	1.70	1965	Sept. 7, 8, 1965	26	3.63
1963	Sept. 9, 1963	32	3.80				

1929-65: Maximum discharge, 11,100 cfs Jan. 22, 1935 (gage height, 15.9 ft, from floodmarks, site then in use), from rating curve extended above 4,000 cfs on basis of slope-area measurement at gage height 15.2 ft; minimum observed, 19 cfs Sept. 12-14, 1949, Sept. 21-24, 1951.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station. Records of water temperatures for the water years 1963-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1216: Drainage area. WSP 1316: 1930(M), 1932-40(M), 1945-46(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	592	461	361	844	1,930	391	334	122	56	30	141
2	34	517	391	313	990	1,330	422	503	115	54	29	72
3	33	447	374	289	965	1,020	374	531	108	47	29	42
4	30	388	394	283	1,140	812	340	538	104	47	29	32
5	31	346	358	1,220	1,190	828	310	496	100	53	29	31
6	53	313	319	1,520	1,220	970	286	458	115	61	29	30
7	141	280	292	910	990	890	265	426	119	48	27	29
8	124	253	274	980	915	804	256	370	104	44	27	27
9	83	229	253	1,930	1,060	808	265	559	122	41	27	26
10	61	259	238	1,570	1,120	844	241	482	104	42	27	27
11	59	584	380	1,330	1,240	1,300	220	430	100	41	26	26
12	81	528	1,420	844	1,330	1,220	244	388	91	37	26	26
13	61	534	965	1,160	1,630	1,900	256	358	87	34	26	25
14	59	640	720	1,780	1,390	3,180	244	358	79	33	26	24
15	54	875	584	2,670	1,630	2,290	226	313	75	33	26	24
16	48	1,810	500	2,830	1,260	1,330	215	286	72	35	26	26
17	47	2,480	520	1,990	1,120	920	238	262	64	35	27	26
18	45	2,060	1,660	1,450	935	640	238	244	68	35	26	26
19	45	1,500	1,510	990	2,940	700	262	215	68	35	26	26
20	44	2,420	1,060	764	3,270	732	280	208	64	33	26	27
21	54	2,050	768	600	5,860	612	447	195	64	34	25	26
22	170	1,420	604	486	2,560	580	552	190	61	34	25	24
23	552	1,360	506	422	1,450	644	680	185	56	34	24	23
24	960	2,250	436	370	1,870	636	596	170	56	33	24	22
25	440	2,050	380	325	1,640	588	510	159	56	33	24	22
26	584	1,510	422	295	1,220	692	440	157	56	31	24	22
27	792	1,060	355	268	1,270	748	380	163	54	30	24	22
28	1,590	776	319	247	1,390	668	343	144	54	31	24	29
29	885	624	295	444	------	573	316	135	66	31	24	33
30	772	528	274	1,160	------	496	304	130	64	30	23	29
31	528	------	316	1,000	------	433	------	126	------	30	85	------
TOTAL	8,494	30,683	17,348	30,801	44,439	31,118	10,141	9,513	2,468	1,195	870	965
MEAN	274	1,023	560	994	1,587	1,004	338	307	82.3	38.5	28.1	32.2
MAX	1,590	2,480	1,660	2,830	5,860	3,180	680	559	122	61	85	141
MIN	30	229	238	247	844	433	215	126	54	30	23	22
CFSM	5.00	18.7	10.2	18.1	29.0	18.3	6.17	5.60	1.50	.70	.51	.59
IN.	5.76	20.8	11.8	20.9	30.2	21.1	6.88	6.46	1.67	.81	.59	.65
AC-FT	16,850	60,860	34,410	61,090	88,140	61,720	20,110	18,870	4,900	2,370	1,730	1,910

CAL YR 1960: TOTAL 154,169 MEAN 421 MAX 3,920 MIN 29 CFSM 7.69 IN 104.63 AC-FT 305,800
WAT YR 1961: TOTAL 188,035 MEAN 515 MAX 5,860 MIN 22 CFSM 9.40 IN 127.61 AC-FT 373,000

12-0100. Naselle River near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	48	319	1,010	700	386	220	350	670	121	87	44	51
2	31	316	788	1,200	352	210	300	565	222	82	47	50
3	26	380	660	2,000	334	200	260	535	224	78	79	48
4	26	313	1,080	1,300	324	700	271	462	224	79	76	46
5	26	286	950	1,040	285	900	240	410	271	93	78	45
6	56	262	716	898	316	800	700	376	243	105	135	44
7	96	238	628	1,020	535	700	719	338	211	88	207	44
8	50	220	524	850	620	600	670	327	188	81	185	43
9	74	478	440	708	702	500	614	344	172	78	133	42
10	238	1,200	391	582	620	450	535	306	156	75	105	80
11	226	728	355	484	545	400	454	282	146	71	90	93
12	562	562	316	446	497	350	402	271	140	68	84	64
13	542	472	316	383	729	320	362	264	135	69	81	130
14	271	408	322	422	1,420	290	324	237	129	68	72	163
15	226	349	286	414	904	270	299	220	121	65	67	108
16	150	307	340	390	730	260	268	207	113	63	67	87
17	130	286	1,510	386	620	250	240	195	112	63	75	76
18	113	286	1,220	362	520	240	224	191	106	60	92	69
19	104	256	1,310	334	450	230	214	185	101	59	85	67
20	117	223	1,610	310	380	220	227	169	96	56	75	64
21	100	608	1,920	285	360	400	264	158	93	54	74	60
22	102	2,100	1,600	271	340	800	224	174	92	53	68	59
23	752	965	2,430	250	320	1,200	198	166	88	51	64	56
24	384	712	2,320	254	300	2,400	198	153	85	51	60	54
25	298	559	1,480	458	280	2,000	195	151	85	50	58	53
26	900	492	1,140	754	260	1,500	214	144	150	48	59	53
27	865	804	985	938	240	1,100	1,260	140	140	47	56	64
28	668	1,080	1,020	760	240	800	952	137	110	46	64	302
29	503	965	1,200	614	------	600	730	140	95	45	59	227
30	402	1,000	1,090	510	------	500	592	133	90	45	53	180
31	334	------	856	438	------	400	------	125	------	44	52	------
TOTAL	8,420	17,174	30,813	19,761	13,609	19,810	12,500	8,175	4,259	2,022	2,544	2,522
MEAN	272	572	994	637	486	639	417	264	142	65.2	82.1	84.1
MAX	900	2,100	2,430	2,000	1,420	2,400	1,260	670	271	105	207	302
MIN	26	220	286	250	240	200	195	125	85	44	44	42
CFSM	4.96	10.4	18.1	11.6	8.87	11.7	7.60	4.81	2.59	1.19	1.50	1.53
IN.	5.71	11.7	20.9	13.4	9.24	13.4	8.48	5.55	2.89	1.37	1.73	1.71
AC-FT	16,700	34,060	61,120	39,200	26,990	39,290	24,790	16,210	8,450	4,010	5,050	5,000

CAL YR 1961: TOTAL 187,917 MEAN 515 MAX 5,860 MIN 22 CFSM 9.39 IN 127.53 AC-FT 372,700
WAT YR 1962: TOTAL 141,609 MEAN 388 MAX 2,430 MIN 26 CFSM 7.08 IN 96.10 AC-FT 280,900

Note.--No gage-height record Feb. 16 to Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	140	118	1,260	1,720	300	438	845	288	89	110	54	42
2	123	114	1,290	2,150	722	472	710	545	94	87	52	42
3	156	110	1,150	1,760	1,790	430	700	414	87	78	49	40
4	169	150	950	1,190	1,440	390	820	370	92	85	48	38
5	142	314	901	855	1,380	352	790	651	105	73	47	36
6	158	261	989	655	1,070	318	972	555	84	68	46	35
7	305	222	825	545	865	288	928	472	80	89	44	34
8	687	276	680	468	700	264	906	406	82	78	42	33
9	1,400	258	565	414	580	243	865	363	84	89	41	33
10	775	516	464	352	477	231	730	321	78	87	41	52
11	615	1,080	406	300	406	222	620	291	70	82	41	53
12	555	918	356	270	352	202	522	261	72	74	42	39
13	660	912	328	255	335	185	450	240	68	68	42	54
14	540	825	454	246	297	195	398	222	64	66	40	60
15	459	705	928	249	288	192	382	202	62	64	38	63
16	378	600	740	225	297	249	342	188	59	60	37	89
17	324	536	595	219	304	216	332	175	58	55	36	90
18	288	486	500	213	410	213	370	165	57	53	36	70
19	261	5,480	482	195	585	426	560	153	59	52	40	59
20	234	6,540	406	185	580	477	459	145	60	50	42	53
21	219	2,100	370	175	477	374	398	136	94	64	39	49
22	202	1,100	335	170	406	321	352	130	88	172	38	50
23	185	700	304	160	352	285	328	124	72	112	36	64
24	170	775	279	156	318	264	300	120	70	89	52	52
25	160	2,150	255	153	366	270	273	116	92	78	94	46
26	170	1,980	240	145	585	285	249	110	74	70	94	43
27	156	1,360	240	138	450	386	231	105	72	66	60	42
28	142	1,040	360	136	426	870	222	101	72	62	49	41
29	134	1,010	805	130	------	1,250	228	96	76	59	44	40
30	130	1,350	2,280	126	------	1,160	240	96	103	58	42	39
31	124	------	1,760	194	------	994	------	90	------	58	42	------
TOTAL	10,161	33,986	21,497	14,149	16,558	12,462	15,522	7,651	2,317	2,356	1,448	1,481
MEAN	328	1,133	693	456	591	402	517	247	77.2	76.0	46.7	49.4
MAX	1,400	6,540	2,280	2,150	1,790	1,250	972	651	105	172	94	90
MIN	123	110	240	126	288	185	222	90	57	50	36	33
CFSM	5.98	20.7	12.7	8.33	10.8	7.34	9.44	4.50	1.41	1.39	.85	.90
IN.	6.90	23.1	14.6	9.60	11.2	8.46	10.5	5.19	1.57	1.60	.98	1.01
AC-FT	20,150	67,410	42,640	28,060	32,840	24,720	30,790	15,180	4,600	4,670	2,870	2,940

CAL YR 1962: TOTAL 150,846 MEAN 413 MAX 6,540 MIN 42 CFSM 7.54 IN 102.37 AC-FT 299,200
WAT YR 1963: TOTAL 139,588 MEAN 382 MAX 6,540 MIN 33 CFSM 6.98 IN 94.73 AC-FT 276,900

12-0100. Naselle River near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	585	473	2,200	1,120	780	227	274	122	87	122	89
2	38	715	405	1,500	920	606	215	248	116	89	150	87
3	38	620	348	1,100	750	593	200	233	112	86	178	82
4	39	660	312	850	655	1,000	206	221	172	82	165	75
5	44	595	320	900	552	1,130	218	230	148	81	144	70
6	52	575	377	1,700	473	915	195	212	146	79	122	69
7	52	1,170	344	1,150	413	735	185	200	162	76	108	70
8	43	1,570	330	850	369	725	178	192	180	73	99	79
9	41	1,050	295	820	326	780	198	190	165	72	96	73
10	40	955	270	770	348	1,000	224	190	150	69	87	66
11	42	770	245	660	351	2,900	351	178	146	66	81	62
12	55	700	230	560	326	1,830	340	178	138	65	79	60
13	176	870	218	590	369	1,130	316	170	132	63	79	57
14	145	1,470	212	500	358	1,400	295	160	126	79	73	60
15	105	1,570	212	620	598	1,390	373	150	120	140	69	58
16	85	1,290	302	1,300	700	1,000	362	144	124	108	66	58
17	78	1,290	260	2,430	690	820	340	152	152	101	65	94
18	72	1,040	300	1,920	735	655	312	142	170	92	72	76
19	67	1,210	750	2,020	660	548	281	134	155	84	72	78
20	97	1,050	1,500	1,930	570	508	257	175	144	84	68	132
21	482	870	1,200	1,240	494	469	245	209	134	96	62	101
22	1,280	1,010	1,000	945	429	409	365	248	126	92	60	114
23	875	2,070	820	760	381	365	320	215	108	86	56	99
24	1,760	1,610	720	1,930	340	326	267	190	114	78	54	89
25	1,190	1,180	700	4,540	302	316	251	175	105	73	62	82
26	820	1,260	700	2,090	278	337	251	160	103	69	79	76
27	625	1,170	680	1,310	251	292	245	148	110	66	73	72
28	680	900	630	985	254	267	236	142	105	63	108	69
29	645	705	550	1,200	434	245	230	138	96	61	96	76
30	635	570	470	975	------	230	227	130	90	62	124	230
31	565	------	700	1,150	------	221	------	126	------	99	105	------
TOTAL	10,906	31,100	15,873	41,495	14,446	23,922	7,910	5,654	3,971	2,521	2,874	2,503
MEAN	352	1,037	512	1,339	498	772	264	182	132	81.3	92.7	83.4
MAX	1,760	2,070	1,500	4,540	1,120	2,900	373	274	180	140	178	230
MIN	38	570	212	500	251	221	178	126	90	61	54	57
CFSM	6.42	18.9	9.34	24.4	9.09	14.1	4.81	3.33	2.42	1.48	1.69	1.52
IN.	7.40	21.1	10.8	28.2	9.80	16.2	5.37	3.84	2.69	1.71	1.95	1.70
AC-FT	21,630	61,690	31,480	82,300	28,650	47,450	15,690	11,210	7,880	5,000	5,700	4,960

CAL YR 1963: TOTAL 131,823 MEAN 361 MAX 2,150 MIN 33 CFSM 6.59 IN 89.46 AC-FT 261,500
WAT YR 1964: TOTAL 163,175 MEAN 446 MAX 4,540 MIN 38 CFSM 8.14 IN 110.74 AC-FT 323,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	218	254	4,270	630	1,290	715	143	312	117	50	31	28
2	227	212	2,310	1,770	895	601	130	267	111	50	31	29
3	212	519	1,490	1,070	705	511	122	270	106	49	34	29
4	172	1,300	985	800	928	434	117	394	102	49	33	28
5	148	730	745	730	1,440	378	113	370	99	48	32	27
6	132	530	596	750	1,190	332	120	358	96	47	30	27
7	124	417	520	635	925	301	137	322	93	46	30	26
8	136	340	592	570	985	270	122	291	90	46	30	26
9	172	292	524	520	845	245	117	261	88	46	31	27
10	155	270	520	635	715	227	113	236	85	51	30	28
11	138	284	502	640	606	207	108	215	102	50	30	27
12	128	284	498	578	588	194	106	202	87	47	57	27
13	130	358	520	534	740	181	106	186	82	44	78	27
14	160	312	574	601	775	171	106	174	84	42	46	69
15	162	284	675	935	750	164	101	189	80	42	37	109
16	170	260	610	945	1,190	154	108	343	75	41	34	66
17	165	239	534	800	1,150	148	104	239	73	40	32	47
18	152	224	470	705	915	141	111	205	74	39	31	40
19	142	206	434	680	775	135	715	199	72	38	38	36
20	134	192	398	675	650	130	1,000	230	68	41	62	35
21	126	180	520	840	588	128	715	205	66	44	45	33
22	120	229	2,130	760	630	128	583	189	63	40	38	33
23	116	730	1,810	1,320	574	118	480	179	62	38	36	31
24	112	3,120	1,200	1,810	511	111	430	169	62	36	34	30
25	108	1,550	935	1,240	457	115	358	159	60	35	33	30
26	105	1,530	1,410	1,270	519	115	308	150	58	35	35	30
27	101	1,140	1,300	3,360	1,160	108	274	143	57	35	35	32
28	97	850	980	4,050	890	139	245	137	56	34	34	30
29	96	1,120	770	3,540	------	261	224	133	55	33	33	30
30	128	3,770	635	2,990	------	176	230	130	52	32	30	30
31	122	------	538	2,140	------	150	------	122	------	32	29	------
TOTAL	4,408	21,726	29,995	38,523	23,386	7,188	7,646	6,979	2,375	1,300	1,139	1,067
MEAN	142	724	968	1,243	835	232	255	225	79.2	41.9	36.7	35.6
MAX	227	3,770	4,270	4,050	1,440	715	1,000	394	117	51	78	109
MIN	96	180	398	520	457	108	101	122	52	32	29	26
CFSM	2.59	13.2	17.7	22.7	15.2	4.23	4.65	4.11	1.44	.77	.67	.65
IN.	2.99	14.7	20.4	26.1	15.9	4.88	5.19	4.74	1.61	.88	.77	.72
AC-FT	8,740	43,090	59,490	76,410	46,390	14,260	15,170	13,840	4,710	2,580	2,260	2,120

CAL YR 1964: TOTAL 161,425 MEAN 441 MAX 4,540 MIN 54 CFSM 8.05 IN 109.55 AC-FT 320,200
WAT YR 1965: TOTAL 145,732 MEAN 399 MAX 4,270 MIN 26 CFSM 7.29 IN 98.90 AC-FT 289,100

12-0105. Salmon Creek near Naselle, Wash.

Location.--Lat 46°21'20", long 123°45'00", in NE¼NE¼ sec.14, T.10 N., R.9 W., on left bank half a mile upstream from last crossing of U.S. Highway 830, 2 miles upstream from mouth, and 3 miles southeast of Naselle.

Drainage area.--16.4 sq mi.

Records available.--June 1953 to September 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 80 ft (from topographic map). Prior to Aug. 20, 1958, at datum 0.26 ft lower.

Average discharge.--12 years, 114 cfs (82,530 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (950 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1500	1,230	6.68	Nov. 22, 1961	0500	* 876	5.73	Jan. 25, 1964	0800	* 1,620	7.52
Nov. 20, 1960	1100	952	5.95								
Jan. 16, 1961	0030	1,090	6.32	Nov. 20, 1962	0400	* 3,210	10.28	Nov. 24, 1964	0400	1,260	6.81
Feb. 19, 1961	0600	980	6.03	Dec. 30, 1962	1100	1,090	6.38	Dec. 1, 1964	0030	* 1,710	7.70
Feb. 21, 1961	1100	* 1,710	7.70					Dec. 22, 1964	1600	989	6.04
Mar. 13, 1961	-	1,200	6.6	Jan. 17, 1964	0800	1,040	6.25	Jan. 2, 1965	0330	954	5.94
								Jan. 28, 1965	1930	1,520	7.32

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 23, 1961	1.4	1.21	1964	Sept.13, 1964	8.3	a 1.54
1962	Oct. 5, 1961	2.7	1.32	1965	Sept. 8, 1965	1.9	1.20
1963	Aug. 18, 1963	3.3	1.36				

a Occurred Oct. 2, 4, 9, 10, Sept. 13, 1964.

1953-65: Maximum discharge, 3,210 cfs Nov. 20, 1962 (gage height, 10.28 ft), from rating curve extended above 1,200 cfs on basis of slope-area measurement at gage height 7.70 ft; minimum, 1.4 cfs Aug. 23, 1961 (gage height, 1.21 ft).

Remarks.--Records good. Slight regulation from millpond. Possibly some diversion for domestic use.

Revisions (water years).--WSP 1346: 1953(M). Revised figures of discharge, in cubic feet per second, for the water years 1954-58, 1960, superseding those published in WSP 1346, 1396, 1446, 1516, 1566, and 1716, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Jan. 4, 1954	1,040	Feb. 19, 1954	1,070	Feb. 8, 1955	750	Nov. 22, 1959	1,260
5	962	20	874	Mar. 31	776	23	1,000
6	892	21	944	Apr. 1	652	24	492
7	696	22	537	Dec. 11	1,120	Dec. 14	455
Feb. 12	633	Nov. 17	530	12	840	15	844
13	588	18	1,420	21	1,090	16	510
14	400	19	1,110	22	974	Jan. 28, 1960	488
15	429	20	544	Dec. 9, 1956	730	29	1,060
16	885	Dec. 30	652	10	936	30	572
17	714	31	616	Jan. 14, 1958	1,020	Feb. 6	703
18	531	Feb. 7, 1955	413	15	1,010	7	848
						8	535

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
January 1954.................	9,200	1,040	86	297	18.1	20.86	18,250
February.....................	10,216	1,070	102	365	22.3	23.17	20,260
Water year 1953-54.........	-	1,070	9.2	127	7.74	105.28	92,070
November 1954................	7,056	1,420	32	235	14.3	16.00	14,000
December.....................	5,020	652	68	162	9.88	11.38	9,960
Calendar year 1954.........	-	1,420	9.2	121	7.38	99.88	87,360
February 1955................	3,910	750	43	140	8.54	8.87	7,760
March........................	4,967	776	65	160	9.76	11.26	9,850
April........................	6,083	652	75	203	12.4	13.79	12,070
Water year 1954-55.........	-	1,420	6.8	100	6.10	82.96	72,580
December.....................	11,321	1,120	111	365	22.3	25.67	22,450
Calendar year 1955.........	-	1,120	6.8	134	8.17	111.21	97,280
Water year 1955-56.........	-	1,120	3.1	152	9.27	126.29	110,400
December 1956................	6,808	936	39	220	13.4	15.44	13,500
Calendar year 1956.........	-	936	3.1	122	7.44	101.30	88,600
Water year 1956-57.........	-	936	3.8	94.6	5.77	78.27	68,460
January 1958.................	7,880	1,020	65	254	15.5	17.87	15,630
Water year 1957-58.........	-	1,020	1.3	97.6	5.95	80.79	70,660
Calendar year 1958.........	-	1,430	1.3	110	6.71	91.18	79,770
November 1959................	6,516	1,260	37	217	13.2	14.78	12,920
December.....................	5,271	844	52	170	10.4	11.95	10,450
Calendar year 1959.........	-	1,260	4.6	119	7.26	98.51	86,160
January 1960.................	5,065	1,060	38	163	9.94	11.49	10,050
February.....................	7,379	848	48	254	15.5	16.73	14,640
Water year 1959-60.........	-	1,260	2.8	114	6.95	94.63	82,760

Revised peak discharge.--1953-54: Dec. 9 (1430) 1,070 cfs (5.82 ft); Jan. 4 (0330) 1,440 cfs (6.78 ft); Feb. 19 (1730) 1,340 cfs (6.52 ft).
1954-55: Nov. 18 (1800) 1,600 cfs (7.20 ft); Feb. 8 (0030) 1,130 cfs (6.15 ft).
1955-56: Nov. 2 (1700) 1,360 cfs (6.71 ft); Dec. 11 (1900) 1,600 cfs (7.20 ft); Dec. 21 (1830) 1,970 cfs (7.94 ft); Mar. 7 (1730) 1,250 cfs (6.44 ft).
1956-57: Dec. 10 (0010) 1,650 cfs (7.30 ft); Mar. 25 (2400) 1,290 cfs (6.56 ft).
1957-58: Jan. 14 (2400) 1,590 cfs (7.18 ft).
1958-59: Nov. 12 (1300) 1,740 cfs (7.75 ft); Nov. 18 (1715) 1,300 cfs (6.85 ft); Jan. 24 (0430) 1,620 cfs (7.53 ft).
1959-60: Nov. 22 (1430) 1,880 cfs (8.03 ft); Jan. 29 (0500) 1,300 cfs (6.86 ft); Feb. 6 (2130) 1,720 cfs (7.72 ft).

12-0105. Salmon Creek near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.0	145	107	76	269	430	104	83	23	7.7	2.7	19
2	3.8	138	92	70	320	320	94	114	21	7.4	2.7	12
3	4.0	120	106	64	345	244	92	139	20	6.1	2.3	5.8
4	4.2	105	96	74	345	187	79	148	19	5.8	2.1	4.6
5	4.0	95	83	385	345	216	71	130	19	7.0	2.4	3.6
6	8.6	86	76	382	363	246	64	114	22	9.2	2.5	3.0
7	53	78	72	274	287	220	60	102	21	7.0	2.1	2.7
8	33	71	67	382	294	202	61	102	19	6.1	1.9	2.4
9	19	64	61	607	349	202	58	139	21	5.3	2.1	2.1
10	14	166	57	432	345	250	52	118	19	5.0	2.4	2.1
11	12	188	164	329	345	362	49	104	17	4.6	2.0	2.0
12	18	153	559	264	327	620	56	93	15	4.6	1.8	2.0
13	15	140	320	359	460	800	55	85	14	4.2	1.8	2.0
14	13	184	223	460	435	1,020	51	87	13	3.8	2.4	1.9
15	11	282	166	708	452	545	46	74	12	4.0	2.5	2.0
16	10	462	135	780	361	352	44	68	11	4.2	2.7	2.3
17	9.0	763	126	542	324	244	46	62	9.6	5.0	2.4	2.4
18	8.5	592	523	359	349	178	55	56	9.2	4.4	2.0	2.5
19	8.0	519	462	256	798	170	64	51	8.8	3.8	1.9	2.5
20	8.0	826	307	186	956	158	68	48	8.4	3.6	1.8	2.7
21	20	601	215	141	1,330	133	98	45	8.4	3.6	1.7	2.8
22	58	430	161	114	665	144	128	43	7.7	3.6	1.6	2.4
23	160	432	126	100	375	175	163	41	7.4	3.6	1.5	2.1
24	213	739	107	88	638	170	145	38	7.0	3.3	1.5	1.9
25	124	604	95	76	465	152	126	35	6.7	3.0	1.7	1.8
26	192	394	106	68	352	220	109	35	6.4	2.8	1.8	2.3
27	404	268	89	62	392	224	94	34	6.4	3.0	1.7	1.8
28	419	194	80	59	350	186	84	29	6.4	3.1	1.6	2.3
29	231	148	72	130	------	158	80	27	10	3.0	1.5	3.3
30	170	120	69	225	------	132	74	26	11	2.8	1.5	3.8
31	160	------	76	221	------	111	------	25	------	2.7	13	------
TOTAL	2,411.1	9,107	4,998	8,273	12,636	8,771	2,370	2,295	399.4	143.3	73.6	104.1
MEAN	77.8	304	161	267	451	283	79.0	74.0	13.3	4.62	2.37	3.47
MAX	419	826	559	780	1,330	1,020	163	148	23	9.2	13	19
MIN	3.8	64	57	59	269	111	44	25	6.4	2.7	1.5	1.8
CFSM	4.74	18.5	9.83	16.3	27.5	17.3	4.82	4.51	.81	.28	.14	.21
IN.	5.47	20.7	11.3	18.8	28.7	19.9	5.37	5.20	.91	.32	.17	.24
AC-FT	4,780	18,060	9,910	16,410	25,060	17,400	4,700	4,550	792	284	146	206

CAL YR 1960: TOTAL 42,492.3 MEAN 116 MAX 1,060 MIN 2.8 CFSM 7.08 IN 96.36 AC-FT 84,280
WAT YR 1961: TOTAL 51,581.5 MEAN 141 MAX 1,330 MIN 1.5 CFSM 8.62 IN 116.97 AC-FT 102,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.1	60	217	150	90	49	81	191	22	14	6.0	8.0
2	4.4	60	176	200	80	46	70	154	47	13	6.5	7.7
3	3.5	75	155	400	75	43	63	154	41	12	13	7.7
4	3.1	60	288	299	70	172	67	130	43	12	13	7.1
5	3.1	50	247	265	65	210	59	111	50	16	13	6.8
6	5.6	45	196	237	80	185	156	104	44	17	22	6.8
7	9.2	40	166	249	120	155	154	88	38	14	37	6.5
8	7.0	35	134	210	130	144	178	85	36	12	31	6.2
9	20	50	111	176	140	126	157	92	33	12	21	6.0
10	40	250	95	147	130	108	141	77	30	11	16	15
11	26	200	80	123	120	99	125	68	29	11	14	17
12	122	150	75	110	110	87	108	64	27	9.7	13	12
13	92	120	70	95	149	78	94	62	26	10	13	24
14	49	108	65	110	349	69	83	56	26	9.7	11	25
15	35	92	65	105	279	64	76	51	24	9.3	11	17
16	26	80	150	95	216	60	67	46	22	8.6	11	14
17	21	71	400	99	195	57	59	43	22	8.9	13	12
18	18	74	300	92	169	51	53	42	20	8.6	19	12
19	17	68	350	85	139	49	50	39	19	8.3	17	12
20	17	59	400	80	120	49	50	37	19	8.0	14	11
21	17	229	450	75	102	90	57	34	17	7.7	13	11
22	19	608	400	70	98	155	45	39	16	7.1	12	10
23	200	309	550	65	85	204	40	37	16	6.8	11	9.7
24	80	208	500	65	73	638	42	34	14	6.5	9.7	9.3
25	75	157	350	90	65	498	43	33	15	6.2	8.9	8.6
26	250	139	300	140	58	325	52	31	22	6.0	9.3	8.9
27	300	231	250	170	53	235	330	29	23	6.0	8.9	12
28	200	297	270	140	53	174	235	27	19	6.0	10	137
29	140	261	300	120	------	136	183	26	16	5.8	9.7	104
30	80	269	250	110	------	111	154	25	15	5.8	8.3	21
31	65	------	200	100	------	94	------	23	------	5.6	8.0	------
TOTAL	1,951.0	4,455	7,560	4,472	3,413	4,561	3,072	2,032	791	294.6	423.3	565.3
MEAN	62.9	149	244	144	122	147	102	65.5	26.4	9.50	13.7	18.8
MAX	300	608	550	400	349	638	330	191	50	17	37	137
MIN	3.1	35	65	65	53	43	40	23	14	5.6	6.0	6.0
CFSM	3.84	9.05	14.9	8.80	7.43	8.97	6.24	4.00	1.61	.58	.83	1.15
IN.	4.42	10.1	17.1	10.1	7.74	10.3	6.97	4.61	1.79	.67	.96	1.28
AC-FT	3,870	8,840	15,000	8,870	6,770	9,050	6,090	4,030	1,570	584	840	1,120

CAL YR 1961: TOTAL 49,031.4 MEAN 134 MAX 1,330 MIN 1.5 CFSM 8.19 IN 111.19 AC-FT 97,250
WAT YR 1962: TOTAL 33,590.2 MEAN 92.0 MAX 638 MIN 3.1 CFSM 5.61 IN 76.17 AC-FT 66,630

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0105. Salmon Creek near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	26	325	522	86	98	246	82	19	21	8.8	7.9
2	46	26	362	621	263	100	195	119	20	14	7.4	7.9
3	53	25	298	485	538	90	193	96	18	12	6.6	6.6
4	51	48	240	316	591	82	195	91	19	15	6.6	5.9
5	41	105	218	216	327	76	198	158	21	12	5.9	5.3
6	51	81	211	164	261	71	255	126	18	10	5.6	5.0
7	129	67	169	127	197	65	240	115	17	14	5.0	4.7
8	329	88	143	105	155	70	265	100	17	12	4.5	4.5
9	609	78	118	92	126	57	246	90	17	13	4.3	4.5
10	310	147	102	76	105	53	198	81	15	12	4.5	12
11	241	317	87	65	92	51	166	73	13	11	4.5	13
12	191	285	76	58	80	48	137	66	13	9.7	5.3	7.4
13	193	275	74	56	78	44	118	60	12	8.8	5.3	12
14	155	227	133	55	70	49	104	55	11	8.4	4.5	14
15	138	200	279	55	69	48	97	51	9.7	7.9	4.0	17
16	112	174	181	51	68	59	87	48	8.8	7.4	3.8	27
17	97	159	143	50	70	49	82	44	8.4	7.4	3.5	33
18	84	141	119	48	97	50	97	40	8.4	7.0	3.5	22
19	74	1,120	116	44	150	93	136	36	7.9	6.3	5.6	18
20	65	2,080	95	41	134	91	113	33	8.4	5.6	6.6	16
21	59	594	85	39	115	76	101	31	12	9.5	5.3	14
22	54	314	76	38	100	71	90	29	14	36	4.5	14
23	49	200	68	36	89	65	84	27	9.7	20	4.3	19
24	44	181	61	34	78	61	78	26	11	14	9.1	15
25	40	472	56	33	93	65	72	25	15	12	33	13
26	44	495	52	32	134	70	65	23	11	11	22	12
27	40	360	51	29	104	96	60	23	10	9.7	13	11
28	36	257	80	30	100	213	57	22	11	8.8	10	11
29	33	289	275	27	------	415	58	20	13	8.4	8.8	10
30	31	388	932	27	------	384	61	20	23	8.4	7.9	9.7
31	29	------	555	52	------	316	------	19	------	9.2	7.4	------
TOTAL	3,484	9,219	5,780	3,624	4,370	3,176	4,094	1,829	411.3	361.5	231.1	372.4
MEAN	112	307	186	117	156	102	136	59.0	13.7	11.7	7.45	12.4
MAX	609	2,080	932	621	591	415	265	158	23	36	33	33
MIN	29	25	51	27	68	44	57	19	7.9	5.6	3.5	4.5
CFSM	6.85	18.7	11.4	7.13	9.52	6.25	8.32	3.60	.84	.71	.45	.76
IN.	7.90	20.9	13.1	8.22	9.91	7.20	9.28	4.15	.93	.82	.52	.84
AC-FT	6,910	18,290	11,460	7,190	8,670	6,300	8,120	3,630	816	717	458	739

CAL YR 1962: TOTAL 38,107.2 MEAN 104 MAX 2,080 MIN 5.6 CFSM 6.37 IN 86.42 AC-FT 75,580
WAT YR 1963: TOTAL 36,952.3 MEAN 101 MAX 2,080 MIN 3.5 CFSM 6.17 IN 83.80 AC-FT 73,290

Note.--Figures of daily discharge between 10 and 20 cfs given in thistable may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.7	175	127	618	309	197	52	58	24	16	30	14
2	9.2	181	104	408	242	160	50	51	23	16	29	14
3	9.2	162	90	298	192	162	47	47	22	16	40	13
4	9.2	172	79	244	160	267	46	45	40	15	36	11
5	11	148	84	259	131	290	49	48	32	15	30	10
6	13	144	94	475	109	246	45	45	32	15	26	10
7	11	446	84	318	94	197	41	44	32	13	24	11
8	10	442	80	240	83	195	40	41	32	13	22	15
9	9.2	300	72	236	72	190	45	40	30	13	21	12
10	8.8	290	65	218	77	229	52	40	27	11	19	10
11	9.7	220	60	183	74	549	68	38	27	10	18	9.8
12	14	214	56	158	71	430	70	39	26	10	18	8.7
13	51	279	53	166	84	303	65	36	24	9.8	18	8.3
14	37	468	51	143	78	381	63	33	23	15	16	9.4
15	28	462	53	173	142	342	74	32	22	33	15	9.1
16	24	372	84	320	160	257	74	30	24	27	14	9.4
17	22	351	69	729	156	211	68	33	33	22	13	16
18	20	281	74	546	162	162	63	29	32	19	14	13
19	18	379	214	588	144	130	59	27	28	17	14	13
20	32	298	430	519	130	127	55	41	26	17	14	19
21	83	253	307	355	113	113	53	46	24	22	12	15
22	261	331	279	281	99	97	76	47	22	20	11	17
23	232	669	225	222	88	86	62	40	21	18	10	15
24	578	482	200	636	78	77	55	37	19	15	9.8	13
25	376	372	200	1,260	68	74	53	34	19	14	9.8	13
26	251	349	198	564	63	79	52	32	18	13	14	12
27	183	311	193	340	57	68	52	30	22	12	15	11
28	200	244	180	240	59	61	49	29	21	11	18	10
29	181	193	156	336	118	57	46	28	18	11	16	13
30	181	155	136	263	------	53	47	26	17	11	18	48
31	154	------	179	333	------	51	------	25	------	28	18	------
TOTAL	3,036.0	9,143	4,276	11,669	3,413	5,841	1,671	1,171	760	497.8	582.6	402.7
MEAN	97.9	305	138	376	118	188	55.7	37.8	25.3	16.1	18.8	13.4
MAX	578	669	430	1,260	309	549	76	58	40	33	40	48
MIN	8.8	144	51	143	57	51	40	25	17	9.8	9.8	8.3
CFSM	5.97	18.6	8.41	23.0	7.18	11.5	3.40	2.30	1.54	.98	1.15	.82
IN.	6.88	20.7	9.70	26.5	7.74	13.2	3.79	2.66	1.72	1.13	1.32	.91
AC-FT	6,020	18,130	8,480	23,150	6,770	11,590	3,310	2,320	1,510	987	1,160	799

CAL YR 1963: TOTAL 34,924.3 MEAN 95.7 MAX 669 MIN 3.5 CFSM 5.83 IN 79.20 AC-FT 69,270
WAT YR 1964: TOTAL 42,463.1 MEAN 116 MAX 1,260 MIN 8.3 CFSM 7.07 IN 96.29 AC-FT 84,220

12-0105. Salmon Creek near Naselle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	38	86	1,230	250	334	202	38	75	27	7.6	2.8	2.7
2	42	70	679	744	228	160	34	70	25	7.6	2.8	2.6
3	38	250	388	423	172	132	31	70	24	7.3	3.2	2.7
4	31	432	260	284	264	112	30	95	22	7.3	3.2	2.7
5	28	229	192	242	390	96	28	85	21	6.8	3.0	2.4
6	25	166	154	244	318	84	34	74	20	6.5	2.8	2.3
7	24	130	136	211	252	77	39	70	20	6.2	2.6	2.2
8	28	105	178	215	262	68	34	65	18	6.2	2.4	2.0
9	39	89	142	188	208	62	32	59	18	6.2	2.7	2.2
10	33	82	134	262	178	56	30	55	16	7.9	2.7	2.7
11	28	85	134	234	152	51	28	51	23	8.9	2.3	2.6
12	26	94	132	204	147	47	27	48	19	7.9	6.6	2.6
13	26	108	129	172	172	44	27	44	17	6.5	16	2.7
14	40	91	172	158	183	41	27	41	19	5.6	7.0	6.4
15	45	83	188	158	175	38	26	48	16	5.1	4.9	14
16	51	76	163	165	323	35	28	82	16	4.9	3.9	7.6
17	55	70	144	162	292	35	27	56	15	4.9	3.2	5.1
18	46	64	128	154	234	31	30	49	15	4.5	3.0	4.1
19	42	59	115	152	199	30	274	50	14	4.3	5.2	3.5
20	39	54	112	156	159	28	286	57	13	4.5	13	3.0
21	36	50	214	202	152	27	188	51	12	5.3	7.3	3.0
22	33	86	758	180	146	29	140	47	12	4.9	5.1	3.1
23	31	336	634	515	126	27	120	45	11	4.3	4.3	3.1
24	30	940	420	526	113	24	100	42	11	3.9	3.9	2.8
25	28	531	307	383	102	27	90	39	10	3.7	3.7	2.6
26	26	495	439	429	201	27	80	36	10	3.2	4.1	2.6
27	25	351	388	765	356	25	70	35	9.3	3.2	5.1	3.2
28	24	257	298	1,120	265	34	65	32	9.3	3.1	3.9	3.5
29	23	338	232	975	------	71	60	30	8.9	3.0	3.9	3.1
30	32	1,050	188	800	------	47	65	30	8.2	2.8	3.2	3.1
31	33	------	150	544	------	39	------	28	------	2.8	3.0	------
TOTAL	1,045	6,857	8,938	11,217	6,103	1,806	2,088	1,659	479.7	166.9	141.4	106.2
MEAN	33.7	229	288	362	218	58.3	69.6	53.5	16.0	5.38	4.56	3.54
MAX	55	1,050	1,230	1,120	390	202	286	95	27	8.9	16	14
MIN	23	50	112	152	102	24	26	28	8.2	2.8	2.3	2.0
CFSM	2.06	13.9	17.6	22.1	13.3	3.55	4.24	3.26	.98	.33	.28	.22
IN.	2.37	15.5	20.3	25.4	13.8	4.10	4.73	3.76	1.09	.38	.32	.24
AC-FT	2,070	13,600	17,730	22,250	12,110	3,580	4,140	3,290	951	331	280	211

CAL YR 1964: TOTAL 42,848.1 MEAN 117 MAX 1,260 MIN 8.3 CFSM 7.14 IN 97.17 AC-FT 84,990
WAT YR 1965: TOTAL 40,607.2 MEAN 111 MAX 1,230 MIN 2.0 CFSM 6.78 IN 92.08 AC-FT 80,540

12-0107. South Fork Naselle River near Naselle, Wash.

Location.--Lat 46°20'40", long 123°48'25", in SW¼SW¼ sec.16, T.10 N., R.9 W., on left bank 1,800 ft downstream from Davis Creek, 1.4 miles south of Naselle, and 1.5 miles upstream from mouth.

Drainage area.--17.9 sq mi.

Records available.--July 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 20 ft (from topographic map).

Extremes.--Maximum and minimum discharges for July 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (2,000 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Sept.30, 1964	1300	* 262	3.05	Aug. 25, 1964	9.3	1.43
1965	Nov. 3, 1964	2100	2,160	8.00	Aug. 11, 1965	1.4	1.09
	Nov. 24, 1964	-	* 2,460	8.56			
	Jan. 28, 1965	1830	2,080	7.84			

1964-65: Maximum discharge, 2,460 cfs Nov. 24, 1964 (gage height, 8.56 ft, from recorded range in stage), from rating curve extended above 1,100 cfs; minimum, 1.4 cfs Aug. 11, 1965 (gage height, 1.09 ft, result of minor regulation).

Remarks.--Records good. No diversion above station. Some minor regulation during periods of low flow.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1964

DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.
1	20	31	27	9	15	24	18	17	31	14	24	25	15	12	19
2	22	44	26	10	14	22	14	18	25	17	16	26	14	22	17
3	20	60	22	11	13	21	13	19	22	16	26	27	14	22	15
4	18	50	19	12	12	20	12	20	23	14	39	28	13	30	14
5	18	43	18	13	12	19	12	21	26	12	25	29	12	30	21
6	17	35	17	14	20	18	12	22	23	12	30	30	15	43	128
7	16	30	18	15	50	16	12	23	20	10	24	31	25	34	-
8	15	26	21	16	40	14	12	24	17	9.9	21				
TOTAL													617	770.9	692
MEAN													19.9	24.9	23.1
MAX													50	60	128
MIN													12	9.9	12
CFSM													1.11	1.39	1.29
IN													1.28	1.60	1.44
AC-FT													1,220	1,530	1,370

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	82	84	1,180	200	316	159	30	77	23	6.5	2.0	3.0
2	84	86	600	1,000	206	130	27	60	22	6.5	2.1	3.0
3	68	774	330	500	149	106	25	69	21	6.8	2.6	2.8
4	58	835	215	300	210	88	24	119	20	6.8	2.8	2.8
5	48	317	153	250	400	74	22	109	18	6.8	2.6	2.8
6	42	189	121	250	325	67	29	95	17	6.5	2.1	2.3
7	39	130	114	210	248	56	42	82	17	6.1	2.0	2.1
8	40	100	191	190	290	50	32	71	16	6.1	2.1	2.1
9	55	81	142	170	233	46	31	63	16	5.8	2.1	2.1
10	42	78	137	363	179	42	29	55	15	6.5	2.0	2.3
11	38	86	131	290	142	38	26	49	20	6.8	2.1	2.3
12	34	108	124	213	165	34	26	45	16	6.1	16	2.3
13	35	108	112	173	281	32	26	41	15	5.4	13	2.3
14	49	90	183	151	290	31	26	37	17	5.0	8.2	22
15	63	79	208	155	239	28	23	40	15	5.0	5.0	33
16	75	70	159	157	718	26	25	71	13	4.7	3.6	14
17	68	62	130	140	501	26	26	45	13	4.7	3.0	9.1
18	61	55	109	122	313	25	30	38	13	4.3	2.6	7.2
19	54	50	99	112	233	23	270	40	12	4.0	8.6	5.8
20	47	46	98	111	173	22	267	67	11	5.0	18	5.0
21	43	45	314	163	165	22	175	49	11	5.8	10	4.7
22	40	80	1,120	126	191	26	128	44	9.6	5.0	6.8	4.7
23	36	300	693	761	157	29	87	42	9.1	4.3	5.4	4.3
24	34	1,000	450	525	135	22	115	39	8.6	3.6	4.7	4.0
25	32	600	300	338	115	25	91	34	8.6	3.3	4.3	3.3
26	29	478	540	470	153	25	78	33	8.2	3.0	4.7	3.3
27	27	302	460	934	255	24	68	31	8.2	2.8	4.7	3.6
28	25	205	350	1,550	197	36	58	29	7.7	2.3	5.0	3.6
29	23	318	250	1,010	------	68	52	27	7.7	2.3	5.0	3.6
30	36	1,010	160	1,010	------	40	55	27	7.2	2.3	4.0	3.3
31	39	------	130	597	------	32	------	26	------	2.1	3.3	------
TOTAL	1,446	7,766	9,303	12,541	6,979	1,452	1,943	1,654	415.9	152.2	160.4	166.7
MEAN	46.6	259	300	405	249	46.8	64.8	53.4	13.9	4.91	5.17	5.56
MAX	84	1,010	1,180	1,550	718	159	270	119	23	6.8	18	33
MIN	23	45	98	111	115	22	22	26	7.2	2.1	2.0	2.1
CFSM	2.60	14.5	16.8	22.6	13.9	22.61	3.62	2.98	.777	.274	.289	.311
IN.	3.00	16.14	19.33	26.06	14.50	3.02	4.04	3.44	.86	.32	.33	.35
AC-FT	2,870	15,400	18,450	24,870	13,840	2,880	3,850	3,280	825	302	318	331

CAL YR 1964: TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965: TOTAL 43,979.2	MEAN 120	MAX 1,550	MIN 2.0	CFSM 6.70	IN 91.39	AC-FT 87,230

12-0110. North Nemah River near South Bend, Wash.

Location.--Lat 46°29'30", long 123°50'00", in $SE\frac{1}{4}$ sec.30, T.12 N., R.9 W., on right bank 700 ft downstream from Finn Creek, 5 miles upstream from mouth, and 12 miles south of South Bend.

Drainage area.--18.0 sq mi.

Records available.--February 1946 to September 1954. Annual maximums, water years 1955-58, 1960-61. July 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 60 ft (from topographic map). Prior to Oct. 1, 1954, water-stage recorder and 1955-58, 1960-61 crest-stage gage, at site 200 ft upstream at different datum.

Average discharge.--9 years (1946-54, 1964-65), 122 cfs (88,320 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (930 cfs), water years 1961, 1964-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	-	* 1,680	8.21	Nov. 24, 1964a	-	1,280	7.54	Jan. 28, 1965	1930	* 2,000	9.00
				Nov. 30, 1964a	-	1,310	7.62				
Sept.30, 1964	-	* 141	4.00	Jan. 2, 1965	0400	1,360	7.72				

a About.

Annual minimum discharge, July 1964 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	Aug. 25, 1964	17	3.17	1965	Sept. 8, 1965	7.1	2.82

1946-58, 1960-61, 1964-65: Maximum discharge, 2,000 cfs Jan. 28, 1965 (gage height, 9.00 ft).
1946-54, 1964-65: Minimum discharge, 4.7 cfs Sept. 21, 22, 23, 1951; minimum gage height, 1.28 ft Nov. 8, 9, 1952, site and datum then in use.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1964

DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.
1	29	50	38	9	21	32	28	17	29	21	30	25	22	22	27
2	28	65	41	10	20	29	26	18	27	35	26	26	21	30	25
3	28	53	36	11	20	27	24	19	25	27	27	27	20	28	23
4	27	51	33	12	19	26	23	20	25	24	35	28	19	36	22
5	26	42	32	13	18	25	22	21	33	22	28	29	18	42	25
6	24	38	29	14	24	24	22	22	30	21	34	30	18	51	74
7	23	35	30	15	50	23	22	23	24	19	29	31	40	44	-
8	22	32	30	16	34	22	22	24	22	18	27				
TOTAL													786	1,014	890
MEAN													25.4	32.7	29.7
MAX													50	65	74
MIN													18	18	22
CFSM													1.41	1.82	1.65
IN.													1.62	2.10	1.84
AC-FT													1,560	2,010	1,770

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	115	1,010	369	343	184	40	102	34	16	10	8.3
2	59	90	720	940	250	163	35	84	34	15	10	8.7
3	52	170	425	458	203	141	32	86	32	15	10	8.7
4	45	290	281	304	255	122	30	106	30	15	10	8.3
5	40	200	216	298	374	109	28	102	30	14	10	8.3
6	36	145	174	284	319	99	30	92	29	14	9.5	7.9
7	35	110	155	240	250	90	36	85	28	14	9.5	7.5
8	41	90	180	242	271	85	32	78	27	14	9.5	7.1
9	56	76	153	214	223	77	30	72	27	14	9.5	7.9
10	48	78	149	269	200	71	29	64	26	16	9.1	7.9
11	41	90	143	252	169	66	26	60	34	16	9.1	7.9
12	36	100	143	214	172	60	25	57	26	15	25	7.9
13	40	115	135	194	214	56	26	52	25	14	21	7.9
14	45	100	200	200	238	55	24	49	26	13	13	39
15	48	90	214	245	233	51	23	58	24	13	11	40
16	50	80	182	235	396	48	25	98	23	13	10	26
17	47	75	157	205	332	47	26	66	22	12	10	17
18	43	70	137	178	252	42	27	58	22	12	10	14
19	40	65	128	163	216	41	189	60	21	12	16	13
20	37	60	126	153	180	41	216	80	21	13	19	12
21	34	56	223	178	178	41	172	64	20	14	13	12
22	33	100	625	155	184	47	137	60	19	12	12	11
23	33	450	491	338	167	40	117	56	19	12	11	10
24	31	1,000	338	393	151	35	108	52	19	11	10	10
25	29	420	264	311	135	38	92	49	18	11	10	9.5
26	28	368	365	362	178	36	82	46	17	11	11	10
27	27	301	335	835	271	33	75	44	17	11	10	10
28	27	240	266	1,280	223	48	67	42	17	10	10	9.5
29	26	312	226	1,000	------	89	61	40	17	10	10	9.5
30	39	850	191	824	------	51	72	40	17	10	9.1	9.5
31	42	------	161	584	------	42	------	38	------	10	8.7	------
TOTAL	1,239	6,306	8,513	11,917	6,577	2,148	1,912	2,040	721	402	356.0	366.3
MEAN	40.0	210	275	384	235	69.3	63.7	65.8	24.0	13.0	11.5	12.2
MAX	59	1,000	1,010	1,280	396	184	216	106	34	16	25	40
MIN	26	56	126	153	135	33	23	38	17	10	8.7	7.1
CFSM	2.22	11.7	15.3	21.4	13.0	3.85	3.54	3.66	1.34	.72	.64	.68
IN.	2.56	13.0	17.6	24.6	13.6	4.44	3.95	4.21	1.49	.83	.74	.76
AC-FT	2,460	12,510	16,890	23,640	13,050	4,260	3,790	4,050	1,430	797	706	727

CAL YR 1964: TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965: TOTAL 42,497.3	MEAN 116	MAX 1,280	MIN 7.1	CFSM 6.47	IN 87.80	AC-FT 84,290

Note.--No gage-height record Oct. 24 to Nov. 25.

12-0112. Williams Creek near South Bend, Wash.

Location.--Lat 46°31'50", long 123°51'40", in NW¼NW¼ sec.13, T.12 N., R.10 W., on left bank 0.1 mile upstream from unnamed tributary, 1.5 miles upstream from mouth, and 10 miles southwest of South Bend.

Drainage area.--9.43 sq mi.

Records available.--July 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 60 ft (from topographic map).

Extremes.--Maximum and minimum discharges for July 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (500 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Sept.30, 1964	-	* 98	2.18	(a)	17	-
1965	Nov. 24, 1964	0630	558	3.65	Sept. 6-13, 1965	8.4	1.01
	Nov. 30, 1964	2300	526	3.56			
	Jan. 2, 1965	0530	592	3.63			
	Jan. 28, 1965	1800	* 816	4.39			

a July 13, 28-30, Aug. 24, 25, Sept. 15, 16, 1964.

1964-65: Maximum discharge, 816 cfs Jan. 28, 1965 (gage height, 4.39 ft), from rating curve extended above 360 cfs; minimum, 8.4 cfs Sept. 6-13, 1965 (gage height, 1.01 ft).

Remarks.--Records good except those over 400 cfs, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1964

DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.
1	24	39	24	9	20	28	21	17	25	20	24	25	20	20	21
2	24	43	30	10	20	25	20	18	23	25	19	26	19	22	20
3	24	39	26	11	19	23	20	19	21	21	22	27	19	22	20
4	23	40	23	12	18	23	19	20	21	20	26	28	17	26	19
5	23	38	22	13	17	22	18	21	23	19	22	29	17	30	20
6	23	34	21	14	22	21	18	22	22	19	29	30	21	32	52
7	22	31	23	15	35	20	17	23	21	18	24	31	33	27	-
8	21	28	24	16	30	20	18	24	20	17	22				
TOTAL													687	812	684
MEAN													22.2	26.2	22.8
MAX													35	43	52
MIN													17	17	17
CFSM													2.35	2.78	2.42
IN													2.71	3.20	2.70
AC-FT													1,360	1,610	1,360

Note.--Results of discharge measurements at site 250 ft downstream, in cubic feet per second, are as follows:

Aug. 28, 1963	12	Oct. 26, 1963	71	May 7, 1964	41
Sept.13	14	Nov. 15	139	June 5	25
Oct. 1	9.8	Dec. 12	45		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	42	50	466	179	225	98	30	44	24	15	11	8.8
2	45	43	347	435	170	86	28	42	23	15	11	8.8
3	42	115	226	226	138	83	26	41	23	15	11	9.3
4	34	194	155	159	149	76	26	48	22	15	11	8.8
5	31	112	114	159	208	70	26	47	22	14	10	8.8
6	27	93	91	159	178	66	26	43	22	14	10	8.8
7	26	77	80	127	148	62	27	41	21	14	10	8.4
8	26	68	83	133	160	59	26	38	21	14	10	8.4
9	34	62	73	117	138	56	26	36	21	14	10	8.4
10	28	62	71	138	118	54	25	34	20	16	10	8.4
11	25	66	68	127	101	51	24	32	24	14	10	8.4
12	24	69	64	104	107	48	24	32	20	14	22	8.4
13	28	85	60	100	142	45	24	30	20	13	15	8.4
14	31	73	102	110	152	44	23	29	20	12	11	36
15	32	68	102	133	142	43	22	34	19	12	11	31
16	33	60	80	120	233	42	23	51	18	12	10	20
17	30	56	68	100	202	40	24	38	18	12	9.8	14
18	28	51	60	87	158	39	23	35	18	12	9.8	12
19	26	48	57	79	135	38	89	36	18	12	14	11
20	25	46	57	73	116	37	93	43	17	12	15	11
21	23	44	110	89	109	36	72	36	17	12	11	10
22	22	46	302	75	118	36	59	34	17	12	11	10
23	22	110	222	160	107	36	50	32	16	12	10	9.8
24	21	381	161	167	96	30	46	30	16	12	9.8	9.8
25	21	167	127	138	86	32	41	29	16	12	9.8	9.8
26	20	142	170	192	91	29	38	28	16	11	10	9.8
27	20	117	164	398	135	29	36	27	16	11	9.8	9.8
28	20	96	130	594	114	35	34	26	16	11	10	9.8
29	20	148	110	494	------	44	32	26	16	11	9.8	9.3
30	25	370	98	440	------	33	36	26	15	11	9.3	9.3
31	27	------	85	330	------	30	------	25	------	11	8.8	------
TOTAL	858	3,119	4,103	5,942	3,976	1,507	1,079	1,093	572	397	340.9	344.5
MEAN	27.7	104	132	192	142	48.6	36.0	35.3	19.1	12.8	11.0	11.5
MAX	45	381	466	594	233	98	93	51	24	16	22	36
MIN	20	43	57	73	86	29	22	25	15	11	8.8	8.4
CFSM	2.94	11.0	14.0	20.3	15.1	5.16	3.81	3.74	2.02	1.36	1.17	1.22
IN.	3.38	12.3	16.2	23.4	15.7	5.94	4.26	4.31	2.26	1.57	1.34	1.36
AC-FT	1,700	6,190	8,140	11,790	7,890	2,990	2,140	2,170	1,130	787	676	683

CAL YR 1964:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965:	TOTAL 23,331.4	MEAN 63.9	MAX 594	MIN 8.4	CFSM 6.78	IN 92.01	AC-FT 46,280

12-0115. Willapa River at Lebam, Wash.

Location.--Lat 46°33'50", long 123°33'50", in SW¼SW¼ sec.33, T.13 N., R.7 W., on left bank half a mile west of Lebam and 1 mile upstream from Walker Creek.

Drainage area.--41.4 sq mi.

Records available.--June 1948 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 154.0 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Average discharge.--17 years, 191 cfs (138,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,600 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1600	1,610	8.24	Nov. 20, 1962	0600	3,380	13.51	Mar. 11, 1964	0930	1,630	8.07
Nov. 20, 1960	1430	* 2,770	11.42	Nov. 25, 1962	1800	* 4,010	15.14				
Nov. 24, 1960	1300	1,810	8.90	Feb. 3, 1963	0600	1,680	8.59	Nov. 30, 1964	1600	* 2,180	9.42
Jan. 15, 1961	2300	2,300	10.25					Dec. 22, 1964	1730	2,000	8.90
Feb. 21, 1961	1300	2,020	9.54	Jan. 17, 1964	0900	1,640	8.10	Jan. 2, 1965	0430	1,720	8.08
				Jan. 19, 1964	1900	1,650	8.14				
Mar. 24, 1962	1100	* 1,380	7.45	Jan. 25, 1964	2200	* 2,860	11.70				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 12, 1961	3.6	2.36	1964	Aug. 24, 25, 1964	8.0	2.45
1962	Oct. 4, 5, 1961	5.6	a 2.42	1965	Sept. 7, 8, 1965	4.4	c 2.39
1963	Sept. 8, 1963	5.8	b 2.41				

a Occurred Sept. 9, 1962.
b Occurred Aug. 16-18, Sept. 8, 1963.
c Occurred July 30, Aug. 11, 1965.

1948-65: Maximum discharge, 4,930 cfs Feb. 22, 1949 (gage height, 17.53 ft, from high watermark in gage house), from rating curve extended above 2,200 cfs; minimum, 1.4 cfs Sept. 22, 1951; minimum gage height, 2.36 ft Aug. 12, 1961.

Remarks.--Records excellent. No regulation. Some diversion for irrigation and domestic use. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	132	223	182	520	784	188	188	46	19	7.5	28
2	11	130	185	168	583	634	196	322	43	18	7.5	19
3	12	124	188	160	484	523	168	367	41	17	6.8	12
4	12	110	172	155	418	433	150	388	40	15	6.2	10
5	11	96	150	452	373	508	135	334	39	17	6.8	8.3
6	19	84	140	589	454	613	128	277	45	20	6.8	7.5
7	46	77	130	466	421	538	115	235	42	18	5.6	6.8
8	41	66	118	721	412	460	109	214	39	15	5.1	6.2
9	28	63	113	916	487	448	109	253	39	14	5.6	5.6
10	20	84	105	673	526	496	99	223	39	13	5.6	5.6
11	19	139	132	523	583	760	93	199	37	10	4.6	5.1
12	17	124	442	433	583	922	97	182	33	8.3	4.1	5.1
13	16	124	334	517	808	934	99	165	28	8.3	6.2	5.1
14	15	237	268	688	787	1,170	99	155	26	9.1	6.8	5.1
15	14	291	220	1,450	916	892	90	135	25	8.3	8.3	5.6
16	12	523	193	1,500	679	640	84	122	23	8.3	9.1	5.6
17	12	885	188	1,060	586	481	86	109	22	11	7.5	6.2
18	12	770	652	763	508	382	86	97	21	10	5.6	6.2
19	13	590	730	544	919	370	90	90	21	8.3	5.1	6.2
20	13	1,760	523	403	985	406	92	81	20	8.3	5.1	6.2
21	15	1,100	394	325	1,660	343	135	81	19	8.3	5.1	5.6
22	32	739	310	262	1,040	334	205	79	18	8.3	5.1	5.1
23	92	754	253	217	658	364	331	72	18	8.3	4.1	4.6
24	224	1,500	220	185	1,080	340	271	69	17	8.3	4.6	4.6
25	110	1,140	188	160	949	307	214	64	17	7.5	5.6	4.6
26	152	754	193	140	727	367	178	66	17	7.5	5.6	4.6
27	310	523	168	130	658	349	155	69	17	7.5	5.6	4.6
28	363	397	150	115	556	313	145	57	17	8.3	5.1	6.8
29	190	310	140	162	------	277	158	55	21	8.3	5.1	10
30	136	256	135	625	------	238	155	54	22	8.3	4.1	7.5
31	128	------	162	592	------	205	------	50	------	7.5	18	------
TOTAL	2,106	13,882	7,519	15,276	19,360	15,831	4,260	4,852	852	344.0	193.9	223.4
MEAN	67.9	463	243	493	691	511	142	157	28.4	11.1	6.25	7.45
MAX	363	1,760	730	1,500	1,660	1,170	331	388	46	20	18	28
MIN	11	63	105	115	373	205	84	50	17	7.5	4.1	4.6
CFSM	1.64	11.2	5.86	11.9	16.7	12.3	3.43	3.78	.69	.27	.15	.18
IN.	1.89	12.5	6.75	13.7	17.4	14.2	3.83	4.36	.77	.31	.17	.20
AC-FT	4,180	27,530	14,910	30,300	38,400	31,400	8,450	9,620	1,690	682	385	443

CAL YR 1960: TOTAL 67,789.6 MEAN 185 MAX 1,820 MIN 8.5 CFSM 4.47 IN 60.90 AC-FT 134,500
WAT YR 1961: TOTAL 84,699.3 MEAN 232 MAX 1,760 MIN 4.1 CFSM 5.61 IN 76.09 AC-FT 168,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0115. Willapa River at Lebam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.5	69	547	235	95	86	154	267	48	26	9.8	9.8
2	6.8	58	397	253	86	82	139	219	87	25	12	9.2
3	6.2	61	295	652	82	79	128	213	99	23	16	8.5
4	5.6	53	391	520	79	196	128	180	110	23	20	7.9
5	5.6	47	397	403	75	361	116	156	110	23	16	6.6
6	9.1	45	313	352	93	337	178	143	99	25	17	6.6
7	21	42	265	337	175	271	211	128	87	23	26	7.2
8	15	41	223	286	178	229	226	122	80	20	32	7.2
9	15	45	190	241	223	193	211	141	75	20	23	6.6
10	45	280	170	202	223	168	183	120	67	20	19	12
11	46	259	135	172	205	155	161	112	63	18	15	19
12	90	185	120	160	190	138	143	107	58	17	14	11
13	79	138	122	145	208	123	128	103	55	17	14	15
14	47	111	118	155	586	115	116	98	52	17	12	20
15	35	91	111	165	493	107	110	89	49	17	11	13
16	27	77	247	150	364	103	98	79	46	16	11	11
17	24	71	970	155	301	97	92	77	45	16	12	9.2
18	23	75	628	140	253	90	84	77	42	16	13	8.5
19	21	72	586	132	211	84	79	74	38	15	13	8.5
20	22	63	766	120	175	82	75	67	35	14	12	9.2
21	23	184	1,000	118	155	109	72	63	34	13	12	9.2
22	25	883	667	79	142	226	67	67	31	13	11	9.2
23	150	448	607	97	133	295	63	67	29	12	11	9.2
24	90	292	655	97	115	1,100	71	63	27	12	9.2	9.2
25	75	208	547	115	103	875	72	63	27	12	8.5	8.5
26	271	170	472	138	95	554	75	61	34	11	9.8	8.5
27	334	223	391	145	88	402	602	56	34	11	12	11
28	175	313	397	132	90	305	484	54	29	9.8	12	100
29	113	319	379	120	------	248	380	55	27	9.8	12	101
30	86	491	328	109	------	206	294	52	26	9.8	11	74
31	72	------	280	99	------	176	------	50	------	9.2	9.2	------
TOTAL	1,964.8	5,414	12,714	6,224	5,216	7,592	4,940	3,223	1,643	513.6	435.5	545.8
MEAN	63.4	180	410	201	186	245	165	104	54.8	16.6	14.0	18.2
MAX	334	883	1,000	652	586	1,100	602	267	110	26	32	101
MIN	5.6	41	111	79	75	79	63	50	26	9.2	8.5	6.6
CFSM	1.53	4.36	9.91	4.85	4.50	5.92	3.98	2.51	1.32	.40	.34	.44
IN.	1.76	4.86	11.4	5.59	4.69	6.82	4.44	2.90	1.48	.46	.39	.49
AC-FT	3,900	10,740	25,220	12,350	10,350	15,060	9,800	6,390	3,260	1,020	864	1,080

CAL YR 1961: TOTAL 81,285.1 MEAN 223 MAX 1,660 MIN 4.1 CFSM 5.38 IN 73.02 AC-FT 161,200
WAT YR 1962: TOTAL 50,425.7 MEAN 138 MAX 1,100 MIN 5.6 CFSM 3.34 IN 45.30 AC-FT 100,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	49	39	583	672	190	168	446	146	40	25	15	12
2	38	39	569	792	378	180	348	247	40	22	14	12
3	46	38	474	555	1,270	166	320	219	37	19	13	10
4	48	42	396	412	960	159	320	213	38	17	12	8.6
5	39	82	373	328	846	144	317	407	43	17	11	7.8
6	41	94	370	271	578	133	396	362	37	16	12	7.8
7	76	79	315	229	446	120	401	294	36	18	11	7.0
8	179	112	286	203	356	112	415	247	36	24	9.4	6.4
9	434	120	242	183	291	102	407	213	36	26	8.6	7.0
10	208	311	200	155	245	97	368	180	33	25	9.4	13
11	180	650	176	135	213	91	342	159	31	24	11	14
12	278	554	155	126	185	86	291	142	30	21	14	10
13	474	596	151	116	164	82	252	129	26	18	13	14
14	310	461	221	112	148	84	229	118	23	17	12	15
15	219	369	471	108	135	88	216	108	20	18	10	17
16	159	280	387	100	122	100	195	95	20	16	8.6	23
17	130	242	310	95	124	82	188	86	19	14	7.8	18
18	112	206	263	93	133	81	190	81	19	14	8.6	14
19	98	1,010	234	86	178	100	224	74	19	14	14	12
20	87	2,410	195	84	171	106	206	64	21	14	15	11
21	79	906	173	82	146	98	188	61	30	14	12	10
22	71	544	157	81	131	91	168	57	27	41	13	12
23	64	396	144	74	122	88	155	56	22	24	12	14
24	60	382	126	70	116	88	142	53	23	19	14	12
25	56	2,170	122	70	129	93	135	51	25	17	23	10
26	56	1,530	112	67	195	108	131	50	23	15	19	9.4
27	52	771	106	65	166	178	118	48	23	14	14	9.4
28	48	536	114	65	164	533	108	44	24	14	10	9.4
29	46	488	176	62	------	948	108	43	23	14	10	9.4
30	43	589	513	65	------	741	116	41	25	14	10	9.4
31	42	------	485	93	------	575	------	40	------	15	11	------
TOTAL	3,822	16,046	8,599	5,649	8,302	5,822	7,440	4,128	849	580	377.4	344.6
MEAN	123	535	277	182	297	188	248	133	28.3	18.7	12.2	11.5
MAX	474	2,410	583	792	1,270	948	446	407	43	41	23	23
MIN	38	38	106	62	116	81	108	40	19	14	7.8	6.4
CFSM	2.98	12.9	6.70	4.40	7.16	4.54	5.99	3.22	.68	.45	.29	.28
IN.	3.43	14.4	7.72	5.07	7.46	5.23	6.68	3.71	.76	.52	.34	.31
AC-FT	7,580	31,830	17,060	11,200	16,470	11,550	14,760	8,190	1,680	1,150	749	684

CAL YR 1962: TOTAL 58,799.9 MEAN 161 MAX 2,410 MIN 6.6 CFSM 3.89 IN 52.82 AC-FT 116,600
WAT YR 1963: TOTAL 61,959.0 MEAN 170 MAX 2,410 MIN 6.4 CFSM 4.10 IN 55.66 AC-FT 122,900

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0115. Willapa River at Lebam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	192	200	834	607	385	103	95	38	22	28	16
2	9.4	258	174	689	496	289	103	86	38	23	30	16
3	10	230	153	487	394	268	99	84	38	23	32	18
4	11	263	138	406	330	388	99	78	61	23	31	14
5	12	235	142	379	265	490	103	80	53	22	28	13
6	15	238	178	656	230	422	97	73	46	20	22	12
7	14	446	169	496	200	335	91	68	52	18	18	12
8	13	598	169	379	178	310	88	68	56	16	18	14
9	11	412	155	391	160	316	86	62	55	18	18	14
10	11	428	140	400	162	391	88	62	46	16	16	11
11	12	341	127	370	164	1,300	117	61	43	14	15	10
12	13	313	117	310	151	871	121	61	42	13	15	9.4
13	23	400	109	297	162	578	121	61	40	13	15	9.4
14	22	709	103	270	153	556	119	53	39	18	14	10
15	16	742	99	263	268	524	140	49	35	30	13	10
16	13	610	115	742	319	422	147	47	36	28	12	10
17	11	630	105	1,290	281	370	149	49	42	22	12	20
18	13	499	99	1,020	248	302	140	47	42	22	16	18
19	11	620	140	1,120	220	263	125	44	40	20	18	14
20	16	518	428	1,040	198	240	115	61	36	18	16	18
21	154	400	406	663	178	212	103	80	34	22	13	16
22	400	437	324	493	158	190	132	78	31	22	10	14
23	210	1,030	268	376	144	171	119	76	29	18	9.4	13
24	470	732	258	2,230	132	153	105	66	26	15	8.7	11
25	358	502	347	2,220	119	144	99	61	25	13	8.7	11
26	263	431	316	999	111	147	101	53	25	12	12	11
27	190	406	291	669	103	123	95	47	26	12	13	11
28	235	327	265	499	103	115	88	46	26	11	20	10
29	228	276	238	676	144	107	84	46	24	12	16	11
30	210	232	210	559	------	101	80	40	23	12	18	61
31	174	------	232	623	------	99	------	39	------	24	18	------
TOTAL	3,158.4	13,455	6,215	21,846	6,378	10,582	3,257	1,921	1,147	572	533.8	437.8
MEAN	102	449	200	705	220	341	109	62.0	38.2	18.5	17.2	14.6
MAX	470	1,030	428	2,230	607	1,300	149	95	61	30	32	61
MIN	9.4	192	99	263	103	99	80	39	23	11	8.7	9.4
CFSM	2.46	10.8	4.84	17.0	5.31	8.25	2.62	1.50	.92	.45	.42	.35
IN.	2.84	12.1	5.58	19.6	5.73	9.51	2.93	1.73	1.03	.51	.48	.39
AC-FT	6,260	26,690	12,330	43,330	12,650	20,990	6,460	3,810	2,280	1,130	1,060	868

CAL YR 1963: TOTAL 56,320.4 MEAN 154 MAX 1,270 MIN 6.4 CFSM 3.73 IN 50.59 AC-FT 111,700
WAT YR 1964: TOTAL 69,503.0 MEAN 190 MAX 2,230 MIN 8.7 CFSM 4.59 IN 62.44 AC-FT 137,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	49	58	1,580	528	515	410	68	134	40	15	6.6	5.1
2	36	49	1,010	1,390	397	323	60	109	38	15	6.6	5.1
3	31	104	620	756	323	264	55	103	36	14	9.1	5.1
4	25	294	429	488	384	223	52	127	34	14	8.3	5.8
5	20	142	320	521	604	185	52	136	34	13	7.4	5.1
6	18	117	258	541	571	162	52	138	32	13	6.6	5.8
7	18	91	218	439	439	143	53	127	31	12	5.8	4.4
8	23	75	215	394	439	129	50	116	30	13	5.8	5.1
9	39	64	191	335	375	120	49	105	30	13	8.3	6.6
10	34	62	183	407	326	114	47	93	28	17	5.8	6.6
11	29	76	188	397	281	103	46	84	40	21	5.8	7.4
12	25	82	185	347	258	95	44	78	32	17	14	8.3
13	24	115	207	305	270	89	44	71	29	14	20	8.3
14	26	103	284	332	278	84	44	66	34	12	12	11
15	32	90	400	445	281	80	42	69	31	12	7.4	16
16	34	80	344	455	293	76	44	127	29	12	5.8	15
17	32	71	290	369	275	71	40	89	25	12	5.8	12
18	29	66	246	326	249	68	42	80	25	12	7.4	9.1
19	26	59	232	317	223	66	334	73	25	11	13	7.4
20	24	55	261	317	196	64	617	73	23	12	23	7.4
21	22	52	453	375	196	64	429	68	22	13	16	7.4
22	20	62	1,530	329	223	64	314	64	21	12	13	8.3
23	20	168	1,200	681	204	60	249	61	19	10	10	7.4
24	18	1,180	739	844	191	56	201	56	20	9.1	11	6.6
25	18	693	534	620	175	56	168	53	19	9.1	10	6.6
26	16	762	790	607	256	58	143	52	19	9.1	12	7.4
27	16	515	790	1,090	800	53	125	50	18	8.3	12	10
28	16	364	558	1,180	558	56	109	47	17	7.4	10	10
29	15	419	429	1,090	------	89	99	46	16	6.6	8.3	10
30	20	1,590	347	881	------	68	95	44	15	6.6	7.4	10
31	23	------	278	705	------	60	------	43	------	6.6	5.8	------
TOTAL	778	7,658	15,309	17,811	9,580	3,553	3,767	2,582	812	371.8	300.0	240.3
MEAN	25.1	255	494	575	342	115	126	83.3	27.1	12.0	9.68	8.01
MAX	49	1,590	1,580	1,390	800	410	617	138	40	21	23	16
MIN	15	49	183	305	175	53	40	43	15	6.6	5.8	4.4
CFSM	.61	6.17	11.9	13.9	8.26	2.77	3.03	2.01	.65	.29	.23	.19
IN.	.70	6.88	13.8	16.0	8.61	3.19	3.38	2.32	.73	.33	.27	.22
AC-FT	1,540	15,190	30,360	35,330	19,000	7,050	7,470	5,120	1,610	737	595	477

CAL YR 1964: TOTAL 70,419.6 MEAN 192 MAX 2,230 MIN 8.7 CFSM 4.65 IN 63.26 AC-FT 139,700
WAT YR 1965: TOTAL 62,762.1 MEAN 172 MAX 1,590 MIN 4.4 CFSM 4.15 IN 56.38 AC-FT 124,500

12-0120. Fork Creek near Lebam, Wash.

Location.--Lat 46°33'20", long 123°35'00", in SW¼NW¼ sec.5, T.12 N., R.7 W., on right bank three-quarters of a mile upstream from mouth and 1½ miles southwest of Lebam.

Drainage area.--20.4 sq mi.

Records available.--June 1953 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 155 ft (from topographic map).

Average discharge.--12 years, 146 cfs (105,700 acre-ft per year).

Extremes.--*Maximums* and *minimums* (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,250 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1500	1,510	5.39	Nov. 20, 1962	0130	* 4,400	8.58	Mar. 11, 1964	-	1,390	5.20
Jan. 15, 1961	2130	1,980	6.04	Nov. 25, 1962	1400	2,270	6.40				
Feb. 19, 1961	0800	1,290	5.04	Feb. 2, 1963	2300	1,380	5.18	Nov. 24, 1964	0300	2,140	6.24
Feb. 21, 1961	1030	* 2,490	6.67					Nov. 30, 1964	1400	* 2,590	6.79
				Jan. 19, 1964	1630	1,440	5.27	Dec. 22, 1964	1600	1,680	5.61
Nov. 22, 1961	0500	* 1,410	5.23	Jan. 24, 1964	2300	* 2,130	6.23	Jan. 27, 1965	0200	1,630	5.54
								Apr. 19, 1965	1930	1,410	5.23

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 22,23,29,30	4.3	1.61	1964	Oct. 2, 1963	7.6	a 1.74
1962	Oct. 4, 5, 1961	4.9	1.65	1965	Sept. 8, 26, 1965	4.0	1.62
1963	Sept. 9, 1963	6.0	1.71				

a Occurred Aug. 24, 25, 1964.

1953-65: Maximum discharge, 4,400 cfs Nov. 20, 1962 (gage height, 8.58 ft), from rating curve extended above 890 cfs on basis of slope-area measurement of peak flow; minimum, 3.4 cfs Sept. 6-8, 1958; minimum gage height, 1.57 ft Aug. 26, 27, Sept. 6-8, 1958.

Remarks.--Records excellent except those for period of no gage-height record, which are fair. Each year State fish hatchery diverts about 1.5 cfs around station January to May, about 3 cfs June to November, and no water in December. Possibly some regulation.

Revisions (water years).--WSP 1636: 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.3	187	144	110	362	675	133	125	35	17	6.8	65
2	6.3	144	122	96	423	428	130	304	32	16	6.4	27
3	6.3	115	160	85	369	324	117	300	32	15	6.4	16
4	6.3	96	135	96	369	256	103	272	30	15	6.4	13
5	5.9	81	115	453	312	312	94	211	30	17	6.4	12
6	18	71	100	418	396	374	83	177	39	18	6.4	9.6
7	72	63	91	292	320	324	77	141	36	15	6.0	8.6
8	45	56	83	476	308	316	75	138	30	14	5.2	8.1
9	28	52	77	657	396	332	73	194	42	13	5.6	7.6
10	21	116	71	522	387	382	66	173	36	12	5.2	7.2
11	18	173	117	428	418	621	63	151	32	12	4.9	7.2
12	18	125	448	332	410	735	69	130	30	12	4.9	6.8
13	16	123	248	429	616	790	71	117	28	11	5.2	6.0
14	14	252	190	644	590	1,050	67	112	27	11	5.6	6.0
15	12	352	151	1,290	698	657	64	98	25	11	6.4	7.0
16	11	672	135	1,020	454	450	61	87	22	12	6.0	6.4
17	11	837	133	750	396	344	67	77	22	13	5.2	6.0
18	11	616	635	531	340	272	66	69	21	12	4.9	6.0
19	9.8	483	558	356	933	260	69	64	21	11	4.9	6.0
20	9.2	920	344	260	1,130	312	75	61	20	10	4.9	6.0
21	21	670	244	201	1,970	244	133	58	20	9.6	4.6	5.6
22	83	472	187	160	820	233	164	55	19	9.6	4.6	5.6
23	337	540	151	138	464	308	184	53	18	9.1	4.6	5.6
24	407	974	130	117	690	292	151	50	17	8.6	4.9	5.2
25	160	745	112	103	576	252	125	46	17	8.1	4.9	5.9
26	320	508	130	91	436	308	107	46	17	7.6	4.9	5.2
27	573	348	112	83	432	296	94	47	17	7.6	4.9	5.2
28	464	252	103	79	382	244	85	42	17	7.6	4.6	11
29	215	197	91	146	------	204	91	38	21	7.2	4.6	10
30	148	164	85	464	------	173	91	37	21	6.8	4.6	7.2
31	173	------	110	410	------	148	------	36	------	6.8	35	------
TOTAL	3,246.1	10,404	5,512	11,237	15,397	11,916	2,848	3,509	774	355.6	195.9	304.0
MEAN	105	347	178	362	550	384	94.9	113	25.8	11.5	6.32	10.1
MAX	573	974	635	1,290	1,970	1,050	184	304	42	18	35	65
MIN	5.9	52	71	79	308	148	61	36	17	6.8	4.6	5.2
CFSM	5.13	17.0	8.72	17.8	27.0	18.8	4.65	5.55	1.26	.56	.31	.50
IN.	5.92	19.0	10.0	20.5	28.1	21.7	5.19	6.40	1.41	.65	.36	.55
AC-FT	6,440	20,640	10,930	22,290	30,540	23,640	5,650	6,960	1,540	705	389	603

CAL YR 1960: TOTAL 54,335.3 MEAN 148 MAX 1,200 MIN 5.9 CFSM 7.28 IN 99.06 AC-FT 107,800
WAT YR 1961: TOTAL 65,698.6 MEAN 180 MAX 1,970 MIN 4.6 CFSM 8.82 IN 119.77 AC-FT 130,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0120. Fork Creek near Lebam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	81	340	190	85	58	105	211	34	20	9.1	9.1
2	6.0	66	233	236	77	55	94	180	73	19	9.6	8.6
3	5.2	81	187	540	71	53	83	170	67	18	17	8.1
4	4.9	66	367	378	71	172	83	141	64	18	25	7.6
5	6.4	58	300	304	66	248	75	125	73	23	27	7.2
6	17	52	211	264	88	211	210	115	63	26	37	7.2
7	25	47	167	236	167	167	201	102	55	20	55	6.8
8	12	42	135	197	164	144	190	98	49	19	58	6.8
9	64	68	115	164	201	125	170	125	45	18	37	6.4
10	98	316	98	138	173	109	141	110	39	17	28	20
11	94	215	89	122	151	98	122	98	38	16	22	26
12	271	157	81	112	133	87	107	91	36	15	20	14
13	197	115	79	100	151	81	96	83	35	15	19	27
14	85	94	73	112	52	73	87	77	32	15	16	38
15	55	77	71	110	308	69	81	71	30	15	15	23
16	40	67	152	100	218	69	73	67	28	14	14	18
17	32	61	477	107	194	64	69	63	28	14	18	15
18	28	64	332	96	180	61	64	59	27	13	22	14
19	27	58	446	83	148	58	63	58	25	13	21	13
20	27	50	562	75	125	59	63	53	24	12	17	12
21	27	181	580	73	110	81	73	50	23	12	17	12
22	38	762	410	71	103	170	63	53	22	11	15	11
23	314	316	508	66	89	226	56	50	21	10	13	10
24	125	201	531	64	81	947	67	46	20	10	12	9.6
25	114	144	356	112	73	576	73	45	21	10	12	9.1
26	378	117	288	187	66	336	81	43	34	9.6	12	9.1
27	340	204	229	268	61	244	494	40	30	9.6	12	15
28	184	284	320	180	61	190	316	39	24	9.1	12	139
29	120	233	392	133	------	157	236	39	21	9.1	11	125
30	89	344	328	112	------	130	190	37	20	9.1	9.6	87
31	73	------	240	96	------	117	------	35	------	9.1	9.1	------
TOTAL	2,903.7	4,621	8,697	5,026	3,467	5,235	3,826	2,574	1,101	448.6	621.4	714.6
MEAN	93.7	154	281	162	124	169	128	83.0	36.7	14.5	20.0	23.8
MAX	378	762	580	540	308	947	494	211	73	26	58	139
MIN	4.9	42	71	64	52	53	56	35	20	9.1	9.1	6.4
CFSM	4.59	7.55	13.8	7.95	6.07	8.28	6.25	4.07	1.80	.71	.98	1.17
IN.	5.29	8.42	15.9	9.16	6.32	9.54	6.97	4.69	2.01	.82	1.13	1.30
AC-FT	5,760	9,170	17,250	9,970	6,880	10,380	7,590	5,110	2,180	890	1,230	1,420

CAL YR 1961: TOTAL 62,758.2 MEAN 172 MAX 1,970 MIN 4.6 CFSM 8.43 IN 114.41 AC-FT 124,500
WAT YR 1962: TOTAL 39,235.3 MEAN 107 MAX 947 MIN 4.9 CFSM 5.27 IN 71.53 AC-FT 77,820

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECDND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	28	426	602	94	127	344	115	29	24	17	11
2	45	27	475	850	470	124	262	236	29	19	16	11
3	69	26	367	615	952	111	318	200	28	17	15	9.2
4	69	36	287	367	675	100	430	158	28	19	15	8.1
5	53	100	279	254	685	92	349	254	28	16	15	7.6
6	53	79	318	194	466	84	430	221	26	15	15	7.6
7	117	61	224	158	358	81	390	178	26	17	14	7.0
8	291	94	184	134	270	75	385	145	25	18	14	6.5
9	469	89	155	122	207	73	430	127	26	21	13	6.5
10	211	320	137	104	170	72	322	108	22	20	14	13
11	164	567	120	92	139	68	313	96	21	18	15	12
12	194	432	106	86	118	65	243	86	20	16	15	8.6
13	344	472	98	82	104	62	194	81	20	15	14	20
14	215	360	145	77	94	60	164	75	19	15	13	19
15	148	268	376	73	88	60	152	72	18	15	12	22
16	107	208	243	70	86	65	145	68	17	13	12	29
17	87	170	184	65	90	65	132	63	17	12	12	28
18	75	141	152	62	108	63	142	60	17	12	12	21
19	64	1,750	142	54	178	152	210	55	16	12	15	17
20	58	2,270	122	52	172	164	184	52	17	11	17	15
21	52	753	108	51	129	113	155	48	24	17	15	13
22	47	421	98	49	106	90	139	44	22	87	14	15
23	43	262	90	46	92	77	122	42	18	37	13	17
24	42	266	84	45	82	73	108	41	19	26	15	14
25	39	1,500	79	45	106	75	100	39	25	22	36	15
26	39	1,040	77	42	210	86	92	38	19	20	29	11
27	37	600	75	41	142	152	82	36	18	19	19	11
28	34	390	120	39	127	484	79	34	17	18	14	9.8
29	32	336	312	37	------	730	77	31	18	18	12	8.6
30	30	462	825	36	------	635	84	30	25	18	11	8.6
31	28	------	520	62	------	480	------	29	------	17	11	------
TOTAL	3,312	13,528	6,928	4,606	6,518	4,758	6,577	2,862	654	624	474	402.1
MEAN	107	451	223	149	233	153	219	92.3	21.8	20.1	15.3	13.4
MAX	469	2,270	825	850	952	730	430	254	29	87	36	29
MIN	28	26	75	36	82	60	77	29	16	11	11	6.5
CFSM	5.24	22.1	11.0	7.28	11.4	7.52	10.7	4.53	1.07	.99	.75	.66
IN.	6.04	24.7	12.6	8.40	11.9	8.67	12.0	5.22	1.19	1.14	.86	.73
AC-FT	6,570	26,830	13,740	9,140	12,930	9,440	13,050	5,680	1,300	1,240	940	798

CAL YR 1962: TOTAL 46,781.6 MEAN 128 MAX 2,270 MIN 6.4 CFSM 6.28 IN 85.28 AC-FT 92,790
WAT YR 1963: TOTAL 51,243.1 MEAN 140 MAX 2,270 MIN 6.5 CFSM 6.88 IN 93.42 AC-FT 101,600

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0120. Fork Creek near Lebam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.6	160	125	841	408	250	88	79	32	19	48	20
2	8.1	199	109	412	330	200	79	68	31	20	56	19
3	8.1	160	97	277	270	210	72	63	32	19	60	18
4	8.6	184	90	238	220	300	74	58	57	18	56	15
5	12	158	94	280	180	360	72	58	46	18	46	15
6	15	145	109	575	150	300	68	53	44	18	38	13
7	10	353	99	325	130	250	64	50	45	16	30	15
8	9.2	349	97	232	110	230	62	48	48	16	26	18
9	8.6	249	90	229	95	230	71	48	44	15	24	15
10	8.1	270	81	232	105	320	89	46	39	15	22	13
11	9.8	202	76	199	100	800	125	44	38	14	20	12
12	12	190	72	178	95	550	125	45	36	13	19	12
13	44	284	69	187	115	420	111	44	34	13	18	12
14	36	490	64	172	100	380	99	41	32	20	17	12
15	24	515	64	187	190	350	109	39	30	44	15	11
16	19	403	90	560	230	300	99	38	31	36	15	12
17	17	462	79	792	200	260	90	44	41	29	14	24
18	16	313	76	620	170	220	83	39	45	26	18	18
19	14	377	149	778	155	180	76	36	38	22	16	20
20	38	291	403	635	140	160	71	58	33	21	15	32
21	361	226	266	373	125	150	68	64	31	28	13	21
22	439	302	199	284	110	140	99	81	28	27	12	19
23	254	740	170	220	96	125	83	68	26	23	12	17
24	586	457	170	778	88	110	74	57	24	20	10	15
25	274	313	202	1,320	80	100	71	50	22	18	12	15
26	181	377	190	610	74	105	72	46	21	17	18	13
27	132	321	187	434	70	96	71	42	25	15	15	13
28	178	226	170	317	110	88	66	40	24	15	28	12
29	165	178	145	466	150	86	64	38	20	14	24	16
30	155	148	125	349	------	84	64	36	20	15	28	128
31	130	------	162	439	------	83	------	34	------	41	24	------
TOTAL	3,181.1	9,042	4,119	13,539	4,396	7,437	2,459	1,555	1,017	645	769	595
MEAN	103	301	133	437	152	240	82.0	50.2	33.9	20.8	24.8	19.8
MAX	586	740	403	1,320	408	800	125	81	57	44	60	128
MIN	8.1	145	64	172	70	83	62	34	20	13	10	11
CFSM	5.03	14.8	6.51	21.4	7.43	11.8	4.02	2.46	1.66	1.02	1.22	.97
IN.	5.80	16.5	7.51	24.7	8.01	13.6	4.48	2.83	1.85	1.18	1.40	1.08
AC-FT	6,310	17,930	8,170	26,850	8,720	14,750	4,880	3,080	2,020	1,280	1,530	1,180

CAL YR 1963: TOTAL 43,817.2 MEAN 120 MAX 952 MIN 6.5 CFSM 5.88 IN 79.88 AC-FT 86,910
WAT YR 1964: TOTAL 48,754.1 MEAN 133 MAX 1,320 MIN 8.1 CFSM 6.53 IN 88.88 AC-FT 96,700

Note.--No gage-height record Feb. 21 to Mar. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	74	90	1,520	329	337	252	54	103	37	14	6.6	5.5
2	64	69	819	836	246	199	48	83	34	13	6.6	5.8
3	51	243	426	457	196	162	44	88	33	13	7.0	5.8
4	41	317	270	288	322	140	41	132	31	13	7.0	5.1
5	34	155	196	298	520	121	40	123	30	12	6.6	5.1
6	29	107	155	305	377	107	42	115	28	12	6.6	4.7
7	28	83	132	242	280	97	46	101	28	12	6.2	4.4
8	36	68	162	214	349	88	42	92	27	12	6.2	4.4
9	63	58	142	184	263	83	41	83	26	12	6.6	4.4
10	46	60	142	211	214	76	39	74	25	13	5.8	4.7
11	40	71	132	199	178	72	37	68	33	12	5.8	4.4
12	34	78	140	172	162	68	36	62	26	12	16	4.7
13	34	88	155	165	252	63	37	57	25	11	29	4.7
14	42	76	162	220	208	58	36	54	29	10	13	14
15	54	68	190	291	181	56	34	65	25	10	9.4	18
16	50	60	155	345	277	53	39	140	23	9.9	8.2	10
17	45	56	135	266	263	49	34	96	22	9.4	7.0	7.7
18	40	53	120	238	205	46	37	79	21	8.8	6.6	6.2
19	34	49	117	252	181	44	480	74	20	8.8	9.4	5.8
20	31	46	121	256	160	42	486	78	20	9.9	21	5.5
21	28	42	222	305	150	42	288	69	19	11	13	5.5
22	25	83	1,130	229	170	41	205	64	18	9.4	9.9	5.1
23	23	498	725	451	150	40	158	60	18	8.8	8.8	5.1
24	22	1,290	416	575	132	38	132	54	18	8.2	8.8	4.7
25	21	580	309	349	121	39	111	51	17	7.7	7.7	4.7
26	20	570	675	416	232	39	96	49	16	7.7	9.4	4.7
27	19	325	505	1,080	660	38	84	46	15	7.3	9.9	5.5
28	19	217	333	958	357	48	76	44	15	7.0	7.7	5.1
29	18	509	242	760	------	105	69	42	15	7.0	7.0	5.1
30	47	1,970	196	808	------	64	74	41	15	7.0	7.3	5.1
31	42	------	155	560	------	54	------	39	------	6.6	5.8	------
TOTAL	1,154	7,979	10,299	12,259	7,143	2,424	2,986	2,326	709	315.5	285.9	181.5
MEAN	37.2	266	332	395	255	78.2	99.5	75.0	23.6	10.2	9.22	6.05
MAX	74	1,970	1,520	1,080	660	252	486	140	37	14	29	18
MIN	18	42	117	165	121	38	34	39	15	6.6	5.8	4.4
CFSM	1.82	13.0	16.3	19.4	12.5	3.83	4.88	3.68	1.16	.50	.45	.30
IN.	2.10	14.5	18.8	22.3	13.0	4.42	5.44	4.24	1.29	.58	.52	.33
AC-FT	2,290	15,830	20,430	24,320	14,170	4,810	5,920	4,610	1,410	626	567	360

CAL YR 1964: TOTAL 51,844 MEAN 142 MAX 1,970 MIN 10 CFSM 6.94 IN 94.51 AC-FT 102,800
WAT YR 1965: TOTAL 48,061.9 MEAN 132 MAX 1,970 MIN 4.4 CFSM 6.45 IN 87.62 AC-FT 95,330

12-0135. Willapa River near Willapa, Wash.

Location.--Lat 46°38'55", long 123°38'40", in NE¼NW¼ sec.2, T.13 N., R.8 W., on right bank 150 ft downstream from Mill Creek and 2½ miles southeast of Willapa.

Drainage area.--130 sq mi.

Records available.--August to October 1947, July 1948 to December 1954. Annual maximums, water years 1955-56, 1958-59. April 1961 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 5.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Aug. 26 to Oct. 16, 1947, graphic water-stage recorder at site 60 ft upstream at different datum. Water years 1955-56, 1958-59 staff gage in stilling well at present site and datum. July 28, 1948, to Dec. 2, 1954, Apr. 14, 1961, to Mar. 23, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--10 years (1948-54, 1961-65), 659 cfs (477,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (5,000 cfs), April 1961 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
May 4, 1961	2400	1,150	7.13	Nov. 25, 1962	2230	8,940	20.17	Nov. 24, 1964	0900	5,480	15.14
								Dec. 1, 1964	0300	* 6,830	17.18
Nov. 22, 1961	0930	* 4,650	13.75	Jan. 19, 1964	2200	5,130	14.55	Dec. 22, 1964	2000	5,690	15.49
				Jan. 25, 1964	1200	* 8,300.	19.28	Jan. 2, 1965	0700	6,070	16.10
Nov. 20, 1962	0800	* 11,200	23.04	Mar. 11, 1964	1300	5,610	15.35	Jan. 28, 1965	2200	5,500	15.17

Annual minimum discharge, April 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 21-22, 1961	21	2.95	1964	Oct. 2, 3, 1963	36	3.14
1962	Oct. 5, 1961	27	a 3.09	1965	Sept.8, 9, 1965	20	2.99
1963	Sept. 9, 10, 1963	24	3.00				

a Occurred Sept. 9, 10, 1962.

1947-56, 1958-59, 1961-65: Maximum discharge, 11,400 cfs Feb. 22, 1949 (gage height, 24.22 ft), from rating curve extended above 7,300 cfs.

1947-54, 1961-65: Minimum discharge, 15.5 cfs Sept. 22, 1951 (gage height, 2.93 ft).

Remarks.--Records good. Some diversion for domestic use and irrigation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1							650	556	153	59	29	113
2							600	946	143	57	28	96
3							640	1,040	138	56	26	61
4							520	1,110	131	54	26	48
5							460	952	126	52	28	42
6							440	811	139	53	27	39
7							400	716	151	54	25	36
8							360	657	129	53	24	35
9							350	842	139	50	25	34
10							330	755	139	48	25	33
11							310	685	127	47	25	32
12							310	608	118	46	24	30
13							320	552	108	44	24	29
14							336	524	101	44	25	28
15							315	461	95	42	28	27
16							296	413	89	41	28	27
17							317	374	84	41	26	28
18							325	341	77	40	25	28
19							341	307	76	40	24	28
20							349	284	72	39	23	29
21							517	274	70	37	22	29
22							756	260	69	38	23	29
23							1,030	250	68	37	23	28
24							864	232	67	36	23	27
25							713	212	65	33	24	26
26							604	209	64	32	24	25
27							524	232	63	32	24	25
28							472	197	62	33	24	27
29					------		506	178	61	32	22	41
30					------		510	172	61	32	22	34
31		------			------		------	164	------	30	60	------
TOTAL							14,465	15,314	2,985	1,332	806	1,114
MEAN							482	494	99.5	43.0	26.0	37.1
MAX							1,030	1,110	153	59	60	113
MIN							296	164	61	30	22	25
CFSM							3.71	3.80	.765	.331	.200	.285
IN.							4.14	4.38	.85	.38	.23	.32
AC-FT							28,690	30,370	5,920	2,640	1,600	2,210

12-0135. Willapa River near Willapa, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NDV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	296	1,820	948	407	322	548	976	157	98	41	38
2	32	255	1,320	908	377	307	478	828	276	94	43	38
3	31	286	1,050	2,280	352	294	431	786	333	84	58	37
4	29	245	1,370	1,860	341	660	431	678	333	84	73	35
5	28	216	1,420	1,460	317	1,160	401	590	360	92	79	32
6	40	197	1,110	1,310	336	1,100	755	542	328	107	92	32
7	73	180	944	1,300	692	888	968	472	284	98	136	31
8	59	166	794	1,120	688	790	908	450	255	86	174	30
9	47	186	682	948	808	702	850	514	236	83	126	30
10	243	1,140	587	811	790	615	744	454	209	79	96	42
11	218	1,000	514	713	724	566	650	404	190	72	79	102
12	432	734	461	660	664	489	573	383	184	68	65	64
13	510	570	454	594	692	447	510	372	180	68	55	70
14	243	454	450	618	1,830	416	458	344	172	68	50	123
15	157	374	419	654	1,600	383	425	312	159	65	48	89
16	119	330	612	580	1,190	369	374	289	148	64	46	69
17	100	292	3,130	594	992	352	341	272	143	63	48	59
18	86	312	2,120	552	872	322	315	262	138	61	50	53
19	77	304	2,060	503	755	309	299	255	129	59	52	50
20	73	262	2,540	454	654	309	292	234	121	56	52	49
21	75	558	3,620	413	576	358	307	218	115	55	50	49
22	76	3,210	2,330	395	534	797	279	234	106	53	48	47
23	635	1,690	2,480	366	475	976	255	241	101	50	46	46
24	380	1,090	2,700	360	422	4,050	260	212	96	48	45	45
25	276	808	2,060	468	383	2,930	292	205	92	46	43	44
26	968	668	1,690	646	352	1,820	284	199	139	45	44	42
27	1,220	876	1,350	790	328	1,320	1,640	192	143	44	45	47
28	724	1,180	1,410	664	328	1,040	1,610	182	115	43	45	313
29	472	1,140	1,470	562	------	839	1,300	186	101	42	47	355
30	352	1,450	1,370	496	------	724	1,020	180	96	41	42	279
31	284	------	1,120	447	------	622	------	166	------	41	39	------
TOTAL	8,091	20,469	45,457	24,474	18,479	26,276	17,998	11,632	5,439	2,057	1,957	2,340
MEAN	261	682	1,466	789	660	848	600	375	181	66.4	63.1	78.0
MAX	1,220	3,210	3,620	2,280	1,830	4,050	1,640	976	360	107	174	355
MIN	28	166	419	360	317	294	255	166	92	41	39	30
CFSM	2.01	5.25	11.3	6.07	5.08	6.52	4.62	2.88	1.39	.511	.485	.600
IN.	2.31	5.86	13.00	7.00	5.29	7.52	5.15	3.33	1.56	.59	.56	.67
AC-FT	16,050	40,600	90,160	48,540	36,650	52,120	35,700	23,070	10,790	4,080	3,880	4,640

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 184,669 MEAN 506 MAX 4,050 MIN 28 CFSM 3.89 IN 52.84 AC-FT 366,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	DCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	178	132	2,030	3,560	583	625	1,500	466	135	97	51	41
2	138	129	2,020	3,000	964	656	1,250	893	135	80	49	42
3	157	126	1,760	2,230	3,820	618	1,130	737	132	70	44	37
4	207	134	1,440	1,590	3,200	562	1,270	664	130	69	43	32
5	157	315	1,280	1,230	3,040	514	1,140	1,310	144	66	41	30
6	159	330	1,450	1,000	2,090	478	1,490	1,180	126	62	41	29
7	219	264	1,180	845	1,670	439	1,490	977	118	74	39	27
8	615	341	1,000	730	1,310	406	1,440	801	116	77	36	25
9	1,660	328	857	678	1,050	376	1,490	692	116	92	33	24
10	836	788	744	572	869	349	1,230	611	109	92	34	32
11	654	1,970	660	490	730	340	1,180	530	98	90	34	51
12	804	1,620	590	448	636	315	985	472	97	76	41	40
13	1,240	1,690	548	421	569	295	857	427	90	67	40	40
14	956	1,470	734	409	514	298	758	394	84	62	35	65
15	699	1,170	1,540	400	481	300	730	360	80	61	33	63
16	538	960	1,310	379	469	346	667	332	73	57	30	100
17	431	808	1,050	352	448	320	636	300	70	53	28	86
18	369	713	881	335	511	300	628	272	67	53	29	67
19	322	3,240	805	310	700	391	841	251	66	50	46	58
20	286	9,460	692	290	720	558	730	233	66	49	61	52
21	257	3,880	625	278	594	454	660	219	86	51	46	46
22	232	2,100	558	268	520	397	590	209	108	164	44	46
23	215	1,470	508	257	475	355	544	201	80	116	43	58
24	200	1,340	469	245	442	325	493	191	76	86	44	54
25	185	4,870	427	245	482	346	466	181	92	73	69	46
26	185	5,800	397	233	793	394	448	173	79	65	94	43
27	175	2,810	376	225	646	530	403	165	72	56	63	41
28	165	1,970	448	221	590	1,540	370	156	73	54	49	40
29	155	1,630	703	207	------	2,650	373	148	70	52	42	39
30	145	2,080	2,000	199	------	2,400	400	144	83	51	40	37
31	138	------	3,120	276	------	1,900	------	141	------	51	39	------
TOTAL	12,677	53,938	32,202	21,923	28,916	19,777	26,189	13,830	2,871	2,216	1,361	1,391
MEAN	409	1,798	1,039	707	1,033	638	873	446	95.7	71.5	43.9	46.4
MAX	1,660	9,460	3,120	3,560	3,820	2,650	1,500	1,310	144	164	94	100
MIN	138	126	376	199	442	295	370	141	66	49	28	24
CFSM	3.15	13.8	7.99	5.44	7.95	4.91	6.72	3.43	.736	.550	.338	.357
IN.	3.63	15.43	9.21	6.27	8.27	5.66	7.49	3.96	.82	.63	.39	.40
AC-FT	25,140	107,000	63,870	43,480	57,350	39,230	51,950	27,430	5,690	4,400	2,700	2,760

CAL YR 1962: TOTAL 209,469 MEAN 574 MAX 9,460 MIN 30 CFSM 4.42 IN 59.94 AC-FT 415,500
WAT YR 1963: TOTAL 217,291 MEAN 595 MAX 9,460 MIN 24 CFSM 4.58 IN 62.16 AC-FT 431,000

12-0135. Willapa River near Willapa, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	38	667	744	2,690	2,020	929	409	376	154	94	133	80
2	37	953	650	2,340	1,700	1,070	400	340	144	97	167	74
3	36	754	569	1,630	1,350	989	379	322	139	95	163	77
4	39	869	511	1,440	1,160	1,430	370	308	199	92	161	67
5	42	793	508	1,320	961	1,760	385	305	213	90	141	60
6	53	789	639	2,440	829	1,500	355	288	187	88	118	58
7	49	1,220	608	1,830	726	1,220	338	265	191	82	98	60
8	45	2,010	572	1,400	653	1,130	322	257	201	74	88	69
9	42	1,440	534	1,390	590	1,240	328	247	197	76	84	66
10	40	1,460	484	1,460	586	1,490	355	249	173	69	80	58
11	42	1,220	448	1,320	611	4,410	490	237	165	63	70	53
12	49	1,070	418	1,130	534	3,220	524	227	157	61	67	50
13	93	1,350	394	1,040	576	2,060	505	231	154	58	66	48
14	123	2,090	373	969	524	2,010	469	219	152	66	65	48
15	88	2,290	358	921	853	1,990	548	203	139	137	62	48
16	70	2,020	424	2,220	1,080	1,560	548	197	139	123	58	49
17	62	2,240	400	4,000	1,050	1,340	534	201	177	106	56	76
18	60	1,830	367	3,600	985	1,120	499	197	189	97	56	77
19	54	1,980	508	3,470	869	949	463	181	173	89	70	65
20	60	1,720	1,490	3,710	748	849	424	205	159	80	65	97
21	513	1,400	1,380	2,360	674	785	394	300	144	90	58	83
22	1,490	1,450	1,120	1,850	600	692	517	318	135	98	52	74
23	829	2,870	981	1,490	548	625	466	288	126	88	48	67
24	1,600	2,330	877	2,270	499	562	418	253	120	76	44	61
25	1,360	1,740	1,180	7,340	460	527	391	231	113	67	43	58
26	969	1,620	1,060	3,650	430	555	391	211	106	63	57	54
27	706	1,600	1,060	2,330	397	487	376	197	113	60	57	53
28	869	1,260	965	1,790	403	454	361	185	118	56	86	51
29	873	1,040	849	2,160	555	427	346	179	105	54	83	52
30	809	881	744	1,850	------	409	325	169	97	54	100	206
31	670	------	825	1,980	------	385	------	157	------	97	94	------
TOTAL	11,810	44,956	22,040	69,390	22,971	38,174	12,630	7,543	4,579	2,540	2,590	2,039
MEAN	381	1,499	711	2,238	792	1,231	421	243	153	81.9	83.5	68.0
MAX	1,600	2,870	1,490	7,340	2,020	4,410	548	376	213	137	167	206
MIN	36	667	358	921	397	385	322	157	97	54	43	48
CFSM	2.93	11.5	5.47	17.2	6.09	9.47	3.24	1.87	1.18	.630	.642	.523
IN.	3.38	12.86	6.31	19.85	6.57	10.92	3.61	2.16	1.31	.73	.74	.58
AC-FT	23,420	89,170	43,720	137,600	45,560	75,720	25,050	14,960	9,080	5,040	5,140	4,040

CAL YR 1963: TOTAL 197,280 MEAN 540 MAX 3,820 MIN 24 CFSM 4.15 IN 56.44 AC-FT 391,300
WAT YR 1964: TOTAL 241,262 MEAN 659 MAX 7,340 MIN 36 CFSM 5.07 IN 69.02 AC-FT 478,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	241	223	5,890	1,750	1,880	1,340	233	476	158	56	25	26
2	176	212	3,980	3,700	1,410	1,070	206	418	149	56	25	25
3	157	338	2,290	2,500	1,150	896	190	378	141	55	27	25
4	123	1,200	1,550	1,700	1,410	769	181	534	135	54	29	26
5	104	664	1,160	1,800	2,420	674	174	558	129	52	28	25
6	92	458	924	1,670	2,120	608	173	556	124	51	26	24
7	84	358	776	1,400	1,600	542	190	500	120	48	24	22
8	101	289	822	1,290	1,640	482	176	450	115	49	23	20
9	162	252	748	1,140	1,370	447	168	405	115	50	25	21
10	168	238	727	1,190	1,170	413	163	367	108	56	25	23
11	129	302	730	1,190	996	383	155	336	142	60	23	24
12	112	289	710	1,080	900	349	150	308	128	55	37	24
13	106	422	766	980	1,020	328	151	281	108	50	80	24
14	116	366	932	1,030	1,020	307	152	259	116	45	55	31
15	141	330	1,300	1,250	992	294	145	263	111	43	38	79
16	146	292	1,140	1,380	1,230	279	156	533	104	42	31	56
17	143	264	916	1,180	1,200	260	146	386	98	41	27	42
18	124	241	797	1,060	1,040	248	147	326	95	39	24	34
19	113	225	734	1,040	924	232	889	300	91	38	31	32
20	102	212	783	1,020	804	223	1,960	321	86	39	64	25
21	96	199	1,260	1,210	766	218	1,300	293	82	42	55	28
22	89	199	4,210	1,100	872	218	998	267	77	41	43	27
23	84	648	3,800	1,730	766	210	792	251	73	38	37	27
24	82	4,320	2,340	2,600	713	192	679	234	73	34	35	25
25	80	2,260	1,850	1,960	660	200	572	218	70	32	34	24
26	76	2,480	2,800	1,950	790	199	490	205	68	31	34	23
27	73	1,760	2,200	4,310	2,480	185	430	195	66	30	39	24
28	72	1,270	1,750	4,390	1,780	194	381	185	65	28	35	25
29	70	1,520	1,450	4,360	------	348	345	176	63	27	33	25
30	83	4,790	1,100	3,620	------	262	362	174	59	26	30	25
31	110	------	950	2,800	------	222	------	167	------	26	28	------
TOTAL	3,555	26,621	51,385	59,380	35,123	12,592	12,254	10,320	3,069	1,334	1,070	865
MEAN	115	887	1,658	1,915	1,254	406	408	333	102	43.0	34.5	28.8
MAX	241	4,790	5,890	4,390	2,480	1,340	1,960	558	158	60	80	79
MIN	70	199	710	980	660	185	145	167	59	26	23	20
CFSM	.885	6.82	12.8	14.7	9.65	3.12	3.14	2.56	.785	.331	.265	.222
IN.	1.02	7.62	14.70	16.99	10.05	3.60	3.51	2.95	.88	.38	.31	.25
AC-FT	7,050	52,800	101,900	117,800	69,670	24,980	24,310	20,470	6,090	2,650	2,120	1,720

CAL YR 1964: TOTAL 244,017 MEAN 667 MAX 7,340 MIN 43 CFSM 5.13 IN 69.81 AC-FT 484,000
WAT YR 1965: TOTAL 217,568 MEAN 596 MAX 5,890 MIN 20 CFSM 4.58 IN 62.24 AC-FT 431,500

12-0145. South Fork Willapa River near Raymond, Wash.

Location.--Lat 46°37'45", long 123°42'00", in NW¼SE¼ sec.8, T.13 N., R.8 W., on left bank 200 ft upstream from new logging bridge, a quarter of a mile downstream from Rue Creek, and 4¼ miles southeast of junction of U.S. Highway 101 and State Highway 6 at Raymond.

Drainage area.--27.8 sq mi (revised).

Records available.--May 1953 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 155 ft (from topographic map). Prior to Aug. 7, 1957, at site 40 ft upstream at same datum.

Average discharge.--12 years, 163 cfs (118,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (750 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960a	-	1,060	4.86	Nov. 19, 1962	2000	* 2,120	6.84	Nov. 24, 1964	0600	920	4.33
Jan. 15, 1961	2300	1,080	4.82	Nov. 25, 1962	1630	864	4.21	Dec. 1, 1964	1900	1,210	4.87
Feb. 19, 1961	0830	1,460	5.67					Jan. 2, 1965	0500	1,440	5.38
Feb. 21, 1961	1100	* 2,560	7.73					Jan. 28, 1965	1930	* 1,740	6.01
Mar. 1, 1961	0430	851	4.06	Jan. 1, 1964	1400	776	3.99				
Mar. 14, 1961	1700	938	4.29	Jan. 17, 1964	0930	896	4.29				
				Jan. 25, 1964	0600	* 1,840	6.35				
Dec. 24, 1961	0700	803	3.89	Mar. 11, 1964	0900	996	4.54				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	16	0.96	1964	(b)	21	c 1.40
1962	Oct. 3, 4, 1961	19	1.03	1965	Sept. 7-9, 11, 1965	20	1.30
1963	Sept.28-30, 1963	21	a 1.27				

a Occurred Oct. 2, 1961.
b Oct. 2, 3, 9, 10, 11, 1963.
c Occurred Oct. 9, 10, 1963.

1953-65: Maximum discharge, 2,560 cfs Feb. 21, 1961 (gage height, 7.73 ft); minimum, 16 cfs Sept. 27, 1961 (gage height, 0.96 ft).

Remarks.--Records good except those for periods of no gage-height record, which are fair. Some slight diversion for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	111	220	151	234	716	193	143	68	40	26	49
2	22	119	200	144	267	596	191	166	65	39	26	28
3	25	109	200	137	264	509	177	172	64	37	26	24
4	25	99	190	137	277	439	166	177	62	37	26	23
5	25	90	180	343	277	519	156	161	61	42	26	22
6	35	82	170	361	347	578	146	151	66	44	25	21
7	55	80	160	280	326	485	138	141	64	40	25	20
8	50	75	150	358	291	439	141	143	60	37	25	20
9	35	70	145	462	308	442	138	191	65	36	26	20
10	35	90	140	375	302	462	129	164	60	35	25	20
11	35	150	170	340	364	613	124	153	57	34	23	19
12	32	140	300	316	400	655	129	143	55	33	23	19
13	27	130	260	400	540	670	133	138	52	32	23	19
14	27	160	220	512	515	836	126	136	51	33	24	19
15	26	350	190	753	582	749	121	124	50	32	24	19
16	25	500	170	848	473	585	121	119	49	35	23	19
17	25	650	160	753	456	475	124	113	48	35	23	18
18	26	494	400	592	431	399	129	106	46	31	23	19
19	25	450	450	470	1,140	361	126	100	46	31	22	19
20	26	1,000	300	382	1,300	387	126	98	45	30	22	19
21	33	700	250	322	2,140	323	161	94	45	30	22	18
22	46	650	200	274	1,240	298	207	91	44	30	22	17
23	82	600	182	246	796	305	241	91	43	30	21	17
24	88	950	170	219	908	277	202	85	42	29	22	17
25	67	800	162	202	770	253	177	82	42	28	21	17
26	109	600	162	188	627	283	161	82	42	28	21	17
27	264	400	155	175	610	277	148	85	41	28	21	17
28	245	350	146	165	523	250	138	77	40	28	20	27
29	133	300	142	195	------	230	136	74	45	27	20	19
30	107	250	137	296	------	210	133	71	42	26	21	19
31	105	------	153	246	------	196	------	70	------	26	48	------
TOTAL	1,882	10,549	6,234	10,642	16,708	13,817	4,538	3,741	1,560	1,023	745	621
MEAN	60.7	352	201	343	597	446	151	121	52.0	33.0	24.0	20.7
MAX	264	1,000	450	848	2,140	836	241	191	68	44	48	49
MIN	22	70	137	137	234	196	121	70	40	26	20	17
CFSM	2.18	12.6	7.23	12.3	21.5	16.0	5.44	4.34	1.87	1.19	.86	.74
IN.	2.52	14.1	8.34	14.2	22.4	18.5	6.07	5.00	2.09	1.37	1.00	.83
AC-FT	3,730	20,920	12,360	21,110	33,140	27,410	9,000	7,420	3,090	2,030	1,480	1,230

CAL YR 1960: TOTAL 58,090 MEAN 159 MAX 1,000 MIN 22 CFSM 5.71 IN 77.71 AC-FT 115,200
WAT YR 1961: TOTAL 72,060 MEAN 197 MAX 2,140 MIN 17 CFSM 7.10 IN 96.40 AC-FT 142,900

Note.--No gage-height record Nov. 19 to Dec. 21. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0145. South Fork Willapa River near Raymond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	96	268	292	170	100	120	250	74	49	34	27
2	20	77	218	302	160	95	120	230	120	46	35	27
3	20	91	196	523	150	90	121	210	140	44	42	27
4	20	76	292	439	140	140	124	190	150	45	39	26
5	22	70	277	390	140	250	113	170	160	46	39	26
6	33	64	230	377	150	230	259	150	130	50	46	26
7	40	60	207	412	170	210	253	140	100	44	50	26
8	26	56	185	358	180	190	270	130	90	42	43	25
9	38	87	166	314	190	170	240	130	80	42	38	25
10	58	274	153	274	200	160	210	129	77	41	36	37
11	70	182	141	250	170	150	190	121	74	41	34	43
12	114	138	133	236	150	140	170	117	71	40	33	30
13	108	117	136	213	166	130	160	117	71	40	32	46
14	58	100	129	224	351	120	150	108	68	39	31	41
15	44	91	126	216	289	110	140	104	66	39	30	35
16	37	84	206	199	238	100	130	96	65	39	30	31
17	34	80	482	191	213	95	120	96	64	39	31	30
18	31	93	393	180	196	90	110	94	61	38	32	29
19	30	87	403	169	180	90	105	89	58	38	30	28
20	30	78	485	159	164	90	105	87	58	37	30	28
21	29	206	560	150	151	110	110	86	57	36	31	27
22	35	508	485	140	148	170	105	90	56	36	30	27
23	137	283	648	140	138	250	100	90	55	36	29	26
24	71	213	727	150	129	400	105	88	53	36	29	26
25	75	172	564	180	124	380	110	85	53	35	28	26
26	196	153	458	250	120	350	120	82	60	35	29	26
27	218	174	380	280	110	300	350	79	58	34	29	29
28	136	199	377	260	100	250	320	76	52	34	31	65
29	98	188	406	230	------	200	290	74	50	34	30	52
30	80	250	380	210	------	150	270	72	49	34	28	41
31	71	------	326	190	------	130	------	72	------	34	27	------
TOTAL	2,003	4,347	10,137	7,898	4,787	5,440	5,090	3,652	2,320	1,223	1,036	958
MEAN	64.6	145	327	255	171	175	170	118	77.3	39.5	33.4	31.9
MAX	218	508	727	523	351	400	350	250	160	50	50	65
MIN	20	56	126	140	100	90	100	72	49	34	27	25
CFSM	2.32	5.21	11.8	9.16	6.15	6.31	6.10	4.24	2.78	1.42	1.20	1.15
IN.	2.68	5.82	13.6	10.6	6.40	7.28	6.81	4.89	3.10	1.64	1.39	1.28
AC-FT	3,970	8,620	20,110	15,670	9,490	10,790	10,100	7,240	4,600	2,430	2,050	1,900

CAL YR 1961: TOTAL 69,882 MEAN 191 MAX 2,140 MIN 17 CFSM 6.89 IN 93.49 AC-FT 138,600
WAT YR 1962: TOTAL 48,891 MEAN 134 MAX 727 MIN 20 CFSM 4.82 IN 65.40 AC-FT 96,970

Note.--No gage-height record Feb. 26 to Apr. 2, Apr. 8 to May 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	35	50	420	425	138	190	239	140	55	45	33	26
2	34	49	390	526	230	195	218	220	56	40	32	26
3	40	48	351	456	378	180	210	200	58	38	32	24
4	38	52	309	369	363	170	210	210	64	41	32	24
5	35	77	300	315	369	155	215	280	58	38	31	24
6	38	71	321	267	321	145	294	220	57	38	31	24
7	59	61	282	239	276	135	297	185	56	40	30	23
8	119	76	253	220	242	125	288	165	56	41	30	23
9	269	70	228	212	218	120	273	150	56	41	30	23
10	133	122	210	189	197	115	248	140	55	48	30	32
11	133	216	194	176	179	110	220	130	54	41	29	26
12	164	182	181	163	166	105	205	120	53	40	29	23
13	236	199	176	156	158	100	189	110	52	38	28	28
14	164	236	207	150	150	105	184	105	48	38	28	26
15	124	193	309	148	143	110	181	100	48	37	27	35
16	100	166	248	138	140	115	180	92	47	35	27	32
17	89	153	218	136	138	105	185	86	47	34	27	27
18	80	146	202	128	153	100	190	80	45	33	27	25
19	76	942	199	120	192	110	200	76	47	33	32	25
20	71	1,580	179	118	181	125	185	72	45	33	32	24
21	68	716	173	111	158	115	170	68	59	37	28	24
22	65	450	163	108	150	110	160	66	52	56	27	24
23	62	342	156	103	140	110	150	64	45	38	29	26
24	60	324	148	101	130	110	140	61	47	37	31	23
25	58	588	140	99	150	115	135	59	48	35	38	22
26	60	599	136	96	205	130	125	57	45	34	32	22
27	57	459	136	89	190	165	120	56	44	33	28	22
28	55	378	173	89	185	230	115	55	44	32	27	22
29	53	366	206	85	------	300	115	55	44	32	26	21
30	52	447	393	85	------	250	115	54	47	31	25	21
31	51	------	345	120	------	240	------	54	------	33	25	------
TOTAL	2,678	9,358	7,346	5,737	5,640	4,490	5,756	3,530	1,532	1,170	913	747
MEAN	86.4	312	237	185	201	145	192	114	51.1	37.7	29.5	24.9
MAX	269	1,580	420	526	378	300	297	280	64	56	38	35
MIN	34	48	136	85	130	100	115	54	44	31	25	21
CFSM	3.11	11.2	8.52	6.66	7.25	5.21	6.90	4.10	1.84	1.36	1.06	.90
IN.	3.58	12.5	9.83	7.67	7.55	6.01	7.70	4.72	2.05	1.57	1.22	1.00
AC-FT	5,310	18,560	14,570	11,380	11,190	8,910	11,420	7,000	3,040	2,320	1,810	1,480

CAL YR 1962: TOTAL 51,786 MEAN 142 MAX 1,580 MIN 25 CFSM 5.10 IN 69.28 AC-FT 102,700
WAT YR 1963: TOTAL 48,897 MEAN 134 MAX 1,580 MIN 21 CFSM 4.82 IN 65.41 AC-FT 96,990

Note.--No gage-height record Feb. 22 to Mar. 31, Apr. 16 to June 12.

12-0145. South Fork Willapa River near Raymond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	136	205	543	408	288	140	140	60	47	66	41
2	23	173	186	432	359	222	135	125	59	47	76	45
3	21	140	168	345	318	214	130	115	62	45	66	41
4	23	163	156	309	303	309	125	105	83	45	68	40
5	25	150	158	306	267	333	130	100	62	45	66	38
6	25	181	173	532	241	297	125	92	66	45	56	37
7	24	323	158	399	222	261	115	87	70	44	53	42
8	23	378	156	330	208	270	110	85	74	44	50	42
9	22	267	146	327	192	288	115	85	66	44	50	38
10	21	262	136	330	195	394	135	90	62	41	47	36
11	22	220	128	294	182	844	170	83	62	41	45	36
12	24	215	123	264	178	622	180	85	58	40	45	34
13	47	237	118	250	175	454	175	83	58	40	44	34
14	33	276	116	231	172	460	165	78	58	47	42	34
15	28	288	111	231	244	474	195	76	55	68	42	33
16	25	306	118	390	264	387	190	76	60	52	40	34
17	24	453	111	692	261	342	180	76	70	47	40	45
18	24	375	106	644	273	300	170	72	78	45	41	37
19	22	375	126	684	249	267	160	70	68	42	40	38
20	29	315	259	660	227	247	150	78	64	42	38	48
21	107	276	210	518	208	224	140	83	60	45	37	41
22	253	273	202	447	192	208	175	101	56	44	37	42
23	133	501	199	384	182	192	165	85	55	41	36	41
24	277	396	194	706	170	178	150	80	53	40	34	38
25	210	327	259	1,540	160	180	140	76	52	38	37	38
26	176	369	237	828	155	175	135	72	50	38	41	37
27	130	354	239	594	148	160	130	68	53	37	40	36
28	176	294	223	457	148	152	125	66	50	36	47	34
29	171	256	205	474	185	145	120	66	48	36	45	37
30	150	223	189	408	------	135	115	64	47	38	50	78
31	120	------	205	415	------	130	------	62	------	55	45	------
TOTAL	2,410	8,502	5,320	14,964	6,486	9,152	4,390	2,624	1,819	1,359	1,464	1,195
MEAN	77.7	283	172	483	224	295	146	84.6	60.6	43.8	47.2	39.8
MAX	277	501	259	1,540	408	844	195	140	83	68	76	78
MIN	21	136	106	231	148	130	110	62	47	36	34	33
CFSM	2.80	10.2	6.17	17.4	8.05	10.6	5.26	3.04	2.18	1.58	1.70	1.43
IN.	3.22	11.4	7.12	20.0	8.68	12.2	5.87	3.51	2.43	1.82	1.96	1.60
AC-FT	4,780	16,860	10,550	29,680	12,860	18,150	8,710	5,200	3,610	2,700	2,900	2,370

CAL YR 1963: TOTAL 45,747 MEAN 125 MAX 526 MIN 21 CFSM 4.51 IN 61.20 AC-FT 90,740
WAT YR 1964: TOTAL 59,685 MEAN 163 MAX 1,540 MIN 21 CFSM 5.87 IN 79.84 AC-FT 118,400

Note.--No gage-height record Mar. 29 to May 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	64	78	1,140	436	658	307	84	115	65	35	28	22
2	72	62	942	1,080	511	278	76	104	63	35	28	22
3	64	132	627	646	423	253	72	101	61	35	29	22
4	56	247	465	482	491	231	70	128	59	35	28	22
5	50	148	371	454	627	213	68	138	58	34	28	21
6	48	113	320	423	554	198	70	130	58	34	27	21
7	47	99	281	368	465	187	70	118	56	34	27	20
8	47	87	284	375	490	176	66	108	54	34	27	20
9	68	80	259	341	423	165	66	101	54	34	28	21
10	53	80	256	337	375	157	65	96	53	35	27	21
11	48	94	246	317	334	146	63	90	61	34	26	21
12	47	92	240	294	310	138	61	88	53	32	40	21
13	50	111	237	272	347	133	63	84	50	31	36	22
14	55	99	272	268	351	125	61	80	51	31	28	64
15	58	90	334	291	334	123	61	92	48	31	27	54
16	58	83	294	291	458	118	59	143	47	31	26	37
17	56	78	260	268	434	111	58	104	47	31	25	29
18	52	74	235	256	378	106	58	94	47	31	25	27
19	50	70	231	243	344	101	220	92	45	30	30	26
20	48	68	231	237	304	99	275	108	44	31	34	25
21	47	66	314	265	297	96	219	92	42	31	28	25
22	45	68	619	256	307	96	181	88	42	30	27	24
23	47	169	525	398	284	88	154	84	41	30	26	23
24	47	653	423	458	262	82	141	82	40	29	26	23
25	45	359	358	409	243	90	123	78	40	29	25	22
26	45	352	454	496	291	84	113	76	40	29	26	23
27	45	306	444	1,040	409	82	104	72	38	28	25	22
28	44	255	388	1,300	347	90	96	72	38	28	24	22
29	44	324	344	1,260	------	125	92	70	38	28	24	21
30	50	800	307	1,140	------	90	104	70	37	28	23	21
31	48	------	278	934	------	82	------	66	------	28	22	------
TOTAL	1,598	5,337	11,979	15,635	11,051	4,370	3,013	2,964	1,470	976	850	764
MEAN	51.5	178	386	504	395	141	100	95.6	49.0	31.5	27.4	25.5
MAX	72	800	1,140	1,300	658	307	275	143	65	35	40	64
MIN	44	62	231	237	243	82	58	66	37	28	22	20
CFSM	1.85	6.40	13.9	18.1	14.2	5.07	3.61	3.44	1.76	1.13	.99	.92
IN.	2.14	7.14	16.0	20.9	14.8	5.85	4.03	3.97	1.97	1.31	1.14	1.02
AC-FT	3,170	10,590	23,760	31,010	21,920	8,670	5,980	5,880	2,920	1,940	1,690	1,520

CAL YR 1964: TOTAL 62,367 MEAN 170 MAX 1,540 MIN 33 CFSM 6.13 IN 83.43 AC-FT 123,700
WAT YR 1965: TOTAL 60,007 MEAN 164 MAX 1,300 MIN 20 CFSM 5.91 IN 80.28 AC-FT 119,000

12-0151. Clearwater Creek near Raymond, Wash.

Location.--Lat 46°45'00", long 123°46'00", on line between secs.26 and 35, T.15 N., R.9 W., on right bank 40 ft downstream from road crossing, 0.7 mile upstream from mouth, and 5 miles northwest of Raymond.

Drainage area.--3.98 sq mi.

Records available.--July 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 150 ft (from topographic map).

Extremes.--Maximum and minimum discharges for July 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (350 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Sept.30, 1964	1300	* 60	1.30	Sept.11-16, 1964	5.9	0.51
1965	Jan. 1, 1965	2230	386	2.76	Sept. 2-8, 13, 1965	3.8	.44
	Jan. 26, 1965	2330	372	2.72			
	Jan. 28, 1965	1800	* 480	3.00			
	Jan. 30, 1965	1330	376	2.73			

1964-65: Maximum discharge, 480 cfs Jan. 28, 1965 (gage height, 3.00 ft); from rating curve extended above 90 cfs; minimum, 3.8 cfs Sept. 2-8, 13, 1965.

Minimum discharge known, 3.0 cfs Aug. 19, 1953 (result of discharge measurement).

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1964

DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.
1	8.6	13	7.1	9	7.2	8.2	6.5	17	8.2	7.1	6.8	25	6.8	7.4	7.8
2	8.6	13	7.1	10	7.0	7.4	6.2	18	7.8	7.1	6.5	26	6.8	7.1	7.1
3	8.4	12	6.8	11	6.8	7.4	5.9	19	7.1	7.1	7.8	27	6.8	7.4	6.8
4	8.4	11	6.5	12	6.6	7.4	5.9	20	8.2	6.8	8.2	28	6.5	7.8	6.5
5	8.2	9.2	6.5	13	6.4	7.1	5.9	21	8.8	6.8	7.4	29	6.5	9.6	7.1
6	8.0	8.8	6.2	14	8.0	7.1	6.2	22	8.2	6.5	10	30	6.5	9.2	28
7	7.8	8.5	7.1	15	9.6	7.1	5.9	23	7.4	6.5	8.2	31	7.4	8.2	-
8	7.5	8.2	6.8	16	8.8	7.1	6.8	24	7.1	6.5	7.4				
TOTAL													236.0	253.6	229.3
MEAN													7.61	8.18	7.64
MAX													9.6	13	28
MIN													6.4	6.5	5.9
CFSM													1.91	2.06	1.92
IN													2.21	2.37	2.14
AC-FT													468	503	455

Note.--Results of discharge measurements, in cubic feet per second, are as follows:

Aug. 27, 1963.... 5.2
Sept.12.......... 4.1
Oct. 1, 1963.... 3.9
Nov. 8.......... 44
Dec. 18, 1963.... 17
June 9, 1964.... 9.3

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	15	215	110	96	39	12	21	9.2	5.9	4.8	4.0
2	14	12	135	160	71	34	11	16	9.2	5.9	4.6	3.8
3	11	40	80	84	58	31	10	18	8.8	5.6	4.6	3.8
4	10	46	58	64	94	28	10	20	8.8	5.6	4.6	3.8
5	9.0	25	44	58	127	25	9.6	19	8.8	5.6	4.6	3.8
6	8.5	19	38	53	88	23	11	16	8.5	5.3	4.3	3.8
7	8.5	17	34	45	70	22	11	16	8.2	5.3	4.3	3.8
8	10	16	34	65	72	21	10	14	8.2	5.3	4.3	3.8
9	12	14	29	53	57	20	10	14	8.2	5.9	4.3	4.0
10	13	14	28	50	50	19	9.2	13	8.2	5.9	4.3	4.0
11	11	14	25	45	43	18	9.2	12	9.2	5.6	4.3	4.0
12	9.5	14	25	41	51	17	9.2	12	8.2	5.3	6.2	4.0
13	9.0	14	23	39	68	16	9.2	12	8.2	5.3	5.3	4.0
14	10	12	30	39	57	16	8.8	11	8.2	5.3	4.6	12
15	12	12	39	43	51	16	9.2	16	8.2	5.3	4.6	7.4
16	14	12	28	40	86	14	9.6	22	7.8	5.0	4.3	5.6
17	15	11	25	37	75	14	8.8	16	7.4	4.8	4.3	5.0
18	13	11	23	34	64	14	8.8	14	7.4	4.8	4.3	4.8
19	12	10	22	34	56	13	44	14	7.1	4.8	6.5	4.6
20	11	10	25	35	47	12	31	16	7.1	5.0	7.1	4.6
21	9.5	10	35	49	45	12	25	13	6.8	4.8	4.8	4.6
22	8.5	11	100	40	44	12	20	12	6.8	4.8	4.6	4.3
23	8.2	39	67	100	39	12	18	12	6.8	4.8	4.3	4.3
24	8.2	130	57	85	35	11	19	12	6.5	4.8	4.3	4.3
25	8.2	56	46	70	32	12	16	11	6.5	4.8	4.3	4.3
26	7.8	50	75	128	49	12	14	11	6.5	5.0	4.3	4.3
27	7.8	40	65	210	56	12	14	11	6.5	5.0	4.0	4.3
28	7.8	34	52	384	44	14	12	10	6.2	5.0	4.6	4.3
29	7.8	69	44	287	------	19	12	10	5.9	4.8	4.3	4.3
30	10	172	40	254	------	13	14	10	5.9	5.0	4.0	4.3
31	9.6	------	34	161	------	12	------	9.6	------	4.8	4.0	------
TOTAL	319.9	949	1,575	2,897	1,725	553	415.6	433.6	229.3	161.1	143.7	137.9
MEAN	10.3	31.6	50.8	93.5	61.6	17.8	13.9	14.0	7.64	5.20	4.64	4.60
MAX	15	172	215	384	127	39	44	22	9.2	5.9	7.1	12
MIN	7.8	10	22	34	32	11	8.8	9.6	5.9	4.8	4.0	3.8
CFSM	2.59	7.94	12.8	23.5	15.5	4.47	3.49	3.52	1.92	1.31	1.17	1.16
IN.	2.99	8.87	14.72	27.07	16.12	5.17	3.88	4.05	2.14	1.51	1.34	1.29
AC-FT	635	1,880	3,120	5,750	3,420	1,100	824	860	455	320	285	274

CAL YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1965: TOTAL 9,540.1 MEAN 26.1 MAX 384 MIN 3.8 CFSM 6.56 IN 89.15 AC-FT 18,920

12-0152. Smith Creek near Raymond, Wash.

Location.--Lat 46°45'25", long 123°46'25", in NW¼SW¼ sec.26, T.15 N., R.9 W., on left bank 1 mile upstream from Eagle Creek, 1 mile downstream from Clearwater Creek, and 5 miles north of Raymond.

Drainage area.--57.7 sq mi.

Records available.--June 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), June 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.16, 1963	-	* 88	3.03	Jan. 25, 1964	1100	* 3,560	12.35	Dec. 1, 1964	1100	* 3,320	12.02
								Jan. 2, 1965	1130	2,550	10.44
Jan. 1, 1964	1700	2,070	9.25	Nov. 24, 1964	1130	2,580	10.38	Jan. 28, 1965	2330	2,880	11.13

Annual minimum discharge, water years 1963-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Aug. 17, 18, 1963	10	2.11	1965	Sept. 8, 10, 11	7.0	2.07
1964	Oct. 2, 3, 1963	18	2.23				

1963-65: Maximum discharge, 3,560 cfs Jan. 25, 1964 (gage height, 12.35 ft), from rating curve extended above 2,500 cfs; minimum, 7.0 cfs Sept. 8, 10, 11, 1965 (gage height, 2.07 ft).

Remarks.--Records good. No regulation. Possibly some diversion for domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1									44	36	17	19
2									43	30	17	18
3									43	25	16	17
4									42	24	15	16
5									45	23	15	15
6									46	22	15	14
7									41	30	14	13
8									37	37	14	13
9									38	33	13	13
10									36	37	13	14
11									34	37	13	17
12									31	29	13	19
13									30	26	13	19
14									28	24	13	19
15									27	22	13	33
16									26	21	12	76
17									24	19	11	58
18									25	19	11	40
19									23	19	13	30
20									22	18	18	25
21									23	20	19	23
22									24	36	19	23
23									24	41	19	32
24									24	30	24	35
25									27	26	57	28
26									28	23	61	24
27									28	21	37	21
28									27	20	27	20
29					------				28	19	22	20
30					------				32	19	20	19
31		------			------		------		------	18	19	------
TOTAL									950	804	603	733
MEAN									31.7	25.9	19.5	24.4
MAX									46	41	61	76
MIN									22	18	11	13
CFSM									.55	.45	.34	.42
IN.									.61	.52	.39	.47
AC-FT									1,880	1,590	1,200	1,450

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0152. Smith Creek near Raymond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	19	365	305	1,500	784	563	134	127	55	47	54	49
2	19	701	256	1,310	626	408	142	117	53	46	136	40
3	18	557	216	742	492	372	136	111	50	45	108	37
4	19	470	194	632	420	547	126	106	68	44	91	34
5	21	468	197	533	350	698	124	106	79	42	76	32
6	26	452	244	983	291	560	115	97	75	42	64	30
7	27	588	242	759	256	440	108	91	86	41	56	32
8	26	920	222	545	227	425	103	89	80	37	51	36
9	24	674	209	512	206	478	112	91	74	37	49	37
10	23	641	186	596	206	665	130	91	64	35	46	33
11	22	539	171	536	214	1,570	168	86	63	33	42	29
12	23	509	158	442	192	1,240	211	82	62	32	40	27
13	85	632	146	402	218	759	227	80	58	29	40	26
14	92	698	139	345	202	674	213	76	57	34	37	26
15	61	714	139	355	321	707	293	71	56	54	35	27
16	46	798	174	714	455	563	263	68	59	64	33	28
17	40	1,150	197	1,450	492	482	235	67	107	56	32	40
18	37	878	187	1,390	554	400	209	66	112	49	32	45
19	34	955	211	1,280	503	325	186	61	97	41	32	39
20	37	868	728	1,350	420	299	165	75	87	40	32	47
21	205	659	776	1,020	350	267	156	96	78	44	30	49
22	972	635	638	766	293	236	238	136	73	48	28	49
23	650	1,080	626	620	250	216	190	117	66	43	27	45
24	916	966	503	1,070	216	190	166	93	62	37	26	41
25	734	714	599	3,220	189	179	154	82	58	34	26	37
26	566	822	509	1,400	171	204	150	76	55	32	29	35
27	450	948	509	880	154	178	150	70	62	30	32	33
28	472	662	470	668	152	160	148	65	69	29	39	32
29	482	490	402	868	212	148	140	62	57	28	45	32
30	448	380	342	776	------	138	129	59	50	27	56	168
31	372	------	355	790	------	133	------	56	------	34	59	------
TOTAL	6,966	20,933	10,250	28,454	9,416	14,224	5,021	2,670	2,072	1,234	1,483	1,215
MEAN	225	698	331	918	325	459	167	86.1	69.1	39.8	47.8	40.5
MAX	972	1,150	776	3,220	784	1,570	293	136	112	64	136	168
MIN	18	365	139	345	152	133	103	56	50	27	26	26
CFSM	3.89	12.1	5.73	15.9	5.63	7.95	2.90	1.49	1.20	.69	.83	.70
IN.	4.49	13.5	6.61	18.3	6.07	9.17	3.24	1.72	1.34	.80	.96	.78
AC-FT	13,820	41,520	20,330	56,440	18,680	28,210	9,960	5,300	4,110	2,450	2,940	2,410

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 103,938 MEAN 284 MAX 3,220 MIN 18 CFSM 4.92 IN 66.99 AC-FT 206,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	224	130	3,200	523	962	526	80	200	61	20	9.6	11
2	150	139	2,120	2,260	632	415	73	195	56	19	10	9.6
3	133	270	1,080	1,290	475	326	66	200	53	19	10	9.0
4	104	882	676	784	677	270	63	270	51	19	11	8.5
5	88	503	483	600	1,540	230	61	260	48	19	11	8.0
6	77	345	366	582	1,260	200	63	240	46	18	11	7.5
7	72	263	304	517	808	180	72	220	45	17	10	7.5
8	84	213	308	619	780	162	67	195	43	17	9.6	7.5
9	135	179	278	613	644	146	64	170	42	18	9.6	7.5
10	150	162	274	535	517	134	60	150	40	19	9.6	7.5
11	112	179	282	480	415	123	57	133	49	21	9.6	7.0
12	98	165	297	426	389	114	55	121	50	19	15	7.5
13	92	152	338	376	555	105	55	110	40	17	19	7.5
14	108	139	386	359	546	99	53	105	40	16	20	23
15	129	134	561	405	486	94	53	125	40	15	16	34
16	154	120	503	426	732	89	60	270	36	15	13	28
17	157	113	394	376	804	84	56	180	34	15	11	19
18	134	107	324	326	647	81	53	140	33	14	10	15
19	117	101	280	291	526	75	276	130	32	13	13	13
20	106	95	278	287	434	73	647	140	30	14	23	11
21	96	90	458	428	372	72	453	120	29	14	24	11
22	88	92	1,380	439	386	70	364	110	27	14	17	10
23	81	227	1,360	1,270	333	68	278	100	26	13	15	9.6
24	77	2,330	910	1,360	297	63	258	92	25	13	14	9.6
25	73	1,210	676	930	264	62	217	86	24	12	13	9.0
26	69	1,050	868	1,050	332	64	184	80	24	12	13	8.5
27	65	860	976	2,460	840	61	162	76	23	11	12	8.5
28	63	644	722	2,350	692	70	140	75	22	11	12	8.5
29	60	874	549	2,440	------	135	126	70	22	10	13	8.5
30	74	2,270	437	2,190	------	99	127	66	20	10	13	8.5
31	88	------	347	1,750	------	81	------	64	------	10	12	------
TOTAL	3,258	14,038	21,415	28,742	17,345	4,371	4,343	4,493	1,111	474	409.0	340.3
MEAN	105	468	691	927	619	141	145	145	37.0	15.3	13.2	11.3
MAX	224	2,330	3,200	2,460	1,540	526	647	270	61	21	24	34
MIN	60	90	274	287	264	61	53	64	20	10	9.6	7.0
CFSM	1.82	8.11	12.0	16.1	10.7	2.44	2.51	2.51	.64	.26	.23	.20
IN.	2.10	9.05	13.8	18.5	11.2	2.82	2.80	2.90	.72	.31	.26	.22
AC-FT	6,460	27,840	42,480	57,010	34,400	8,670	8,610	8,910	2,200	940	811	675

CAL YR 1964: TOTAL 104,500 MEAN 286 MAX 3,220 MIN 26 CFSM 4.95 IN 67.35 AC-FT 207,300
WAT YR 1965: TOTAL 100,339.3 MEAN 275 MAX 3,200 MIN 7.0 CFSM 4.76 IN 64.67 AC-FT 199,000

12-0155. North River near Brooklyn, Wash.

Location.--Lat 46°46'55", long 123°28'50", in SW¼ sec.18, T.15 N., R.6 W., on left bank 1¼ miles upstream from Fall River and 1½ miles northeast of Brooklyn.

Drainage area.--29.8 sq mi.

Records available.--June 1953 to October 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 190 ft (from topographic map).

Average discharge.--12 years, 112 cfs (81,080 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,000 cfs), October 1961 to October 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2300	1,040	4.40	Nov. 25, 1962	1700	1,670	6.42	Jan. 1, 1965	1200	1,200	5.03
Feb. 21, 1961	1100	* 1,800	6.73	Jan. 1, 1963	1900	1,100	4.70	Jan. 27, 1965	0430	* 1,390	5.66
								Jan. 30, 1965	1630	1,120	4.76
Dec. 17, 1961	0600	* 1,010	4.39	Jan. 25, 1964	0330	* 1,750	6.60	Oct. 19, 1965	-	a 78	-
Nov. 20, 1962	0300	* 2,320	8.05	Nov. 24, 1964	0430	1,120	4.78				

a Maximum daily.

Annual minimum discharge, October 1961 to October 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 14, 1961	4.9	a 0.40	1964	Oct. 2-4, 1963	9.2	0.52
1962	Oct. 2, 1961	5.1	b .44	1965	Sept. 6-9, 1965	6.2	.47
1963	Aug. 17, 18, 1963	4.9	.47	1966	Oct. 1-3, 1965	c 7.1	-

a Occurred Aug. 29-30, 1961.
b Occurred Sept. 6, 10, 1962.
c Minimum daily.

1953-65: Maximum discharge, 2,640 cfs Dec. 9, 1956 (gage height, 8.69 ft); minimum, 4.9 cfs Sept. 13, 14, 1961, Aug. 17, 18, 1963; minimum gage height, 0.34 ft Aug. 22, 23, 1958.

Remarks.--Records excellent. No regulation. Possibly some small diversion for irrigation and domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.0	75	127	88	195	472	117	130	38	19	8.7	20
2	8.7	59	110	81	252	408	135	148	36	19	8.7	15
3	12	45	110	77	243	351	117	177	35	16	8.7	9.4
4	12	32	107	79	243	288	100	192	35	16	8.0	8.7
5	12	24	90	88	282	294	95	169	35	20	8.0	8.0
6	22	20	86	430	372	400	90	145	40	25	8.0	6.7
7	41	17	79	297	324	369	81	127	38	20	8.0	6.7
8	29	15	77	372	243	303	84	124	35	20	7.6	6.2
9	14	14	73	460	231	279	84	135	38	16	8.0	6.2
10	9.4	58	69	318	207	300	73	127	35	15	8.0	6.2
11	8.0	88	81	243	246	418	71	114	34	14	7.1	5.4
12	11	55	192	210	267	420	79	102	30	12	6.7	5.4
13	8.0	46	145	273	432	405	77	97	29	12	7.1	4.9
14	7.6	130	124	420	440	540	71	97	28	12	7.6	4.9
15	7.1	230	107	650	488	465	67	93	28	12	8.7	5.4
16	7.1	460	100	777	336	363	65	81	24	12	9.4	5.4
17	8.7	448	100	612	333	282	69	75	24	14	8.0	5.4
18	8.7	420	315	455	318	231	69	73	23	12	7.1	5.4
19	8.7	342	420	315	735	225	86	65	23	13	7.1	5.8
20	10	788	279	234	903	258	90	63	23	12	6.7	5.8
21	19	620	195	189	1,430	210	102	61	23	12	6.2	5.4
22	50	468	156	161	707	195	175	61	22	12	6.2	5.4
23	71	452	135	140	440	213	252	57	20	12	6.2	5.4
24	43	791	120	124	598	186	189	54	20	11	6.7	5.4
25	10	651	107	110	515	166	153	50	20	11	6.7	5.4
26	28	418	107	102	422	180	132	57	20	10	6.7	5.4
27	105	273	97	93	430	172	117	63	20	11	6.2	5.4
28	104	204	86	90	363	153	112	50	19	11	5.8	10
29	35	166	81	120	------	153	130	46	20	10	5.4	8.7
30	29	148	77	236	------	130	127	43	20	9.4	5.8	7.1
31	65	------	93	204	------	117	------	40	------	9.4	13	------
TOTAL	812.0	7,557	4,045	8,048	11,995	8,946	3,209	2,916	835	429.8	232.1	210.5
MEAN	26.2	252	130	260	428	289	107	94.1	27.8	13.9	7.49	7.02
MAX	105	791	420	777	1,430	540	252	192	40	25	13	20
MIN	7.1	14	69	77	195	117	65	40	19	9.4	5.4	4.9
CFSM	.88	8.45	4.38	8.71	14.4	9.68	3.59	3.16	.93	.47	.25	.24
IN.	1.01	9.43	5.05	10.0	15.0	11.2	4.00	3.64	1.04	.54	.29	.26
AC-FT	1,610	14,990	8,020	15,960	23,790	17,740	6,360	5,780	1,660	853	460	418

CAL YR 1960: TOTAL 38,014.9 MEAN 104 MAX 791 MIN 5.8 CFSM 3.49 IN 47.44 AC-FT 75,400
WAT YR 1961: TOTAL 49,235.4 MEAN 135 MAX 1,430 MIN 4.9 CFSM 4.53 IN 61.45 AC-FT 97,660

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0155. North River near Brooklyn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.4	34	238	188	88	62	95	150	31	20	9.8	11
2	6.7	30	165	200	82	60	86	130	66	20	11	11
3	6.1	43	138	470	77	58	79	130	79	18	24	11
4	6.1	35	215	352	75	126	79	118	82	19	34	9.8
5	6.7	31	222	275	69	180	73	102	84	23	22	8.9
6	12	27	168	250	71	198	171	95	71	31	22	8.9
7	13	25	145	278	91	170	188	86	56	24	31	8.9
8	9.8	24	122	238	86	158	152	86	51	20	40	8.9
9	20	47	108	192	105	145	130	84	45	20	25	8.9
10	44	268	93	162	108	130	112	77	42	19	19	19
11	22	262	84	142	100	115	100	69	38	18	17	27
12	68	132	77	132	93	102	93	66	35	17	16	17
13	66	86	86	115	93	93	84	69	35	16	16	24
14	30	69	105	120	198	86	77	62	35	16	14	26
15	20	56	100	118	195	82	73	56	31	16	12	20
16	19	49	168	108	155	82	69	52	31	16	12	16
17	17	43	668	112	136	73	62	51	28	16	14	14
18	16	45	388	100	122	69	58	49	28	14	16	13
19	15	42	425	93	110	69	56	49	27	14	15	13
20	15	37	475	86	98	66	56	45	25	14	14	13
21	14	101	535	70	88	75	60	43	24	12	14	13
22	16	576	428	60	86	128	56	49	23	12	12	13
23	127	222	625	54	82	158	49	49	22	11	12	13
24	47	145	560	50	73	342	49	43	20	11	11	12
25	34	110	412	95	71	348	54	42	20	9.8	9.8	11
26	145	93	335	115	62	235	58	42	30	8.9	11	11
27	138	84	268	150	62	188	258	38	28	8.9	12	16
28	66	108	285	132	62	155	278	38	23	8.9	13	54
29	45	118	310	118	------	132	222	37	20	6.9	14	38
30	34	170	288	105	------	118	168	34	20	8.9	12	25
31	30	------	228	95	------	102	------	32	------	8.9	11	------
TOTAL	1,115.8	3,112	8,464	4,775	2,740	4,105	3,145	2,073	1,150	480.2	515.6	497.3
MEAN	36.0	104	273	154	97.9	132	105	66.9	38.3	15.5	16.6	16.6
MAX	145	576	668	470	198	348	278	150	84	31	40	54
MIN	6.1	24	77	50	62	58	49	32	20	8.9	9.8	8.9
CFSM	1.21	3.48	9.16	5.17	3.28	4.44	3.52	2.24	1.29	.52	.56	.56
IN.	1.39	3.88	10.6	5.96	3.42	5.12	3.92	2.59	1.44	.60	.64	.62
AC-FT	2,210	6,170	16,790	9,470	5,430	8,140	6,240	4,110	2,280	952	1,020	986

CAL YR 1961: TOTAL 49,513.2 MEAN 136 MAX 1,430 MIN 4.9 CFSM 4.55 IN 61.79 AC-FT 98,210
WAT YR 1962: TOTAL 32,172.9 MEAN 88.1 MAX 668 MIN 6.1 CFSM 2.96 IN 40.15 AC-FT 63,810

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	19	25	322	591	148	142	232	80	28	21	13	12
2	17	25	300	712	264	150	190	130	31	18	11	12
3	31	25	292	472	727	135	175	106	30	15	8.1	11
4	37	28	260	330	474	123	160	93	32	15	7.1	8.1
5	25	64	252	250	410	113	175	140	34	14	7.1	7.1
6	28	71	278	202	290	104	291	125	30	14	6.1	7.1
7	62	54	230	172	228	95	320	128	27	16	7.1	7.1
8	123	64	192	150	188	88	258	111	27	22	7.1	6.2
9	299	62	168	138	160	82	212	99	27	25	6.2	6.2
10	140	186	142	116	140	76	180	88	25	24	7.1	11
11	108	242	128	102	120	76	158	80	22	19	14	12
12	132	195	116	94	108	70	136	72	24	17	14	9.2
13	170	182	111	86	102	66	123	66	20	15	11	13
14	118	185	190	84	95	68	113	62	19	13	6.1	15
15	84	190	284	86	95	68	118	60	18	13	7.1	30
16	66	210	240	80	97	68	113	57	17	13	6.2	43
17	56	170	190	78	97	68	106	53	17	12	5.5	34
18	51	142	162	76	118	64	111	50	17	11	5.5	24
19	47	777	162	68	155	95	120	46	17	9.2	13	19
20	43	1,650	135	64	155	91	108	43	17	11	22	15
21	42	726	125	62	130	78	99	40	21	13	18	14
22	40	372	116	59	113	70	91	38	21	20	18	15
23	37	248	106	57	102	66	86	38	19	17	31	19
24	35	260	99	55	95	62	82	37	19	15	65	15
25	34	909	93	55	120	68	80	36	20	14	38	13
26	35	904	88	51	205	84	74	34	17	13	42	13
27	34	494	86	50	165	100	70	32	18	12	24	12
28	31	340	135	50	150	364	66	30	19	12	17	12
29	30	272	205	44	------	415	66	30	20	12	15	12
30	28	330	428	46	------	332	68	30	22	12	12	11
31	27	------	345	95	------	288	------	28	------	13	12	------
TOTAL	2,029	9,402	5,980	4,575	5,251	3,769	4,183	2,062	675	472.2	480.3	438.0
MEAN	65.5	313	193	148	188	122	139	66.5	22.5	15.2	15.5	14.6
MAX	299	1,650	428	712	727	415	320	140	34	25	65	43
MIN	17	25	86	44	95	62	66	28	17	9.2	5.5	6.2
CFSM	2.20	10.5	6.47	4.95	6.29	4.08	4.68	2.23	.76	.51	.52	.49
IN.	2.53	11.7	7.46	5.71	6.55	4.70	5.22	2.57	.84	.59	.60	.55
AC-FT	4,020	18,650	11,860	9,070	10,420	7,480	8,300	4,090	1,340	937	953	869

CAL YR 1962: TOTAL 36,892.1 MEAN 101 MAX 1,650 MIN 8.9 CFSM 3.39 IN 46.04 AC-FT 73,170
WAT YR 1963: TOTAL 39,316.5 MEAN 108 MAX 1,650 MIN 5.5 CFSM 3.61 IN 49.07 AC-FT 77,980

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0155. North River near Brooklyn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	107	123	713	304	232	69	55	26	22	33	17
2	9.2	167	107	450	250	154	71	53	26	22	45	16
3	9.2	130	96	278	210	144	65	53	25	22	31	17
4	10	132	88	227	190	240	63	50	35	22	30	15
5	13	120	92	207	160	302	65	48	35	22	25	14
6	15	128	118	375	140	240	60	44	44	22	21	14
7	14	182	105	268	128	187	56	44	53	20	19	14
8	13	242	100	204	118	197	55	42	42	20	18	22
9	12	187	94	222	109	210	58	42	37	20	18	18
10	10	212	82	276	107	310	63	44	31	19	18	15
11	10	172	76	237	103	688	76	42	31	18	16	13
12	12	177	72	194	96	492	96	41	31	17	16	12
13	20	240	69	170	98	315	98	39	30	17	17	12
14	22	268	67	144	90	278	86	39	30	22	16	13
15	16	289	65	150	135	271	109	37	28	38	15	13
16	14	297	74	338	142	222	100	35	33	28	14	14
17	13	403	80	601	142	207	88	35	58	25	14	28
18	13	294	74	554	147	174	80	34	60	22	14	19
19	12	349	94	629	137	154	72	31	50	21	14	17
20	16	307	237	601	128	142	67	41	47	20	14	20
21	84	234	210	398	116	128	63	48	39	25	14	17
22	235	202	190	297	107	114	90	56	37	25	13	17
23	107	338	167	232	98	104	71	47	33	21	12	16
24	164	258	147	540	92	94	63	39	28	18	12	15
25	160	212	172	1,410	84	90	60	35	26	17	12	13
26	140	265	157	590	80	100	60	33	25	15	16	13
27	105	281	172	382	76	84	62	31	33	14	17	12
28	150	217	162	289	76	78	62	30	31	14	20	12
29	150	174	144	362	110	72	60	28	26	14	19	12
30	147	142	128	317	------	71	56	27	24	15	24	73
31	111	------	150	320	------	67	------	27	------	25	21	------
TOTAL	1,816.4	6,726	3,712	11,975	3,773	6,161	2,144	1,250	1,054	642	588	523
MEAN	58.6	224	120	386	130	199	71.5	40.3	35.1	20.7	19.0	17.4
MAX	235	403	237	1,410	304	688	109	56	60	38	45	73
MIN	9.2	107	65	144	76	67	55	27	24	14	12	12
CFSM	1.97	7.52	4.02	13.0	4.37	6.67	2.40	1.35	1.18	.69	.64	.59
IN.	2.27	8.39	4.63	14.9	4.71	7.69	2.68	1.56	1.32	.80	.73	.65
AC-FT	3,600	13,340	7,360	23,750	7,480	12,220	4,250	2,480	2,090	1,270	1,170	1,040

CAL YR 1963: TOTAL 34,159.9 MEAN 93.6 MAX 727 MIN 5.5 CFSM 3.14 IN 42.63 AC-FT 67,760
WAT YR 1964: TOTAL 40,364.4 MEAN 110 MAX 1,410 MIN 9.2 CFSM 3.70 IN 50.37 AC-FT 80,060

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	58	45	1,110	222	405	245	48	84	31	13	7.1	7.1
2	39	42	767	584	298	200	42	72	30	13	7.1	7.1
3	31	108	425	360	242	170	38	70	28	13	9.2	7.1
4	25	202	290	255	372	145	37	108	27	13	9.2	7.1
5	21	111	222	230	590	128	36	104	26	13	9.2	7.1
6	19	76	185	242	430	116	36	88	25	12	8.1	6.2
7	18	62	162	220	315	104	36	78	25	12	8.1	6.2
8	22	53	165	215	355	95	34	70	24	12	7.1	6.2
9	35	47	155	198	300	88	34	62	25	13	8.1	6.2
10	34	45	158	195	250	82	32	55	24	18	8.1	7.1
11	27	55	160	198	208	76	31	51	34	18	8.1	7.1
12	24	48	175	185	200	72	31	48	26	15	16	7.1
13	22	47	195	172	230	66	31	46	24	14	22	7.1
14	25	44	225	182	230	64	30	43	25	13	14	15
15	45	41	275	280	212	62	28	49	25	12	10	24
16	58	39	225	268	242	59	30	95	24	13	8.1	16
17	39	38	182	218	235	57	28	70	22	12	7.1	12
18	37	37	162	188	208	53	28	57	21	12	7.1	9.2
19	30	35	150	178	192	51	168	57	21	12	13	8.1
20	27	34	150	185	170	51	200	62	20	12	21	8.1
21	25	33	230	248	162	50	140	55	19	12	15	8.1
22	22	37	653	245	162	50	113	50	18	12	12	8.1
23	21	221	536	370	145	48	91	48	18	10	10	8.1
24	21	770	395	465	135	44	84	44	18	9.2	14	7.1
25	21	342	325	368	123	43	74	40	16	8.1	13	7.1
26	20	390	442	448	180	44	66	38	16	9.2	13	7.1
27	20	308	455	1,070	448	43	59	37	15	8.1	12	7.1
28	20	232	322	884	328	44	53	36	15	8.1	10	8.1
29	20	362	250	935	------	46	50	34	15	8.1	9.2	8.1
30	25	828	208	911	------	43	60	34	14	7.1	8.1	8.1
31	25	------	172	674	------	42	------	32	------	7.1	8.1	------
TOTAL	876	4,732	9,526	11,393	7,367	2,481	1,768	1,817	671	364.0	332.1	258.1
MEAN	28.3	158	307	368	263	80.0	58.9	58.6	22.4	11.7	10.7	8.60
MAX	58	828	1,110	1,070	590	245	200	108	34	18	22	24
MIN	18	33	150	172	123	42	28	32	14	7.1	7.1	6.2
CFSM	.95	5.29	10.3	12.3	8.83	2.69	1.98	1.97	.75	.39	.36	.29
IN.	1.09	5.91	11.9	14.2	9.19	3.10	2.21	2.27	.84	.45	.41	.32
AC-FT	1,740	9,390	18,890	22,600	14,610	4,920	3,510	3,600	1,330	722	659	512

CAL YR 1964: TOTAL 43,244 MEAN 118 MAX 1,410 MIN 12 CFSM 3.96 IN 53.97 AC-FT 85,770
WAT YR 1965: TOTAL 41,585.2 MEAN 114 MAX 1,110 MIN 6.2 CFSM 3.82 IN 51.90 AC-FT 82,480

Discharge, in cubic feet per second, 1965

Oct. 1, 1965..	7.1	Oct. 5, 1965..	51	Oct. 9, 1965..	15	Oct. 13, 1965..	13	Oct. 17, 1965..	26
2........	7.1	6........	68	10........	12	14........	40	18........	25
3........	7.1	7........	31	11........	9.2	15........	70	19........	78
4........	13	8........	19	12........	9.2	16........	37	20........	40

12-0170. North River near Raymond, Wash.

Location.--Lat 46°48'30", long 123°51'00", in SE¼SW¼ sec.6, T.15 N., R.9 W., on left bank 1¼ miles upstream from Salmon Creek and 10 miles northwest of Raymond.

Drainage area.--219 sq mi.

Records available.--August 1927 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 7.39 ft above mean sea level (Western Washington Electric Light & Power Co. bench mark). Prior to May 18, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--38 years, 954 cfs (690,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (5,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 21, 1960	1600	5,740	7.23	Nov. 21, 1962	1030	* 11,200	10.10	Mar. 12, 1964	1000	5,560	7.12
Nov. 25, 1960	1700	5,480	7.07	Nov. 27, 1962	0130	6,250	7.53				
Jan. 16, 1961	1400	6,300	7.56	Jan. 2, 1963	2130	5,810	7.27	Nov. 25, 1964a	-	5,130	6.85
Feb. 22, 1961	1300	* 10,400	9.70					Dec. 2, 1964	0130	* 8,760	8.90
Mar. 14, 1961	2000	6,030	7.40	Jan. 2, 1964	1100	5,250	6.94	Jan. 2, 1965	2300	5,560	7.12
				Jan. 18, 1964	0900	5,400	7.03	Jan. 30, 1965	1400	8,270	8.64
Dec. 24, 1961	0330	* 6,120	7.45	Jan. 26, 1964	1200	* 8,380	8.70	Feb. 5, 1965	2400	5,130	6.85

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 26-29, 1961	38	1.12	1964	(a)	86	b 1.56
1962	Oct. 5, 1961	53	1.27	1965	Sept. 9-11, 1965	43	1.26
1963	Aug. 18, 19, 1963	63	1.41				

a Oct. 2, 3, 1963, Sept. 14, 15, 1964.
b Occurred Oct. 2, 3, 1963.

1927-65: Maximum discharge, 35,000 cfs Dec. 10, 1933 (gage height, 15.8 ft, from floodmarks), from rating curve extended above 7,500 cfs; minimum, 21 cfs Aug. 24, 1951 (gage height, 1.01 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are good. Some diversion for farm and domestic use. No regulation. Records of chemical analyses for the water year 1965 and of water temperatures for the water years 1963-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 792: 1934. WSP 832: 1935-36. WSP 1286: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	58	1,090	1,150	729	1,740	3,410	921	903	282	120	53	80
2	56	1,070	994	687	2,090	3,390	1,000	930	268	116	52	120
3	54	880	902	622	2,150	2,880	993	1,110	254	107	50	132
4	52	715	902	654	2,350	2,390	840	1,370	246	103	49	98
5	52	573	820	1,580	2,930	2,140	760	1,350	240	105	48	74
6	65	490	736	3,160	3,320	2,450	711	1,160	240	110	47	64
7	127	425	687	2,720	3,160	2,690	678	1,010	247	126	46	56
8	147	373	634	2,340	2,580	2,390	654	939	247	114	46	54
9	181	335	603	3,810	2,240	2,230	660	1,220	244	105	45	49
10	135	555	561	3,840	2,200	2,300	630	1,250	244	99	45	46
11	108	1,050	650	3,240	2,230	2,770	576	1,120	240	89	43	44
12	97	1,090	1,710	2,600	2,420	3,610	600	948	221	81	42	45
13	84	820	2,080	2,380	2,620	3,700	630	840	210	78	43	42
14	83	888	1,470	3,100	3,060	5,180	618	824	193	74	46	40
15	78	1,440	1,180	4,680	3,520	5,350	570	760	185	74	50	42
16	75	2,800	1,000	6,200	3,320	3,890	534	690	172	74	50	41
17	70	3,500	925	5,690	2,750	2,870	528	630	164	72	47	41
18	68	3,910	1,830	4,270	2,580	2,220	570	570	152	80	45	43
19	68	3,470	3,850	3,010	4,600	1,900	612	504	142	76	43	46
20	65	4,340	3,160	2,220	6,860	2,010	684	466	140	68	41	46
21	106	5,590	2,170	1,700	9,650	1,980	776	445	136	67	40	45
22	149	4,900	1,550	1,390	10,200	1,720	993	425	132	67	42	44
23	367	3,660	1,230	1,150	6,950	1,690	1,540	420	126	67	41	45
24	505	4,030	1,050	1,030	4,320	1,700	1,670	415	122	65	40	43
25	555	5,240	918	910	4,770	1,510	1,340	382	120	61	40	40
26	615	4,520	844	813	3,940	1,480	1,080	356	118	59	39	40
27	1,000	2,870	828	743	3,540	1,600	921	382	116	61	38	40
28	1,750	2,020	750	680	3,370	1,430	800	400	112	62	38	45
29	1,240	1,560	674	842	------	1,230	784	340	112	60	38	46
30	771	1,290	628	1,420	------	1,100	921	313	114	57	42	50
31	792	------	648	2,050	------	975	------	292	------	56	69	------
TOTAL	9,573	65,494	37,134	70,260	105,460	76,185	24,594	22,764	5,539	2,553	1,398	1,641
MEAN	309	2,183	1,198	2,266	3,766	2,458	820	734	185	82.4	45.1	54.7
MAX	1,750	5,590	3,850	6,200	10,200	5,350	1,670	1,370	282	126	69	132
MIN	52	335	561	622	1,740	975	528	292	112	56	38	40
CFSM	1.41	9.97	5.47	10.3	17.2	11.2	3.74	3.35	.84	.38	.21	.25
IN.	1.63	11.1	6.31	11.9	17.9	12.9	4.18	3.87	.94	.43	.24	.28
AC-FT	18,990	129,900	73,650	139,400	209,200	151,100	48,780	45,150	10,990	5,060	2,770	3,250

CAL YR 1960: TOTAL 343,307 MEAN 938 MAX 6,830 MIN 52 CFSM 4.28 IN 58.30 AC-FT 680,900
WAT YR 1961: TOTAL 422,595 MEAN 1,158 MAX 10,200 MIN 38 CFSM 5.29 IN 71.76 AC-FT 838,200

Note.--No gage-height record July 18 to Aug. 22.

12-0170. North River near Raymond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	74	348	2,040	1,740	757	490	771	1,500	268	166	72	72
2	65	336	1,900	1,680	694	480	708	1,310	347	161	75	69
3	60	472	1,460	3,090	660	455	641	1,250	511	158	86	66
4	56	460	1,630	3,530	634	802	622	1,210	550	156	127	66
5	55	378	2,060	2,770	609	1,580	628	1,050	579	161	184	63
6	60	313	1,790	2,420	579	1,900	865	932	585	196	226	62
7	60	278	1,450	2,570	708	1,730	1,620	835	500	213	246	58
8	66	254	1,230	2,460	865	1,440	1,430	792	435	190	282	57
9	106	389	1,010	2,000	910	1,310	1,160	842	391	161	282	56
10	128	1,770	858	1,620	986	1,120	994	813	355	154	210	65
11	179	2,070	760	1,360	948	986	872	722	323	144	156	84
12	291	1,730	690	1,170	880	872	792	648	308	138	135	131
13	392	1,160	672	1,060	865	771	729	648	293	129	129	187
14	382	816	768	1,010	1,140	715	667	603	289	120	120	168
15	218	648	792	1,030	1,760	660	622	544	282	118	114	166
16	145	528	917	948	1,520	615	597	500	260	116	104	138
17	116	460	2,860	910	1,250	591	538	470	250	116	99	110
18	101	477	3,960	895	1,120	544	495	450	240	114	106	95
19	89	455	3,300	813	986	506	480	430	226	110	114	84
20	82	410	3,620	743	880	500	490	405	213	104	114	81
21	78	612	3,790	694	778	538	511	382	201	101	106	78
22	106	2,370	3,880	674	729	828	516	386	190	95	99	78
23	415	3,250	5,450	660	687	1,220	470	410	181	93	93	76
24	624	1,890	5,690	597	622	2,340	445	396	174	90	84	75
25	405	1,300	4,440	729	567	2,860	445	355	164	83	79	72
26	531	984	3,260	970	522	2,270	490	343	210	79	78	72
27	1,080	1,000	2,570	1,200	490	1,650	1,270	335	254	78	73	76
28	984	1,330	2,300	1,210	485	1,340	2,420	319	250	78	76	253
29	618	1,560	2,510	1,050	------	1,110	2,150	311	204	75	78	368
30	425	1,640	2,590	940	------	970	1,730	304	178	73	78	308
31	328	------	2,160	835	------	850	------	285	------	72	78	------
TOTAL	8,319	29,688	72,407	43,378	23,631	34,043	26,168	19,780	9,211	3,842	3,903	3,334
MEAN	268	990	2,336	1,399	844	1,098	872	638	307	124	126	111
MAX	1,080	3,250	5,690	3,530	1,760	2,860	2,420	1,500	585	213	282	368
MIN	55	254	672	597	485	455	445	285	164	72	72	56
CFSM	1.23	4.52	10.7	6.39	3.85	5.01	3.98	2.91	1.40	.57	.57	.51
IN.	1.41	5.04	12.3	7.37	4.01	5.78	4.44	3.36	1.56	.65	.66	.57
AC-FT	16,500	58,890	143,600	86,040	46,870	67,520	51,900	39,230	18,270	7,620	7,740	6,610

CAL YR 1961: TOTAL 420,808 MEAN 1,153 MAX 10,200 MIN 38 CFSM 5.26 IN 71.46 AC-FT 834,700
WAT YR 1962: TOTAL 277,704 MEAN 761 MAX 5,690 MIN 55 CFSM 3.47 IN 47.16 AC-FT 550,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	OEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	217	257	2,900	3,970	734	1,240	2,350	651	217	190	86	99
2	166	246	2,690	5,320	1,080	1,190	1,800	975	217	158	84	99
3	264	240	2,530	4,120	2,860	1,170	1,520	1,130	217	131	86	99
4	308	278	2,260	3,180	3,820	1,050	1,480	990	217	125	83	95
5	335	364	2,130	2,180	3,840	945	1,370	1,230	223	116	78	90
6	250	522	2,320	1,690	3,040	868	2,080	1,370	240	114	76	84
7	402	585	2,150	1,380	2,260	798	3,480	1,140	210	125	76	76
8	1,170	615	1,750	1,190	1,760	734	2,830	1,010	196	147	76	75
9	2,120	627	1,480	1,080	1,430	675	2,180	875	198	151	73	73
10	2,100	990	1,260	960	1,220	627	1,730	779	193	164	72	78
11	1,250	1,820	1,120	847	1,050	603	1,450	694	181	156	69	88
12	1,160	1,920	1,000	753	917	573	1,240	627	168	151	69	90
13	1,640	1,670	917	694	840	533	1,090	573	164	131	72	102
14	1,670	1,700	1,320	669	792	511	975	533	156	120	84	109
15	1,220	1,710	2,200	663	760	533	917	506	147	112	76	161
16	917	1,690	2,210	657	740	544	889	485	133	106	72	230
17	740	1,650	1,730	621	746	511	840	445	129	99	66	311
18	627	1,440	1,420	597	875	500	826	405	125	95	65	304
19	544	3,560	1,260	561	1,130	651	1,000	378	125	91	68	204
20	490	8,420	1,160	511	1,380	847	975	351	122	88	72	154
21	450	10,600	1,030	490	1,220	740	861	323	127	101	78	133
22	410	6,480	945	470	1,040	633	792	304	138	135	102	129
23	386	2,830	868	455	917	579	740	289	149	149	93	149
24	351	2,040	798	440	826	538	701	282	138	151	120	149
25	327	3,440	740	420	875	555	675	274	138	125	294	144
26	327	5,830	688	405	1,520	633	621	260	142	112	226	125
27	343	5,570	675	386	1,630	740	579	250	138	106	198	112
28	327	3,460	779	378	1,350	1,270	544	243	129	95	151	106
29	296	2,560	1,240	360	------	2,940	544	230	140	91	116	102
30	278	2,690	2,950	339	------	3,420	573	223	207	90	101	91
31	268	------	4,120	410	------	2,920	------	217	------	86	99	------
TOTAL	21,353	75,804	50,640	36,196	40,652	30,071	37,652	18,042	5,024	3,811	3,081	3,861
MEAN	689	2,527	1,634	1,168	1,452	970	1,255	582	167	123	99.4	129
MAX	2,120	10,600	4,120	5,320	3,840	3,420	3,480	1,370	240	190	294	311
MIN	166	240	675	339	734	500	544	217	122	86	65	73
CFSM	3.15	11.5	7.46	5.33	6.63	4.43	5.73	2.66	.76	.56	.45	.59
IN.	3.63	12.9	8.60	6.15	6.90	5.11	6.39	3.06	.85	.65	.52	.66
AC-FT	42,350	150,400	100,400	71,790	80,630	59,640	74,680	35,790	9,960	7,560	6,110	7,660

CAL YR 1962: TOTAL 315,087 MEAN 863 MAX 10,600 MIN 56 CFSM 3.94 IN 53.51 AC-FT 625,000
WAT YR 1963: TOTAL 326,187 MEAN 894 MAX 10,600 MIN 65 CFSM 4.08 IN 55.39 AC-FT 647,000

12-0170. North River near Raymond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	88	1,110	1,250	3,340	3,110	1,780	603	490	226	201	158	151
2	86	1,520	1,080	5,110	2,740	1,740	603	485	223	196	233	133
3	90	1,650	945	3,450	2,210	1,360	591	455	217	193	378	118
4	101	1,380	861	2,290	1,800	1,520	561	435	260	187	285	114
5	112	1,350	833	1,940	1,580	2,330	550	420	304	181	254	110
6	127	1,370	924	2,600	1,310	2,240	538	400	343	178	220	101
7	129	1,700	998	2,940	1,130	1,780	495	378	368	176	184	101
8	129	2,330	924	2,130	1,030	1,600	470	360	396	164	161	108
9	122	2,140	875	1,940	932	1,700	470	355	343	156	154	118
10	114	1,960	819	2,180	888	1,930	522	355	315	156	147	127
11	112	1,920	746	2,290	895	3,950	615	355	285	149	142	108
12	112	1,670	694	1,910	835	5,370	701	351	278	138	133	97
13	260	1,810	651	1,630	828	3,820	785	335	271	133	129	90
14	282	2,180	615	1,490	820	3,060	750	327	264	140	127	88
15	260	2,230	603	1,390	994	2,920	835	315	257	198	122	88
16	201	2,220	651	2,150	1,290	2,500	932	293	250	254	116	93
17	164	2,720	701	4,440	1,300	2,080	858	293	311	243	112	125
18	149	2,960	708	5,240	1,400	1,840	771	293	490	207	110	133
19	135	3,040	740	4,690	1,410	1,480	694	278	495	181	110	151
20	149	3,250	1,590	5,030	1,260	1,320	628	300	430	168	110	147
21	391	2,530	2,460	4,790	1,130	1,210	591	364	378	178	110	142
22	1,830	2,220	2,280	3,390	994	1,070	701	455	339	181	106	171
23	2,120	3,130	2,660	2,560	895	962	750	485	300	181	101	154
24	2,540	3,720	2,050	2,850	820	880	615	405	274	166	93	144
25	2,650	2,780	2,130	6,370	757	820	567	343	254	149	91	131
26	1,860	2,830	1,930	8,020	694	835	538	311	240	135	101	120
27	1,450	3,180	1,900	5,260	648	828	533	285	236	129	108	110
28	1,290	2,630	1,820	3,190	622	736	528	264	260	122	129	106
29	1,450	1,920	1,570	3,060	835	680	528	257	268	116	129	108
30	1,360	1,520	1,350	3,190	------	634	495	243	226	114	144	243
31	1,220	------	1,340	3,060	------	609	------	240	------	125	156	------
TOTAL	21,083	66,970	38,698	103,920	35,157	55,584	18,818	10,925	9,101	5,195	4,653	3,730
MEAN	680	2,232	1,248	3,352	1,212	1,793	627	352	303	168	150	124
MAX	2,650	3,720	2,660	8,020	3,110	5,370	932	490	495	254	378	243
MIN	86	1,110	603	1,390	622	609	470	240	217	114	91	88
CFSM	3.11	10.2	5.70	15.3	5.54	8.19	2.86	1.61	1.39	.77	.69	.57
IN.	3.58	11.4	6.57	17.6	5.97	9.44	3.20	1.86	1.55	.88	.79	.63
AC-FT	41,820	132,800	76,760	206,100	69,730	110,200	37,320	21,670	18,050	10,300	9,230	7,400

CAL YR 1963: TOTAL 305,141 MEAN 836 MAX 5,320 MIN 65 CFSM 3.82 IN 51.82 AC-FT 605,200
WAT YR 1964: TOTAL 373,834 MEAN 1,021 MAX 8,020 MIN 86 CFSM 4.66 IN 63.48 AC-FT 741,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	415	335	8,230	2,120	5,020	2,280	347	579	264	102	51	54
2	495	373	8,210	4,840	3,060	1,760	351	708	254	98	51	51
3	360	658	5,840	4,840	2,280	1,430	323	622	240	96	51	48
4	308	1,100	3,180	3,100	2,270	1,210	300	736	227	94	52	48
5	246	1,550	2,180	2,350	4,160	1,050	285	835	217	94	54	48
6	210	880	1,640	2,290	4,800	925	293	792	207	92	55	47
7	187	630	1,350	2,170	3,350	835	315	715	198	90	54	46
8	207	520	1,310	2,200	2,750	771	308	622	190	89	52	45
9	285	450	1,240	2,120	2,740	708	285	567	184	89	51	44
10	339	400	1,180	1,860	2,220	660	278	516	181	90	50	43
11	351	380	1,190	1,720	1,810	603	264	475	196	92	50	43
12	278	460	1,180	1,600	1,610	567	250	445	217	98	62	45
13	246	400	1,280	1,440	1,840	533	243	410	210	94	78	46
14	271	380	1,400	1,340	1,970	500	243	382	181	89	113	63
15	355	360	1,740	1,440	1,840	485	240	396	181	85	105	85
16	485	340	1,930	1,810	2,280	460	243	757	176	84	80	111
17	522	320	1,550	1,720	2,630	440	246	842	165	82	65	105
18	470	305	1,280	1,470	2,220	415	243	648	155	75	57	85
19	378	300	1,130	1,290	1,840	391	648	561	153	69	62	68
20	327	280	1,090	1,270	1,620	378	2,100	550	146	71	84	60
21	285	270	1,320	1,490	1,380	368	1,730	528	139	71	96	55
22	260	280	2,800	1,780	1,340	364	1,270	480	132	71	103	54
23	240	400	4,520	2,270	1,220	355	1,010	435	128	71	87	51
24	223	2,500	3,980	3,750	1,110	339	888	410	122	69	80	51
25	207	4,800	3,010	3,570	1,010	319	799	378	117	65	69	50
26	196	2,750	3,060	3,290	1,110	315	680	355	115	62	72	48
27	184	3,200	4,060	5,980	2,330	315	609	335	111	57	69	46
28	178	2,360	3,390	7,580	3,090	343	544	319	109	56	72	46
29	173	2,380	2,520	7,790	------	579	495	304	105	55	68	46
30	190	5,460	1,970	7,940	------	465	480	293	103	54	60	47
31	204	------	1,600	7,040	------	378	------	282	------	52	57	------
TOTAL	9,075	34,821	80,360	95,470	64,900	20,541	16,310	16,277	5,123	2,456	2,110	1,679
MEAN	293	1,161	2,592	3,080	2,318	663	544	525	171	79.2	68.1	56.0
MAX	522	5,460	8,230	7,940	5,020	2,280	2,100	842	264	102	113	111
MIN	173	270	1,090	1,270	1,010	315	240	282	103	52	50	43
CFSM	1.34	5.30	11.8	14.1	10.6	3.03	2.48	2.40	.78	.36	.31	.26
IN.	1.54	5.91	13.6	16.2	11.0	3.49	2.77	2.76	.87	.42	.36	.29
AC-FT	18,000	69,070	159,400	189,400	128,700	40,740	32,350	32,280	10,160	4,870	4,190	3,330

CAL YR 1964: TOTAL 371,339 MEAN 1,015 MAX 8,230 MIN 88 CFSM 4.63 IN 63.06 AC-FT 736,500
WAT YR 1965: TOTAL 349,122 MEAN 956 MAX 8,230 MIN 43 CFSM 4.37 IN 59.29 AC-FT 692,500

12-0200. Chehalis River near Doty, Wash.

Location.--Lat 46°37'00", long 123°16'40", in NE¼NW¼ sec.14, T.13 N., R.5 W., on right bank 1½ miles upstream from Elk Creek, 1½ miles south of Doty, and 3½ miles north of Pe Ell.

Drainage area.--113 sq mi.

Records available.--October 1939 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 302.1 ft above mean sea level (river-profile survey). Prior to Oct. 1, 1961, staff gage and crest-stage gage at site 100 ft downstream at same datum.

Average discharge.--26 years, 572 cfs (414,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (6,800 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	a2400	7,940	10.44	Nov. 20, 1962	0330	11,100	13.21	Nov. 24, 1964	0830	7,330	10.15
Feb. 21, 1961	a1430	* 8,400	10.65	Nov. 25, 1962	1700	* 12,400	14.14	Nov. 30, 1964	1600	7,110	9.97
				Feb. 3, 1963	0600	10,500	12.72	Dec. 22, 1964	1900	* 8,360	11.01
Nov. 22, 1961	0730	* 5,940	8.94	Jan. 25, 1964	0800	* 9,450	11.91				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.24, 1961	19	0.87	1964	Oct. 10, 1963	41	a 1.13
1962	Oct. 5, 1961	29	.98	1965	Aug. 10, 1965	24	.96
1963	Aug. 17, 18, 1963	27	1.10				

a Occurred Aug. 24, 25, 1964.

1939-65: Maximum discharge, 18,100 cfs Feb. 7, 1945 (gage height, 17.80 ft, water over gage, discharge based on observer's estimate of maximum gage height); minimum observed, 18 cfs Oct.14, 1952, Aug. 25-28, 1958; minimum gage height, 0.84 ft Aug. 25-27, Sept. 21, 22, 1951, Aug. 25-28, 1958.

Remarks.--Records good. No regulation or diversion above station. Records of chemical analyses and suspended-sediment loads for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1316: 1943(M). WSP 1446: 1946(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	36	591	560	470	1,730	3,010	535	475	157	71	35	163
2	35	530	490	510	2,050	2,110	510	792	149	67	33	110
3	35	480	480	500	1,550	1,600	495	894	138	67	33	76
4	33	394	480	870	1,480	1,290	440	972	138	63	32	46
5	33	327	460	1,520	1,310	1,330	403	888	133	63	31	40
6	44	282	416	2,260	1,640	1,720	376	732	138	73	31	37
7	155	259	380	1,670	1,550	1,620	336	613	146	67	31	35
8	160	223	354	2,040	1,380	1,450	319	540	144	67	31	32
9	108	203	340	2,940	1,480	1,450	311	560	149	60	30	31
10	86	278	358	1,880	2,120	1,480	290	550	141	56	28	30
11	74	708	430	1,430	2,160	1,810	282	510	133	53	28	27
12	82	500	1,100	1,210	2,280	2,090	290	470	123	50	28	26
13	73	580	798	1,290	2,530	2,120	294	430	110	48	28	25
14	62	986	646	2,470	2,770	4,650	306	398	108	47	28	24
15	56	1,090	535	5,090	2,880	3,260	286	376	104	46	33	23
16	53	2,640	480	5,240	2,090	2,320	282	344	99	47	36	23
17	50	2,420	490	2,890	1,660	1,720	282	315	95	53	31	22
18	50	2,660	889	2,130	1,520	1,380	267	298	90	50	30	25
19	50	2,780	2,470	1,520	2,050	1,380	294	278	90	47	28	26
20	47	4,560	1,630	1,170	3,570	1,440	294	252	86	44	27	25
21	53	3,120	1,110	894	7,050	1,210	450	245	82	41	26	24
22	99	1,940	834	726	3,880	1,100	798	241	78	41	25	22
23	241	2,220	690	613	2,170	1,180	858	234	78	41	24	20
24	810	4,900	591	540	3,210	1,090	810	227	74	40	22	19
25	465	3,900	570	470	2,890	1,070	662	213	71	39	26	22
26	560	2,310	570	408	2,170	1,040	545	197	71	37	26	22
27	1,660	1,460	515	385	1,850	1,040	465	197	69	36	25	20
28	1,460	1,040	470	362	1,690	937	421	190	67	36	24	25
29	786	810	430	412	------	822	412	181	74	36	23	43
30	570	662	403	1,530	------	690	510	175	90	36	24	43
31	480	------	426	1,890	------	591	------	169	------	36	63	------
TOTAL	8,506	44,853	20,395	47,330	64,710	50,000	12,823	12,956	3,225	1,558	920	1,106
MEAN	274	1,495	658	1,527	2,311	1,613	427	418	108	50.3	29.7	36.9
MAX	1,660	4,900	2,470	5,240	7,050	4,650	858	972	157	73	63	163
MIN	33	203	340	362	1,310	591	267	169	67	36	22	19
CFSM	2.43	13.2	5.82	13.5	20.5	14.3	3.78	3.70	.95	.44	.26	.33
IN.	2.80	14.8	6.71	15.6	21.3	16.5	4.22	4.26	1.06	.51	.30	.36
AC-FT	16,870	88,960	40,450	93,880	128,400	99,170	25,430	25,700	6,400	3,090	1,820	2,190

CAL YR 1960: TOTAL 215,479 MEAN 589 MAX 4,900 MIN 32 CFSM 5.21 IN 70.92 AC-FT 427,400
WAT YR 1961: TOTAL 268,382 MEAN 735 MAX 7,050 MIN 19 CFSM 6.51 IN 88.33 AC-FT 532,300

12-0200. Chehalis River near Doty, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	251	2,070	830	364	270	485	920	153	82	39	43
2	39	214	1,270	758	331	260	430	800	228	81	39	42
3	35	232	914	1,940	311	248	381	746	267	73	57	40
4	31	206	1,220	1,560	299	435	373	644	263	73	88	40
5	30	189	1,360	1,140	275	900	343	540	267	82	112	38
6	37	169	986	968	287	1,100	607	480	240	90	109	36
7	72	151	788	944	404	1,000	800	422	217	84	166	35
8	58	139	620	818	408	900	764	399	199	73	279	34
9	48	142	525	686	546	750	728	422	189	70	185	32
10	295	680	450	584	584	590	608	394	172	68	134	43
11	232	836	394	520	552	500	500	356	162	66	107	86
12	542	608	360	470	530	450	430	343	156	65	92	58
13	614	450	360	422	614	410	381	319	156	65	88	58
14	299	360	347	417	2,590	373	347	303	153	65	77	90
15	196	295	331	430	1,890	351	331	275	137	63	70	73
16	145	255	480	399	1,130	351	299	263	131	60	68	60
17	117	224	2,480	408	926	339	275	248	126	60	66	52
18	101	217	1,600	386	824	315	251	240	119	58	66	49
19	90	199	2,140	351	710	307	240	228	112	55	68	48
20	88	176	3,470	327	600	315	232	217	107	52	63	46
21	90	334	4,010	300	500	347	255	206	103	52	60	44
22	88	3,490	2,190	280	450	674	236	206	96	51	57	43
23	800	1,460	2,160	270	400	860	221	217	90	48	54	42
24	480	860	2,680	271	350	3,760	232	199	86	44	52	40
25	364	596	1,950	364	299	3,050	259	196	86	44	49	39
26	950	490	1,440	602	290	1,850	267	192	94	43	51	39
27	1,070	662	1,140	806	280	1,250	1,970	182	109	42	52	43
28	632	1,380	1,520	680	280	944	1,660	172	94	39	51	440
29	422	1,400	1,660	546	------	764	1,230	169	86	39	52	440
30	327	1,720	1,430	455	------	638	908	162	84	39	49	311
31	271	------	1,040	404	------	552	------	159	------	39	44	------
TOTAL	8,603	18,385	43,385	19,336	17,024	24,853	16,043	10,619	4,482	1,865	2,544	2,484
MEAN	278	613	1,400	624	608	802	535	343	149	60.2	82.1	82.8
MAX	1,070	3,490	4,010	1,940	2,590	3,760	1,970	920	267	90	279	440
MIN	30	139	331	270	275	248	221	159	84	39	39	32
CFSM	2.46	5.42	12.4	5.52	5.38	7.09	4.73	3.03	1.32	.53	.73	.73
IN.	2.83	6.05	14.3	6.36	5.60	8.18	5.28	3.49	1.48	.61	.84	.82
AC-FT	17,060	36,470	86,050	38,350	33,770	49,300	31,820	21,060	8,890	3,700	5,050	4,930

CAL YR 1961: TOTAL 265,001 MEAN 726 MAX 7,050 MIN 19 CFSM 6.43 IN 87.22 AC-FT 525,600
WAT YR 1962: TOTAL 169,623 MEAN 465 MAX 4,010 MIN 30 CFSM 4.11 IN 55.83 AC-FT 336,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	217	112	2,050	1,800	608	535	1,220	400	125	79	45	48
2	169	109	2,100	2,560	1,380	545	958	760	128	72	42	45
3	203	101	1,740	1,820	7,280	500	976	622	122	63	39	41
4	203	112	1,400	1,230	3,710	460	1,540	530	128	63	37	39
5	176	228	1,320	920	3,380	415	1,580	874	142	61	37	37
6	169	327	1,510	740	1,990	380	2,070	904	122	56	35	37
7	322	263	1,140	620	1,420	352	1,760	760	115	65	34	35
8	734	356	890	530	1,050	316	1,560	610	112	74	32	37
9	2,160	331	728	485	850	288	1,480	525	110	79	31	35
10	1,020	574	602	422	688	276	1,140	460	105	75	31	42
11	716	1,260	530	373	585	276	904	390	96	70	31	53
12	1,090	1,330	475	350	410	262	760	352	96	65	39	41
13	2,040	1,380	445	325	455	238	646	324	92	58	35	85
14	1,230	1,010	644	307	415	245	640	300	83	56	30	112
15	710	776	1,160	299	385	252	646	276	79	56	29	115
16	480	584	1,020	283	360	320	600	262	74	55	28	180
17	377	505	824	275	332	292	580	248	74	51	28	174
18	315	460	656	275	390	288	580	228	70	50	29	135
19	275	2,910	602	251	585	430	694	217	68	47	58	108
20	236	7,690	520	236	640	515	628	198	70	45	77	90
21	217	2,910	470	228	505	425	560	189	79	44	56	77
22	203	1,590	435	217	430	365	540	180	85	102	53	74
23	189	1,070	394	206	375	324	445	174	70	96	55	83
24	176	1,020	364	192	348	304	415	165	68	72	56	74
25	162	6,640	339	192	356	296	385	159	81	59	120	63
26	159	5,390	315	185	712	300	356	153	70	55	102	59
27	151	2,860	307	176	640	400	332	148	68	51	77	58
28	139	1,830	381	172	545	1,430	308	145	72	47	65	56
29	129	1,450	588	162	------	2,320	304	138	75	45	58	51
30	121	2,060	2,070	182	------	2,130	328	132	85	44	53	50
31	119	------	1,780	228	------	1,610	------	130	------	44	50	------
TOTAL	14,607	47,238	27,799	16,241	30,824	17,089	24,935	10,953	2,764	1,899	1,492	2,134
MEAN	471	1,575	897	524	1,101	551	831	353	92.1	61.3	48.1	71.1
MAX	2,160	7,690	2,100	2,560	7,280	2,320	2,070	904	142	102	120	180
MIN	119	101	307	162	332	238	304	130	68	44	28	35
CFSM	4.17	13.9	7.94	4.64	9.74	4.88	7.36	3.13	.82	.54	.43	.63
IN.	4.81	15.5	9.15	5.35	10.1	5.62	8.21	3.60	.91	.62	.49	.70
AC-FT	28,970	93,700	55,140	32,210	61,140	33,900	49,460	21,720	5,480	3,770	2,960	4,230

CAL YR 1962: TOTAL 188,894 MEAN 518 MAX 7,690 MIN 32 CFSM 4.58 IN 62.17 AC-FT 374,700
WAT YR 1963: TOTAL 197,975 MEAN 542 MAX 7,690 MIN 28 CFSM 4.80 IN 65.16 AC-FT 392,700

12-0200. Chehalis River near Doty, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	585	520	2,790	2,530	952	405	324	119	86	144	75
2	51	886	480	2,240	1,790	742	364	296	111	86	160	69
3	50	736	430	1,350	1,300	684	332	276	109	82	166	71
4	50	898	370	1,140	1,050	1,260	316	256	157	78	169	64
5	51	802	410	1,110	880	1,670	312	256	163	77	147	60
6	53	730	550	2,770	706	1,200	292	233	147	73	124	57
7	50	1,110	550	1,740	595	916	280	218	172	71	106	56
8	47	1,880	565	1,160	510	820	268	210	186	68	95	82
9	44	1,200	515	1,080	468	1,020	272	207	176	68	88	77
10	41	1,080	455	1,150	490	1,190	296	207	157	68	82	64
11	42	880	405	1,040	555	3,660	392	200	150	63	77	60
12	47	772	365	856	472	2,700	423	196	144	58	73	57
13	66	1,100	344	874	468	1,630	432	193	135	58	69	54
14	100	2,350	320	946	446	1,960	378	179	130	60	64	54
15	74	2,530	308	910	600	2,400	428	163	122	100	63	54
16	63	2,290	370	2,940	766	1,630	436	160	124	116	60	53
17	59	3,480	360	3,690	898	1,330	418	154	169	97	58	69
18	59	2,090	344	2,980	898	1,100	378	154	186	84	62	66
19	55	2,380	455	3,240	850	874	348	138	176	75	63	60
20	59	1,800	1,430	3,500	678	724	312	157	154	71	58	82
21	483	1,450	1,460	2,010	575	635	288	196	141	86	53	73
22	1,910	2,100	988	1,390	500	525	374	222	104	86	51	68
23	940	2,700	754	1,040	441	472	352	210	119	77	50	62
24	2,160	1,600	616	2,350	400	454	320	186	109	69	48	60
25	1,660	1,100	814	7,950	360	432	300	166	102	63	47	58
26	940	1,000	778	3,500	332	450	312	157	97	60	57	57
27	628	1,200	946	2,350	308	410	312	147	100	57	56	56
28	772	850	910	1,990	296	374	312	135	106	54	64	53
29	814	700	742	2,730	348	374	292	133	90	53	68	54
30	766	600	600	2,330	------	405	280	127	86	53	86	304
31	600	------	640	2,510	------	400	------	122	------	135	64	------
TOTAL	12,785	42,879	18,794	67,656	20,510	33,393	10,224	5,978	4,041	2,332	2,592	2,129
MEAN	412	1,429	606	2,182	707	1,077	341	193	135	75.2	83.6	71.0
MAX	2,160	3,480	1,460	7,950	2,530	3,660	436	324	186	135	169	304
MIN	41	585	308	856	296	374	268	122	86	53	47	53
CFSM	3.65	12.6	5.37	19.3	6.26	9.53	3.02	1.71	1.19	.67	.74	.63
IN.	4.21	14.1	6.19	22.3	6.75	11.0	3.36	1.97	1.33	.77	.85	.70
AC-FT	25,360	85,050	37,280	134,200	40,680	66,230	20,280	11,860	8,020	4,630	5,140	4,220

CAL YR 1963: TOTAL 182,789 MEAN 501 MAX 7,280 MIN 28 CFSM 4.43 IN 60.16 AC-FT 362,600
WAT YR 1964: TOTAL 223,313 MEAN 610 MAX 7,950 MIN 41 CFSM 5.40 IN 73.50 AC-FT 442,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	324	200	6,100	772	1,870	1,140	218	296	141	55	27	31
2	210	214	3,700	1,380	1,300	892	196	272	135	53	27	30
3	163	492	2,040	1,070	982	718	179	248	122	52	28	30
4	141	1,230	1,300	790	994	590	169	344	116	50	28	30
5	116	630	910	796	1,570	500	157	374	114	48	28	29
6	102	450	694	928	1,500	464	160	378	106	48	27	28
7	90	352	575	772	1,150	446	172	340	102	47	27	27
8	104	280	600	650	1,640	414	157	308	100	50	26	27
9	150	240	550	555	1,330	369	150	272	100	48	27	27
10	154	218	565	694	1,050	360	147	252	93	53	26	27
11	124	272	565	790	832	340	138	229	111	61	27	27
12	106	276	540	694	724	320	127	214	106	53	52	27
13	100	336	656	645	982	300	135	196	95	48	135	27
14	116	300	706	868	988	284	141	186	114	44	75	30
15	179	268	844	1,330	838	264	127	189	102	41	47	57
16	214	248	718	1,660	898	248	138	486	93	41	40	53
17	214	229	585	1,410	976	236	130	396	84	38	35	41
18	189	214	525	1,200	886	222	130	320	84	37	32	36
19	160	200	490	1,220	808	210	732	296	82	36	37	33
20	138	186	459	1,220	730	196	1,460	304	78	40	69	31
21	127	176	580	1,480	630	193	886	280	77	42	53	30
22	114	203	4,720	1,340	694	203	590	256	69	40	42	29
23	104	628	4,760	2,140	635	196	477	240	66	35	38	29
24	102	5,130	2,650	3,180	565	172	428	222	67	35	37	28
25	97	2,630	1,950	2,060	520	176	374	207	64	34	36	27
26	88	2,450	3,010	1,820	600	176	324	189	64	33	37	27
27	86	1,520	2,620	5,100	2,400	166	288	176	61	32	38	29
28	84	988	1,670	4,610	1,680	172	248	169	59	30	37	29
29	80	1,680	1,190	4,490	------	272	233	157	59	29	35	28
30	111	5,750	958	4,230	------	236	244	157	58	28	33	27
31	127	------	736	3,270	------	203	------	144	------	27	32	------
TOTAL	4,214	27,990	47,966	53,164	29,772	10,678	9,055	8,097	2,722	1,308	1,238	931
MEAN	136	933	1,547	1,715	1,063	344	302	261	90.7	42.2	39.9	31.0
MAX	324	5,750	6,100	5,100	2,400	1,140	1,460	486	141	61	135	57
MIN	80	176	459	555	520	166	127	144	58	27	26	27
CFSM	1.20	8.26	13.7	15.2	9.41	3.05	2.67	2.31	.80	.37	.35	.27
IN.	1.39	9.21	15.8	17.5	9.80	3.51	2.98	2.66	.90	.43	.41	.31
AC-FT	8,360	55,520	95,140	105,400	59,050	21,180	17,960	16,060	5,400	2,590	2,460	1,850

CAL YR 1964: TOTAL 229,025 MEAN 626 MAX 7,950 MIN 47 CFSM 5.54 IN 75.38 AC-FT 454,300
WAT YR 1965: TOTAL 197,135 MEAN 540 MAX 6,100 MIN 26 CFSM 4.78 IN 64.88 AC-FT 391,000

12-0210. South Fork Chehalis River at Boistfort, Wash.

Location.--Lat 46°32'45", long 123°07'55", in NW¼NW¼ sec.12, T.12 N., R.4 W., on left bank a quarter of a mile south of Boistfort and 6 miles upstream from mouth.

Drainage area.--48.0 sq mi.

Records available.--July to October 1942, July to October 1943, July 1944 to October 1950. Annual maximums, water years 1951-60. April 1961 to December 1965 (discontinued). Monthly discharge only October 1942, published in WSP 1316.

Gage.--Water-stage recorder. Altitude of gage is 255 ft (from topographic map). Prior to Aug. 15, 1944, staff gage at site 500 ft downstream at datum 1.45 ft lower. November 1950 to March 1961 stilling well with staff gage, and crest-stage gage only at present site and datum.

Average discharge.--10 years (1944-50, 1961-65), 198 cfs (143,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,400 cfs), April 1961 to December 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961a	-	* 3,110	8.59	Nov. 26, 1962	0200	3,260	8.80	Nov. 24, 1964	1600	2,650	7.93
				Feb. 3, 1963	1500	* 3,460	9.07	Dec. 1, 1964	1130	2,420	7.60
Dec. 21, 1961	0430	* 1,910	6.68					Dec. 23, 1964	0330	* 3,780	9.47
				Jan. 20, 1964	0230	2,550	7.79				
Nov. 20, 1962	1300	3,260	8.80	Jan. 25, 1964	1400	* 4,330	10.14	Nov. 19, 1965	-	* 430	3.67

a About.

Annual minimum discharge, April 1961 to December 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 13, 14, 1961	1.2	1.76	1964	Aug. 24, 25, 1964	4.6	a 1.92
1962	July 30, 1962	3.7	1.87	1965	Aug. 9-11, 1965	1.4	b 1.85
1963	Aug. 18, 1963	2.7	1.87	1966	Oct. 2, 3, 1965	5.5	1.93

a Occurred Aug. 24, 25, 26, 1964.
b Occurred Aug. 9-11, Sept. 9-11, 1965.

1942-65: Maximum discharge, 5,700 cfs (revised) Feb. 7, 1945 (gage height, 11.57 ft).
1942-50, 1961-65: Minimum discharge, 1.2 cfs Aug. 13, 14, 1961 (gage height, 1.76 ft).

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1042, 1316, 1346, 1687	1945	Feb. 7, 1945......................	5,700	11.57
1062, 1316, 1346, 1687	1946	Dec. 29, 1945......................	2,770	8.06
1092, 1316, 1346, 1687	1947	Feb. 2, 1947......................	2,980	8.39
1122, 1316, 1346, 1687	1948	Jan. 2, 1948......................	2,840	8.20
1152, 1316, 1346, 1687	1949	Feb. 17, 1949......................	4,920	10.78
1182, 1316, 1687	1950	Nov. 27, 1949......................	4,040	9.77
1566, 1687	1951	Feb. 9, 1951......................	3,690	a 9.36
1566, 1687	1952	Feb. 4, 1952......................	2,490	a 7.70
1566, 1687	1953	Jan. 8, 1953......................	2,270	a 7.36
1566, 1687	1954	Jan. 5, 1954......................	3,120	a 8.60
1566, 1687	1955	Feb. 8, 1955......................	2,480	a 7.68
1566, 1687	1956	Dec. 11, 1955......................	3,720	a 9.40
1566, 1687	1957	Dec. 9, 1956......................	3,940	a 9.68
1566	1958	Dec. 24, 1957......................	2,670	a 7.96
1636	1959	Nov. 12, 1958......................	2,640	a 7.91
1716	1960	Nov. 22, 1959......................	3,170	a 8.67

a From crest-stage gage.

Remarks.--Records good. Small diversions for irrigation and domestic use above station. No regulation. Records of suspended-sediment loads for the water year 1965 are published in reports of Geological Survey.

Revisions (water years).--Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1949-50, superseding those published in WSP 1152, 1182, and 1346, are given herewith:

Dec. 2, 1948......	2,560	Feb. 23, 1949.....	2,290	Jan. 21, 1950......	1,870	Mar. 4, 1950.......	1,710
Feb. 10, 1949......	2,150	Nov. 27...........	3,220	22............	1,930	5.............	1,690
17............	3,880	28...........	1,690	Feb. 24............	2,370		
22............	2,840	Dec. 28...........	2,480	25............	1,960		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December 1948.................	20,638	2,560	166	666	13.9	15.99	40,930
Calendar year 1948..........	-	2,560	3.7	233	4.85	66.06	169,100
February 1949.................	22,852	3,880	62	816	17.0	17.71	45,330
Water year 1948-49..........	-	3,880	4.9	208	4.33	58.79	150,500
November 1949.................	11,615	3,220	23	387	8.06	9.00	23,040
December......................	16,561	2,480	172	534	11.1	12.83	32,850
Calendar year 1949..........	-	3,880	4.9	197	4.10	55.67	142,500
January 1950..................	15,804	1,930	163	510	10.6	12.24	31,350
February......................	20,140	2,370	160	719	15.0	15.60	39,950
March.........................	16,520	1,710	222	533	11.1	12.80	32,770
Water year 1949-50..........	-	3,220	5.6	253	5.27	71.67	183,500

Revised peak discharge.--1944-45: Feb. 7 (2030) 5,700 cfs; Mar. 20 (0900) 2,700 cfs.
1946-47: Jan. 26 (0330) 2,840 cfs; Feb. 2 (1400) 2,980 cfs.
1947-48: Jan. 2 (0530) 2,840 cfs; Mar. 22 (0830) 2,630 cfs.
1948-49: Nov. 28 (1500) 2,230 cfs; Dec. 2 (1200) 3,050 cfs; Dec. 9 (2000) 2,560 cfs; Feb. 10 (1830) 3,120 cfs; Feb. 17 (1130) 4,920 cfs; Feb. 22 (1700) 3,190 cfs.
1949-50: Nov. 27 (1200) 4,040 cfs; Dec. 28 (0930) 2,770 cfs; Feb. 24 (1300) 2,770 cfs.

12-0210. South Fork Chehalis River at Boistfort, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1							170	193	54	21	7.0	18
2							180	229	50	19	7.0	21
3							170	235	48	18	5.5	9.6
4							150	257	46	16	5.5	7.8
5							140	235	43	17	4.2	6.2
6							130	205	44	21	5.5	5.5
7							120	185	49	20	5.5	4.2
8							110	175	43	18	3.5	3.0
9							110	172	42	16	2.5	2.5
10							100	165	44	15	2.1	2.1
11							95	150	42	13	2.1	1.5
12							100	133	44	12	1.8	1.5
13							105	123	39	11	1.5	1.5
14							100	123	35	9.6	1.5	1.5
15							100	138	33	7.8	3.5	1.5
16							100	118	30	8.6	4.8	2.5
17							96	107	28	11	7.0	4.2
18							92	98	27	12	5.5	4.2
19							94	90	27	11	4.8	4.2
20							98	84	25	7.8	3.5	4.2
21							144	81	25	7.0	3.0	4.2
22							268	79	23	7.0	2.5	3.0
23							324	81	22	7.8	2.1	3.0
24							268	77	21	7.8	1.5	3.0
25							223	70	20	7.8	1.5	3.5
26							188	70	19	7.0	3.0	3.5
27							165	77	20	6.2	6.2	3.0
28							150	66	21	6.2	5.5	4.2
29					------		162	60	21	6.2	4.8	4.8
30					------		202	58	22	7.0	3.5	6.2
31		------			------		------	56	------	7.0	4.8	------
TOTAL							4,454	3,990	1,007	361.8	122.7	145.1
MEAN							148	129	33.6	11.7	3.96	4.84
MAX							324	257	54	21	7.0	21
MIN							92	56	19	6.2	1.5	1.5
CFSM							3.08	2.69	.698	.237	.082	.100
IN.							3.45	3.09	.78	.27	.10	.11
AC-FT							8,830	7,910	2,000	718	243	288

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.5	42	618	344	132	114	202	330	52	20	5.0	7.6
2	4.8	42	422	302	126	110	179	306	59	22	5.8	7.6
3	4.8	40	313	634	119	104	162	285	68	20	7.6	7.6
4	4.8	44	342	586	112	176	150	264	60	18	19	7.6
5	4.8	38	466	458	106	344	140	229	60	20	24	5.8
6	4.8	35	352	394	104	362	166	208	57	24	24	5.8
7	8.6	34	288	362	128	327	254	187	50	23	32	6.7
8	16	31	235	313	130	310	241	173	45	20	83	6.7
9	13	31	196	271	135	296	241	179	44	18	45	7.6
10	25	55	168	238	154	257	211	160	41	18	30	11
11	29	135	144	211	154	232	190	140	41	18	24	22
12	40	128	130	196	152	199	170	130	38	17	20	22
13	84	92	126	179	182	182	154	126	39	16	19	19
14	42	73	130	168	796	168	142	119	44	15	18	20
15	27	61	119	170	680	157	132	108	39	16	15	20
16	19	54	152	150	442	157	126	101	35	16	14	17
17	16	49	959	157	362	147	114	95	34	15	13	15
18	13	46	614	152	320	137	108	89	32	14	12	12
19	11	46	670	140	271	130	101	85	31	14	13	12
20	11	44	1,300	120	235	126	97	79	30	13	13	12
21	11	50	1,660	110	205	140	95	77	27	11	12	13
22	14	774	820	105	187	254	91	79	26	9.5	11	13
23	91	419	702	105	168	313	85	83	24	8.5	9.5	13
24	90	250	870	114	150	1,210	89	81	24	7.6	9.5	13
25	54	176	706	123	137	1,140	91	75	23	6.7	8.5	12
26	65	140	566	165	126	657	85	71	24	5.8	7.6	12
27	143	135	454	202	116	482	527	68	28	5.8	7.6	12
28	118	216	522	205	119	380	630	62	26	5.8	9.5	53
29	75	306	542	179	------	316	474	60	23	5.0	9.5	93
30	58	391	490	160	------	268	362	59	20	5.0	9.5	60
31	48	------	402	142	------	226	------	55	------	4.3	8.5	------
TOTAL	1,151.1	3,977	15,478	7,155	6,048	9,421	5,809	4,163	1,144	432.0	539.1	539.0
MEAN	37.1	133	499	231	216	304	194	134	38.1	13.9	17.4	18.0
MAX	143	774	1,660	634	796	1,210	630	330	68	24	83	93
MIN	4.8	31	119	105	104	104	85	55	20	4.3	5.0	5.8
CFSM	.771	2.77	10.4	4.81	4.50	6.33	4.04	2.79	.794	.285	.358	.369
IN.	.89	3.08	11.99	5.54	4.69	7.30	4.50	3.23	.89	.33	.41	.41
AC-FT	2,280	7,890	30,700	14,190	12,000	18,690	11,520	8,260	2,270	857	1,070	1,070

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 55,856.2 MEAN 153 MAX 1,660 MIN 4.3 CFSM 3.19 IN 43.26 AC-FT 110,800

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0210. South Fork Chehalis River at Boistfort, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	41	38	792	598	273	193	558	140	44	23	7.6	11
2	32	36	774	1,020	462	193	430	235	44	20	5.8	13
3	32	35	760	729	2,880	179	376	205	44	17	5.0	13
4	39	34	586	530	1,590	165	402	179	42	16	4.3	11
5	38	49	502	422	1,150	152	434	248	49	16	4.3	8.5
6	35	126	542	344	698	144	590	292	42	16	3.7	7.6
7	42	104	454	296	546	135	614	268	41	19	3.7	7.6
8	176	128	380	257	438	128	550	226	41	25	3.7	7.6
9	420	128	330	229	362	121	486	205	39	26	3.7	7.6
10	235	137	316	193	313	114	402	196	36	23	3.2	8.5
11	154	220	247	170	264	110	341	168	31	20	4.3	11
12	260	538	214	155	229	106	302	152	28	20	5.0	17
13	466	302	199	145	208	97	264	137	28	17	5.0	24
14	352	254	302	135	187	97	257	126	26	16	5.0	35
15	220	226	402	130	173	99	264	116	24	16	5.8	31
16	157	193	406	120	160	112	241	106	20	15	4.3	49
17	123	173	341	115	150	106	226	99	20	14	4.3	41
18	104	170	288	115	173	95	232	93	18	13	3.2	27
19	91	444	268	115	199	97	254	87	17	12	5.0	20
20	79	2,790	232	105	223	106	238	81	18	11	11	17
21	71	1,240	205	100	187	99	217	75	19	11	17	15
22	66	614	187	95	168	93	202	71	23	13	13	14
23	59	434	170	90	154	91	182	68	22	18	14	17
24	55	376	154	86	142	87	168	66	22	14	31	19
25	53	1,840	140	82	142	85	162	62	23	12	28	16
26	52	2,480	135	80	241	87	147	60	22	11	30	13
27	53	1,260	128	76	223	106	137	55	20	8.5	23	12
28	45	734	130	72	199	464	126	53	20	8.5	18	11
29	44	558	147	68	------	1,300	123	49	22	7.6	15	11
30	39	801	492	64	------	1,230	123	47	23	6.7	13	9.5
31	38	------	526	89	------	830	------	45	------	6.7	12	------
TOTAL	3,671	16,462	10,749	6,825	12,134	7,021	9,048	4,010	868	472.0	311.9	504.9
MEAN	118	549	347	220	433	226	302	129	28.9	15.2	10.1	16.8
MAX	466	2,790	792	1,020	2,880	1,300	614	292	49	26	31	49
MIN	32	34	128	64	142	85	123	45	17	6.7	3.2	7.6
CFSM	2.46	11.3	7.23	4.58	9.02	4.71	6.29	2.69	.600	.310	.207	.346
IN.	2.84	12.60	8.33	5.29	9.40	5.44	7.01	3.11	.67	.36	.24	.38
AC-FT	7,280	32,650	21,320	13,540	24,070	13,930	17,950	7,950	1,720	936	619	1,000

CAL YR 1962: TOTAL 66,132.1 MEAN 181 MAX 2,790 MIN 4.3 CFSM 3.77 IN 51.07 AC-FT 131,200
WAT YR 1963: TOTAL 72,076.8 MEAN 197 MAX 2,880 MIN 3.2 CFSM 4.10 IN 55.67 AC-FT 143,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.5	154	244	730	815	358	119	79	33	18	17	13
2	9.5	241	209	790	608	337	117	75	31	18	23	11
3	9.5	217	184	500	476	301	113	73	30	18	22	12
4	9.5	260	165	439	397	369	106	70	31	17	29	12
5	11	250	175	394	340	536	102	68	49	17	23	9.2
6	13	232	218	1,030	295	456	98	66	49	18	19	8.5
7	15	290	206	684	259	372	92	62	54	17	16	8.5
8	14	648	209	468	229	334	88	62	48	16	12	8.5
9	13	418	206	492	203	376	88	60	43	14	12	16
10	13	331	184	548	192	436	94	58	37	14	12	13
11	14	271	168	468	195	992	108	57	36	14	12	11
12	14	256	157	390	173	985	119	55	34	12	11	9.2
13	18	358	147	369	173	656	138	57	31	11	11	7.8
14	30	604	135	358	162	648	117	54	30	12	11	7.8
15	26	865	128	334	184	744	121	52	27	22	9.9	7.1
16	20	810	135	724	212	536	128	49	30	24	9.2	8.5
17	19	1,470	140	1,340	241	439	124	50	36	21	7.8	9.2
18	18	866	130	1,360	241	366	115	50	40	18	7.8	12
19	17	845	152	1,420	226	316	104	49	36	17	8.5	12
20	18	644	349	1,850	203	283	98	48	33	14	9.2	12
21	46	480	446	945	186	259	94	50	30	16	7.8	13
22	236	496	358	636	168	226	106	54	29	18	7.1	12
23	196	636	301	488	155	206	100	57	26	17	5.7	12
24	328	564	256	748	142	181	90	49	23	13	5.0	11
25	391	460	265	3,740	133	168	82	44	22	11	5.0	9.9
26	254	425	259	2,360	124	170	86	43	21	9.2	5.7	9.2
27	176	488	322	1,320	119	157	86	38	20	7.8	7.8	8.5
28	176	397	343	790	115	145	82	36	21	7.8	9.9	8.5
29	217	337	310	970	124	138	79	37	21	7.1	12	9.2
30	229	280	271	895	------	130	77	37	19	7.8	12	16
31	179	------	274	840	------	124	------	34	------	11	16	------
TOTAL	2,739.0	14,593	7,046	28,420	7,090	11,744	3,071	1,673	970	457.7	376.4	317.6
MEAN	88.4	486	227	917	244	379	102	54.0	32.3	14.8	12.1	10.6
MAX	391	1,470	446	3,740	815	992	138	79	54	24	29	16
MIN	9.5	154	128	334	115	124	77	34	19	7.1	5.0	7.1
CFSM	1.84	10.1	4.73	19.1	5.08	7.90	2.12	1.12	.673	.302	.250	.219
IN.	2.12	11.31	5.46	22.02	5.49	9.10	2.38	1.30	.75	.35	.29	.24
AC-FT	5,430	28,940	13,980	56,370	14,060	23,290	6,090	3,320	1,920	908	747	630

CAL YR 1963: TOTAL 65,572.8 MEAN 180 MAX 2,880 MIN 3.2 CFSM 3.75 IN 50.79 AC-FT 130,100
WAT YR 1964: TOTAL 78,497.7 MEAN 214 MAX 3,740 MIN 5.0 CFSM 4.46 IN 60.81 AC-FT 155,700

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0210. South Fork Chehalis River at Boistfort, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	73	34	2,130	324	614	335	62	80	38	11	2.4	2.4
2	39	54	1,220	554	464	284	60	78	34	9.8	2.0	2.4
3	27	69	678	472	391	242	55	69	32	9.8	1.7	2.4
4	21	233	475	377	338	207	52	80	30	8.2	2.4	2.8
5	18	146	366	377	388	185	52	87	28	6.8	3.3	3.8
6	14	97	293	436	370	163	52	85	27	6.8	3.3	2.8
7	13	73	245	391	321	146	52	78	27	6.1	2.0	2.4
8	14	60	245	346	360	136	50	73	24	5.5	1.7	2.4
9	19	54	222	307	360	127	49	67	26	5.5	1.7	2.0
10	30	50	204	338	314	118	49	64	24	7.5	1.4	1.7
11	24	55	196	349	277	111	44	60	26	11	1.7	2.4
12	20	64	190	318	255	103	44	57	27	12	3.3	4.9
13	18	80	227	280	261	97	44	55	24	9.0	12	4.9
14	18	74	261	270	258	93	47	52	26	7.5	18	5.5
15	27	66	356	310	233	87	44	52	28	6.8	9.0	5.5
16	47	60	324	338	227	85	44	95	24	5.5	5.5	9.8
17	46	57	270	332	222	82	46	89	21	5.5	3.8	11
18	38	52	245	304	204	78	44	74	20	5.5	3.3	7.5
19	30	49	216	293	193	74	104	66	20	4.3	3.8	4.9
20	27	46	199	304	182	73	307	69	19	5.5	5.5	4.9
21	22	42	307	380	174	71	207	69	16	6.1	12	4.3
22	21	44	1,860	402	193	69	156	62	15	6.8	7.5	3.8
23	20	108	2,860	567	169	67	129	59	14	6.1	6.1	3.8
24	19	1,910	1,200	930	158	64	118	55	13	4.9	5.5	4.9
25	19	1,050	842	642	148	62	105	52	13	4.3	5.5	5.5
26	18	990	1,100	562	158	67	93	49	13	3.8	5.5	6.8
27	18	666	1,070	1,460	450	62	83	46	12	3.3	4.9	6.8
28	19	468	670	1,340	412	62	76	42	12	3.3	4.9	8.2
29	19	486	506	1,330	------	69	73	41	12	2.8	4.3	9.0
30	19	1,260	419	1,100	------	66	71	39	12	2.4	3.8	9.0
31	27	------	346	945	------	60	------	39	------	2.0	2.8	------
TOTAL	784	8,497	19,742	16,678	8,094	3,545	2,412	1,983	657	195.4	150.6	148.5
MEAN	25.3	283	637	538	289	114	80.4	64.0	21.9	6.30	4.86	4.95
MAX	73	1,910	2,860	1,460	614	335	307	95	38	12	18	11
MIN	13	34	190	270	148	60	44	39	12	2.0	1.4	1.7
CFSM	.527	5.90	13.3	11.2	6.02	2.38	1.68	1.33	.456	.131	.101	.103
IN.	.61	6.58	15.30	12.92	6.27	2.75	1.87	1.54	.51	.15	.12	.12
AC-FT	1,560	16,850	39,160	33,080	16,050	7,030	4,780	3,930	1,300	388	299	295

CAL YR 1964: TOTAL 83,142.7 MEAN 227 MAX 3,740 MIN 5.0 CFSM 4.73 IN 64.41 AC-FT 164,900
WAT YR 1965: TOTAL 62,886.5 MEAN 172 MAX 2,860 MIN 1.4 CFSM 3.58 IN 48.74 AC-FT 124,700

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.5	16	118									
2	6.8	18	190									
3	6.1	32	156									
4	7.5	89	287									
5	12	116	245									
6	24	97	213									
7	44	62	239									
8	20	54	245									
9	13	60	-									
10	9.8	57	-									
11	8.2	60	-									
12	8.2	59	-									
13	9.0	89	-									
14	12	93	-									
15	38	78	-									
16	39	64	-									
17	24	57	-									
18	20	50	-									
19	18	226	-									
20	22	245	-									
21	21	201	-									
22	16	314	-									
23	14	264	-									
24	12	185	-									
25	11	143	-									
26	11	127	-									
27	12	204	-									
28	15	174	-									
29	22	141	-									
30	20	125	-		------							
31	18	------	-		------		------		------			------
TOTAL	521.1	3,500	-									
MEAN	16.8	117	-									
MAX	44	314	-									
MIN	6.1	16	-									
CFSM	.350	2.44	-									
IN	.40	2.71	-									
AC-FT	1,030	6,940	-									

12-0240. South Fork Newaukum River near Onalaska, Wash.

Location.--Lat 46°34'35", long 122°41'00", on south line of SE¼ sec.28, T.13 N., R.1 E., on right bank 0.9 mile upstream from Lost Creek and 1¾ miles east of Onalaska.

Drainage area.--42.4 sq mi.

Records available.--July to October 1942, July to October 1943, July 1944 to November 1948, June 1957 to September 1965. October 1943 to September 1958, published as Newaukum River near Onalaska.

Gage.--Water-stage recorder. Altitude of gage is 540 ft (from topographic map). Prior to Sept. 28, 1944, staff gage at datum 0.93 ft higher.

Average discharge.--12 years (1944-48, 1957-65), 201 cfs (145,500 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,200 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0900	1,220	4.69	Nov. 19, 1962	2000	* 2,790	7.46	Nov. 24, 1964	1230	1,520	5.31
Nov. 20, 1960	1700	1,780	5.78	Nov. 25, 1962	1830	1,200	4.66	Dec. 1, 1964	1600	1,460	5.18
Nov. 24, 1960	2100	1,620	5.51	Feb. 3, 1963	0800	1,950	6.06	Dec. 22, 1964	1830	2,330	6.70
Feb. 21, 1961	1400	* 2,140	6.38					Jan. 30, 1965	0030	* 2,340	6.72
Dec. 24, 1961	1030	* 1,290	4.84	Jan. 25, 1964	0900	* 3,160	8.02				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 23, 1961	20	1.24	1964	Oct. 9-11, 1963	31	b 1.41
1962	Oct. 5, 1961	23	1.27	1965	(c)	23	1.21
1963	Sept. 5-10, 30,1963	33	a 1.40				

a Occurred for part of each day Sept. 5-10, 1963.
b Occurred Aug. 24, 25, 1964.
c July 31, Aug. 1, 2, 7, 8, Sept. 7, 8, 1965.

1942-48, 1957-65: Maximum discharge, 3,810 cfs Dec. 11, 1946 (gage height, 8.40 ft); minimum, 17.5 cfs for part of each day Sept. 6-8, 1958.

Remarks.--Records good. No regulation. Probably some diversion for domestic use. Records of suspended-sediment loads for the water years 1962-63, 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	31	185	242	224	406	875	224	272	85	44	29	77
2	30	192	218	200	398	690	179	336	79	44	28	48
3	31	172	227	182	381	538	350	353	77	42	26	34
4	31	148	206	173	374	434	290	388	74	41	28	32
5	30	129	182	530	416	392	251	367	73	52	29	30
6	43	114	167	678	674	434	224	311	87	52	29	28
7	46	106	156	478	574	409	200	266	85	44	26	26
8	67	96	148	538	454	381	200	254	74	41	26	25
9	48	89	138	514	426	350	218	251	79	45	26	24
10	41	160	131	409	462	336	191	272	76	36	26	24
11	41	382	155	350	434	370	182	242	73	35	25	23
12	52	248	230	318	398	423	239	218	69	35	24	22
13	43	358	191	300	574	566	248	200	66	34	24	22
14	40	500	197	336	514	870	230	200	62	34	25	23
15	38	614	173	465	646	730	209	179	62	34	26	24
16	36	1,000	162	578	586	550	191	167	58	35	28	26
17	35	754	170	558	522	446	194	156	56	38	26	25
18	35	794	262	438	442	374	197	148	55	35	24	25
19	34	632	526	360	658	353	206	138	54	34	23	25
20	34	1,300	388	308	875	381	194	131	52	33	22	28
21	41	985	294	269	1,700	339	248	126	51	33	22	25
22	51	662	242	236	1,100	314	300	119	48	34	21	23
23	168	722	209	215	698	342	370	124	47	34	21	22
24	288	1,300	188	197	778	346	360	115	48	33	24	22
25	152	1,090	173	179	782	308	318	106	46	33	24	21
26	251	662	280	165	626	308	275	117	46	31	23	21
27	404	486	248	151	610	284	242	136	46	31	25	21
28	436	388	218	146	562	257	221	108	45	31	22	30
29	260	322	197	210	------	239	263	102	48	31	22	33
30	198	272	179	349	------	224	260	96	48	30	21	28
31	175	------	203	526	------	209	------	90	------	30	73	------
TOTAL	3,210	14,862	6,700	10,580	17,070	13,072	7,274	6,088	1,869	1,139	818	837
MEAN	104	495	216	341	610	422	242	196	62.3	36.7	26.4	27.9
MAX	436	1,300	526	678	1,700	875	370	388	87	52	73	77
MIN	30	89	131	146	374	209	179	90	45	30	21	21
CFSM	2.44	11.7	5.10	8.05	14.4	9.95	5.72	4.63	1.47	.87	.62	.66
IN.	2.82	13.0	5.88	9.28	15.0	11.5	6.38	5.34	1.64	1.00	.72	.73
AC-FT	6,370	29,480	13,290	20,990	33,860	25,930	14,430	12,080	3,710	2,260	1,620	1,660

CAL YR 1960: TOTAL 74,848 MEAN 205 MAX 1,300 MIN 30 CFSM 4.82 IN 65.65 AC-FT 148,500
WAT YR 1961: TOTAL 83,519 MEAN 229 MAX 1,700 MIN 21 CFSM 5.40 IN 73.26 AC-FT 165,700

12-0240. South Fork Newaukum River near Onalaska, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	114	227	304	170	118	191	242	107	53	31	32
2	26	92	197	311	156	114	179	257	143	53	31	32
3	25	103	209	618	148	107	162	275	143	50	63	32
4	24	86	311	550	143	151	167	254	146	50	67	30
5	24	77	402	458	130	239	173	218	179	56	68	29
6	37	70	290	458	133	266	530	194	162	74	68	29
7	45	65	251	538	136	236	530	173	143	63	75	28
8	32	60	212	466	133	236	406	170	128	52	94	28
9	30	57	182	384	143	221	328	173	116	47	65	28
10	70	104	159	325	170	200	275	156	109	47	54	43
11	67	188	140	284	162	191	245	143	100	45	46	49
12	102	130	130	257	148	173	218	151	94	44	52	37
13	128	103	130	230	167	165	200	170	94	45	54	38
14	74	92	130	215	372	159	188	148	88	44	44	47
15	53	79	146	203	314	154	191	140	83	43	40	38
16	44	72	220	185	248	170	173	128	79	42	40	35
17	39	68	582	188	251	156	154	120	75	42	45	33
18	36	68	423	165	254	151	143	120	74	40	50	33
19	34	72	514	154	221	151	136	116	70	39	45	32
20	33	63	626	140	194	159	130	109	68	38	42	32
21	32	97	698	130	170	170	133	105	65	37	43	32
22	32	618	530	125	179	209	123	107	63	36	39	31
23	135	346	634	120	185	200	116	126	62	35	37	31
24	98	251	1,100	118	156	417	133	148	60	33	36	30
25	81	188	722	203	143	522	120	203	60	33	35	30
26	123	156	534	300	130	402	116	194	63	32	35	29
27	221	162	420	318	120	353	282	167	67	31	36	33
28	162	233	446	272	123	290	284	151	59	31	43	82
29	111	245	478	233	------	254	269	138	54	30	39	90
30	88	230	438	206	------	224	236	126	53	30	35	68
31	74	------	360	188	------	203	------	114	------	31	33	------
TOTAL	2,110	4,289	11,841	8,646	4,999	6,761	6,531	5,036	2,807	1,326	1,485	1,141
MEAN	68.1	143	382	279	179	218	218	162	93.6	42.8	47.9	38.0
MAX	221	618	1,100	618	372	522	530	275	179	74	94	90
MIN	24	57	130	118	120	107	116	105	53	30	31	28
CFSM	1.61	3.37	9.01	6.58	4.21	5.14	5.13	3.83	2.21	1.01	1.13	.90
IN.	1.85	3.76	10.4	7.58	4.38	5.93	5.73	4.42	2.46	1.16	1.30	1.00
AC-FT	4,190	8,510	23,490	17,150	9,920	13,410	12,950	9,990	5,570	2,630	2,950	2,260

CAL YR 1961: TOTAL 76,987 MEAN 211 MAX 1,700 MIN 21 CFSM 4.97 IN 67.53 AC-FT 152,700
WAT YR 1962: TOTAL 56,972 MEAN 156 MAX 1,100 MIN 24 CFSM 3.68 IN 49.97 AC-FT 113,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	63	531	402	270	228	374	188	70	84	58	39
2	52	62	511	448	404	260	308	235	73	73	51	40
3	57	60	444	410	1,370	232	284	213	77	67	48	38
4	53	63	388	332	702	202	354	191	77	62	46	35
5	47	126	382	273	539	180	427	228	84	58	45	34
6	49	105	531	238	413	165	563	244	69	59	45	33
7	78	92	420	208	340	152	483	232	67	78	44	33
8	143	165	346	191	284	140	416	208	69	125	43	33
9	388	140	294	191	244	130	374	185	75	95	43	34
10	224	179	257	162	210	123	332	167	67	100	43	37
11	156	251	225	150	188	132	318	157	62	110	43	37
12	128	230	205	140	172	128	301	150	59	100	43	35
13	173	185	202	135	165	116	280	135	58	90	43	68
14	143	159	315	128	152	128	322	128	55	80	41	56
15	120	148	346	154	147	123	322	119	52	75	38	69
16	105	138	326	150	144	165	301	112	51	70	37	97
17	94	151	273	147	140	167	336	108	48	67	35	79
18	90	179	235	150	185	154	360	101	46	65	38	62
19	86	1,020	228	132	202	175	360	99	48	61	49	53
20	81	1,900	196	126	205	175	326	91	49	58	49	46
21	81	848	196	119	180	167	284	89	77	56	46	44
22	81	535	180	112	162	162	254	86	80	67	52	43
23	77	388	167	108	150	157	244	86	62	58	51	55
24	74	360	154	104	137	144	225	86	64	67	61	43
25	72	832	147	104	160	140	210	86	86	73	58	39
26	75	1,050	137	97	232	140	194	86	70	62	53	38
27	77	708	137	93	199	170	180	86	65	56	45	37
28	72	515	137	91	191	264	170	84	65	55	41	35
29	68	416	157	86	------	490	170	80	84	53	39	35
30	65	527	441	99	------	587	178	75	99	52	39	34
31	65	------	378	125	------	483	------	73	------	55	39	------
TOTAL	3,130	11,595	8,886	5,405	7,887	6,179	9,250	4,208	2,008	2,231	1,406	1,361
MEAN	101	387	287	174	282	199	308	136	66.9	72.0	45.4	45.4
MAX	388	1,900	531	448	1,370	587	563	244	99	125	61	97
MIN	47	60	137	86	137	116	170	73	46	52	35	33
CFSM	2.38	9.12	6.76	4.11	6.64	4.70	7.27	3.20	1.58	1.70	1.07	1.07
IN.	2.75	10.2	7.79	4.74	6.92	5.42	8.11	3.69	1.76	1.96	1.23	1.19
AC-FT	6,210	23,000	17,630	10,720	15,640	12,260	18,350	8,350	3,980	4,430	2,790	2,700

CAL YR 1962: TOTAL 62,343 MEAN 171 MAX 1,900 MIN 28 CFSM 4.03 IN 54.68 AC-FT 123,700
WAT YR 1963: TOTAL 63,546 MEAN 174 MAX 1,900 MIN 33 CFSM 4.11 IN 55.74 AC-FT 126,000

12-0240. South Fork Newaukum River near Onalaska, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	130	202	689	790	247	241	205	140	88	67	55
2	33	191	178	581	631	213	210	191	128	88	70	62
3	33	157	165	413	499	232	183	175	112	86	72	62
4	34	225	154	357	438	480	183	167	147	82	73	56
5	34	199	225	350	388	527	185	160	147	82	69	52
6	34	222	315	655	332	410	172	150	152	77	62	51
7	33	284	273	487	298	332	167	142	180	72	58	55
8	32	402	247	382	264	315	165	137	172	73	53	82
9	31	304	219	392	241	326	178	142	147	73	53	70
10	31	294	188	388	238	388	202	154	135	69	52	62
11	34	244	170	346	232	452	244	152	132	65	48	56
12	41	216	157	312	210	438	277	154	125	62	48	52
13	46	250	147	382	202	360	270	157	120	61	51	51
14	43	346	142	434	188	368	260	142	115	79	46	49
15	37	294	142	455	228	438	392	128	110	142	45	48
16	34	332	205	706	254	396	364	123	157	101	44	46
17	34	615	216	812	312	402	312	126	270	86	43	72
18	34	491	205	834	430	382	260	126	424	79	49	55
19	33	455	304	787	427	326	228	123	284	73	52	53
20	38	388	515	780	346	298	205	172	219	69	45	64
21	43	326	410	563	284	264	191	254	183	75	43	56
22	234	322	329	459	250	235	273	264	160	70	41	61
23	157	410	277	388	228	213	228	216	142	65	40	56
24	152	385	241	530	208	194	202	178	128	61	39	52
25	185	343	267	2,410	191	188	191	157	116	58	41	49
26	157	346	241	1,120	180	205	228	144	110	55	55	48
27	121	388	241	826	167	180	238	140	108	53	52	45
28	144	318	232	700	172	172	228	140	106	52	62	44
29	154	267	208	749	165	175	219	132	95	51	58	46
30	157	228	191	671	------	199	202	128	91	52	65	89
31	137	------	205	718	------	213	------	137	------	69	59	------
TOTAL	2,343	9,372	7,211	19,676	8,793	9,568	6,898	4,916	4,655	2,268	1,655	1,699
MEAN	75.6	312	233	635	303	309	230	159	155	73.2	53.4	56.6
MAX	234	615	515	2,410	790	527	392	264	424	142	73	89
MIN	31	130	142	312	165	172	165	123	91	51	39	44
CFSM	1.78	7.37	5.49	15.0	7.15	7.28	5.42	3.74	3.66	1.73	1.26	1.34
IN.	2.06	8.22	6.32	17.3	7.71	8.39	6.05	4.31	4.08	1.99	1.45	1.49
AC-FT	4,650	18,590	14,300	39,030	17,440	18,980	13,680	9,750	9,230	4,500	3,280	3,370

CAL YR 1963: TOTAL 58,861 MEAN 161 MAX 1,370 MIN 31 CFSM 3.80 IN 51.63 AC-FT 116,700
WAT YR 1964: TOTAL 79,054 MEAN 216 MAX 2,410 MIN 31 CFSM 5.09 IN 69.34 AC-FT 156,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	93	72	1,340	263	772	280	96	106	61	34	24	26
2	82	82	1,140	331	567	247	87	98	60	34	25	26
3	77	133	744	291	447	222	80	93	56	33	26	26
4	70	304	515	247	383	199	78	121	54	33	26	25
5	64	228	392	257	395	186	78	127	52	33	26	25
6	59	160	315	270	363	172	78	121	51	32	25	24
7	55	128	267	241	313	162	77	114	50	31	24	24
8	65	110	277	228	395	152	73	104	48	32	24	24
9	88	106	315	208	391	145	75	96	50	33	25	24
10	79	106	308	225	335	138	75	95	47	38	26	24
11	69	147	290	219	280	136	70	87	50	48	26	24
12	64	132	264	205	347	129	67	85	47	35	58	24
13	61	162	294	197	631	123	73	82	46	33	75	24
14	64	135	391	219	559	116	72	78	50	32	40	79
15	126	121	385	302	511	112	70	78	56	30	32	87
16	126	108	284	355	527	106	84	100	48	30	29	80
17	110	104	232	316	527	104	80	87	46	29	27	52
18	93	97	208	280	455	96	75	80	47	28	26	43
19	84	91	191	274	395	95	191	84	46	28	33	38
20	75	88	175	284	343	93	298	119	43	32	51	34
21	70	84	325	375	316	96	228	104	42	35	35	33
22	65	112	1,460	316	305	98	183	93	41	32	31	31
23	62	187	1,400	420	257	89	148	87	40	29	30	30
24	61	1,130	871	479	231	84	138	82	40	27	30	28
25	59	734	631	427	214	87	136	78	40	26	30	28
26	56	655	776	511	219	91	123	73	39	26	51	28
27	56	452	682	1,490	411	85	114	70	38	26	35	28
28	55	350	519	1,510	347	104	106	67	36	26	31	27
29	53	399	415	1,960	------	104	98	67	35	25	29	27
30	64	788	347	2,040	------	91	98	70	34	25	27	26
31	61	------	291	1,180	------	87	------	66	------	24	26	------
TOTAL	2,266	7,505	16,044	15,920	11,236	4,029	3,249	2,812	1,393	959	1,003	1,019
MEAN	73.1	250	518	514	401	130	108	90.7	46.4	30.9	32.4	34.0
MAX	126	1,130	1,460	2,040	772	280	298	127	61	48	75	87
MIN	53	72	175	197	214	84	67	66	34	24	24	24
CFSM	1.72	5.90	12.2	12.1	9.46	3.07	2.55	2.14	1.10	.73	.76	.80
IN.	1.99	6.58	14.1	14.0	9.86	3.53	2.85	2.47	1.22	.84	.88	.89
AC-FT	4,490	14,890	31,820	31,580	22,290	7,990	6,440	5,580	2,760	1,900	1,990	2,020

CAL YR 1964: TOTAL 85,943 MEAN 235 MAX 2,410 MIN 39 CFSM 5.54 IN 75.38 AC-FT 170,500
WAT YR 1965: TOTAL 67,435 MEAN 185 MAX 2,040 MIN 24 CFSM 4.36 IN 59.15 AC-FT 133,800

12-0245. North Fork Newaukum River near Forest, Wash.

Location.--Lat 46°39'20", long 122°46'40", in NW¼SW¼ sec.35, T.14 N., R.1 W., on left bank 1¼ miles upstream from Lucas Creek and 5½ miles northeast of Forest.

Drainage area.--31.5 sq mi.

Records available.--July to November 1944, July 1957 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 380 ft (from topographic map). July 25 to Nov. 6, 1944, at site 150 ft upstream at different datum.

Average discharge.--8 years (1957-65), 107 cfs (77,460 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (600 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0830	617	3.28	Dec. 21, 1961	0200	805	3.58	Jan. 25, 1964	0430	* 2,770	6.44
Nov. 20, 1960	1500	* 1,630	5.04	Dec. 24, 1961	0800	* 872	3.70				
Nov. 24, 1960	2400	1,150	4.27					Nov. 24, 1964	1000	1,250	4.35
Jan. 5, 1961	1700	788	3.66	Nov. 19, 1962	1800	* 2,520	6.13	Dec. 1, 1964	1700	1,020	3.93
Jan. 16, 1961	0100	827	3.72	Nov. 25, 1962	1700	1,440	4.51	Dec. 22, 1964	1730	* 1,330	4.49
Feb. 21, 1961	1400	1,610	5.01	Feb. 3, 1963	0700	1,380	4.42	Jan. 26, 1965	2230	1,310	4.45
Feb. 24, 1961	1800	810	3.71					Jan. 29, 1965	2000	1,160	4.19
Mar. 1, 1961	0700	827	3.74	Jan. 1, 1964	1500	935	3.77				
Mar. 14, 1961	0130	646	3.41	Jan. 19, 1964	2000	970	3.84				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 14, 1961	2.0	a 1.25	1964	Oct. 2,3,7-11,1963	7.8	0.53
1962	July 29, 1962	2.8	b 1.18	1965	Aug. 1,Sept.8,1965	2.0	d .68
1963	Oct. 2, 1962	7.0	c .53				

a Occurred Oct. 1-3, 5, 6, 1960.
b Occurred Sept. 26, 1962.
c Occurred Sept. 5-10, 28, 30, 1963.
d Occurred Oct. 7, 1964.

1944, 1957-65: Maximum discharge, 2,770 cfs Jan. 25, 1964 (gage height, 6.44 ft); minimum, 1.2 cfs Aug. 20, probably 26, 1958.

Remarks.--Records good except those for period of no gage-height record, which are poor. Cities of Chehalis and Centralia divert about 15 cfs above station for municipal use. No regulation. Records of suspended-sediment loads for the water years 1962-63, 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.4	74	120	106	289	690	141	164	44	16	5.3	30
2	6.4	90	104	95	263	510	191	187	41	16	4.8	15
3	6.4	83	109	85	263	400	177	400	39	14	3.9	10
4	6.8	68	95	81	250	315	150	247	37	14	3.9	7.0
5	6.4	56	83	432	300	289	138	239	37	21	5.3	6.0
6	15	48	74	430	500	347	123	177	48	24	4.8	5.0
7	14	42	69	289	352	320	109	150	44	16	3.2	4.0
8	22	35	56	395	263	284	106	141	37	15	3.9	3.5
9	13	30	62	347	272	255	109	138	39	13	3.9	3.5
10	10	87	58	247	328	251	95	129	39	11	3.5	3.2
11	9.4	194	60	198	289	328	93	117	36	11	2.8	3.2
12	14	112	93	173	251	376	129	109	34	9.2	3.2	3.2
13	10	158	74	167	400	460	114	98	30	8.4	3.2	2.5
14	8.9	263	74	177	380	575	106	98	28	8.4	3.2	2.5
15	8.4	311	64	284	465	450	98	93	27	9.2	3.9	3.2
16	8.0	504	60	590	380	338	93	85	23	9.2	5.3	4.0
17	8.0	391	71	390	352	280	98	78	20	11	6.0	4.0
18	8.0	395	159	315	306	232	98	76	20	9.2	5.0	4.0
19	8.0	299	342	251	430	228	104	66	20	7.7	4.0	4.0
20	8.0	962	212	205	535	259	123	64	20	7.7	3.5	4.0
21	11	615	147	173	1,200	220	191	64	19	7.7	3.0	3.5
22	16	361	117	154	734	209	280	62	19	9.2	2.5	3.5
23	66	430	98	135	465	276	333	69	19	9.2	2.5	3.0
24	108	866	88	123	575	310	259	60	17	8.4	5.0	2.8
25	50	635	78	112	610	236	209	54	16	7.7	5.0	2.8
26	105	366	126	101	470	243	170	64	16	6.4	5.0	2.8
27	172	263	112	93	445	243	144	74	16	6.4	6.0	3.5
28	187	202	98	90	405	202	129	56	16	7.0	5.0	4.0
29	104	167	88	132	------	173	154	52	18	7.0	4.5	5.0
30	76	138	78	248	------	154	150	48	18	5.8	4.0	6.0
31	70	------	93	405	------	135	------	46	------	5.3	25	------
TOTAL	1,162.1	8,245	3,162	7,023	11,772	9,588	4,414	3,505	837	331.1	150.1	158.7
MEAN	37.5	275	102	227	420	309	147	113	27.9	10.7	4.84	5.29
MAX	187	962	342	590	1,200	690	333	400	48	24	25	30
MIN	6.4	30	56	81	250	135	93	46	16	5.3	2.5	2.5
CFSM	1.19	8.72	3.24	7.19	13.3	9.82	4.67	3.59	.89	.34	.15	.17
IN.	1.37	9.73	3.73	8.29	13.9	11.3	5.21	4.14	.99	.39	.18	.19
AC-FT	2,300	16,350	6,270	13,930	23,350	19,020	8,760	6,950	1,660	657	298	315

CAL YR 1960: TOTAL 39,874.7 MEAN 109 MAX 962 MIN 5.0 CFSM 3.46 IN 47.08 AC-FT 79,090
WAT YR 1961: TOTAL 50,348.0 MEAN 138 MAX 1,200 MIN 2.5 CFSM 4.38 IN 59.44 AC-FT 99,860

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0245. North Fork Newaukum River near Forest, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.0	46	200	164	83	66	95	132	52	20	5.3	12
2	8.0	36	160	167	76	64	88	123	95	19	5.8	12
3	7.5	39	140	366	71	60	81	135	90	17	64	11
4	7.0	30	150	310	69	144	85	126	85	18	66	8.4
5	7.0	26	250	263	58	268	81	109	93	23	52	7.7
6	11	24	210	268	66	243	202	98	76	44	54	7.0
7	15	21	180	371	69	173	194	88	64	24	78	7.0
8	7.7	20	150	284	69	154	180	90	62	18	136	6.4
9	7.7	20	120	212	76	132	164	109	56	17	58	5.8
10	41	62	100	173	95	123	132	95	50	18	37	37
11	34	132	80	150	83	106	112	83	44	15	26	54
12	44	71	75	135	76	98	100	90	42	14	34	30
13	46	50	75	120	85	93	85	98	46	15	64	36
14	20	39	90	106	320	88	78	83	41	14	28	41
15	14	32	120	98	255	83	81	76	37	14	20	17
16	11	28	250	93	164	90	69	66	34	14	19	14
17	11	26	500	95	154	81	62	62	34	14	26	11
18	14	26	350	88	150	76	60	58	32	14	30	10
19	13	26	315	81	129	76	58	54	30	12	26	9.2
20	12	25	445	76	106	83	56	52	27	11	18	9.2
21	6.4	50	595	74	93	88	58	50	26	10	19	9.2
22	7.7	350	385	74	98	141	54	52	24	7.7	16	9.2
23	90	300	450	76	109	135	52	69	21	8.4	12	7.7
24	44	150	744	76	93	278	71	85	20	7.7	9.2	5.8
25	30	100	470	130	83	356	58	123	20	7.7	7.7	5.8
26	71	80	342	177	74	263	56	109	23	5.8	8.4	5.8
27	123	90	251	167	66	209	281	85	24	5.3	12	12
28	81	100	243	141	69	167	228	76	19	4.4	17	81
29	46	150	247	120	------	144	191	69	17	3.9	17	56
30	32	180	251	101	------	120	150	64	19	4.4	15	20
31	26	------	202	90	------	104	------	56	------	4.8	13	------
TOTAL	896.0	2,329	8,140	4,846	2,939	4,306	3,262	2,665	1,303	425.1	993.4	558.2
MEAN	28.9	77.6	263	156	105	139	109	86.0	43.4	13.7	32.0	18.6
MAX	123	350	744	371	320	356	281	135	95	44	136	81
MIN	6.4	20	75	74	58	60	52	50	17	3.9	5.3	5.8
CFSM	.92	2.46	8.34	4.96	3.33	4.41	3.45	2.73	1.38	.44	1.02	.59
IN.	1.06	2.75	9.61	5.72	3.47	5.08	3.85	3.15	1.54	.50	1.17	.66
AC-FT	1,780	4,620	16,150	9,610	5,830	8,540	6,470	5,290	2,580	843	1,970	1,110

CAL YR 1961: TOTAL 49,143.9 MEAN 135 MAX 1,200 MIN 2.5 CFSM 4.27 IN 58.02 AC-FT 97,480
WAT YR 1962: TOTAL 32,662.7 MEAN 89.5 MAX 744 MIN 3.9 CFSM 2.84 IN 38.56 AC-FT 64,790

Note.--No gage-height record Nov. 19 to Dec. 18. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the difference can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	15	358	203	192	119	235	91	30	28	23	12
2	10	15	306	238	342	138	182	138	32	23	20	12
3	30	14	262	222	934	125	165	135	32	20	13	11
4	23	18	210	168	400	105	195	115	37	19	12	8.5
5	12	88	206	138	309	90	232	168	40	19	13	8.5
6	11	66	274	119	222	81	323	172	33	20	13	7.8
7	32	46	212	105	175	72	283	148	33	34	13	7.8
8	112	61	170	97	142	66	238	125	36	67	12	7.8
9	255	46	142	95	119	61	208	107	37	38	12	7.8
10	83	69	123	81	103	58	180	95	31	46	15	10
11	66	136	111	60	90	63	175	86	28	40	11	11
12	60	147	103	54	79	60	165	81	28	32	13	9.2
13	154	135	107	56	75	55	155	72	25	28	12	18
14	117	83	215	60	67	63	182	67	23	26	11	15
15	88	64	247	54	64	60	185	63	20	24	10	20
16	64	48	230	68	64	90	162	58	19	22	9.2	42
17	56	56	175	62	63	84	188	55	18	20	8.5	30
18	50	78	138	75	82	75	192	52	17	20	8.5	15
19	44	963	135	65	91	81	188	48	18	19	17	11
20	37	1,090	115	60	93	79	175	45	19	18	26	9.2
21	36	480	111	57	79	72	160	42	30	18	16	8.5
22	32	271	101	54	69	69	140	41	34	30	19	9.2
23	27	185	93	52	63	66	131	40	22	21	16	15
24	23	193	86	50	58	61	119	40	23	22	28	14
25	21	953	81	56	83	58	113	38	36	28	20	15
26	26	754	77	50	160	58	101	37	26	20	16	10
27	26	452	77	47	125	74	93	36	23	17	13	11
28	20	295	77	43	107	198	86	33	25	16	12	8.5
29	19	238	75	38	------	462	84	31	31	17	10	8.5
30	18	346	180	43	------	435	84	31	37	18	10	8.5
31	17	------	162	70	------	337	------	31	------	20	11	------
TOTAL	1,580	7,405	4,959	2,640	4,450	3,515	5,119	2,321	843	790	443.2	381.8
MEAN	51.0	247	160	85.2	159	113	171	74.9	28.1	25.5	14.3	12.7
MAX	255	1,090	358	238	934	462	323	172	40	67	28	42
MIN	10	14	75	38	58	55	84	31	17	16	8.5	7.8
CFSM	1.62	7.84	5.08	2.70	5.05	3.60	5.42	2.38	.89	.81	.45	.40
IN.	1.87	8.74	5.85	3.12	5.25	4.15	6.04	2.74	1.00	.93	.52	.45
AC-FT	3,130	14,690	9,840	5,240	8,830	6,970	10,150	4,600	1,670	1,570	879	757

CAL YR 1962: TOTAL 35,241.7 MEAN 96.6 MAX 1,090 MIN 3.9 CFSM 3.07 IN 41.61 AC-FT 69,900
WAT YR 1963: TOTAL 34,447.0 MEAN 94.4 MAX 1,090 MIN 7.8 CFSM 3.00 IN 40.67 AC-FT 68,320

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0245. North Fork Newaukum River near Forest, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.5	38	91	541	333	155	94	86	35	35	30	18
2	7.8	88	79	357	272	132	89	81	34	35	35	28
3	7.8	60	72	210	234	138	81	76	31	34	31	27
4	8.5	67	66	175	212	256	86	72	49	31	30	21
5	10	60	114	182	188	246	86	68	49	31	26	18
6	11	71	175	387	170	195	79	64	46	29	23	18
7	8.5	109	134	252	155	164	76	61	53	26	20	19
8	7.8	186	116	182	142	157	79	58	63	26	18	35
9	10	118	100	191	130	173	73	60	58	26	19	28
10	7.8	128	84	226	132	224	89	60	48	24	20	20
11	7.8	107	74	202	124	278	110	54	44	23	17	17
12	13	96	70	166	114	270	130	56	40	22	18	15
13	15	159	63	202	109	219	132	53	38	22	19	13
14	17	193	58	239	103	219	116	49	37	34	18	15
15	12	195	58	249	122	232	177	46	36	72	17	14
16	10	166	93	446	132	207	173	45	64	38	16	14
17	12	298	114	624	162	207	159	43	117	30	15	44
18	11	294	103	612	175	191	134	40	184	29	20	24
19	9.2	272	147	587	173	168	112	39	120	27	24	20
20	10	236	342	548	149	164	98	48	94	26	21	28
21	19	177	246	339	130	147	91	68	78	30	17	20
22	184	159	177	272	114	134	114	76	67	27	16	22
23	64	224	138	217	105	122	98	63	58	24	15	20
24	71	212	120	402	98	110	88	53	51	22	14	16
25	97	170	142	1,820	91	107	82	48	46	20	20	17
26	66	164	132	536	84	114	93	44	43	19	22	19
27	42	193	120	369	79	103	86	42	43	18	21	15
28	52	157	114	308	82	96	82	39	42	17	30	12
29	54	130	101	308	86	94	82	38	37	16	21	14
30	48	110	94	283	------	93	79	37	36	19	27	43
31	38	------	110	313	------	91	------	36	------	36	21	------
TOTAL	939.7	4,637	3,647	11,745	4,200	5,206	3,068	1,703	1,741	868	661	634
MEAN	30.3	155	118	379	145	168	102	54.9	58.0	28.0	21.3	21.1
MAX	184	298	342	1,820	333	278	177	86	184	72	35	44
MIN	7.8	38	58	166	79	91	73	36	31	16	14	12
CFSM	.96	4.91	3.73	12.0	4.60	5.33	3.25	1.74	1.84	.89	.68	.67
IN.	1.11	5.47	4.31	13.9	4.96	6.15	3.62	2.01	2.06	1.02	.78	.75
AC-FT	1,860	9,200	7,230	23,300	8,330	10,330	6,090	3,380	3,450	1,720	1,310	1,260

CAL YR 1963: TOTAL 29,726.7 MEAN 81.4 MAX 934 MIN 7.8 CFSM 2.59 IN 35.10 AC-FT 58,960
WAT YR 1964: TOTAL 39,049.7 MEAN 107 MAX 1,820 MIN 7.8 CFSM 3.39 IN 46.10 AC-FT 77,450

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	49	38	749	214	390	168	49	58	26	10	2.3	3.4
2	35	60	616	305	316	146	43	55	25	9.7	2.6	3.8
3	27	91	384	254	280	135	40	51	23	9.7	4.3	4.8
4	21	200	286	214	267	122	38	68	22	8.3	6.5	3.4
5	18	132	239	229	291	114	37	68	21	7.7	5.9	3.4
6	16	86	210	267	272	104	38	64	21	7.7	4.3	3.0
7	16	68	193	232	252	100	40	57	20	8.3	3.4	2.6
8	25	58	188	214	308	95	37	51	19	9.0	3.4	2.3
9	46	54	186	195	275	86	37	48	20	11	3.8	2.6
10	38	58	193	200	252	83	37	44	19	20	3.4	2.6
11	27	101	193	195	229	79	33	42	21	19	3.8	2.6
12	23	98	184	182	242	75	33	42	20	13	23	3.4
13	20	109	214	177	304	68	37	40	18	10	34	3.4
14	24	84	288	198	289	66	36	38	20	9.7	14	19
15	64	72	275	229	275	62	33	38	24	9.0	7.7	31
16	56	64	210	224	275	60	38	58	20	8.3	5.3	27
17	46	57	190	210	261	57	33	46	18	9.0	4.3	11
18	39	56	175	195	237	55	33	40	18	7.1	3.8	7.1
19	34	50	165	193	214	51	112	42	18	7.7	7.7	5.3
20	29	49	160	200	186	49	247	58	17	11	20	4.8
21	26	46	260	242	183	53	211	49	16	15	11	5.9
22	26	54	857	222	177	53	146	44	16	11	7.1	9.7
23	23	93	660	330	157	46	107	42	15	8.3	7.1	9.0
24	23	768	422	305	146	44	95	40	15	7.1	7.7	7.7
25	23	394	339	280	137	48	81	37	15	4.3	6.5	5.3
26	21	372	411	462	140	49	68	32	15	3.8	8.3	4.8
27	20	286	387	777	204	46	60	31	13	3.4	7.7	5.3
28	19	232	310	746	192	58	55	28	13	3.8	5.9	5.9
29	18	265	267	925	------	58	51	28	12	3.0	4.8	8.3
30	25	446	236	895	------	49	53	27	11	2.6	4.3	8.3
31	28	------	214	564	------	44	------	27	------	2.6	3.8	------
TOTAL	905	4,541	9,661	10,075	6,751	2,323	1,958	1,393	551	270.1	237.7	216.7
MEAN	29.2	151	312	325	241	74.9	65.3	44.9	18.4	8.71	7.67	7.22
MAX	64	768	857	925	390	168	247	68	26	20	34	31
MIN	16	38	160	177	137	44	33	27	11	2.6	2.3	2.3
CFSM	.93	4.81	9.89	10.3	7.65	2.38	2.07	1.43	.58	.28	.24	.23
IN.	1.07	5.36	11.4	11.9	7.97	2.74	2.31	1.64	.65	.32	.28	.26
AC-FT	1,800	9,010	19,160	19,980	13,390	4,610	3,880	2,760	1,090	536	471	430

CAL YR 1964: TOTAL 44,933 MEAN 123 MAX 1,820 MIN 12 CFSM 3.90 IN 53.05 AC-FT 89,120
WAT YR 1965: TOTAL 38,882.5 MEAN 107 MAX 925 MIN 2.3 CFSM 3.38 IN 45.91 AC-FT 77,120

12-0250. Newaukum River near Chehalis, Wash.

Location.--Lat 46°37'10", long 122°56'40", in SW¼SW¼ sec.9, T.13 N., R.2 W., on left bank at highway bridge, 2½ miles southeast of Chehalis and 3½ miles upstream from mouth.

Drainage area.--155 sq mi.

Records available.--March 1929 to September 1931, July 1942 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 190 ft (from topographic map). Prior to Oct. 1, 1929, staff gage at same site at datum 1.0 ft higher. Oct. 1, 1929, to July 5, 1962, staff gage and crest-stage gage at same site and datum.

Average discharge.--25 years, 506 cfs (366,300 acre-ft per year), unadjusted.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	a2100	* 6,460	11.66	Nov. 25, 1962	2330	5,370	9.89	Dec. 1, 1964	2300	4,390	8.66
Nov. 24, 1960	a2400	5,400	10.47	Feb. 3, 1963	1400	5,740	10.35	Dec. 23, 1964	0300	* 6,500	11.30
Feb. 21, 1961	a2030	5,920	11.05					Jan. 27, 1965	1100	5,350	9.86
				Jan. 20, 1964	0200	4,490	8.79	Jan. 30, 1965	0800	5,590	10.16
Dec. 24, 1961	a1500	* 3,820	8.5	Jan. 25, 1964	1500	* 7,970	12.97				
Nov. 20, 1962	0830	* 6,960	11.84	Nov. 24, 1964	2030	5,010	9.44				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 23, 1961	28	0.52	1964	Oct. 2-4,9-12,1963	a 50	0.50
1962	Oct. 2,4,5,6,1961	31	.58	1965	July 31, Aug. 1, 2	22	b .39
1963	Aug. 17, 18, 1963	38	.42				

a Part of each day.
b Occurred Aug. 2, 1965.

1929-31, 1942-65: Maximum discharge, 7,970 cfs Jan. 25, 1964 (gage height, 12.97 ft), from rating curve extended above 4,900 cfs; maximum gage height, 13.62 ft Dec. 9, 1953; minimum discharge observed, 12 cfs Sept. 13, 14, 1949.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)	WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1316	1931	Apr. 1, 1931	6,750	12.9	1346	1954	Dec. 9, 1953	7,880	13.62
1316	1945	Feb. 8, 1945	6,080	12.20	1446	1956	Dec. 12, 1955	7,200	13.00
1316	1946	Feb. 6, 1946	5,900	12.00	1566	1958	Dec. 26, 1957	3,590	8.56
1092	1947	Dec. 11, 1946	6,350	12.50	1636	1959	Nov. 12, 1958	6,290	11.79
1122	1948	Mar. 22, 1948	5,630	11.7	1716	1960	Nov. 21, 1959	5,950	11.42
1182	1949	Feb. 17, 1949	6,950	13.06					

Remarks.--Records excellent. Cities of Chehalis and Centralia divert about 15 cfs for municipal use. No regulation. Records of chemical analyses and suspended-sediment loads for the water years 1962-65 are published in reports of the Geological Survey.

12-0250. Newaukum River near Chehalis, Wash.--Continued

Revisions (water years).--WSP 1012: 1943. WSP 1316: 1929-31(M), 1945-46(M), 1950(M). WSP 1716: Drainage area. Revised figures of discharge, in cubic feet per second, for high-water periods for the water years 1945-49, 1959-60, superseding those published in WSP 1042, 1062, 1092, 1122, 1152, 1636, and 1716, are given herewith:

Feb. 8, 1945.....	5,000	Dec. 12, 1946....	4,820	Dec. 2, 1948.....	4,480	Nov. 12, 1958.....	4,220
Nov. 18...........	3,610	13..........	3,610	9...........	4,470	13...........	3,800
Dec. 29...........	3,610	Jan. 26, 1947....	3,920	10...........	4,560	Nov. 21, 1959.....	4,500
Jan. 5, 1946.....	4,320	Feb. 2..........	5,000	12...........	3,920	22...........	3,610
Feb. 2...........	3,840	Jan. 2, 1948....	4,320	Feb. 17, 1949.....	6,450	23...........	4,780
6...........	4,320	3..........	3,610	22...........	5,450		
Dec. 11...........	5,540	Feb. 26..........	3,920	23...........	4,560		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
February 1945	29,893	5,000	352	1,068	59,290
Water year 1944-45	155,066	5,000	33	425	307,600
November 1945	24,280	3,610	200	809	48,160
December	30,290	3,610	308	977	60,080
Calendar year 1945	188,187	5,000	33	516	373,200
January 1946	40,608	4,320	477	1,310	80,540
February	38,384	4,320	609	1,371	76,130
Water year 1945-46	188,390	4,320	39	544	393,500
December 1946	42,287	5,540	294	1,364	83,880
Calendar year 1946	221,832	5,540	44	608	440,000
January 1947	29,315	3,920	226	946	58,150
February	26,709	5,000	294	954	52,980
Water year 1946-47	182,455	5,540	34	500	361,900
Calendar year 1947	173,549	5,000	34	475	344,200
January 1948	38,479	4,320	266	1,241	76,320
February	32,425	3,920	213	1,118	64,310
Water year 1947-48	215,750	4,320	49	589	427,900
December 1948	53,582	4,560	415	1,728	106,300
Calendar year 1948	238,226	4,560	52	651	472,500
February 1949	46,416	6,450	164	1,658	92,060
Water year 1948-49	203,934	6,450	14	559	404,500
Calendar year 1949	173,123	6,450	14	474	343,400
November 1958	34,375	4,220	78	1,146	68,180
Calendar year 1958	-	4,220	22	506	366,400
Water year 1958-59	-	4,220	47	561	406,000
November 1959	32,646	4,780	180	1,088	64,750
Calendar year 1959	-	4,780	47	578	418,600
Water year 1959-60	-	4,780	33	575	417,200

Revised peak discharge.--1955-56: Nov. 25 (about 0330) 6,630 cfs (12.48 ft); Dec. 12 (about 0400) 7,200 cfs (13.00 ft); Dec. 20 (about 1930) 6,140 cfs (11.99 ft).

1958-59: Nov. 12 (time unknown) 6,290 cfs (11.79 ft); Jan. 24 (time unknown) 5,790 cfs (11.24 ft).

1959-60: Nov. 21 (time unknown) 5,950 cfs (11.42 ft); Nov. 23 (time unknown) 5,840 cfs (11.3 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	52	407	580	531	1,430	2,260	548	748	178	76	37	120
2	48	435	503	503	1,440	1,930	940	852	168	75	35	118
3	50	459	495	439	1,180	1,530	880	892	155	71	33	55
4	47	359	483	388	1,180	1,220	760	1,080	148	68	33	49
5	50	304	400	1,230	1,360	1,060	642	1,080	145	84	33	43
6	50	251	355	2,720	2,260	1,300	555	852	153	105	33	37
7	88	239	327	1,560	1,780	1,220	502	720	201	84	32	37
8	125	204	291	1,920	1,380	1,060	468	653	172	71	33	36
9	104	179	275	1,820	1,320	960	520	672	162	64	31	34
10	79	207	257	1,280	1,780	1,080	478	653	160	59	32	33
11	104	714	447	980	1,400	1,200	457	590	153	56	32	33
12	105	683	588	916	1,280	1,480	530	527	143	52	32	32
13	74	1,100	467	852	1,800	1,860	548	482	124	50	30	30
14	71	1,400	447	888	1,730	2,800	496	450	116	45	30	30
15	68	1,530	423	1,140	2,000	2,130	460	426	109	43	29	30
16	66	2,190	352	2,540	1,480	1,580	433	377	103	45	32	30
17	63	1,870	385	1,900	1,560	1,240	450	345	97	49	33	33
18	60	2,240	706	1,520	1,420	1,030	416	314	93	48	33	32
19	60	1,860	1,650	1,140	1,560	860	485	293	91	48	33	32
20	60	4,110	1,200	916	2,160	1,140	485	273	89	44	32	34
21	67	4,000	786	812	4,320	980	660	267	85	45	32	33
22	74	2,100	647	680	3,660	880	1,030	253	82	45	29	34
23	127	2,120	531	586	1,960	1,060	1,760	264	80	44	29	32
24	527	3,910	471	544	2,230	1,330	1,280	267	76	46	31	33
25	324	3,960	459	492	2,920	940	968	230	75	43	30	31
26	370	1,980	822	443	2,420	972	812	241	75	39	32	29
27	868	1,360	634	403	1,900	1,000	672	314	75	39	31	29
28	1,040	980	531	386	1,600	820	586	250	75	41	29	39
29	665	809	483	474	------	720	660	222	78	40	29	64
30	455	692	407	908	------	636	772	206	85	39	32	41
31	400	------	431	2,070	------	572	------	198	------	37	48	------
TOTAL	6,341	42,652	16,833	32,981	52,510	38,850	20,253	14,991	3,546	1,695	1,000	1,243
MEAN	205	1,422	543	1,064	1,875	1,253	675	484	118	54.7	32.3	41.4
MAX	1,040	4,110	1,650	2,720	4,320	2,800	1,760	1,080	201	105	48	120
MIN	47	179	257	386	1,180	572	416	198	75	37	29	29
AC-FT	12,580	84,600	33,390	65,420	104,200	77,060	40,170	29,730	7,030	3,360	1,980	2,470

CAL YR 1960: TOTAL 201,503 MEAN 551 MAX 4,110 MIN 33 AC-FT 399,700

WAT YR 1961: TOTAL 232,895 MEAN 638 MAX 4,320 MIN 29 AC-FT 461,900

12-0250. Newaukum River near Chehalis, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	131	776	688	373	317	436	534	228	87	42	45
2	32	168	604	660	342	311	409	594	281	87	43	45
3	32	145	538	1,380	314	290	370	566	361	80	68	44
4	32	145	530	1,330	302	510	377	583	332	78	116	42
5	31	124	1,000	1,060	284	1,030	413	496	373	91	99	40
6	34	116	784	1,040	278	1,090	768	430	345	116	97	39
7	50	101	636	1,400	323	792	1,280	390	311	107	113	39
8	52	91	576	1,100	317	696	1,040	361	258	84	225	38
9	44	89	485	884	342	632	876	440	241	75	124	37
10	91	120	386	752	468	558	704	406	220	73	87	45
11	120	380	326	628	426	544	618	345	196	71	70	87
12	122	302	293	580	373	499	513	351	180	68	65	65
13	250	220	296	527	400	454	471	492	185	68	91	59
14	129	178	419	482	1,140	419	423	400	178	66	70	66
15	89	153	433	482	1,130	386	416	357	165	64	60	60
16	76	131	812	433	788	400	390	332	153	62	56	50
17	56	116	2,340	464	732	367	336	296	141	60	60	46
18	52	116	1,550	400	712	332	302	273	138	59	68	44
19	52	120	1,370	364	604	336	281	264	124	58	68	43
20	50	113	1,700	320	527	329	261	236	118	55	60	43
21	48	118	2,690	299	447	383	264	225	113	52	59	43
22	48	1,110	2,120	287	450	590	244	217	109	49	56	43
23	172	804	1,710	273	552	558	233	332	107	48	52	42
24	193	590	3,030	264	468	1,280	267	364	101	45	50	42
25	133	478	2,190	364	400	1,660	264	457	99	45	46	41
26	206	351	1,680	642	336	1,220	239	474	103	44	45	41
27	345	320	1,200	668	326	1,000	836	396	103	43	48	42
28	311	416	1,030	600	314	840	884	345	101	42	50	82
29	206	569	980	513	------	680	728	311	93	41	60	145
30	158	632	995	440	------	572	604	281	89	41	50	101
31	129	------	836	403	------	506	------	247	------	42	46	------
TOTAL	3,376	8,447	34,315	19,727	13,468	19,581	15,247	11,795	5,546	2,001	2,244	1,599
MEAN	109	282	1,107	636	481	632	508	380	185	64.5	72.4	53.3
MAX	345	1,110	3,030	1,400	1,140	1,660	1,280	594	373	116	225	145
MIN	31	89	293	264	278	290	233	217	89	41	42	37
AC-FT	6,700	16,750	68,060	39,130	26,710	38,840	30,240	23,400	11,000	3,970	4,450	3,170

CAL YR 1961: TOTAL 213,207 MEAN 584 MAX 4,320 MIN 29 AC-FT 422,930
WAT YR 1962: TOTAL 137,346 MEAN 376 MAX 3,030 MIN 31 AC-FT 272,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	71	85	1,760	911	1,100	634	1,380	386	120	148	87	56
2	64	82	1,550	1,280	1,470	798	955	534	126	124	78	60
3	89	80	1,370	1,070	4,840	710	798	514	134	109	69	55
4	82	78	1,100	826	2,590	586	814	454	128	97	61	47
5	66	184	985	678	1,860	494	970	648	168	90	58	42
6	64	244	1,390	578	1,320	422	1,560	714	136	87	58	40
7	80	185	1,120	502	1,060	375	1,390	634	124	110	56	41
8	238	261	870	454	830	337	1,110	554	130	238	55	40
9	736	220	734	458	694	307	945	458	140	179	50	41
10	485	400	630	386	590	289	798	389	130	185	55	42
11	290	733	550	310	510	283	770	347	114	197	52	52
12	329	886	486	295	438	295	706	334	109	168	58	50
13	538	716	474	298	403	270	686	298	105	142	56	64
14	430	566	818	292	375	268	782	270	96	130	53	114
15	293	471	1,050	313	340	292	914	252	90	122	48	99
16	228	409	1,090	354	337	366	790	238	85	112	42	163
17	190	373	846	337	316	414	870	223	80	101	40	172
18	170	482	686	382	430	354	906	213	74	96	41	120
19	158	1,460	654	322	482	375	862	199	74	90	64	96
20	141	6,170	554	295	562	364	802	185	78	85	96	81
21	131	2,690	506	280	462	344	738	174	105	83	78	73
22	131	1,640	494	265	396	331	626	163	163	97	80	68
23	120	1,120	434	252	358	313	578	157	118	99	78	78
24	111	980	382	238	325	298	518	155	107	90	108	83
25	103	3,790	350	245	334	280	490	148	140	130	99	73
26	105	4,080	328	230	746	283	450	144	126	103	92	68
27	120	2,270	322	216	606	340	392	140	112	88	76	61
28	109	1,580	322	211	522	874	358	132	112	80	66	60
29	99	1,200	316	199	------	2,340	344	126	132	78	61	55
30	93	1,520	788	190	------	2,680	344	122	168	74	56	53
31	89	------	870	243	------	1,960	------	122	------	73	55	------
TOTAL	5,953	34,955	23,829	12,910	24,296	18,276	23,646	9,427	3,524	3,605	2,026	2,147
MEAN	192	1,165	769	416	868	590	788	304	117	116	65.4	71.6
MAX	736	6,170	1,760	1,280	4,840	2,680	1,560	714	168	238	108	172
MIN	64	78	316	190	316	268	344	122	74	73	40	40
AC-FT	11,810	69,330	47,260	25,610	48,190	36,250	46,900	18,700	6,990	7,150	4,020	4,260

CAL YR 1962: TOTAL 155,945 MEAN 427 MAX 6,170 MIN 37 AC-FT 309,300
WAT YR 1963: TOTAL 164,594 MEAN 451 MAX 6,170 MIN 40 AC-FT 326,500

12-0250. Newaukum River near Chehalis, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	53	268	490	1,970	2,120	760	414	390	205	165	107	85
2	52	420	426	2,090	1,600	705	394	387	202	165	120	85
3	50	375	375	1,180	1,260	635	360	360	185	162	113	111
4	53	418	337	990	1,050	1,140	345	339	205	156	114	88
5	58	426	447	830	910	1,460	360	325	270	153	109	81
6	60	450	1,080	2,010	755	1,140	345	310	252	147	97	77
7	56	494	902	1,400	655	880	315	300	291	134	88	76
8	52	953	762	995	578	780	306	290	294	128	84	109
9	50	718	678	1,120	526	905	315	285	285	134	81	118
10	55	706	542	1,440	506	1,090	369	290	240	116	82	98
11	50	698	458	1,190	538	1,590	470	279	228	107	76	88
12	63	570	403	890	466	1,780	554	275	216	102	73	80
13	71	830	372	870	482	1,350	586	290	200	96	76	75
14	88	1,060	350	1,100	434	1,100	494	260	190	104	76	72
15	73	1,130	337	1,080	486	1,140	780	243	178	228	70	72
16	61	960	434	1,940	534	985	835	231	237	188	67	72
17	58	1,680	562	3,070	670	950	785	222	430	145	76	112
18	60	1,500	534	3,240	815	915	615	220	985	130	80	109
19	56	1,430	734	2,930	875	760	518	210	595	134	85	86
20	56	1,240	1,560	3,080	730	705	442	250	458	114	75	100
21	76	930	1,320	1,750	600	655	387	320	366	118	66	94
22	480	890	930	1,420	526	562	494	400	315	118	62	88
23	411	1,190	762	1,140	470	510	474	340	276	109	60	96
24	313	1,140	630	1,210	430	454	430	290	246	98	57	85
25	458	930	722	6,530	387	414	390	250	225	91	55	80
26	375	830	650	3,920	366	466	430	234	210	86	75	80
27	278	985	654	2,280	348	418	438	225	205	82	77	76
28	295	798	626	1,820	342	381	422	219	205	77	100	71
29	350	682	550	1,910	348	369	394	213	188	75	86	71
30	334	574	498	1,710	------	372	384	202	175	77	100	106
31	304	------	506	1,870	------	381	------	202	------	97	96	------
TOTAL	4,849	25,275	19,631	58,975	19,807	25,752	13,845	8,651	8,557	3,836	2,583	2,641
MEAN	156	843	633	1,902	683	831	462	279	285	124	83.3	88.0
MAX	480	1,680	1,560	6,530	2,120	1,780	835	400	985	228	120	118
MIN	50	268	337	830	342	369	306	202	175	75	55	71
AC-FT	9,620	50,130	38,940	117,000	39,290	51,080	27,460	17,160	16,970	7,610	5,120	5,240

CAL YR 1963: TOTAL 149,612 MEAN 410 MAX 4,840 MIN 40 AC-FT 296,800
WAT YR 1964: TOTAL 194,402 MEAN 531 MAX 6,530 MIN 50 AC-FT 385,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	205	149	3,630	750	2,070	775	206	253	116	48	22	33
2	149	219	3,520	1,380	1,480	672	195	253	110	45	23	32
3	147	256	2,280	1,260	1,190	591	177	223	104	44	25	32
4	136	895	1,480	950	1,020	524	171	265	94	42	27	32
5	114	708	1,080	970	1,100	465	162	305	89	40	29	31
6	105	409	860	1,310	1,130	429	162	297	86	39	28	29
7	102	305	708	1,060	920	401	168	257	84	37	25	29
8	114	234	676	885	1,080	373	159	226	83	38	24	27
9	156	209	770	770	1,060	349	157	212	83	39	24	27
10	192	206	760	795	910	333	162	195	82	46	24	27
11	142	373	800	735	780	321	152	183	82	63	26	27
12	124	373	717	681	845	297	146	174	84	55	40	29
13	116	465	865	609	1,380	281	149	162	79	48	103	31
14	120	369	1,370	600	1,390	265	162	154	80	43	70	33
15	212	289	1,740	686	1,220	249	152	149	90	39	46	123
16	267	246	1,080	745	1,240	242	171	202	84	38	38	110
17	234	209	765	681	1,210	226	171	195	78	38	33	79
18	195	192	636	614	1,040	216	157	168	75	39	30	62
19	170	174	573	578	905	209	355	154	73	38	35	53
20	153	159	519	578	805	202	1,200	206	70	40	61	47
21	138	149	1,240	775	722	206	1,040	206	66	52	59	45
22	130	154	4,250	790	810	216	785	180	63	48	46	45
23	124	305	5,200	1,300	668	202	555	171	61	42	40	44
24	118	3,070	2,870	1,690	600	183	488	159	59	37	40	42
25	120	2,800	1,970	1,380	550	189	437	149	58	33	39	40
26	113	2,370	2,320	1,460	532	209	361	144	58	30	46	38
27	109	1,710	2,490	4,260	1,000	202	313	136	57	29	50	38
28	105	1,220	1,720	3,670	990	202	281	129	56	28	42	38
29	104	1,180	1,270	4,690	------	249	246	125	53	27	38	38
30	111	1,820	1,040	5,100	------	206	238	125	51	25	35	40
31	130	------	855	3,500	------	186	------	123	------	24	35	------
TOTAL	4,455	21,217	50,054	45,252	28,647	9,670	9,278	5,880	2,308	1,234	1,203	1,301
MEAN	144	707	1,615	1,460	1,023	312	309	190	76.9	39.8	38.8	43.4
MAX	267	3,070	5,200	5,100	2,070	775	1,200	305	116	63	103	123
MIN	102	149	519	578	532	183	146	123	51	24	22	27
AC-FT	8,840	42,080	99,280	89,760	56,820	19,180	18,400	11,660	4,580	2,450	2,390	2,580

CAL YR 1964: TOTAL 220,373 MEAN 602 MAX 6,530 MIN 55 AC-FT 437,100
WAT YR 1965: TOTAL 180,499 MEAN 495 MAX 5,200 MIN 22 AC-FT 358,000

12-0260. Skookumchuck River near Centralia, Wash.

Location.--Lat 46°47'15", long 122°42'45", in SW¼NW¼ sec.17, T.15 N., R.1 E., on left bank half a mile upstream from Bloody Run Creek, 4¼ miles upstream from Thompson Creek, and 12 miles northeast of Centralia.

Drainage area.--61.7 sq mi.

Records available.--April 1929 to November 1933, October 1939 to December 1958, October 1959 to September 1965. Monthly discharge only for some periods, published in WSP 1316 and 1736.

Gage.--Water-stage recorder. Datum of gage is 300.00 ft above mean sea level (river-profile survey). Apr. 1, 1929, to Sept. 30, 1931, and Feb. 1, 1932, to Dec. 6, 1933, staff gage at site a quarter of a mile downstream at different datum. Oct. 9 to Nov. 29, 1939, staff gage at present site and datum.

Average discharge.--30 years (1929-33, 1939-65), 247 cfs (178,800 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1500	* 4,100	45.87	Nov. 20, 1962	0200	* 4,000	45.75	Nov. 24, 1964	1330	3,120	44.80
Nov. 24, 1960	2100	2,930	44.55	Nov. 25, 1962	1800	3,430	45.12	Dec. 1, 1964	2330	3,020	44.69
Jan. 16, 1961	0200	2,020	43.38	Feb. 3, 1963	0900	3,590	45.30	Dec. 22, 1964	1830	* 4,420	46.20
Feb. 21, 1961	1500	3,640	45.36					Jan. 27, 1965	0500	3,450	45.19
				Jan. 25, 1964	1030	* 5,990	47.77	Jan. 30, 1965	1730	2,520	44.16
Dec. 21, 1961	0130	* 2,020	43.38								

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 19, 1961	22	39.06	1964	Oct. 11, 1963	27	39.19
1962	Oct. 5, 1961	24	39.09	1965	Sept. 9, 1965	18	39.25
1963	Sept.10, 1963	26	39.18				

1929-33, 1939-65: Maximum discharge, 6,710 cfs Dec. 9, 1953 (gage height, 48.59 ft); minimum, 15.5 cfs Nov. 28, 29, 1952.

Remarks.--Records excellent. No regulation or diversion above station.

Revisions (water years).--WSP 722: 1929-30. WSP 1286: 1930, 1945. WSP 1716: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	200	277	204	720	1,280	277	333	101	46	32	92
2	30	213	255	183	755	948	346	480	94	46	31	52
3	30	193	261	178	625	715	372	545	92	45	29	37
4	30	166	252	175	530	555	319	530	90	44	28	35
5	30	144	228	684	470	485	274	456	85	58	29	32
6	39	126	210	960	886	520	246	380	94	56	29	31
7	49	114	195	670	792	485	225	308	94	46	28	29
8	61	103	180	996	580	465	213	298	84	45	27	28
9	48	93	172	948	560	460	207	308	87	43	27	27
10	40	144	162	660	650	452	195	326	84	41	26	27
11	38	380	165	510	625	605	180	302	82	38	25	26
12	40	250	252	475	605	782	237	267	80	38	26	25
13	37	308	231	480	1,020	942	237	243	74	37	26	24
14	35	535	225	545	924	1,410	231	237	72	36	26	24
15	34	535	204	829	1,160	1,160	210	207	69	36	26	24
16	33	1,210	183	1,510	924	826	204	195	66	36	27	25
17	32	1,030	198	1,000	680	635	207	183	64	37	27	24
18	32	1,170	387	765	535	495	204	172	60	36	26	24
19	32	894	984	570	787	456	204	162	58	36	26	24
20	31	2,640	650	442	1,260	615	216	152	58	35	26	24
21	33	1,570	438	356	2,700	525	333	145	57	35	25	24
22	41	936	336	302	1,570	460	434	135	56	35	25	24
23	137	1,070	280	264	902	550	495	142	51	36	25	24
24	305	2,260	246	240	1,120	595	404	130	48	35	25	24
25	166	1,780	225	210	1,090	490	340	124	46	35	25	23
26	280	936	258	198	826	485	294	128	46	34	25	24
27	447	635	237	178	745	460	261	152	48	34	26	24
28	416	470	216	172	680	396	243	128	48	33	25	40
29	250	384	207	228	------	348	280	114	48	34	24	44
30	195	319	192	606	------	312	305	110	50	33	26	30
31	168	------	201	990	------	284	------	108	------	32	78	------
TOTAL	3,169	20,808	8,507	16,528	24,721	19,196	8,193	7,500	2,086	1,211	876	915
MEAN	102	694	274	533	883	619	273	242	69.5	39.1	28.3	30.5
MAX	447	2,640	984	1,510	2,700	1,410	495	545	101	58	78	92
MIN	30	93	162	172	470	284	180	108	46	32	24	23
CFSM	1.66	11.2	4.45	8.64	14.3	10.0	4.43	3.92	1.13	.63	.46	.49
IN.	1.91	12.5	5.13	9.96	14.9	11.6	4.94	4.52	1.26	.73	.53	.55
AC-FT	6,290	41,270	16,870	32,780	49,030	38,070	16,250	14,880	4,140	2,400	1,740	1,810

CAL YR 1960: TOTAL 94,716 MEAN 259 MAX 2,640 MIN 29 CFSM 4.19 IN 57.09 AC-FT 187,900
WAT YR 1961: TOTAL 113,710 MEAN 312 MAX 2,700 MIN 23 CFSM 5.05 IN 68.54 AC-FT 225,500

12-0260. Skookumchuck River near Centralia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27	122	500	375	177	128	229	323	112	53	32	28
2	26	105	363	355	163	124	207	331	163	51	33	29
3	26	106	292	1,000	153	116	190	355	158	48	45	29
4	25	96	445	875	142	177	187	331	153	48	59	27
5	25	87	595	620	130	307	194	274	158	48	59	27
6	34	80	402	520	130	355	551	238	148	64	55	26
7	48	73	311	530	139	292	675	210	132	53	55	26
8	34	70	251	455	144	264	495	202	128	46	89	26
9	34	72	218	371	151	235	420	216	114	44	58	26
10	77	160	192	299	163	221	331	200	108	46	45	37
11	82	307	172	260	155	202	270	182	101	45	43	48
12	122	224	158	232	153	187	232	180	96	43	44	34
13	155	172	153	207	170	177	210	182	96	44	49	34
14	94	153	151	200	666	172	200	175	94	42	43	43
15	69	124	148	184	565	163	192	158	87	42	38	34
16	56	110	194	177	363	165	177	148	80	42	37	33
17	46	103	875	177	295	153	160	132	78	42	40	31
18	44	101	540	163	260	153	151	128	77	42	41	30
19	42	97	660	153	229	155	148	128	73	40	40	27
20	39	89	1,060	139	202	165	139	118	70	39	34	27
21	39	207	1,450	135	182	172	132	112	65	38	38	27
22	39	1,160	820	130	182	238	128	110	65	37	34	27
23	203	525	820	125	177	260	120	132	59	36	34	27
24	144	319	1,470	122	167	628	146	155	59	34	33	27
25	112	235	996	177	151	815	135	205	58	32	32	26
26	207	202	670	232	139	580	130	202	61	32	31	26
27	398	229	500	278	130	460	476	182	62	32	33	34
28	257	420	540	254	130	355	570	167	58	33	33	123
29	177	402	600	224	------	295	485	148	55	32	34	126
30	137	470	615	202	------	251	367	132	52	32	32	84
31	116	------	475	187	------	229	------	124	------	32	30	------
TOTAL	2,934	6,620	16,636	9,358	5,808	8,194	8,047	5,880	2,820	1,292	1,303	1,149
MEAN	94.6	221	537	302	207	264	268	190	94.0	41.7	42.0	38.3
MAX	398	1,160	1,470	1,000	666	815	675	355	163	64	89	126
MIN	25	70	148	122	130	116	120	110	52	32	30	26
CFSM	1.53	3.58	8.70	4.89	3.36	4.28	4.35	3.07	1.52	.68	.68	.62
IN.	1.77	3.99	10.0	5.64	3.50	4.94	4.85	3.54	1.70	.78	.79	.69
AC-FT	5,820	13,130	33,000	18,560	11,520	16,250	15,960	11,660	5,590	2,560	2,580	2,280

CAL YR 1961: TOTAL 107,416 MEAN 294 MAX 2,700 MIN 23 CFSM 4.77 IN 64.75 AC-FT 213,100
WAT YR 1962: TOTAL 70,041 MEAN 192 MAX 1,470 MIN 25 CFSM 3.11 IN 42.22 AC-FT 138,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	61	58	853	706	141	223	545	212	75	66	54	32
2	55	56	826	880	549	229	393	351	82	57	46	34
3	62	55	730	715	2,460	215	343	339	84	54	42	31
4	56	59	585	515	1,160	196	460	274	79	51	39	29
5	48	114	590	384	919	180	580	480	84	48	39	28
6	46	105	780	303	660	168	930	550	72	49	38	28
7	80	89	600	260	490	158	842	435	70	58	37	28
8	182	128	455	232	371	146	690	339	70	106	36	27
9	630	137	363	218	299	140	610	274	72	73	36	28
10	307	238	299	188	257	130	500	241	68	84	36	27
11	221	388	260	168	221	128	435	218	63	82	37	28
12	207	460	232	160	198	124	384	198	60	73	38	28
13	281	384	226	155	191	119	359	191	58	66	36	39
14	241	281	398	149	170	124	420	178	55	62	36	44
15	184	260	655	149	163	121	475	165	54	57	34	47
16	146	232	655	140	156	137	384	151	52	54	32	81
17	121	226	460	133	151	128	359	140	51	51	31	68
18	114	232	347	130	173	128	343	133	49	49	30	48
19	103	1,470	303	124	193	146	359	130	48	48	38	43
20	97	2,810	244	113	198	163	331	121	48	46	46	40
21	89	1,210	229	108	185	165	292	113	63	44	38	38
22	84	750	209	106	168	168	260	106	81	70	39	36
23	80	505	191	102	156	163	254	104	62	55	39	39
24	73	505	178	100	146	149	229	100	58	55	55	37
25	70	2,230	170	100	153	146	221	94	70	63	43	34
26	72	2,110	161	94	251	146	207	90	60	52	38	32
27	70	1,190	153	90	226	173	198	88	57	51	36	31
28	67	785	161	88	215	460	183	86	58	48	34	30
29	64	600	173	84	------	1,070	185	82	58	48	32	30
30	61	800	580	86	------	1,000	191	81	70	47	31	30
31	54	------	540	115	------	800	------	79	------	48	31	------
TOTAL	4,026	18,467	12,606	6,895	10,620	7,543	11,962	6,143	1,931	1,815	1,177	1,095
MEAN	130	616	407	222	379	243	399	198	64.4	58.5	38.0	36.5
MAX	630	2,810	853	880	2,460	1,070	930	550	84	106	55	81
MIN	46	55	153	84	141	119	183	79	48	44	30	27
CFSM	2.10	9.98	6.59	3.60	6.15	3.94	6.46	3.21	1.04	.95	.62	.59
IN.	2.43	11.1	7.60	4.16	6.40	4.55	7.21	3.70	1.16	1.09	.71	.66
AC-FT	7,990	36,630	25,000	13,680	21,060	14,960	23,730	12,180	3,830	3,600	2,330	2,170

CAL YR 1962: TOTAL 78,950 MEAN 216 MAX 2,810 MIN 26 CFSM 3.51 IN 47.59 AC-FT 156,600
WAT YR 1963: TOTAL 84,280 MEAN 231 MAX 2,810 MIN 27 CFSM 3.74 IN 50.80 AC-FT 167,200

12-0260. Skookumchuck River near Centralia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	153	264	1,180	1,250	302	284	230	142	83	81	40
2	30	295	235	932	915	257	248	224	132	81	81	54
3	29	223	204	568	675	236	212	200	118	79	79	49
4	28	292	196	451	557	474	206	185	150	78	80	43
5	29	260	215	407	486	611	206	175	158	73	75	40
6	31	288	331	775	406	466	190	160	145	70	68	39
7	29	477	303	586	342	378	180	150	148	66	60	49
8	28	655	264	438	295	330	180	142	155	64	58	71
9	28	428	248	456	267	346	185	145	142	64	57	55
10	28	433	221	460	267	402	230	155	132	60	54	50
11	28	347	196	411	260	854	260	155	125	58	50	44
12	32	284	183	351	239	805	292	158	118	57	49	41
13	37	367	170	399	227	526	298	168	106	55	50	40
14	40	605	161	482	206	539	274	148	101	68	46	40
15	32	660	153	460	233	665	462	135	101	142	44	39
16	29	655	183	997	251	526	450	130	148	103	43	40
17	29	1,330	201	1,300	323	502	354	140	240	81	41	70
18	29	900	204	1,150	358	458	292	140	410	73	44	60
19	28	834	323	1,140	362	382	254	142	267	64	44	52
20	31	725	993	1,200	308	330	230	170	221	62	40	60
21	48	518	645	760	270	292	206	270	178	71	39	52
22	350	505	469	557	251	257	264	264	152	64	38	49
23	183	908	367	438	233	245	233	218	140	60	36	46
24	193	780	335	629	221	221	185	175	125	55	35	43
25	264	554	518	4,470	200	203	200	150	118	52	38	43
26	201	536	433	1,830	182	221	224	138	108	50	47	41
27	156	680	363	1,240	172	192	230	135	106	49	44	39
28	128	518	307	1,100	168	180	230	140	101	47	44	38
29	183	411	267	1,140	170	178	227	130	94	44	46	38
30	173	315	238	1,030	------	218	212	130	88	46	49	79
31	156	------	257	1,040	------	254	------	140	------	79	44	------
TOTAL	2,640	15,936	9,447	28,377	10,094	11,850	7,498	5,142	4,469	2,098	1,604	1,444
MEAN	85.2	531	305	915	348	382	250	166	149	67.7	51.7	48.1
MAX	350	1,330	993	4,470	1,250	854	462	270	410	142	81	79
MIN	28	153	153	351	168	178	180	130	88	44	35	38
CFSM	1.38	8.61	4.94	14.8	5.64	6.20	4.05	2.69	2.41	1.10	.84	.78
IN.	1.59	9.61	5.69	17.1	6.08	7.14	4.52	3.10	2.69	1.26	.97	.87
AC-FT	5,240	31,610	18,740	56,280	20,020	23,500	14,870	10,200	8,860	4,160	3,180	2,860

CAL YR 1963: TOTAL 77,204 MEAN 212 MAX 2,460 MIN 27 CFSM 3.43 IN 46.54 AC-FT 153,100
WAT YR 1964: TOTAL 100,599 MEAN 275 MAX 4,470 MIN 28 CFSM 4.45 IN 60.64 AC-FT 199,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	118	71	2,370	314	883	417	102	138	69	35	23	23
2	92	97	2,070	653	612	329	95	126	61	34	23	21
3	86	120	1,100	492	484	289	86	118	58	33	24	21
4	75	450	725	352	421	254	82	146	57	33	24	20
5	68	309	502	348	553	228	82	146	55	33	24	20
6	60	209	394	425	602	212	82	136	53	32	23	20
7	57	160	316	368	462	197	82	126	52	32	23	20
8	60	132	312	300	549	185	80	118	50	32	23	19
9	90	123	334	264	492	171	82	106	49	32	24	19
10	92	120	338	264	400	165	82	104	49	33	26	20
11	73	152	334	268	337	157	76	102	50	39	26	20
12	64	148	302	247	310	149	72	100	49	33	46	20
13	60	168	312	241	501	138	78	93	44	33	74	20
14	68	145	354	300	505	131	80	84	46	33	40	30
15	128	125	378	492	433	121	76	89	50	32	32	60
16	145	115	302	594	408	116	91	133	46	32	28	42
17	125	111	248	501	404	111	86	118	44	31	26	33
18	108	106	227	437	376	106	80	102	44	31	25	26
19	94	101	209	433	356	100	251	102	44	32	27	25
20	83	101	192	446	318	95	658	144	43	34	43	24
21	77	99	373	558	292	95	562	128	42	35	31	24
22	68	113	2,760	475	278	97	360	116	40	33	28	24
23	66	242	2,160	636	247	91	268	102	40	30	27	23
24	60	2,230	1,140	842	228	89	215	97	40	27	26	22
25	58	1,320	827	625	209	93	188	93	39	26	26	22
26	57	1,150	1,160	673	225	95	162	86	39	25	33	21
27	54	710	1,050	2,540	758	93	146	80	38	25	31	21
28	52	470	700	1,670	589	102	136	78	38	25	26	21
29	50	574	514	2,150	------	104	126	78	39	25	25	20
30	55	1,390	408	2,160	------	93	126	74	38	24	24	20
31	60	------	325	1,450	------	91	------	72	------	23	23	------
TOTAL	2,403	11,361	22,736	21,518	12,232	4,714	4,692	3,335	1,406	957	904	721
MEAN	77.5	379	733	694	437	152	156	108	46.9	30.9	29.2	24.0
MAX	145	2,230	2,760	2,540	883	417	658	146	69	39	74	60
MIN	50	71	192	241	209	89	72	72	38	23	23	19
CFSM	1.26	6.14	11.9	11.3	7.08	2.46	2.53	1.74	.76	.50	.47	.39
IN.	1.45	6.85	13.7	13.0	7.37	2.84	2.83	2.01	.85	.58	.54	.43
AC-FT	4,770	22,530	45,100	42,680	24,260	9,350	9,310	6,610	2,790	1,900	1,790	1,430

CAL YR 1964: TOTAL 109,076 MEAN 298 MAX 4,470 MIN 35 CFSM 4.83 IN 65.75 AC-FT 216,300
WAT YR 1965: TOTAL 86,979 MEAN 238 MAX 2,760 MIN 19 CFSM 3.86 IN 52.43 AC-FT 172,500

12-0275. Chehalis River near Grand Mound, Wash.

Location.--Lat 46°46'35", long 123°02'05", in NE¼NE¼ sec.22, T.15 N., R.3 W., on left bank at downstream side of highway bridge at Meadows, 1½ miles southwest of Grand Mound and 6 miles downstream from Skookumchuck River.

Drainage area.--895 sq mi.

Records available.--October 1928 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 123.27 ft above mean sea level, datum of 1929. Prior to Oct. 3, 1934, staff gage at same site at datum 3.0 ft higher.

Average discharge.--37 years, 2,793 cfs (2,022,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (16,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 21, 1960	2000	21,100	13.94	Nov. 21, 1962	1130	* 29,800	15.78	Dec. 2, 1964	1830	20,500	13.80
Nov. 25, 1960	2300	24,100	14.69	Nov. 27, 1962	0100	29,200	15.68	Dec. 24, 1964	0400	* 26,200	15.12
Jan. 17, 1961	0300	17,300	12.78	Feb. 4, 1963	1000	22,900	14.40	Jan. 30, 1965	1700	26,200	15.12
Feb. 22, 1961	1700	* 27,000	15.29								
Feb. 25, 1961	1430	17,300	12.76	Jan. 20, 1964	2100	19,800	13.60				
Mar. 15, 1961	1500	16,600	12.55	Jan. 26, 1964	1000	* 35,700	16.66				
Dec. 21, 1961	2230	* 15,900	12.30	Nov. 25, 1964	0900	16,500	12.51				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 23, 24, 25, 1961	112	1.07	1964	Aug. 26, 1964	228	1.43
1962	Oct. 6, 1961	135	1.15	1965	Aug. 2, 3, 10, 1965	118	1.17
1963	Aug. 18, 1963	171	1.28				

1928-65: Maximum discharge, 48,400 cfs Dec. 29, 1937 (gage height, 18.39 ft); minimum, 90 cfs Aug. 23-26, 1951; minimum gage height, 0.83 ft Aug. 27, 1958.

Remarks.--Records excellent. Many small diversions for irrigation and domestic use above station, including about 15 cfs for municipal supply for Centralia and Chehalis. No regulation. Records of suspended-sediment loads for the water years 1962-65 and of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1216: Drainage area. WSP 1286: 1929-30(M), 1931, 1932-34(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	192	1,740	3,870	2,690	8,640	10,700	3,010	3,580	871	415	169	322
2	189	1,930	3,250	2,590	8,370	12,200	3,570	4,410	815	376	163	573
3	187	2,040	2,830	2,350	7,750	10,200	3,730	4,880	754	349	150	415
4	189	1,740	3,010	2,150	7,080	8,130	3,280	5,330	715	326	150	287
5	189	1,430	2,580	3,120	6,570	6,830	2,870	5,330	697	336	141	232
6	198	1,230	2,260	10,300	8,210	8,440	2,610	4,480	697	400	147	203
7	238	1,080	2,060	9,760	10,100	9,170	2,350	3,710	808	435	150	182
8	440	960	1,920	9,250	8,230	7,950	2,180	3,230	748	362	144	169
9	515	864	1,770	12,000	7,050	7,090	2,160	3,200	685	318	132	156
10	402	840	1,650	11,100	8,890	6,980	2,040	3,150	709	295	132	150
11	335	2,150	1,580	8,100	8,980	8,440	1,870	2,950	703	271	129	144
12	299	2,810	2,550	6,340	8,370	11,200	1,910	2,600	673	255	126	138
13	307	2,480	3,330	5,400	9,510	12,700	2,100	2,330	631	236	123	132
14	287	3,940	2,800	6,470	12,100	14,500	2,040	2,210	590	221	120	126
15	269	4,990	2,450	8,860	12,500	16,400	1,880	2,130	546	217	123	120
16	255	7,730	2,160	14,600	12,600	14,500	1,760	1,910	502	214	147	123
17	242	9,020	2,110	17,000	10,200	10,900	1,760	1,740	475	217	153	141
18	232	11,300	2,800	15,200	8,520	8,100	1,750	1,600	450	221	150	138
19	229	10,400	8,290	11,500	8,860	6,350	1,820	1,450	435	214	144	135
20	225	11,000	9,020	8,050	12,700	6,740	1,950	1,350	415	203	129	135
21	229	11,500	6,470	5,990	17,200	6,660	2,300	1,290	400	192	123	135
22	252	18,900	4,870	4,690	25,000	5,750	4,210	1,250	390	189	120	135
23	402	14,200	3,840	3,790	21,100	5,640	7,030	1,260	380	189	117	132
24	1,640	15,700	3,200	3,300	15,100	6,080	6,720	1,280	362	196	115	129
25	1,850	22,200	2,820	2,840	16,900	5,390	5,230	1,140	354	189	115	126
26	1,290	21,700	2,740	2,520	16,500	4,900	4,040	1,070	349	182	120	120
27	1,700	15,000	3,020	2,210	13,500	5,450	3,280	1,270	349	176	126	120
28	1,830	9,420	2,620	2,020	11,100	4,840	2,780	1,240	349	172	135	123
29	3,640	6,420	2,360	2,030	------	4,190	2,850	1,050	362	172	129	129
30	2,240	4,870	2,160	3,640	------	3,670	3,690	976	390	176	123	179
31	1,750	------	2,100	9,180	------	3,280	------	920	------	176	147	------
TOTAL	22,242	219,584	98,490	209,040	321,630	253,370	88,770	74,316	16,604	7,890	4,192	5,349
MEAN	717	7,319	3,177	6,743	11,490	8,173	2,959	2,397	553	255	135	178
MAX	3,640	22,200	9,020	17,000	25,000	16,400	7,030	5,330	871	435	169	573
MIN	187	840	1,580	2,020	6,570	3,280	1,750	920	349	172	115	120
CFSM	.80	8.18	3.55	7.53	12.8	9.13	3.31	2.68	.62	.28	.15	.20
IN.	.92	9.12	4.09	8.69	13.4	10.5	3.69	3.09	.69	.33	.17	.22
AC-FT	44,120	435,500	195,400	414,600	637,900	502,600	176,100	147,400	32,930	15,650	8,310	10,610

CAL YR 1960: TOTAL 1,084,162 MEAN 2,962 MAX 22,200 MIN 173 CFSM 3.31 IN 45.05 AC-FT 2,150,000
WAT YR 1961: TOTAL 1,321,477 MEAN 3,620 MAX 25,000 MIN 115 CFSM 4.05 IN 54.91 AC-FT 2,621,000

12-0275. Chehalis River near Grand Mound, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	176	829	7,010	4,480	1,950	1,560	2,750	4,190	914	390	174	198
2	169	878	5,870	3,820	1,770	1,540	2,480	3,960	907	390	183	189
3	163	787	4,210	5,680	1,640	1,460	2,210	3,490	1,450	374	213	189
4	150	808	3,460	8,770	1,530	1,650	2,030	3,490	1,350	350	322	183
5	141	709	5,780	6,840	1,440	4,560	2,170	2,920	1,350	354	400	174
6	138	643	4,920	6,000	1,370	6,760	2,440	2,550	1,350	390	415	165
7	153	584	3,840	6,200	1,650	5,920	5,580	2,300	1,190	455	435	162
8	232	546	3,260	5,900	1,770	4,760	4,900	2,050	1,050	390	698	159
9	247	529	2,680	4,980	1,910	4,190	4,870	2,160	970	342	812	156
10	255	703	2,300	4,100	2,390	3,550	4,080	2,170	886	322	550	171
11	485	2,330	1,980	3,470	2,540	3,170	3,370	1,880	812	314	425	219
12	568	2,460	1,740	3,050	2,440	2,780	2,870	1,740	764	303	358	342
13	1,260	1,830	1,670	2,770	2,450	2,450	2,500	1,920	758	292	338	289
14	1,090	1,440	2,070	2,480	5,100	2,220	2,210	1,840	764	292	350	272
15	685	1,190	2,070	2,600	9,760	2,050	2,030	1,660	734	286	310	310
16	496	990	2,600	2,380	7,140	1,970	1,890	1,510	674	278	275	296
17	400	871	7,960	2,320	5,300	1,880	1,680	1,370	638	275	264	250
18	354	815	11,000	2,260	4,460	1,720	1,520	1,270	614	268	272	225
19	313	808	8,610	2,080	3,790	1,660	1,400	1,210	585	261	278	213
20	295	780	10,600	1,870	3,230	1,630	1,330	1,130	570	250	275	210
21	291	748	14,200	1,480	2,750	1,760	1,280	1,070	545	240	258	207
22	287	4,960	14,300	1,470	2,460	2,640	1,280	1,040	525	228	250	204
23	546	7,700	11,600	1,480	2,530	3,450	1,170	1,220	505	216	240	204
24	1,750	4,220	12,400	1,460	2,270	5,860	1,130	1,350	485	207	231	201
25	1,130	2,920	13,300	1,550	1,990	12,100	1,320	1,420	470	201	216	195
26	1,270	2,240	10,400	2,600	1,770	11,400	1,230	1,570	460	195	210	195
27	2,480	1,990	8,040	3,030	1,600	8,190	2,830	1,420	490	186	204	195
28	2,560	2,530	6,730	3,070	1,540	6,140	8,210	1,250	510	183	210	240
29	1,710	4,390	6,790	2,670	------	4,690	6,870	1,140	455	180	219	1,160
30	1,220	4,090	6,620	2,380	------	3,800	5,240	1,060	415	177	225	998
31	962	------	5,460	2,140	------	3,160	------	984	------	171	213	------
TOTAL	21,976	56,318	203,470	105,380	80,540	120,670	84,870	58,334	23,190	8,760	9,823	8,171
MEAN	709	1,877	6,564	3,399	2,876	3,893	2,829	1,882	773	283	317	272
MAX	2,560	7,700	14,300	8,770	9,760	12,100	8,210	4,190	1,450	455	812	1,160
MIN	138	529	1,670	1,460	1,370	1,460	1,130	984	415	171	174	156
CFSM	.79	2.10	7.33	3.80	3.21	4.35	3.16	2.10	.86	.32	.35	.30
IN.	.91	2.34	8.45	4.38	3.35	5.01	3.53	2.42	.96	.36	.41	.34
AC-FT	43,590	111,700	403,600	209,000	159,700	239,300	168,300	115,700	46,000	17,380	19,480	16,210

CAL YR 1961: TOTAL 1,262,925 MEAN 3,460 MAX 25,000 MIN 115 CFSM 3.87 IN 52.48 AC-FT 2,505,000
WAT YR 1962: TOTAL 781,502 MEAN 2,141 MAX 14,300 MIN 138 CFSM 2.39 IN 32.47 AC-FT 1,550,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	716	495	11,700	5,630	3,870	3,390	10,700	1,920	619	573	263	259
2	545	485	10,900	9,870	5,570	3,700	7,780	2,600	619	512	283	259
3	485	465	10,400	9,330	14,500	3,800	5,760	3,260	637	450	255	259
4	550	450	8,850	7,170	21,900	3,310	5,480	2,860	625	400	236	251
5	545	510	7,460	5,510	18,800	2,900	5,700	3,260	685	376	228	228
6	480	1,030	7,840	4,420	14,800	2,540	7,910	5,060	697	354	221	217
7	480	1,150	7,520	3,710	10,400	2,270	9,260	4,630	619	372	214	206
8	1,170	1,110	6,050	3,220	7,490	2,020	8,300	3,950	601	540	214	200
9	3,910	1,560	4,950	2,970	5,630	1,860	7,510	3,280	595	691	206	203
10	4,580	1,810	4,130	2,660	4,450	1,740	6,260	2,880	590	590	200	214
11	2,560	4,110	3,570	2,260	3,660	1,630	5,190	2,450	534	595	203	221
12	2,550	6,190	3,130	1,850	3,110	1,600	4,380	2,220	496	546	203	244
13	4,060	6,220	2,880	1,780	2,760	1,470	4,060	1,980	480	480	214	255
14	4,640	5,400	3,720	1,830	2,510	1,400	3,730	1,780	450	420	214	318
15	2,990	4,270	5,690	1,780	2,290	1,540	4,520	1,620	420	380	203	410
16	2,070	3,620	7,190	1,830	2,170	1,550	4,270	1,480	395	367	192	540
17	1,570	3,040	5,990	1,770	2,030	1,810	4,100	1,370	376	336	182	767
18	1,290	2,910	4,800	1,800	2,180	1,630	3,990	1,280	362	322	179	667
19	1,120	3,390	4,130	1,690	2,440	1,620	3,970	1,180	358	304	189	512
20	977	17,100	3,620	1,520	3,330	1,880	3,730	1,010	362	291	279	415
21	872	27,800	3,140	1,430	2,980	1,860	3,450	1,010	385	287	385	362
22	818	19,900	2,890	1,380	2,630	1,750	3,080	948	496	291	344	336
23	758	11,800	2,630	1,340	2,330	1,620	2,770	899	540	380	326	336
24	692	7,460	2,370	1,280	2,140	1,530	2,540	857	470	400	430	354
25	644	11,600	2,150	1,260	2,020	1,460	2,410	829	475	376	485	331
26	614	23,600	1,960	1,240	3,320	1,460	2,280	780	540	372	518	300
27	620	26,400	1,840	1,160	3,950	1,600	2,090	767	490	326	460	283
28	602	18,400	1,830	1,120	3,460	4,120	1,880	728	475	287	372	271
29	560	12,000	1,980	1,070	------	11,100	1,790	685	496	271	318	259
30	530	9,800	3,560	962	------	15,200	1,780	649	534	263	287	255
31	515	------	6,630	1,120	------	14,000	------	637	------	267	267	------
TOTAL	44,513	234,075	155,500	85,962	156,720	99,360	140,670	58,859	15,421	12,419	8,570	9,732
MEAN	1,436	7,803	5,016	2,773	5,597	3,205	4,689	1,899	514	401	276	324
MAX	4,640	27,800	11,700	9,870	21,900	15,200	10,700	5,060	697	691	518	767
MIN	480	450	1,830	962	2,020	1,400	1,780	637	358	263	179	200
CFSM	1.60	8.72	5.60	3.10	6.25	3.58	5.24	2.12	.57	.45	.31	.36
IN.	1.85	9.73	6.46	3.57	6.51	4.13	5.85	2.45	.64	.52	.36	.40
AC-FT	88,290	464,300	308,400	170,500	310,800	197,100	279,000	116,700	30,590	24,630	17,000	19,300

CAL YR 1962: TOTAL 933,826 MEAN 2,558 MAX 27,800 MIN 156 CFSM 2.86 IN 38.80 AC-FT 1,852,000
WAT YR 1963: TOTAL 1,021,801 MEAN 2,799 MAX 27,800 MIN 179 CFSM 3.13 IN 42.46 AC-FT 2,027,000

12-0275. Chehalis River near Grand Mound, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	247	2,110	3,510	5,820	12,400	3,180	2,110	1,570	715	529	450	344
2	236	2,550	2,970	14,000	11,100	4,140	2,080	1,670	709	512	512	336
3	232	2,940	2,560	10,800	8,610	3,780	1,920	1,600	673	507	546	326
4	236	2,790	2,280	8,050	6,720	4,130	1,760	1,480	661	496	540	340
5	240	3,040	2,160	6,320	5,630	7,710	1,780	1,390	906	475	540	308
6	255	2,840	3,610	9,090	4,690	7,410	1,710	1,350	920	465	485	295
7	255	2,890	4,190	11,000	4,010	5,930	1,570	1,250	990	445	425	279
8	255	5,450	3,830	8,050	3,500	4,810	1,500	1,180	1,020	415	385	279
9	251	5,570	3,610	6,690	3,140	5,020	1,480	1,150	1,030	405	358	362
10	240	4,670	3,080	7,730	2,870	5,400	1,690	1,150	927	400	349	358
11	236	4,640	2,640	8,000	3,070	9,130	1,900	1,150	829	376	340	318
12	236	3,800	2,350	6,630	2,760	13,700	2,210	1,090	794	349	322	291
13	259	4,800	2,130	5,480	2,730	12,000	2,540	1,100	748	331	313	271
14	308	7,060	1,950	5,880	2,560	9,150	2,320	1,070	715	340	308	259
15	380	10,100	1,840	5,330	2,580	9,480	2,600	976	685	450	291	255
16	331	10,100	1,870	7,880	3,350	8,130	3,140	920	722	697	283	255
17	291	11,600	2,230	13,600	3,690	6,560	3,040	885	1,110	562	279	291
18	271	13,000	2,300	17,600	4,130	6,060	2,680	878	2,220	485	267	380
19	259	10,800	2,370	18,200	4.020	5,060	2,330	864	2,060	445	279	362
20	255	11,400	4,840	19,100	3,570	4,380	2,070	857	1,580	420	300	331
21	275	8,970	8,200	18,200	3,150	4,090	1,840	1,140	1,290	405	287	349
22	2,290	6,990	6,670	13,200	2,780	3,620	1,990	1,330	1,070	435	267	344
23	3,580	8,050	5,260	9,580	2,510	3,230	2,180	1,430	920	425	255	331
24	2,700	10,100	4,160	7,630	2,290	2,860	1,900	1,190	808	385	247	318
25	5,120	8,000	4,190	17,400	2,110	2,560	1,740	1,020	728	354	232	300
26	3,700	6,300	4,180	32,800	1,930	2,560	1,710	920	673	326	236	283
27	2,710	7,010	4,300	22,700	1,810	2,520	1,760	850	625	308	271	283
28	2,250	6,230	4,310	15,700	1,720	2,260	1,770	808	631	295	291	267
29	2,840	5,160	3,990	12,500	1,730	2,100	1,670	787	613	279	318	263
30	2,780	4,230	3,530	12,400	------	2,020	1,610	741	568	275	318	300
31	2,530	------	3,320	11,000	------	2,050	------	728	------	291	340	------
TOTAL	36,048	193,190	108,430	368,360	115,160	165,030	60,600	34,524	27,940	12,882	10,634	9,278
MEAN	1,163	6,440	3,498	11,880	3,971	5,324	2,020	1,114	931	416	343	309
MAX	5,120	13,000	8,200	32,800	12,400	13,700	3,140	1,670	2,220	697	546	380
MIN	232	2,110	1,840	5,330	1,720	2,020	1,480	728	568	275	232	255
CFSM	1.30	7.20	3.91	13.3	4.44	5.95	2.26	1.24	1.04	.46	.38	.35
IN.	1.50	8.03	4.51	15.3	4.79	6.86	2.52	1.43	1.16	.54	.44	.39
AC-FT	71,500	383,200	215,100	730,600	228,400	327,300	120,200	68,480	55,420	25,550	21,090	18,400

CAL YR 1963: TOTAL 925,381 MEAN 2,535 MAX 21,900 MIN 179 CFSM 2.83 IN 38.45 AC-FT 1,835,000
WAT YR 1964: TOTAL 1,142,076 MEAN 3,120 MAX 32,800 MIN 232 CFSM 3.49 IN 47.46 AC-FT 2,265,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	842	470	16,100	4,900	18,400	6,280	1,010	1,290	590	234	125	150
2	836	685	19,600	7,780	12,100	4,970	1,070	1,430	572	230	118	146
3	631	829	18,100	10,700	8,470	4,100	1,050	1,270	530	222	121	142
4	534	2,720	11,900	8,370	6,610	3,470	913	1,290	502	218	128	142
5	460	3,610	7,730	6,630	7,300	3,030	878	1,610	470	214	128	153
6	410	2,220	5,460	7,670	8,580	2,670	843	1,670	450	202	132	146
7	385	1,570	4,020	7,760	7,350	2,410	850	1,520	428	198	128	139
8	385	1,240	3,610	6,420	6,710	2,200	850	1,390	413	187	125	135
9	460	1,040	3,570	5,520	7,470	2,050	808	1,250	394	191	121	128
10	715	941	3,440	4,950	6,280	1,900	801	1,150	384	202	118	128
11	667	1,040	3,490	5,220	5,290	1,810	774	1,050	389	222	121	132
12	524	1,290	3,310	4,870	4,630	1,720	734	969	428	259	135	135
13	465	1,470	3,640	4,360	5,080	1,600	715	899	403	242	218	139
14	435	1,480	4,600	4,090	5,810	1,500	760	843	384	210	408	153
15	470	1,260	7,300	4,730	5,320	1,420	754	801	428	194	297	218
16	787	1,080	7,010	5,900	5,050	1,350	741	976	428	179	210	351
17	871	969	5,020	5,920	5,150	1,290	787	1,450	394	179	179	333
18	774	906	4,130	5,150	4,800	1,250	741	1,210	369	172	160	263
19	667	836	3,430	4,740	4,340	1,180	913	1,020	356	164	157	222
20	590	794	3,130	4,690	4,040	1,150	5,020	1,020	346	172	191	198
21	534	741	3,990	5,200	3,570	1,130	5,190	1,140	328	175	276	179
22	490	722	11,100	4,870	3,780	1,110	4,010	1,030	310	198	255	168
23	455	983	21,300	6,320	3,450	1,090	2,980	948	297	187	210	168
24	430	7,140	24,200	12,900	3,130	1,020	2,450	885	288	172	194	164
25	410	15,500	18,700	12,800	2,870	983	2,160	829	284	157	187	160
26	400	13,400	14,800	10,700	2,730	1,040	1,840	774	280	146	183	157
27	385	11,800	16,600	15,000	5,480	1,040	1,610	728	271	142	198	153
28	372	8,300	14,400	20,100	8,010	976	1,430	689	267	139	194	157
29	362	6,500	10,200	22,100	------	1,090	1,290	650	259	128	175	160
30	362	9,870	7,880	25,600	------	1,160	1,210	632	246	128	164	160
31	405	------	6,170	24,200	------	1,010	------	614	------	128	164	------
TOTAL	16,513	101,406	287,930	280,160	171,800	58,999	45,182	33,027	11,488	5,791	5,520	5,179
MEAN	533	3,380	9,288	9,037	6,136	1,903	1,506	1,065	383	187	178	173
MAX	871	15,500	24,200	25,600	18,400	6,280	5,190	1,670	590	259	408	351
MIN	362	470	3,130	4,090	2,730	976	715	614	246	128	118	128
CFSM	.60	3.78	10.4	10.1	6.86	2.13	1.68	1.19	.43	.21	.20	.19
IN.	.69	4.21	12.0	11.6	7.14	2.45	1.88	1.37	.48	.24	.23	.22
AC-FT	32,750	201,100	571,100	555,700	340,800	117,000	89,620	65,510	22,790	11,490	10,950	10,270

CAL YR 1964: TOTAL 1,210,257 MEAN 3,307 MAX 32,800 MIN 232 CFSM 3.69 IN 50.29 AC-FT 2,401,000
WAT YR 1965: TOTAL 1,022,995 MEAN 2,803 MAX 25,600 MIN 118 CFSM 3.13 IN 42.51 AC-FT 2,029,000

12-0300. Rock Creek at Cedarville, Wash.

Location.--Lat 46°52'05", long 123°18'25", in SW¼SW¼ sec.15, T.16 N., R.5 W., on left bank 0.2 mile downstream from Williams Creek, 1 mile west of Cedarville, and 1¼ miles upstream from mouth.

Drainage area.--24.8 sq mi.

Records available.--July to October 1942, July to October 1943, June 1944 to September 1965. Monthly discharge only October 1942, published in WSP 1316.

Gage.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map). Prior to Aug. 17, 1944, staff gage at railroad bridge three-quarters of a mile downstream at different datum.

Average discharge.--21 years (1944-65), 88.5 cfs (64,070 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (700 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1500	787	8.84	Dec. 23, 1961	0600	* 804	8.49	Jan. 18, 1964a	-	702	8.41
Nov. 24, 1960	2100	884	9.35	Nov. 20, 1962	-	* 1,310	12.95	Jan. 25, 1964	0900	* 1,050	11.11
Jan. 16, 1961	1330	1,020	10.58	Nov. 26, 1962a	-	948	10.30	Nov. 30, 1964	2030	912	10.02
Feb. 21, 1961	1500	* 1,240	11.88	Feb. 3, 1963	0330	715	8.51	Jan. 27, 1965	0630	* 1,080	11.30
Dec. 17, 1961	1200	721	7.94	Jan. 1, 1964	1700	750	8.78				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.14, 1961	0.90	2.38	1963	Aug. 18, 1963	1.7	2.49
1962	Oct. 5, 6, 1961, Sept.10, 1962	1.6	a 2.46	1964	Sept.14, 1964	2.7	2.58
				1965	Sept. 8, 1965	1.0	2.40

a Occurred Oct. 5, 1961.

1942-65: Maximum discharge, 1,430 cfs (revised) Feb. 9, 1951 (gage height, 13.77 ft, from high watermark in well), from rating curve extended above 850 cfs; minimum, 0.3 cfs Sept. 25, 1946.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply paper indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1042, 1092	1945	Feb. 7, 1945	1,260	12.55
1062, 1092	1946	Dec. 28, 1946	909	10.04
1092	1947	Jan. 25, Feb. 2, 1947	1,140	a 11.72
1122	1948	Mar. 22, 1948	1,010	10.76
1152	1949	Feb. 17, 1949	1,210	12.22
1182	1950	Dec. 28, 1950	1,220	12.31
1216	1951	Feb. 9, 1951	1,430	13.77

a Occurred Feb. 2, 1947.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Some diversion for irrigation. No regulation.

Revisions (water years).--WSP 982: 1942. Revised peak discharges for the water years 1945-51, superseding those published in WSP 1092, 1122, 1152, 1182, and 1216, are given as follows:

Revised peak discharge.-- 1946-47: Jan. 25 (1730) 1,140 cfs; Feb. 2 (0700) 1,140 cfs.
1947-48: Oct. 19 (0500) 779 cfs; Mar. 22 (0030) 1,010 cfs.
1948-49: Dec. 2 (0400) 909 cfs; Dec. 9 (1500) 792 cfs; Feb. 10 (1200) 922 cfs; Feb. 17 (0700) 1,210 cfs; Feb. 22 (0900) 1,100 cfs.
1949-50: Nov. 27 (0730) 948 cfs; Dec. 28 (0400) 1,220 cfs; Jan. 22 (1100) 883 cfs; Feb. 24 (0500) 909 cfs.
1950-51: Feb. 9 (time unknown) 1,430 cfs (13.77 ft).

12-0300. Rock Creek at Cedarville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.6	62	107	74	182	325	78	81	22	6.2	2.1	5.7
2	1.5	32	89	71	293	294	84	90	20	6.2	2.1	5.7
3	1.5	16	83	67	262	254	74	111	19	5.7	1.7	4.1
4	1.6	11	76	70	283	213	70	140	19	5.2	1.9	3.2
5	1.7	8.2	67	339	331	219	66	127	19	5.7	2.1	2.7
6	2.4	6.7	61	496	419	342	62	110	19	8.2	2.2	2.2
7	5.0	5.7	56	346	356	328	58	94	19	8.6	2.0	2.0
8	6.7	4.5	53	366	261	248	55	88	18	6.4	1.9	1.6
9	4.7	4.1	50	534	221	203	52	98	19	5.7	2.1	1.2
10	3.5	21	47	381	195	217	48	98	19	5.0	2.1	1.2
11	2.6	93	47	270	221	332	46	87	18	4.7	1.7	1.2
12	2.8	47	133	214	263	360	48	80	17	4.1	1.3	1.1
13	3.2	25	152	276	375	333	48	74	14	3.5	1.5	1.2
14	3.7	68	122	458	406	501	46	71	13	3.5	1.7	1.1
15	3.3	112	99	664	483	445	42	63	12	3.3	2.4	1.1
16	3.5	342	90	817	345	314	40	54	11	3.3	3.2	1.2
17	3.5	353	89	575	296	231	40	50	9.6	3.7	2.6	1.2
18	3.2	448	272	430	252	177	38	45	9.3	3.5	2.4	1.2
19	3.0	345	469	304	551	161	41	41	9.3	3.2	2.0	1.2
20	2.7	681	343	221	632	198	45	36	9.3	2.7	1.5	1.2
21	3.7	596	231	168	1,040	171	54	36	9.0	2.7	1.4	1.2
22	9.0	506	164	133	691	154	99	37	8.6	3.0	1.3	1.2
23	13	469	126	109	384	159	144	36	7.9	3.2	1.2	1.2
24	17	714	105	92	454	146	127	33	7.0	3.0	1.2	1.2
25	9.3	708	89	81	458	129	102	30	6.7	2.8	1.3	1.2
26	12	485	87	72	364	128	86	30	6.4	2.4	1.3	1.2
27	66	332	75	64	352	118	74	33	6.7	2.4	1.4	1.1
28	79	230	68	60	308	109	70	28	6.2	2.6	1.3	2.2
29	19	168	62	72	------	98	75	26	6.4	2.4	1.2	4.7
30	13	131	57	174	------	90	83	25	7.0	2.2	1.2	3.9
31	25	------	71	213	------	82	------	23	------	2.1	2.4	------
TOTAL	327.7	7,024.2	3,640	8,211	10,678	7,079	1,995	1,975	387.4	127.2	55.7	60.4
MEAN	10.6	234	117	265	381	228	66.5	63.7	12.9	4.10	1.80	2.01
MAX	79	714	469	817	1,040	501	144	140	22	8.6	3.2	5.7
MIN	1.5	4.1	47	60	182	82	38	23	6.2	2.1	1.2	1.1
CFSM	.43	9.44	4.73	10.7	15.4	9.21	2.68	2.57	.52	.17	.07	.08
IN.	.49	10.5	5.46	12.3	16.0	10.6	2.99	2.96	.58	.19	.08	.09
AC-FT	650	13,930	7,220	16,290	21,180	14,040	3,960	3,920	768	252	110	120

CAL YR 1960: TOTAL 33,108.1 MEAN 90.5 MAX 856 MIN 1.5 CFSM 3.65 IN 49.65 AC-FT 65,670
WAT YR 1961: TOTAL 41,560.6 MEAN 114 MAX 1,040 MIN 1.1 CFSM 4.59 IN 62.32 AC-FT 82,430

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.6	15	235	172	66	42	70	136	18	9.5	3.1	2.5
2	2.8	14	168	175	60	39	62	110	29	8.8	3.9	2.6
3	2.2	18	121	397	56	38	58	106	33	8.4	7.0	2.6
4	2.0	17	134	344	53	88	56	94	32	8.1	11	2.4
5	1.6	15	170	265	49	182	51	86	35	11	8.1	2.2
6	2.0	13	134	236	48	240	90	76	32	13	9.1	2.0
7	2.8	12	116	253	59	217	136	70	28	11	13	1.9
8	3.1	10	94	232	60	196	112	68	23	8.8	15	1.8
9	4.2	25	78	187	78	169	94	66	22	8.4	9.5	1.8
10	9.8	167	68	151	89	140	83	58	21	8.4	7.5	2.9
11	7.5	174	58	124	90	115	72	50	20	7.8	6.4	5.8
12	17	94	52	108	86	97	64	50	17	7.2	5.0	4.6
13	20	57	54	93	85	85	59	46	17	7.0	5.0	9.5
14	10	42	76	90	157	73	52	41	18	6.7	4.8	11
15	7.0	34	73	83	199	66	48	39	17	6.4	4.3	7.5
16	4.8	29	87	76	162	62	45	37	16	5.8	3.8	5.5
17	3.8	25	529	78	134	54	40	34	16	6.1	3.9	4.6
18	3.4	25	376	72	115	49	38	33	15	5.8	4.3	3.6
19	3.1	22	356	68	100	47	37	32	13	5.8	4.6	3.2
20	2.9	20	421	64	87	45	37	31	13	5.5	4.3	3.1
21	2.5	34	493	58	78	44	39	29	12	4.8	4.3	2.9
22	3.5	325	386	54	71	66	37	29	12	4.8	3.9	2.9
23	34	187	697	50	64	96	33	30	11	4.6	3.1	2.8
24	24	114	541	51	57	360	31	25	11	4.3	3.1	2.8
25	16	79	409	61	50	342	32	25	9.8	3.8	2.8	2.8
26	53	64	319	75	47	238	34	23	13	3.6	2.9	2.9
27	66	57	258	89	42	175	170	22	15	3.4	3.1	3.2
28	41	75	258	93	44	134	252	22	12	3.1	3.1	14
29	25	103	270	87	------	110	230	21	10	2.9	3.1	17
30	18	134	262	79	------	92	166	20	9.8	2.9	2.9	11
31	14	------	216	73	------	78	------	18	------	2.9	2.5	------
TOTAL	410.6	2,000	7,509	4,038	2,286	3,779	2,328	1,527	550.6	200.6	168.4	143.4
MEAN	13.2	66.7	242	130	81.6	122	77.6	49.3	18.4	6.47	5.43	4.78
MAX	66	325	697	397	199	360	252	136	35	13	15	17
MIN	1.6	10	52	50	42	38	31	18	9.8	2.9	2.5	1.8
CFSM	.53	2.69	9.77	5.25	3.29	4.92	3.13	1.99	.74	.26	.22	.19
IN.	.62	3.00	11.3	6.06	3.43	5.67	3.49	2.29	.83	.30	.25	.22
AC-FT	814	3,970	14,890	8,010	4,530	7,500	4,620	3,030	1,090	398	334	284

CAL VR 1961: TOTAL 40,488.3 MEAN 111 MAX 1,040 MIN 1.1 CFSM 4.47 IN 60.72 AC-FT 80,310
WAT YR 1962: TOTAL 24,940.6 MEAN 68.3 MAX 697 MIN 1.6 CFSM 2.76 IN 37.40 AC-FT 49,470

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0300. Rock Creek at Cedarville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.1	15	300	339	78	133	217	51	14	8.7	3.9	5.0
2	6.7	14	250	445	200	133	172	89	15	7.6	3.6	5.0
3	11	13	230	346	567	122	156	91	14	6.4	3.4	4.6
4	26	12	220	258	377	110	141	78	17	5.8	3.0	3.6
5	17	21	200	198	334	100	154	113	18	5.6	2.9	3.4
6	16	38	230	158	237	87	284	116	14	5.3	3.0	3.0
7	25	46	180	132	190	78	347	103	14	7.0	2.9	2.9
8	76	45	150	112	155	68	246	89	14	14	2.7	2.4
9	230	45	130	100	129	63	197	78	14	15	2.4	2.2
10	110	91	110	84	108	55	165	65	13	12	2.5	5.3
11	72	344	100	72	94	54	139	59	12	8.3	2.5	7.3
12	80	280	90	63	80	51	121	52	10	7.6	3.4	5.8
13	133	222	85	59	73	48	106	49	9.1	6.4	3.4	5.8
14	97	190	160	54	65	47	93	42	9.1	5.8	3.0	7.0
15	67	168	230	52	65	42	90	41	8.7	5.3	2.7	16
16	49	162	200	51	67	41	82	37	8.0	5.0	2.4	26
17	38	146	160	49	75	39	76	34	7.0	5.0	1.8	20
18	35	136	130	47	93	37	76	32	6.4	4.8	1.8	15
19	31	450	120	42	132	55	78	30	6.7	4.6	2.9	11
20	28	1,100	110	41	142	58	75	26	7.6	4.3	4.1	8.7
21	25	750	100	38	116	52	70	24	8.3	4.8	5.0	8.0
22	22	300	90	34	100	47	65	24	8.7	8.3	5.6	7.3
23	21	250	80	33	87	44	61	23	7.6	8.3	6.4	8.7
24	20	210	75	33	77	42	61	22	7.6	7.0	14	8.0
25	17	450	70	32	99	45	59	20	8.3	8.3	13	6.4
26	17	800	65	30	203	54	54	19	7.6	6.7	18	5.8
27	19	450	60	29	177	74	48	19	7.6	5.6	9.5	5.3
28	17	300	84	28	151	272	44	18	8.7	5.0	7.3	5.0
29	16	230	142	26	------	345	42	16	8.3	4.6	5.6	5.0
30	15	250	382	26	------	299	44	15	10	4.3	5.0	4.8
31	15	------	336	42	------	260	------	14	------	4.1	5.0	------
TOTAL	1,359.8	7,528	4,869	3,053	4,271	2,955	3,563	1,489	314.3	211.5	152.7	224.3
MEAN	43.9	251	157	98.5	153	95.3	119	48.0	10.5	6.82	4.93	7.48
MAX	230	1,100	382	445	567	345	347	116	18	15	18	26
MIN	6.7	12	60	26	65	37	42	14	6.4	4.1	1.8	2.2
CFSM	1.77	10.1	6.33	3.97	6.15	3.84	4.79	1.94	.42	.28	.20	.30
IN.	2.04	11.3	7.30	4.58	6.40	4.43	5.34	2.23	.47	.32	.23	.34
AC-FT	2,700	14,930	9,660	6,060	8,470	5,860	7,070	2,950	623	420	303	445

CAL YR 1962: TOTAL 28,777.8 MEAN 78.8 MAX 1,100 MIN 1.8 CFSM 3.18 IN 43.16 AC-FT 57,080
WAT YR 1963: TOTAL 29,990.6 MEAN 82.2 MAX 1,100 MIN 1.8 CFSM 3.31 IN 44.97 AC-FT 59,490

Note.--No gage-height record Nov. 19 to Dec. 27. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.6	111	124	562	293	159	40	35	18	10	12	5.9
2	4.3	165	101	445	252	125	40	34	18	10	20	4.8
3	4.1	154	86	271	204	117	38	34	19	10	17	4.4
4	4.6	141	76	226	174	173	37	31	24	10	14	4.1
5	4.8	145	78	208	145	242	35	30	29	9.8	12	3.7
6	5.6	150	96	325	122	200	34	29	25	9.5	10	3.4
7	5.3	188	97	262	107	159	32	27	26	8.8	8.5	3.5
8	4.8	262	96	210	94	145	30	26	23	8.1	7.4	5.9
9	4.6	200	90	219	87	160	32	26	21	8.8	7.4	5.9
10	4.3	193	82	276	85	255	34	28	20	7.8	6.7	4.4
11	4.6	177	73	254	78	523	39	25	19	7.4	5.9	3.7
12	4.6	176	68	204	68	467	51	24	18	6.9	5.6	3.2
13	7.3	245	61	170	66	298	56	24	17	6.7	5.3	2.9
14	10	285	56	140	61	258	54	24	16	8.8	5.1	2.9
15	8.0	280	54	180	85	259	72	21	15	16	4.8	3.2
16	6.7	281	58	300	99	217	93	20	18	15	4.6	3.4
17	6.4	347	71	450	100	191	92	19	26	12	4.6	5.1
18	5.8	297	71	580	107	159	80	19	31	10	4.4	5.6
19	5.8	353	89	420	107	135	69	18	26	9.1	4.6	4.6
20	9.5	363	256	470	99	121	59	23	22	8.5	4.6	5.1
21	94	264	294	360	89	108	53	28	19	10	4.6	5.1
22	182	224	238	294	79	94	73	35	17	10	4.3	4.8
23	118	293	208	225	82	83	58	32	14	9.1	4.1	5.1
24	193	280	180	358	65	72	50	28	14	7.8	3.9	4.8
25	160	232	182	945	57	64	46	25	12	7.4	3.5	4.3
26	131	236	173	516	50	69	45	23	12	6.7	4.4	4.1
27	104	293	182	332	43	57	42	21	12	6.4	5.1	4.1
28	154	241	177	268	42	51	41	20	15	6.1	6.4	3.9
29	154	191	158	299	50	47	39	19	12	5.9	5.6	3.9
30	143	150	141	286	------	44	36	19	11	6.1	6.7	14
31	113	------	143	284	------	41	------	18	------	8.1	6.4	------
TOTAL	1,661.7	6,917	3,859	10,339	2,990	5,093	1,500	785	569	276.8	219.5	139.8
MEAN	53.6	231	124	334	103	164	50.0	25.3	19.0	8.93	7.08	4.66
MAX	193	363	294	945	293	523	93	35	31	16	20	14
MIN	4.1	111	54	140	42	41	30	18	11	5.9	3.5	2.9
CFSM	2.16	9.30	5.02	13.4	4.16	6.62	2.02	1.02	.76	.36	.29	.19
IN.	2.49	10.4	5.79	15.5	4.48	7.64	2.25	1.18	.85	.42	.33	.21
AC-FT	3,300	13,720	7,650	20,510	5,930	10,100	2,980	1,560	1,130	549	435	277

CAL YR 1963: TOTAL 28,671.5 MEAN 78.6 MAX 567 MIN 1.8 CFSM 3.17 IN 43.00 AC-FT 56,870
WAT YR 1964: TOTAL 34,349.8 MEAN 93.9 MAX 945 MIN 2.9 CFSM 3.78 IN 51.51 AC-FT 68,130

Note.--No gage-height record May 16 to June 16.

12-0300. Rock Creek at Cedarville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	25	15	869	150	367	238	19	52	18	6.0	1.8	1.4
2	16	20	578	275	255	181	17	54	16	5.3	1.8	1.3
3	14	50	340	220	200	146	14	47	16	5.0	2.0	1.3
4	12	120	228	190	242	121	14	64	15	5.0	2.4	1.3
5	9.4	90	174	172	458	99	14	65	14	5.0	2.2	1.3
6	8.0	60	134	189	407	85	14	57	14	4.8	2.0	1.2
7	7.8	40	113	181	290	75	15	52	12	4.4	1.8	1.1
8	8.4	30	103	169	284	64	14	45	12	4.6	1.7	1.0
9	12	27	94	160	258	57	14	42	12	4.6	1.8	1.2
10	14	25	94	152	216	53	14	36	12	5.3	1.9	1.3
11	12	31	96	145	176	45	14	34	16	5.0	1.8	1.4
12	10	28	108	142	162	43	14	31	14	4.8	2.6	1.4
13	8.7	25	132	135	181	40	14	27	12	4.6	4.6	2.0
14	10	22	155	146	185	35	14	26	13	4.0	4.2	2.5
15	13	20	210	195	167	34	13	29	12	3.8	3.0	3.5
16	18	18	170	221	189	31	14	56	11	3.6	2.4	3.0
17	25	17	130	198	199	29	13	43	11	3.6	1.9	2.5
18	20	16	110	174	180	27	12	36	10	3.3	1.8	2.3
19	15	15	105	160	163	27	76	37	10	3.3	2.1	2.2
20	14	14	110	178	142	26	208	37	9.8	3.3	5.0	2.0
21	12	13	150	246	128	25	142	34	9.0	3.4	4.6	1.9
22	11	14	450	252	117	24	108	32	8.7	3.3	3.3	1.8
23	10	58	400	286	104	24	85	30	7.8	3.2	2.7	1.8
24	9.5	462	350	444	97	20	72	28	7.8	3.0	2.7	1.7
25	9.0	264	320	368	90	20	59	27	7.8	1.9	2.8	1.7
26	8.5	307	400	399	116	20	53	26	7.4	2.6	3.0	1.7
27	8.0	260	550	1,010	444	20	46	24	7.4	2.4	2.7	1.6
28	7.5	182	400	692	337	20	40	22	7.2	2.0	2.1	1.6
29	8.0	278	250	750	------	21	36	21	7.2	1.9	1.8	1.5
30	10	731	200	731	------	19	40	20	6.6	1.9	1.7	1.5
31	12	------	150	604	------	17	------	19	------	1.8	1.6	------
TOTAL	377.8	3,252	7,673	9,334	6,154	1,686	1,222	1,153	336.7	116.7	77.8	52.0
MEAN	12.2	108	248	301	220	54.4	40.7	37.2	11.2	3.76	2.51	1.73
MAX	25	731	869	1,010	458	238	208	65	18	6.0	5.0	3.5
MIN	7.5	13	94	135	90	17	12	19	6.6	1.8	1.6	1.0
CFSM	.49	4.37	9.98	12.1	8.86	2.19	1.64	1.50	.45	.15	.10	.07
IN.	.57	4.88	11.5	14.0	9.23	2.53	1.83	1.73	.50	.18	.12	.08
AC-FT	749	6,450	15,220	18,510	12,210	3,340	2,420	2,290	668	231	154	103

CAL YR 1964: TOTAL 33,214.9 MEAN 90.8 MAX 945 MIN 2.9 CFSM 3.66 IN 49.81 AC-FT 65,880
WAT YR 1965: TOTAL 31,435.0 MEAN 86.1 MAX 1,010 MIN 1.0 CFSM 3.47 IN 47.14 AC-FT 62,350

Note.--No gage-height record Oct. 14 to Nov. 15.

12-0310. Chehalis River at Porter, Wash.

Location.--Lat 46°56'20", long 123°18'45", on north line of NE¼ sec.28, T 17 N., R.5 W., in upstream end of left bank pier of Chehalis River bridge at mouth of Porter Creek, 700 ft west of Porter.

Drainage area.--1,294 sq mi.

Records available.--January 1952 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 23.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Oct. 1, 1964, graphic water-stage recorder at same site and datum.

Average discharge.--13 years, 4,236 cfs (3,067,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (20,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 26, 1960	1900	27,300	20.16	Nov. 22, 1962	1200	30,400	20.77	Dec. 3, 1964	1300	25,100	19.66
Jan. 18, 1961	0200	22,600	19.04	Nov. 28, 1962	0100	* 31,600	20.96	Dec. 25, 1964	0600	28,800	20.46
Feb. 23, 1961	1600	* 32,000	21.04	Feb. 5, 1963	1500	23,800	19.43	Jan. 31, 1965	1230	* 34,000	21.36
Mar. 16, 1961	0600	22,400	18.95								
				Jan. 20, 1964	0700	25,500	19.74				
Dec. 23, 1961	0400	* 21,000	18.49	Jan. 27, 1964	0900	* 38,500	21.99				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 1961	255	2.49	1963	Aug. 18, 1963	339	2.73
1962	Oct. 5, 1961,	288	2.61	1964	Aug. 25, 1964	385	a 2.89
	Sept. 8-10, 1962			1965	Sept. 9-12, 1965	225	2.48

a Occurred Oct. 12, 1963.

1952-65: Maximum discharge, 40,800 cfs (revised) Jan. 7, 1954 (gage height, 22.27 ft); minimum, 164 cfs Oct. 17, 1952 (gage height, 2.25 ft).

Flood of Dec. 28, 1937, reached a stage of 24.7 ft, from levels by Grays Harbor County. Flood in December 1933 reached a stage of 23.13 ft, from river profile by Corps of Engineers.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1346, 1716	1954	Jan. 7, 1954	40,800	22.27
1446, 1716	1956	Dec. 23, 1955	38,900	22.04
1716	1960	Nov. 23, 1959	30,100	20.71

Remarks.--Records excellent. Cities of Centralia and Chehalis divert about 15 cfs from Newaukum River, a tributary, for municipal use. Other small diversions for irrigation and domestic use. No regulation. Records of chemical analyses for the water years 1961-65 and of suspended-sediment loads and water temperatures for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1716: 1956, drainage area. Revised figures of discharge, in cubic feet per second, for the water years 1954 and 1956, superseding those published in WSP 1346, 1446, and 1716, are given herewith:

Dec. 11, 1953..	28,400	Jan. 9, 1954..	26,600	Dec. 13, 1955..	26,000	Dec. 25, 1955..	28,400
12........	31,700	Feb. 22........	27,000	14........	27,200	26........	24,400
13........	27,000	23........	27,700	21........	21,900	Jan. 5, 1956..	22,800
Jan. 6, 1954..	29,000	Nov. 27, 1955..	25,400	22........	30,000	6........	26,700
7........	38,700	28........	27,200	23........	37,700	7........	28,000
8........	33,800	29........	26,200	24........	35,500	8........	26,800

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December 1953................	407,790	31,700	4,520	13,150	10.2	11.72	808,800
Calendar year 1953..........	-	31,700	227	4,922	3.80	51.64	3,564,000
January 1954.................	413,900	38,700	4,440	13,350	10.3	11.90	821,000
February.....................	414,380	27,700	6,100	14,800	11.4	11.91	821,900
Water year 1953-54..........	-	38,700	398	5,141	3.97	53.93	3,722,000
Calendar year 1954..........	-	38,700	398	4,525	3.50	47.47	3,276,000
November 1955................	383,070	27,200	3,000	12,770	9.87	11.01	759,800
December.....................	524,410	37,700	6,940	26,920	13.1	15.07	1,040,000
Calendar year 1955..........	-	37,700	285	5,398	4.17	56.62	3,908,000
January 1956.................	425,770	28,000	5,080	13,730	10.6	12.24	844,500
Water year 1955-56..........	-	37,700	225	6,064	4.69	63.78	4,402,000
Calendar year 1956..........	-	28,000	225	4,545	3.51	47.81	3,300,000

Revised peak discharge.--1953-54: Dec. 12 (0100) 33,700 cfs (21.31 ft); Jan. 7 (1830) 40,800 cfs (22.27 ft); Feb. 23 (0600) 28,200 cfs (20.33 ft).
1955-56: Nov. 28 (2400) 27,900 cfs (20.28 ft); Dec. 14 (0200) 29,400 cfs (20.57 ft); Dec. 23 (1500 to 1800) 38,900 cfs (22.04 ft); Jan. 7 (0730) 28,100 cfs (20.32 ft).
1959-60: Nov. 23 (0300 to 0700) 30,100 cfs (20.71 ft).
1960-61: Nov. 26 (1900) 27,300 cfs (20.16 ft); Feb. 23 (1600) 32,000 cfs (21.04 ft).
1962-63: Nov. 22 (1200) 30,400 cfs (20.77 ft); Nov. 28 (0100) 31,600 cfs (20.96 ft).

12-0310. Chehalis River at Porter, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	319	2,400	6,590	3,590	11,800	16,500	4,790	5,010	1,460	642	339	369
2	310	2,490	5,360	3,710	11,200	16,900	4,910	5,590	1,380	624	330	534
3	310	2,490	4,700	3,440	11,400	16,500	5,400	6,320	1,310	592	318	660
4	307	2,340	4,510	3,250	10,600	14,000	4,980	6,770	1,250	556	312	513
5	307	1,990	4,150	4,210	10,300	11,800	4,490	7,040	1,200	588	312	420
6	334	1,690	3,720	9,370	11,300	12,300	4,120	6,380	1,200	642	306	375
7	376	1,480	3,420	12,900	13,900	13,900	3,780	5,450	1,230	669	294	345
8	460	1,320	3,160	12,000	13,400	13,100	3,480	4,840	1,260	646	300	330
9	620	1,200	2,940	14,100	11,300	11,700	3,330	4,690	1,200	574	294	315
10	576	1,310	2,760	15,400	11,200	10,900	3,240	4,630	1,150	525	288	303
11	492	2,130	2,680	12,800	12,500	12,100	3,010	4,440	1,170	505	277	297
12	440	3,570	3,410	9,740	12,300	14,800	2,960	4,020	1,040	473	274	288
13	416	3,020	4,640	8,460	12,600	16,500	3,160	3,650	1,080	449	277	282
14	412	3,770	4,220	9,160	15,200	19,000	3,080	3,410	1,000	431	274	274
15	397	5,540	3,810	11,800	16,900	21,700	2,930	3,280	950	417	285	277
16	373	7,650	3,470	17,400	17,400	22,000	2,740	3,030	895	406	288	282
17	361	10,800	3,320	21,300	16,200	19,200	2,670	2,760	850	417	294	282
18	355	11,900	4,350	22,400	13,800	14,600	2,690	2,520	800	417	297	288
19	346	13,700	8,500	20,000	13,600	11,100	2,680	2,360	777	414	291	285
20	346	14,000	11,700	15,300	16,700	10,300	2,850	2,190	754	406	282	285
21	352	17,800	9,990	11,200	23,100	10,400	3,120	2,090	736	396	272	282
22	394	22,100	7,580	8,500	26,200	9,240	4,710	2,020	710	392	266	285
23	530	22,900	6,030	6,860	29,000	8,530	7,520	2,030	700	389	261	280
24	1,060	21,600	5,030	5,910	27,100	8,650	8,920	2,010	664	382	258	274
25	2,390	23,200	4,430	5,150	23,800	8,230	7,540	1,890	651	382	258	269
26	1,750	25,400	4,140	4,580	23,600	7,410	6,000	1,830	628	369	261	266
27	2,540	24,700	4,330	4,120	22,900	7,460	4,970	1,900	620	360	263	266
28	4,370	19,200	3,970	3,740	19,300	7,160	4,300	1,970	606	357	269	288
29	3,890	11,900	3,630	3,730	------	6,400	4,160	1,780	606	348	266	297
30	3,200	8,470	3,380	4,880	------	5,760	4,830	1,640	624	345	261	297
31	2,500	------	3,260	9,170	------	5,200	------	1,540	------	342	288	------
TOTAL	30,833	292,060	147,180	298,170	458,600	383,340	127,360	109,080	28,501	14,455	8,855	9,808
MEAN	995	9,735	4,748	9,618	16,380	12,370	4,245	3,519	950	466	286	327
MAX	4,370	25,400	11,700	22,400	29,000	22,000	8,920	7,040	1,460	669	339	660
MIN	307	1,200	2,680	3,250	10,300	5,200	2,670	1,540	606	342	258	266
CFSM	.77	7.52	3.67	7.43	12.7	9.56	3.28	2.72	.73	.36	.22	.25
IN.	.89	8.39	4.23	8.57	13.2	11.0	3.66	3.13	.82	.42	.25	.28
AC-FT	61,160	579,300	291,900	591,400	909,600	760,300	252,600	216,400	56,530	28,670	17,560	19,450

CAL YR 1960: TOTAL 1,522,466 MEAN 4,160 MAX 25,400 MIN 304 CFSM 3.21 IN 43.76 AC-FT 3,020,000
WAT YR 1961: TOTAL 1,908,242 MEAN 5,228 MAX 29,000 MIN 258 CFSM 4.04 IN 54.84 AC-FT 3,785,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	327	1,170	7,080	7,290	3,140	2,510	4,340	6,400	1,480	654	333	348
2	315	1,090	7,780	6,400	2,880	2,470	3,920	5,710	1,570	640	342	342
3	309	1,100	5,860	7,520	2,710	2,410	3,490	5,250	1,860	628	428	339
4	303	1,040	4,920	11,200	2,570	2,720	3,250	5,010	2,000	616	476	327
5	294	995	5,940	10,900	2,470	4,980	3,220	4,510	1,940	628	588	315
6	297	905	6,590	9,130	2,340	8,020	3,610	3,990	1,950	667	667	309
7	300	845	5,380	9,000	2,500	8,460	6,040	3,590	1,800	694	744	297
8	321	786	4,550	8,990	2,750	7,280	6,620	3,300	1,650	694	880	291
9	400	805	3,840	7,910	2,850	6,460	6,300	3,240	1,520	632	1,140	288
10	493	1,410	3,280	6,760	3,260	5,670	5,680	3,290	1,410	596	940	327
11	543	2,530	2,810	5,840	3,650	5,010	4,920	3,000	1,310	572	730	378
12	895	3,440	2,530	5,170	3,620	4,500	4,290	2,780	1,240	548	616	410
13	1,150	2,760	2,450	4,680	3,590	4,020	3,780	2,790	1,200	528	576	516
14	1,480	2,190	2,710	4,300	4,510	3,630	3,400	2,810	1,200	512	552	484
15	1,020	1,810	2,900	4,160	9,360	3,360	3,120	2,610	1,160	508	516	452
16	777	1,530	3,200	3,990	9,920	3,190	2,950	2,450	1,080	496	476	466
17	633	1,330	7,430	3,780	7,470	3,050	2,710	2,270	1,020	484	459	431
18	538	1,220	13,600	3,680	6,330	2,850	2,470	2,120	970	473	452	396
19	493	1,150	13,300	3,460	5,520	2,690	2,320	2,020	920	462	459	375
20	453	1,100	13,100	3,180	4,810	2,630	2,210	1,930	880	452	448	360
21	442	1,180	16,400	2,770	4,240	2,650	2,180	1,830	845	434	442	357
22	442	3,260	19,100	2,530	3,770	3,290	2,120	1,790	806	424	417	354
23	764	9,400	20,000	2,490	3,650	4,500	2,010	1,850	775	410	410	348
24	1,490	6,440	18,000	2,460	3,520	6,360	1,950	2,000	739	392	396	348
25	1,620	4,270	18,400	2,610	3,150	12,400	2,040	2,030	708	378	382	342
26	1,590	3,200	17,200	3,380	2,850	15,300	2,090	2,160	712	366	369	339
27	2,590	2,720	13,800	4,190	2,620	12,900	3,190	2,110	734	354	357	351
28	3,150	2,920	11,100	4,450	2,530	9,070	8,460	1,930	762	345	357	480
29	2,360	4,490	10,300	4,120	------	7,060	9,630	1,800	734	333	360	749
30	1,740	5,100	9,790	3,710	------	5,760	7,760	1,700	690	330	366	1,340
31	1,350	------	8,680	3,390	------	4,910	------	1,590	------	330	366	------
TOTAL	28,879	72,186	282,020	163,440	112,580	170,110	120,070	89,860	35,665	15,580	16,044	12,459
MEAN	932	2,406	9,097	5,272	4,021	5,487	4,002	2,899	1,189	503	518	415
MAX	3,150	9,400	20,000	11,200	9,920	15,300	9,630	6,400	2,000	694	1,140	1,340
MIN	294	786	2,450	2,460	2,340	2,410	1,950	1,590	690	330	333	288
CFSM	.72	1.86	7.03	4.07	3.11	4.24	3.09	2.24	.92	.39	.40	.32
IN.	.83	2.07	8.11	4.70	3.24	4.89	3.45	2.58	1.03	.45	.46	.36
AC-FT	57,280	143,200	559,400	324,200	223,300	337,400	238,200	178,200	70,740	30,900	31,820	24,710

CAL YR 1961: TOTAL 1,821,254 MEAN 4,990 MAX 29,000 MIN 258 CFSM 3.86 IN 52.34 AC-FT 3,612,000
WAT YR 1962: TOTAL 1,118,893 MEAN 3,065 MAX 20,000 MIN 288 CFSM 2.37 IN 32.16 AC-FT 2,219,000

12-0310. Chehalis River at Porter, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,050	840	16,200	8,930	3,430	5,070	16,700	2,850	1,080	822	460	456
2	830	806	16,900	12,100	6,510	5,180	12,700	3,470	1,080	782	460	446
3	744	798	15,800	14,800	12,300	5,330	8,960	4,440	1,060	718	456	439
4	757	798	14,500	12,400	19,200	4,970	7,520	4,200	1,080	669	436	428
5	775	915	12,300	9,240	23,400	4,460	7,630	4,410	1,110	632	422	414
6	734	1,260	11,200	7,500	22,300	3,990	9,410	6,080	1,140	604	411	394
7	865	1,670	11,500	6,380	18,400	3,580	12,800	6,360	1,070	624	397	378
8	1,310	1,670	9,470	5,510	12,800	3,250	12,600	5,640	1,020	736	390	369
9	3,700	1,950	7,820	5,000	8,850	2,970	10,800	4,890	1,010	955	384	366
10	5,930	2,960	6,750	4,570	7,070	2,780	9,200	4,310	980	920	378	404
11	4,060	5,110	5,830	3,980	5,900	2,620	7,670	3,780	945	855	369	439
12	3,390	7,160	5,190	3,380	5,030	2,520	6,750	3,350	890	836	372	422
13	4,230	7,820	4,720	3,060	4,460	2,390	6,090	3,040	840	764	372	453
14	5,590	7,480	5,200	3,030	4,080	2,260	5,540	2,760	800	692	375	480
15	4,350	6,390	7,120	2,940	3,690	2,240	5,920	2,540	759	644	369	612
16	3,080	5,550	9,040	2,920	3,530	2,370	6,040	2,370	723	616	360	746
17	2,430	4,840	8,790	2,870	3,370	2,490	5,680	2,200	687	588	351	940
18	2,020	4,400	7,360	2,810	3,450	2,460	5,600	2,070	656	552	342	955
19	1,760	6,430	6,900	2,720	3,890	2,530	5,530	1,940	648	528	375	804
20	1,570	17,800	5,740	2,500	4,670	2,730	5,360	1,830	652	508	428	674
21	1,410	24,000	5,100	2,360	4,760	2,780	4,990	1,710	669	516	520	604
22	1,310	27,800	4,630	2,260	4,240	2,570	4,560	1,620	705	576	576	576
23	1,210	24,000	4,270	2,170	3,780	2,460	4,180	1,510	800	564	558	560
24	1,120	16,200	3,910	2,090	3,460	2,310	3,870	1,440	768	644	750	544
25	1,060	15,000	3,570	2,050	3,410	2,240	3,630	1,380	746	636	728	540
26	1,030	22,800	3,280	2,020	4,650	2,250	3,500	1,330	754	612	754	504
27	1,000	27,000	3,080	1,940	5,800	2,420	3,230	1,280	764	568	723	468
28	990	27,900	3,240	1,860	5,400	4,610	2,960	1,230	750	524	624	450
29	945	23,300	3,580	1,800	------	10,600	2,800	1,180	741	496	544	439
30	905	17,600	5,140	1,730	------	15,800	2,750	1,120	782	476	496	422
31	870	------	8,290	1,870	------	18,300	------	1,100	------	472	464	------
TOTAL	61,025	312,247	236,420	138,790	211,830	132,530	204,970	87,430	25,709	20,129	14,644	15,726
MEAN	1,969	10,410	7,626	4,477	7,565	4,275	6,832	2,820	857	649	472	524
MAX	5,930	27,900	16,900	14,800	23,400	18,300	16,700	6,360	1,140	955	754	955
MIN	734	798	3,080	1,730	3,370	2,240	2,750	1,100	648	472	342	366
CFSM	1.52	8.04	5.89	3.46	5.85	3.30	5.28	2.18	.66	.50	.37	.41
IN.	1.75	8.97	6.79	3.99	6.09	3.81	5.89	2.51	.74	.58	.42	.45
AC-FT	121,000	619,300	468,900	275,300	420,200	262,900	406,600	173,400	50,990	39,930	29,050	31,190

CAL YR 1962: TOTAL 1,345,500 MEAN 3,686 MAX 27,900 MIN 288 CFSM 2.85 IN 38.67 AC-FT 2,669,000
WAT YR 1963: TOTAL 1,461,450 MEAN 4,004 MAX 27,900 MIN 342 CFSM 3.09 IN 42.00 AC-FT 2,899,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	414	3,160	5,780	7,790	17,000	4,000	3,110	2,300	1,100	845	614	530
2	404	3,320	4,970	14,400	16,900	5,660	3,120	2,330	1,090	812	794	514
3	400	4,040	4,340	17,200	14,600	5,430	2,960	2,310	1,060	798	816	498
4	404	3,770	3,850	13,500	11,400	5,720	2,770	2,200	1,100	790	816	510
5	411	4,090	3,580	10,200	9,130	8,220	2,720	2,090	1,180	772	808	494
6	422	4,010	4,380	10,400	7,760	9,850	2,650	2,010	1,410	749	758	469
7	428	4,180	5,450	14,100	6,710	8,480	2,510	1,920	1,510	736	686	469
8	428	5,630	5,370	13,100	5,940	7,160	2,380	1,840	1,530	700	626	480
9	414	7,320	5,140	10,100	5,320	6,920	2,360	1,800	1,510	668	590	490
10	400	6,410	4,630	10,200	4,910	7,700	2,470	1,760	1,420	654	558	538
11	394	6,290	4,070	11,100	4,760	11,100	2,650	1,740	1,280	630	534	510
12	390	5,710	3,640	10,100	4,570	16,100	3,000	1,720	1,210	602	514	472
13	422	6,200	3,330	8,500	4,310	17,600	3,310	1,660	1,150	574	510	444
14	468	7,980	3,080	7,880	4,120	14,900	3,320	1,660	1,090	594	490	430
15	512	11,100	2,920	7,720	4,090	12,800	3,360	1,580	1,040	700	480	420
16	520	13,000	2,850	8,950	4,670	12,200	4,100	1,480	1,140	860	462	420
17	472	13,400	3,170	14,600	5,020	10,000	4,110	1,420	1,440	890	444	480
18	436	15,800	3,360	20,300	5,360	8,770	3,800	1,390	2,210	785	444	486
19	418	16,300	3,390	23,700	5,490	7,690	3,410	1,370	2,810	713	452	562
20	425	15,400	5,200	25,100	5,240	6,750	3,050	1,380	2,230	677	466	542
21	606	14,300	8,950	24,800	4,730	6,200	2,780	1,490	1,890	677	458	510
22	1,690	11,000	9,400	23,000	4,310	5,640	2,800	1,900	1,610	677	434	526
23	4,370	10,300	7,820	18,000	3,930	5,050	3,060	1,940	1,420	690	416	510
24	3,730	12,500	6,470	14,000	3,620	4,570	2,810	1,810	1,270	646	402	494
25	5,110	12,400	5,890	20,000	3,360	4,140	2,590	1,600	1,140	602	388	472
26	5,220	10,100	6,160	26,800	3,130	3,970	2,470	1,450	1,040	570	396	448
27	3,920	9,610	6,180	36,700	2,930	3,920	2,520	1,320	1,000	546	406	434
28	3,500	9,530	6,260	28,400	2,810	3,590	2,550	1,250	985	518	458	427
29	3,870	8,050	5,980	22,600	2,840	3,340	2,460	1,210	965	498	472	420
30	3,970	6,780	5,410	19,400	------	3,160	2,350	1,170	900	490	514	554
31	3,640	------	5,070	17,800	------	3,110	------	1,120	------	518	510	------
TOTAL	48,208	261,680	156,090	510,440	178,960	233,740	87,550	52,220	40,730	20,981	16,716	14,553
MEAN	1,555	8,723	5,035	16,470	6,171	7,540	2,918	1,685	1,358	677	539	485
MAX	5,220	16,300	9,400	36,700	17,000	17,600	4,110	2,330	2,810	890	816	562
MIN	390	3,160	2,850	7,720	2,810	3,110	2,350	1,120	900	490	388	420
CFSM	1.20	6.74	3.89	12.7	4.77	5.83	2.26	1.30	1.05	.52	.42	.37
IN.	1.39	7.52	4.49	14.7	5.14	6.72	2.52	1.50	1.17	.60	.48	.42
AC-FT	95,620	519,000	309,600	1,012M	355,000	463,600	173,700	103,600	80,790	41,620	33,160	28,870

CAL YR 1963: TOTAL 1,317,736 MEAN 3,610 MAX 23,400 MIN 342 CFSM 2.79 IN 37.87 AC-FT 2,614,000
WAT YR 1964: TOTAL 1,621,868 MEAN 4,431 MAX 36,700 MIN 388 CFSM 3.42 IN 46.61 AC-FT 3,217,000

12-0310. Chehalis River at Porter, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	728	701	20,300	8,030	30,200	9,600	1,630	1,940	970	445	245	266
2	1,250	800	23,600	9,390	24,500	7,750	1,640	2,060	935	431	236	257
3	971	1,230	24,600	13,800	17,300	6,500	1,560	2,000	895	420	242	251
4	825	2,270	22,700	13,400	12,500	5,600	1,480	2,020	855	410	242	248
5	721	4,270	15,200	10,300	12,400	4,910	1,420	2,270	821	403	245	248
6	647	3,200	9,350	9,930	13,500	4,390	1,380	2,390	790	392	245	248
7	602	2,290	7,000	10,700	12,600	3,980	1,360	2,300	763	378	245	239
8	620	1,810	5,860	9,610	10,900	3,640	1,360	2,100	736	371	239	236
9	664	1,510	5,380	8,320	11,100	3,360	1,320	1,930	722	368	236	230
10	799	1,350	5,160	7,370	10,200	3,150	1,290	1,790	713	389	230	227
11	956	1,320	5,010	7,310	8,660	2,970	1,270	1,660	754	403	230	225
12	801	1,590	4,930	7,070	7,570	2,800	1,210	1,540	740	420	260	229
13	708	1,690	5,020	6,520	7,450	2,640	1,190	1,460	745	438	305	234
14	672	1,870	5,820	6,130	8,140	2,500	1,200	1,380	713	403	392	276
15	692	1,690	8,000	6,610	7,920	2,380	1,220	1,350	704	375	483	321
16	893	1,480	9,460	7,720	7,570	2,260	1,190	1,590	727	354	392	359
17	1,130	1,330	7,810	8,090	7,750	2,160	1,210	2,000	691	338	326	447
18	1,090	1,230	6,160	7,400	7,460	2,060	1,190	1,920	655	326	293	411
19	960	1,150	5,260	6,800	6,890	1,980	1,770	1,700	630	323	290	354
20	854	1,090	4,780	6,700	6,350	1,910	4,700	1,600	610	332	341	321
21	777	1,040	5,130	7,120	5,820	1,850	6,740	1,670	590	332	347	301
22	720	1,020	11,000	8,330	5,590	1,840	5,640	1,610	570	338	406	286
23	676	1,310	19,600	8,820	5,440	1,810	4,440	1,490	546	344	368	274
24	644	5,370	25,400	13,000	4,960	1,740	3,640	1,400	526	329	344	268
25	619	13,200	27,900	17,200	4,590	1,670	3,200	1,330	510	314	323	263
26	604	17,100	25,100	16,800	4,450	1,700	2,790	1,260	498	299	320	257
27	585	16,300	22,600	20,000	6,620	1,720	2,440	1,180	487	287	311	254
28	569	13,100	22,200	24,600	10,300	1,670	2,180	1,130	480	275	314	252
29	559	9,670	19,000	29,200	------	1,680	1,990	1,070	469	269	308	255
30	567	13,400	13,800	31,700	------	1,780	1,900	1,030	459	260	290	256
31	573	------	10,100	33,300	------	1,680	------	995	------	254	278	------
TOTAL	23,476	125,381	403,230	381,270	278,730	95,680	65,550	51,165	20,304	11,020	9,326	8,293
MEAN	757	4,179	13,010	12,300	9,955	3,086	2,185	1,650	677	355	301	276
MAX	1,250	17,100	27,900	33,300	30,200	9,600	6,740	2,390	970	445	483	447
MIN	559	701	4,780	6,130	4,450	1,670	1,190	995	459	254	230	225
CFSM	.59	3.23	10.1	9.50	7.69	2.39	1.69	1.28	.52	.27	.23	.21
IN.	.67	3.60	11.6	11.0	8.01	2.75	1.88	1.47	.58	.32	.27	.24
AC-FT	46,560	248,700	799,800	756,200	552,900	189,800	130,000	101,500	40,270	21,860	18,500	16,450

CAL YR 1964: TOTAL 1,707,977 MEAN 4,667 MAX 36,700 MIN 388 CFSM 3.61 IN 49.09 AC-FT 3,388,000
WAT YR 1965: TOTAL 1,473,425 MEAN 4,037 MAX 33,300 MIN 225 CFSM 3.12 IN 42.35 AC-FT 2,922,000

12-0325. Cloquallum River at Elma, Wash.

Location.--Lat 47°00'20", long 123°23'10", in SW$\frac{1}{4}$NW$\frac{1}{4}$, sec.36, T.18 N., R.6 W., on right bank 10 ft downstream from bridge, half a mile east of Elma, and 1.8 miles downstream from Wildcat Creek.

Drainage area.--64.9 sq mi (revised).

Records available.--July 1942 to October 1943 (fragmentary), July 1944 to September 1965. Published as Cloquallum Creek at Elma 1942.

Gage.--Water-stage recorder. Altitude of gage is 20 ft (from topographic map). Prior to Aug. 7, 1944, staff gage at site 350 ft downstream at datum 0.42 ft lower. Aug. 7, 1944, to Sept. 1, 1953, water-stage recorder at site 200 ft upstream at same datum.

Average discharge.--21 years (1944-65), 271 cfs (196,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1400	1,570	6.58	Nov. 20, 1962	0500	* 3,940	9.60	Jan. 25, 1964	1100	* 2,950	9.54
Jan. 16, 1961	0200	2,990	8.59	Nov. 25, 1962	2030	2,260	7.67	Mar. 11, 1964	1900	1,510	7.20
Feb. 21, 1961	1530	* 4,900	10.45	Jan. 2, 1963	0100	2,410	8.16				
Feb. 24, 1961	1500	1,970	7.23					Nov. 24, 1964	1000	1,680	7.49
Mar. 14, 1961	2230	1,740	6.86	Nov. 19, 1963	1830	1,600	7.35	Nov. 30, 1964	2130	* 3,070	9.26
				Jan. 1, 1964	a1500	2,400	-	Jan. 30, 1965	0730	2,370	8.43
Dec. 23, 1961	0600	* 2,230	7.64	Jan. 17, 1964	1330	1,700	7.93				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 14, 1961	19	a 1.83	1964	Sept.12, 1964	27	d 2.74
1962	Oct. 4, 1961	20	2.10	1965	Sept. 7-12, 1965	16	3.08
1963	(b)	33	c 2.44				

a Occurred Oct. 1-6, 1960.
b Aug. 15-18, Sept. 6-9, 29, 30, 1963.
c Occurred Oct. 2, 1962.
d Occurred Oct. 2, 3, 1963.

1942-65: Maximum discharge, 5,080 cfs Dec. 15, 1959 (gage height, 10.6 ft, from high watermark in well); maximum gage height, 11.04 ft Feb. 9, 1951 (site then in use); minimum discharge, 6.8 cfs Sept. 15, 1945 (gage height, 1.43 ft).

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1446	1956	Dec. 11, 1955......................................	3,950	9.61
1516	1957	Dec. 9, 1956......................................	4,880	10.43
1716	1960	Dec. 15, 1959......................................	5,080	10.6

Remarks.--Records good. Several small diversions on minor tributaries above station and some regulation by log pond on Wildcat Creek. Records of chemical analyses and suspended-sediment loads for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1566: 1957(M). Revised peak discharges for the water years 1956-60 are given as follows:

Revised peak discharges.--1955-56: Nov. 3 (0215) 3,550 cfs (9.21 ft); Dec. 11 (2230) 3,950 cfs (9.61 ft).
1956-57: Dec. 9 (2400) 4,800 cfs (10.43 ft).
1959-60: Dec. 15 (time unknown) 5,080 cfs (10.6 ft).

12-0325. Cloquallum River at Elma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	29	195	255	185	702	1,200	302	270	93	49	33	84
2	29	128	220	162	869	1,040	328	288	89	48	31	54
3	29	96	212	155	758	864	292	300	86	44	29	37
4	29	72	195	171	828	718	260	282	83	43	29	33
5	29	61	162	755	1,190	738	248	255	83	60	30	30
6	38	53	148	856	1,390	878	235	228	91	66	30	25
7	54	48	134	622	1,080	846	225	212	93	57	29	24
8	57	43	128	730	788	746	220	230	83	50	29	23
9	44	39	118	1,020	754	770	218	322	86	44	30	22
10	38	188	114	762	670	820	202	310	84	42	29	22
11	36	384	143	636	643	1,040	192	272	83	40	28	22
12	36	230	507	587	604	1,080	232	238	78	39	27	21
13	35	182	417	612	726	1,080	220	225	73	38	29	20
14	35	372	342	878	710	1,540	192	238	68	37	30	20
15	34	468	280	1,800	914	1,440	182	225	63	38	34	22
16	34	968	248	2,290	726	1,040	175	195	60	38	36	23
17	33	779	260	1,590	722	788	185	175	59	41	31	23
18	33	815	813	1,120	643	629	180	157	58	39	29	22
19	32	643	1,040	770	1,480	570	180	143	58	37	29	22
20	33	1,260	674	601	1,920	726	178	134	53	37	27	22
21	43	990	498	495	4,150	556	210	134	51	37	28	22
22	61	762	402	414	2,440	510	320	134	51	39	27	22
23	89	797	330	360	1,500	538	393	141	49	39	27	22
24	109	1,280	290	320	1,720	480	328	132	50	38	27	21
25	67	1,220	258	282	1,610	432	285	118	50	37	28	21
26	106	758	278	252	1,310	447	252	126	50	36	27	21
27	181	531	238	230	1,240	420	228	150	49	35	27	21
28	265	414	212	218	990	369	220	116	49	35	27	25
29	102	333	200	345	------	342	285	109	50	35	27	25
30	87	285	182	629	------	320	295	102	50	35	28	26
31	130	------	205	662	------	298	------	99	------	34	57	------
TOTAL	1,957	14,394	9,503	20,509	33,077	23,265	7,262	6,060	2,023	1,287	929	797
MEAN	63.1	480	307	662	1,181	750	242	195	67.4	41.5	30.0	26.6
MAX	265	1,280	1,040	2,290	4,150	1,540	393	322	93	66	57	84
MIN	29	39	114	155	604	298	175	99	49	34	27	20
CFSM	.97	7.39	4.72	10.2	18.2	11.6	3.73	3.01	1.04	.64	.46	.41
IN.	1.12	8.25	5.45	11.8	19.0	13.3	4.16	3.47	1.16	.74	.53	.46
AC-FT	3,880	28,550	18,850	40,680	65,610	46,150	14,400	12,020	4,010	2,550	1,840	1,580

CAL YR 1960: TOTAL 97,700 MEAN 267 MAX 2,340 MIN 29 CFSM 4.11 IN 55.99 AC-FT 193,800
WAT YR 1961: TOTAL 121,063 MEAN 332 MAX 4,150 MIN 20 CFSM 5.11 IN 69.37 AC-FT 240,100

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	29	92	563	461	208	142	218	383	85	53	34	25
2	24	85	401	596	193	138	200	322	130	51	42	26
3	23	100	312	1,180	182	134	185	410	140	49	79	26
4	22	80	420	787	180	323	187	348	130	52	78	24
5	23	72	434	674	167	584	178	300	140	62	75	23
6	29	65	328	667	169	642	418	268	120	66	106	22
7	31	61	302	715	228	536	476	235	100	57	131	23
8	29	58	252	594	218	491	383	245	90	51	129	22
9	47	136	218	494	270	437	318	280	85	51	78	21
10	73	452	193	422	288	359	265	272	80	51	61	35
11	52	377	167	365	278	312	235	232	80	51	54	48
12	167	278	158	332	272	265	210	228	78	50	51	31
13	162	210	182	305	275	240	196	222	76	47	49	65
14	75	174	210	290	345	215	178	202	74	45	42	60
15	50	140	187	295	330	200	171	185	72	44	39	36
16	52	123	235	255	292	200	154	176	70	43	39	29
17	39	110	824	265	285	182	138	156	66	42	44	24
18	35	108	707	235	272	167	131	146	62	41	47	22
19	33	110	771	212	238	158	127	138	60	41	43	23
20	30	96	860	196	218	158	125	134	58	39	40	23
21	30	182	932	174	198	178	158	123	57	37	40	23
22	38	681	894	160	185	308	136	134	56	35	36	22
23	232	425	1,950	156	193	365	120	136	54	34	32	22
24	108	300	1,590	171	169	882	125	127	52	33	29	21
25	83	225	1,000	238	154	775	146	120	50	33	28	21
26	174	189	779	298	140	533	150	115	68	32	28	21
27	242	176	600	345	134	446	476	110	79	32	27	31
28	182	265	656	320	144	365	604	105	61	32	28	120
29	122	330	779	285	------	308	500	100	56	32	27	118
30	116	414	703	255	------	270	389	95	54	33	26	70
31	85	------	557	228	------	240	------	90	------	34	25	------
TOTAL	2,437	6,114	18,164	11,970	6,225	10,553	7,297	6,137	2,383	1,353	1,587	1,077
MEAN	78.6	204	586	386	222	340	243	198	79.4	43.6	51.2	35.9
MAX	242	681	1,950	1,180	345	882	604	410	140	66	131	120
MIN	22	58	158	156	134	134	120	90	50	32	25	21
CFSM	1.21	3.14	9.03	5.95	3.43	5.25	3.75	3.05	1.22	.67	.79	.55
IN.	1.40	3.50	10.4	6.86	3.57	6.05	4.18	3.52	1.37	.78	.91	.62
AC-FT	4,830	12,130	36,030	23,740	12,350	20,930	14,470	12,170	4,730	2,680	3,150	2,140

CAL YR 1961: TOTAL 121,924 MEAN 334 MAX 4,150 MIN 20 CFSM 5.15 IN 69.87 AC-FT 241,800
WAT YR 1962: TOTAL 75,297 MEAN 206 MAX 1,950 MIN 21 CFSM 3.18 IN 43.15 AC-FT 149,300

12-0325. Cloquallum River at Elma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	50	67	831	1,420	235	422	616	240	91	60	41	39
2	45	64	823	1,990	366	390	471	341	88	54	39	39
3	83	62	787	1,500	896	335	457	290	84	49	38	38
4	90	85	747	1,490	837	299	488	270	91	48	36	36
5	65	142	835	707	873	268	510	415	109	46	36	35
6	66	210	945	575	656	251	860	359	95	44	36	33
7	144	178	723	497	548	231	960	320	88	58	36	33
8	362	222	587	437	436	216	801	287	86	93	36	33
9	590	210	506	392	359	203	648	259	80	93	35	33
10	345	482	446	340	311	187	560	229	73	68	36	50
11	250	548	398	298	265	182	457	205	66	55	36	48
12	315	461	359	270	234	168	418	190	65	50	36	41
13	392	440	359	262	231	160	374	175	60	49	36	50
14	305	416	736	252	229	163	332	163	58	46	35	55
15	225	380	868	245	205	163	341	153	56	43	33	65
16	176	328	703	238	203	168	335	140	55	42	33	73
17	144	305	575	228	208	156	293	128	54	42	33	58
18	123	270	491	215	282	151	284	117	52	41	33	48
19	113	1,720	467	191	390	268	293	111	54	39	43	42
20	101	3,100	410	180	408	254	262	107	55	39	79	41
21	94	1,550	374	174	332	211	240	101	56	44	61	39
22	89	914	345	167	290	190	251	99	56	65	68	41
23	86	639	318	163	256	180	216	97	55	49	50	49
24	82	636	295	156	231	170	216	95	58	50	73	41
25	78	1,520	282	156	329	192	218	93	61	50	61	38
26	88	1,640	265	148	608	229	221	91	56	43	66	36
27	88	1,130	280	144	457	273	195	89	60	42	49	35
28	79	847	395	140	422	608	185	86	61	42	43	35
29	73	699	528	134	------	930	185	82	58	41	41	35
30	71	878	1,250	125	------	1,020	205	84	61	39	39	33
31	70	------	1,240	202	------	860	------	89	------	39	39	------
TOTAL	4,882	20,143	18,168	13,436	11,097	9,498	11,892	5,505	2,042	1,563	1,356	1,272
MEAN	157	671	586	433	396	306	396	178	68.1	50.4	43.7	42.4
MAX	590	3,100	1,250	1,990	896	1,020	960	415	109	93	79	73
MIN	45	62	265	125	203	151	185	82	52	39	33	33
CFSM	2.43	10.3	9.03	6.68	6.11	4.72	6.11	2.74	1.05	.78	.67	.65
IN.	2.80	11.5	10.4	7.70	6.36	5.44	6.81	3.15	1.17	.90	.78	.73
AC-FT	9,680	39,950	36,040	26,650	22,010	18,840	23,590	10,920	4,050	3,100	2,690	2,520

CAL YR 1962: TOTAL 91,775 MEAN 251 MAX 3,100 MIN 21 CFSM 3.87 IN 52.59 AC-FT 182,000
WAT YR 1963: TOTAL 100,854 MEAN 276 MAX 3,100 MIN 33 CFSM 4.26 IN 57.79 AC-FT 200,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	374	378	1,900	840	570	192	128	77	48	84	37
2	31	640	321	1,320	674	420	188	126	77	48	108	37
3	31	552	292	794	558	390	178	122	79	50	87	34
4	37	485	280	650	489	504	174	112	133	50	71	31
5	36	478	306	510	429	602	170	104	128	50	59	30
6	35	510	324	710	372	489	156	98	110	48	50	31
7	35	572	270	514	336	441	146	96	116	48	45	39
8	33	664	295	450	306	426	142	96	95	45	46	58
9	33	580	298	501	282	477	176	100	86	45	46	44
10	32	648	265	762	280	598	186	102	76	40	42	36
11	32	560	238	630	260	1,270	200	95	77	41	38	31
12	33	572	218	483	245	1,230	200	96	74	41	38	28
13	55	782	202	459	242	865	184	106	68	41	39	28
14	68	806	198	435	250	940	180	106	63	62	38	29
15	49	678	202	495	272	875	245	95	58	100	37	33
16	41	638	238	1,060	265	654	235	91	120	96	36	35
17	38	905	262	1,440	270	606	200	89	150	77	35	58
18	37	710	240	1,500	306	483	208	86	148	68	38	42
19	36	1,210	298	1,350	300	420	170	82	114	56	38	44
20	41	1,120	758	1,440	278	414	158	120	102	59	36	55
21	183	734	710	1,160	260	393	162	136	87	74	34	42
22	600	690	722	870	242	345	220	162	74	63	33	44
23	415	890	925	662	228	303	174	126	66	53	30	44
24	877	754	666	1,180	218	280	156	110	59	46	28	38
25	783	702	658	2,630	200	270	146	102	58	44	28	34
26	592	935	590	1,620	190	275	142	95	52	39	35	33
27	450	1,120	770	1,100	180	248	144	86	59	38	38	29
28	652	746	762	818	180	230	144	82	65	36	41	29
29	600	562	598	975	260	215	132	77	58	35	41	32
30	464	444	483	830	------	202	126	77	50	37	47	154
31	371	------	495	830	------	196	------	76	------	47	42	------
TOTAL	6,752	21,061	13,262	30,078	9,212	15,631	5,234	3,179	2,579	1,625	1,408	1,239
MEAN	218	702	428	970	318	504	174	103	86.0	52.4	45.4	41.3
MAX	877	1,210	925	2,630	840	1,270	245	162	150	100	108	154
MIN	31	374	198	435	180	196	126	76	50	35	28	28
CFSM	3.36	10.8	6.59	15.0	4.89	7.77	2.69	1.58	1.32	.81	.70	.64
IN.	3.87	12.1	7.60	17.2	5.28	8.96	3.00	1.82	1.48	.93	.81	.71
AC-FT	13,390	41,770	26,300	59,660	18,270	31,000	10,380	6,310	5,120	3,220	2,790	2,460

CAL YR 1963: TOTAL 98,736 MEAN 271 MAX 1,990 MIN 31 CFSM 4.17 IN 56.58 AC-FT 195,800
WAT YR 1964: TOTAL 111,260 MEAN 304 MAX 2,630 MIN 28 CFSM 4.68 IN 63.76 AC-FT 220,700

12-0325. Cloquallum River at Elma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	120	82	2,730	449	1,190	516	132	189	100	46	28	21
2	93	91	1,800	756	855	429	120	163	93	44	28	20
3	77	186	1,060	680	692	367	111	163	91	43	28	19
4	60	425	736	544	776	330	109	228	88	43	29	19
5	52	271	572	516	1,250	294	105	202	84	43	29	18
6	43	202	480	519	1,140	268	111	184	82	42	29	18
7	39	163	422	470	795	246	115	169	76	42	27	17
8	61	140	470	498	875	226	109	158	74	42	27	16
9	84	120	409	470	696	209	104	148	74	42	28	16
10	79	115	438	446	576	205	102	142	74	42	28	16
11	64	142	422	422	498	193	96	130	98	42	27	16
12	58	124	409	394	494	187	93	126	86	42	43	16
13	55	113	413	373	564	182	98	122	74	40	66	18
14	63	104	484	376	498	176	98	113	76	38	43	36
15	77	96	484	449	446	171	93	152	76	39	31	46
16	126	95	409	498	616	165	102	400	72	40	28	34
17	132	95	364	466	756	158	96	292	68	42	26	28
18	100	88	350	422	644	148	95	238	68	42	23	27
19	84	84	336	388	540	144	410	214	66	40	38	26
20	76	81	341	394	463	142	780	207	61	42	58	23
21	69	76	466	512	425	138	519	184	58	42	40	22
22	64	86	975	536	394	136	367	169	58	40	31	22
23	60	246	1,020	632	347	132	289	156	58	39	29	21
24	60	1,360	855	925	322	128	266	146	56	38	29	21
25	54	756	672	760	300	124	228	140	56	36	29	21
26	52	790	955	915	470	130	200	130	55	36	29	20
27	48	612	1,090	2,100	970	124	180	124	54	33	28	20
28	46	452	776	1,910	672	132	163	118	52	30	26	21
29	46	633	620	2,020	------	144	150	111	50	29	24	20
30	63	2,270	512	2,170	------	132	161	109	48	28	23	20
31	64	------	435	1,860	------	122	------	104	------	28	22	------
TOTAL	2,169	10,098	21,505	23,870	18,264	6,198	5,602	5,231	2,126	1,215	974	658
MEAN	70.0	337	694	770	652	200	187	169	70.9	39.2	31.4	21.9
MAX	132	2,270	2,730	2,170	1,250	516	780	400	100	46	66	46
MIN	39	76	336	373	300	122	93	104	48	28	22	16
CFSM	1.08	5.19	10.7	11.9	10.1	3.08	2.88	2.60	1.09	.60	.48	.34
IN.	1.24	5.79	12.3	13.7	10.5	3.55	3.21	3.00	1.22	.70	.56	.38
AC-FT	4,300	20,030	42,650	47,350	36,230	12,290	11,110	10,380	4,220	2,410	1,930	1,310

CAL YR 1964: TOTAL 103,957 MEAN 284 MAX 2,730 MIN 28 CFSM 4.38 IN 59.57 AC-FT 206,200
WAT YR 1965: TOTAL 97,910 MEAN 268 MAX 2,730 MIN 16 CFSM 4.13 IN 56.11 AC-FT 194,200

12-0342. East Fork Satsop River near Elma, Wash.

Location.--Lat 47°07'40", long 123°25'00", in SE¼SW¼ sec.15, T.19 N., R.6 W., on right bank 1½ miles downstream from Bingham Creek, 4½ miles upstream from mouth, and 8½ miles north of Elma.

Drainage area.--65.9 sq mi.

Records available.--February 1957 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 205 ft (from topographic map).

Average discharge.--8 years, 372 cfs (269,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2330	3,540	6.73	Nov. 20, 1962	0430	* 3,740	6.98	Nov. 30, 1964	2200	* 2,780	5.69
Feb. 6, 1961	0700	1,750	4.19	Nov. 25, 1962	2230	2,000	4.57	Jan. 30, 1965	2130	2,500	5.29
Feb. 21, 1961	1130	* 4,150	7.53	Jan. 3, 1963	0230	2,150	4.79	Feb. 5, 1965	2000	1,970	4.52
Mar. 14, 1961	2200	1,860	4.36								
				Jan. 1, 1964	1900	1,770	4.22				
Dec. 24, 1961	0600	* 1,680	4.07	Jan. 25, 1964	1230	* 2,460	5.23				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.25-27, 29, 30	83	1.12	1964	Sept.25, 1964	60	1.01
1962	Sept.26, 1962	80	a 1.12	1965	Oct. 7, 1964	70	b .99
1963	Sept.29, 30, 1963	65	1.04				

a Occurred Oct. 2-5, 1961.
b Occurred Sept. 25, 27-30, 1965.

1957-65: Maximum discharge, 4,150 cfs Feb. 21, 1961 (gage height, 7.53 ft); minimum, 60 cfs Sept. 25, 1964.

Remarks.--Records excellent except those for period of no gage-height record, which are fair. No regulation or diversion above station. Records of suspended-sediment loads for the water years 1962-64 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1566: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	86	308	450	335	1,100	1,490	450	315	205	148	108	122
2	86	280	415	320	1,470	1,270	470	330	202	148	108	105
3	86	240	395	312	1,230	1,060	450	335	198	145	105	97
4	84	216	370	325	1,320	924	410	330	194	142	105	95
5	84	196	345	724	1,690	804	380	312	194	151	105	92
6	91	182	325	892	1,710	954	360	298	194	148	105	92
7	101	174	312	712	1,430	876	340	289	194	142	102	92
8	96	163	300	694	1,200	822	320	303	187	139	102	92
9	88	160	292	964	1,170	846	310	373	191	136	105	90
10	88	292	284	1,160	1,130	930	300	387	187	136	105	90
11	88	420	349	1,250	1,040	1,240	280	368	187	133	102	90
12	88	350	958	970	990	1,420	290	340	184	130	102	88
13	86	308	862	934	1,040	1,490	290	326	177	130	102	88
14	86	380	676	1,310	1,030	1,740	260	330	177	127	102	88
15	86	445	556	2,560	1,270	1,660	250	330	174	127	102	90
16	86	682	490	2,670	1,130	1,290	240	307	170	127	102	90
17	86	802	475	1,810	1,100	1,070	245	289	167	124	100	88
18	86	1,050	889	1,410	990	912	250	280	163	124	100	88
19	86	868	1,120	1,100	1,400	834	245	266	163	122	100	88
20	86	1,090	832	924	1,930	924	240	258	160	122	97	88
21	94	940	676	798	3,680	822	290	254	160	122	97	85
22	104	826	574	708	2,530	774	330	254	160	122	97	85
23	127	892	505	642	1,700	786	315	254	157	119	97	85
24	153	1,220	470	592	1,790	756	305	245	157	119	97	85
25	156	1,290	445	542	1,620	740	295	236	154	116	97	85
26	200	1,010	445	504	1,360	700	280	232	154	116	97	83
27	272	784	420	460	1,280	640	275	241	154	116	97	83
28	410	640	395	420	1,160	600	270	228	151	113	97	85
29	276	544	370	526	------	540	285	221	151	113	97	83
30	228	485	355	894	------	500	300	213	151	110	100	85
31	256	------	350	990	------	470	------	213	------	110	113	------
TOTAL	4,030	17,237	15,700	28,452	40,490	29,884	9,325	8,957	5,217	3,977	3,145	2,697
MEAN	130	575	506	918	1,446	964	311	289	174	128	101	89.9
MAX	410	1,290	1,120	2,670	3,680	1,740	470	387	205	151	113	122
MIN	84	160	284	312	990	470	240	213	151	110	97	83
CFSM	1.97	8.72	7.69	13.9	21.9	14.6	4.72	4.38	2.64	1.95	1.54	1.36
IN.	2.27	9.73	8.86	16.1	22.9	16.9	5.26	5.05	2.94	2.24	1.77	1.52
AC-FT	7,990	34,190	31,140	56,430	80,310	59,270	18,500	17,770	10,350	7,890	6,240	5,350

CAL YR 1960: TOTAL 142,088 MEAN 388 MAX 2,400 MIN 84 CFSM 5.89 IN 80.19 AC-FT 281,800
WAT YR 1961: TOTAL 169,111 MEAN 463 MAX 3,680 MIN 83 CFSM 7.03 IN 95.44 AC-FT 335,400

Note.--No gage-height record Mar. 25 to May 2.

12-0342. East Fork Satsop River near Elma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	85	160	840	624	330	254	363	482	184	136	105	92
2	83	154	630	708	316	249	340	435	209	133	108	92
3	83	157	520	1,210	312	241	326	492	198	130	116	92
4	83	148	636	990	316	330	321	455	198	136	113	90
5	83	142	672	846	298	509	303	401	202	139	113	90
6	88	136	531	810	298	558	445	373	191	136	127	90
7	85	133	504	786	368	504	553	344	184	130	133	90
8	85	130	455	696	392	487	470	349	180	127	127	90
9	97	180	396	608	425	455	406	368	174	127	116	88
10	97	440	359	542	435	415	368	368	174	124	110	95
11	92	450	330	498	420	382	340	344	170	124	108	95
12	151	359	307	465	396	354	321	321	167	122	108	90
13	160	293	307	440	401	330	307	303	167	122	105	95
14	133	254	312	425	440	312	293	293	163	116	105	95
15	116	224	298	415	430	298	284	280	160	116	102	90
16	108	209	312	392	396	303	271	271	160	116	102	88
17	102	198	608	382	382	289	262	262	157	113	105	85
18	100	191	654	363	373	280	254	254	154	110	105	85
19	97	191	756	340	349	266	249	245	151	110	105	85
20	95	184	960	321	330	262	245	236	148	108	102	85
21	95	236	1,010	303	303	271	258	232	148	108	102	85
22	97	514	1,040	293	298	349	245	236	167	108	97	85
23	184	435	1,600	284	293	455	236	228	148	105	97	85
24	148	354	1,570	293	280	972	236	221	145	105	97	83
25	145	303	1,150	340	266	978	241	217	142	105	95	83
26	187	275	936	368	254	768	241	209	151	105	95	83
27	249	303	762	445	249	624	498	205	154	105	95	85
28	232	410	804	440	254	536	630	202	145	105	95	116
29	191	531	942	392	------	476	575	194	142	105	92	105
30	167	558	924	368	------	425	476	194	139	105	95	95
31	157	------	744	349	------	387	------	187	------	105	95	------
TOTAL	3,875	8,252	21,869	15,736	9,604	13,319	10,357	9,201	4,972	3,636	3,270	2,707
MEAN	125	275	705	508	343	430	345	297	166	117	105	90.2
MAX	249	558	1,600	1,210	440	978	630	492	209	139	133	116
MIN	83	130	298	284	249	241	236	187	139	105	92	83
CFSM	1.90	4.17	10.7	7.70	5.20	6.52	5.24	4.50	2.51	1.78	1.60	1.37
IN.	2.19	4.66	12.3	8.88	5.42	7.52	5.84	5.19	2.81	2.05	1.85	1.53
AC-FT	7,690	16,370	43,380	31,210	19,050	26,420	20,540	18,250	9,860	7,210	6,490	5,370

CAL YR 1961: TOTAL 166,140 MEAN 455 MAX 3,680 MIN 83 CFSM 6.91 IN 93.76 AC-FT 329,500
WAT YR 1962: TOTAL 106,798 MEAN 293 MAX 1,600 MIN 83 CFSM 4.44 IN 60.27 AC-FT 211,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	88	127	996	1,300	305	528	610	330	185	142	101	83
2	88	124	984	1,980	386	484	534	418	185	134	101	80
3	95	122	957	1,870	864	446	544	390	181	142	101	80
4	92	151	891	1,220	924	412	616	363	185	138	98	78
5	90	191	957	930	1,010	385	622	446	185	131	98	80
6	90	209	1,080	786	808	368	737	429	181	128	98	80
7	116	194	891	698	710	352	776	396	177	131	98	80
8	202	217	776	638	605	336	770	358	177	142	95	80
9	330	221	688	588	534	325	770	341	173	134	95	80
10	284	370	622	539	490	315	676	325	169	128	95	86
11	241	470	578	490	446	305	588	310	169	120	95	83
12	330	460	534	462	407	300	544	300	165	120	95	80
13	415	465	522	440	402	290	500	290	161	120	95	83
14	344	460	784	424	402	285	473	275	161	120	92	83
15	266	455	874	407	374	285	462	270	157	117	92	86
16	221	440	781	396	363	290	440	255	157	124	92	86
17	194	425	682	380	374	280	412	250	149	117	92	80
18	177	401	605	363	412	275	402	245	149	114	86	78
19	167	1,780	583	346	468	358	412	235	145	110	95	75
20	157	3,080	544	336	478	374	390	226	145	110	104	75
21	154	1,570	517	330	434	336	368	221	145	120	98	72
22	148	1,040	484	315	402	310	352	216	145	134	107	72
23	142	825	462	310	374	300	336	216	142	124	98	78
24	139	726	440	300	352	290	341	212	142	117	101	72
25	136	1,360	418	290	400	310	346	208	142	114	98	70
26	145	1,660	402	290	610	325	330	203	138	110	95	70
27	145	1,290	418	280	550	363	310	203	142	110	89	68
28	139	1,040	473	280	528	478	305	198	142	107	86	68
29	133	902	624	270	------	666	305	190	138	107	86	68
30	130	1,040	1,400	265	------	759	305	190	142	101	83	68
31	127	------	1,380	290	------	704	------	190	------	101	83	------
TOTAL	5,525	21,815	22,347	17,813	14,412	11,834	14,576	8,699	4,774	3,767	2,942	2,322
MEAN	178	727	721	575	515	382	486	281	159	122	94.9	77.4
MAX	415	3,080	1,400	1,980	1,010	759	776	446	185	142	107	86
MIN	88	122	402	265	305	275	305	190	138	101	83	68
CFSM	2.70	11.0	10.9	8.72	7.81	5.79	7.37	4.26	2.41	1.84	1.44	1.17
IN.	3.12	12.3	12.6	10.1	8.13	6.68	8.23	4.91	2.69	2.13	1.66	1.31
AC-FT	10,960	43,270	44,320	35,330	28,590	23,470	28,910	17,250	9,470	7,470	5,840	4,610

CAL YR 1962: TOTAL 122,489 MEAN 336 MAX 3,080 MIN 83 CFSM 5.09 IN 69.13 AC-FT 243,000
WAT YR 1963: TOTAL 130,826 MEAN 358 MAX 3,080 MIN 68 CFSM 5.44 IN 73.83 AC-FT 259,500

12-0342. East Fork Satsop River near Elma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	68	390	600	1,410	1,090	610	363	240	150	120	120	89
2	68	610	544	1,330	940	522	346	235	145	120	138	86
3	68	550	495	990	825	495	330	230	140	117	134	86
4	70	506	473	869	808	553	325	221	165	114	131	86
5	70	468	490	792	704	622	315	221	175	114	120	83
6	72	506	495	847	632	544	300	212	170	114	117	83
7	72	649	456	759	583	478	295	208	165	110	114	83
8	72	754	484	693	550	473	285	203	165	107	114	86
9	72	660	484	764	517	484	300	203	160	110	114	80
10	70	770	446	891	506	583	315	198	160	110	110	80
11	70	649	424	830	490	969	320	194	155	110	107	78
12	75	698	396	732	462	1,010	325	194	150	107	104	78
13	95	852	380	737	446	836	315	194	145	107	104	78
14	95	913	368	764	434	946	315	190	140	110	104	78
15	86	852	380	786	456	1,010	358	185	140	120	101	78
16	78	808	434	1,220	456	820	341	181	150	124	101	78
17	75	820	468	1,430	462	754	320	177	160	117	101	83
18	72	726	440	1,400	473	676	300	177	155	110	101	78
19	75	968	484	1,330	468	600	290	177	155	107	98	80
20	86	952	836	1,470	451	566	275	185	150	114	98	83
21	161	764	825	1,130	434	566	275	190	145	120	98	78
22	330	814	852	968	407	512	305	194	140	114	98	83
23	315	1,170	1,280	836	390	478	280	185	138	107	98	80
24	735	1,070	1,130	1,060	385	451	270	177	138	110	95	75
25	704	962	990	2,230	368	434	260	177	134	114	95	72
26	534	1,240	880	1,570	352	434	250	169	131	114	95	72
27	407	1,280	874	1,160	341	407	255	165	131	114	95	72
28	522	946	836	1,110	341	385	245	161	128	110	95	70
29	500	786	737	1,260	385	368	235	157	128	110	92	72
30	429	732	660	1,160	------	380	230	157	124	110	92	124
31	358	------	671	1,100	------	374	------	153	------	114	92	------
TOTAL	6,504	23,865	19,312	33,628	15,156	18,340	8,938	5,910	4,432	3,499	3,276	2,432
MEAN	210	796	623	1,085	523	592	298	191	148	113	106	81.1
MAX	735	1,280	1,280	2,230	1,090	1,010	363	240	175	124	138	124
MIN	68	390	368	693	341	368	230	153	124	107	92	70
CFSM	3.18	12.1	9.45	16.5	7.93	8.98	4.52	2.89	2.24	1.71	1.60	1.23
IN.	3.67	13.5	10.9	19.0	8.55	10.3	5.04	3.34	2.50	1.97	1.85	1.37
AC-FT	12,900	47,340	38,300	66,700	30,060	36,380	17,730	11,720	8,790	6,940	6,500	4,820

CAL YR 1963: TOTAL 130,820 MEAN 358 MAX 1,980 MIN 68 CFSM 5.44 IN 73.83 AC-FT 259,500
WAT YR 1964: TOTAL 145,292 MEAN 397 MAX 2,230 MIN 68 CFSM 6.02 IN 81.99 AC-FT 288,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	128	104	2,500	446	1,290	710	244	300	207	142	103	83
2	120	110	1,580	490	1,020	632	232	285	199	142	103	83
3	117	208	1,040	484	869	583	228	285	195	139	103	83
4	104	424	803	446	1,020	539	220	320	195	139	103	83
5	98	310	654	429	1,770	500	215	300	195	139	100	83
6	92	240	566	451	1,560	468	215	290	192	136	98	81
7	89	207	522	424	1,140	446	224	272	188	129	98	81
8	101	188	572	412	1,120	429	215	262	184	129	98	81
9	117	177	528	402	1,020	407	211	254	177	129	98	81
10	110	169	556	390	880	396	207	254	177	129	95	81
11	104	180	500	385	792	375	203	244	188	129	95	81
12	101	177	478	365	748	360	199	236	180	126	103	81
13	101	166	473	350	786	350	199	232	177	126	106	78
14	110	154	468	350	759	345	199	224	177	126	98	88
15	117	152	456	434	698	330	195	282	173	126	95	86
16	128	149	412	506	864	315	195	550	169	126	95	81
17	128	146	375	473	1,080	305	195	451	166	123	93	81
18	120	142	365	440	946	295	195	375	166	120	93	78
19	114	139	355	418	836	290	384	340	159	114	98	78
20	110	136	335	434	770	285	764	330	155	114	106	78
21	107	132	375	528	710	276	698	310	155	114	95	78
22	107	149	578	572	660	272	566	290	155	114	95	78
23	104	302	649	588	600	267	462	272	152	112	93	78
24	101	1,020	594	798	566	258	412	258	149	112	93	76
25	101	770	528	726	528	249	365	249	146	109	93	76
26	98	770	693	781	594	249	335	240	146	106	93	76
27	95	660	776	1,720	924	240	305	232	142	106	90	76
28	95	539	649	1,720	830	249	290	228	142	106	88	74
29	92	726	561	1,780	------	280	276	220	142	106	88	74
30	98	2,120	522	2,200	------	272	285	215	142	106	86	74
31	101	------	451	1,960	------	244	------	211	------	106	86	------
TOTAL	3,308	10,866	19,914	21,902	25,380	11,216	8,933	8,811	5,090	3,780	2,981	2,390
MEAN	107	362	642	707	906	362	298	284	170	122	96.2	79.7
MAX	128	2,120	2,500	2,200	1,770	710	764	550	207	142	106	88
MIN	89	104	335	350	528	240	195	211	142	106	86	74
CFSM	1.62	5.50	9.75	10.7	13.8	5.49	4.52	4.31	2.57	1.85	1.46	1.21
IN.	1.87	6.13	11.2	12.4	14.3	6.33	5.04	4.97	2.87	2.13	1.68	1.35
AC-FT	6,560	21,550	39,500	43,440	50,340	22,250	17,720	17,480	10,100	7,500	5,910	4,740

CAL YR 1964: TOTAL 129,699 MEAN 354 MAX 2,500 MIN 70 CFSM 5.38 IN 73.19 AC-FT 257,300
WAT YR 1965: TOTAL 124,571 MEAN 341 MAX 2,500 MIN 74 CFSM 5.18 IN 70.30 AC-FT 247,100

12-0350. Satsop River near Satsop, Wash.

Location.--Lat 47°00'05", long 123°29'40", in NE¼SE¼ sec.36, T.18 N., R.7 W., in west pier of bridge on U.S. Highway 410, three-quarters of a mile west of Satsop and 2 miles upstream from mouth.

Drainage area.--299 sq mi.

Records available.--March 1929 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Prior to Mar. 19, 1938, staff gage at site 60 ft upstream at datum 20.9 ft higher. Mar. 19, 1938, to Aug. 31, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--36 years, 1,980 cfs (1,433,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, elevation in feet).

Annual maximum discharge (*) and peak discharges above base (13,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 10, 1961	2400	16,300	31.57	Dec. 23, 1961	0600	* 12,700	30.41	Jan. 25, 1964	1100	* 14,300	30.74
Jan. 15, 1961	2400	28,100	35.03								
Feb. 21, 1961	1330	* 29,300	35.32	Nov. 20, 1962	0700	* 32,800	35.56	Nov. 30, 1964	1730	* 19,500	32.40
				Jan. 2, 1963	0200	14,900	31.17	Jan. 30, 1965	2400	16,600	31.53

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 26, 28-30, Sept.23-28, 1961	235	a 23.74	1963	Sept. 9, 1963	243	23.79
				1964	Oct. 1-3, 1963	259	23.81
1962	Oct. 4, 5, 1961	242	b 23.94	1965	Sept.24-26,28-30	220	23.54

a Occurred Oct. 5, 6, 1960.
b Occurred Sept. 9, 10, 1962.

1929-65: Maximum discharge, 46,600 cfs Jan. 22, 1935 (elevation, 38.9 ft, from floodmarks, present datum); minimum, 166 cfs Sept. 21, 1938: minimum elevation, 21.66 ft, present datum, Sept. 3-6, 1934.

Flood in November 1909 reached a stage of 37.1 ft (from high watermark), at railroad bridge 300 ft downstream.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)	WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1042	1945	Feb. 7, 1945	31,500	35.30	1446	1956	Nov. 3, 1955	30,700	35.14
1152	1949	Feb. 22, 1949	29,500	34.90	1516	1957	Dec. 10, 1956	35,000	35.99
1216	1951	Feb. 9, 1951	39,600	36.91	1636	1959	Apr. 30, 1959	28,600	34.73

Remarks.--Records excellent. No regulation or diversion above station. Records of chemical analyses for the water years 1961-65 and of suspended-sediment loads for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1930-35(M), 1937(M). Revised figures of discharge, in cubic feet per second, for the water year 1945, superseding those published in WSP 1042, are given herewith:

Feb. 1, 1945	1,130	Feb. 8, 1945	18,700	Feb. 15, 1965	3,230	Feb. 22, 1945	2,070
2	1,390	9	8,960	16	2,920	23	2,160
3	2,020	10	6,100	17	2,770	24	2,000
4	3,420	11	5,050	18	2,500	25	1,890
5	4,800	12	4,650	19	2,300	26	1,820
6	3,810	13	4,220	20	2,180	27	1,720
7	14,400	14	3,700	21	2,070	28	1,620

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
February 1945	113,600	18,700	1,130	4,057	13.6	14.13	225,300
Water year 1944-45	662,440	18,700	242	1,815	6.07	82.39	1,314,000
Calendar year 1945	769,973	18,700	220	2,110	7.06	95.77	1,527,000

12-0350. Satsop River near Satsop, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	308	2,690	2,540	1,410	6,800	9,330	2,200	1,860	703	460	279	807
2	308	2,080	2,540	1,310	9,860	6,870	2,420	2,320	703	460	279	690
3	300	1,710	2,400	1,260	6,730	5,140	2,220	2,360	690	460	270	482
4	300	1,400	2,350	1,340	7,010	4,260	2,010	2,180	666	460	270	400
5	292	1,210	1,990	4,760	10,200	4,070	1,880	1,950	654	450	270	360
6	332	1,080	1,780	6,310	10,100	4,260	1,760	1,740	666	450	270	324
7	630	962	1,630	4,390	8,160	4,000	1,650	1,590	690	460	263	306
8	840	862	1,500	3,800	6,320	3,740	1,560	1,600	642	460	256	297
9	610	818	1,390	7,250	6,590	3,900	1,540	2,180	654	460	263	279
10	500	1,430	1,290	10,100	6,300	4,260	1,410	2,440	690	460	263	270
11	450	2,770	1,540	11,300	5,690	5,770	1,350	2,300	642	360	256	270
12	450	2,200	8,700	6,720	5,710	6,940	1,440	2,020	606	360	249	270
13	421	1,910	6,780	5,820	5,650	7,290	1,440	1,860	594	360	249	263
14	412	2,300	4,900	8,810	5,350	10,000	1,300	1,820	570	360	249	256
15	470	2,640	3,640	19,500	7,680	10,200	1,260	1,710	570	360	256	256
16	450	5,030	2,910	18,200	6,120	6,980	1,220	1,540	570	360	263	263
17	430	6,020	2,690	9,700	5,470	5,330	1,240	1,410	570	360	263	263
18	403	7,690	5,820	7,290	4,730	4,410	1,240	1,290	460	360	256	256
19	376	5,780	8,150	5,510	8,020	3,970	1,230	1,220	460	360	256	256
20	367	8,240	5,300	4,510	11,100	5,120	1,220	1,120	460	360	249	249
21	385	5,920	3,900	3,800	25,000	4,410	1,420	1,080	460	360	249	249
22	1,130	4,740	3,210	3,340	14,300	3,850	2,220	1,060	460	360	242	242
23	2,100	5,100	2,730	2,940	8,230	4,440	2,100	1,040	460	360	242	242
24	3,180	7,600	2,400	2,680	8,710	4,240	1,890	1,000	460	324	242	235
25	2,000	8,130	2,140	2,440	8,010	3,800	1,710	918	460	324	242	235
26	2,560	6,250	2,100	2,220	6,390	3,560	1,560	904	460	306	242	235
27	3,500	4,480	1,860	2,040	5,870	3,360	1,420	946	460	297	242	235
28	5,300	3,540	1,680	1,940	5,310	2,960	1,360	848	460	297	235	249
29	2,690	2,910	1,560	2,540	------	2,680	1,560	807	460	288	235	279
30	1,740	2,530	1,480	6,180	------	2,460	1,650	768	460	288	242	270
31	1,910	------	1,500	6,550	------	2,280	------	742	------	279	380	------
TOTAL	35,144	110,022	94,400	175,960	225,410	153,880	48,480	46,623	16,860	11,663	8,022	9,288
MEAN	1,134	3,667	3,045	5,676	8,050	4,964	1,616	1,504	562	376	259	310
MAX	5,300	8,240	8,700	19,500	25,000	10,200	2,420	2,440	703	460	380	807
MIN	292	818	1,290	1,260	4,730	2,280	1,220	742	460	279	235	235
CFSM	3.79	12.3	10.2	19.0	26.9	16.6	5.40	5.03	1.88	1.26	.87	1.04
IN.	4.37	13.7	11.7	21.9	28.0	19.1	6.03	5.80	2.10	1.45	1.00	1.16
AC-FT	69,710	218,200	187,200	349,000	447,100	305,200	96,160	92,480	33,440	23,130	15,910	18,420

CAL YR 1960: TOTAL 754,910 MEAN 2,063 MAX 17,800 MIN 292 CFSM 6.90 IN 93.90 AC-FT 1,497,000
WAT YR 1961: TOTAL 935,752 MEAN 2,564 MAX 25,000 MIN 235 CFSM 8.57 IN 116.39 AC-FT 1,856,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	279	1,100	9,000	3,500	1,570	1,070	1,990	3,280	668	500	320	306
2	263	975	4,890	3,930	1,450	1,050	1,820	2,960	818	480	329	306
3	256	1,000	3,640	9,690	1,380	982	1,630	3,260	898	470	401	299
4	249	946	4,460	6,630	1,390	1,510	1,570	3,000	818	470	410	292
5	249	862	4,880	4,930	1,270	2,820	1,480	2,520	912	500	410	292
6	270	794	3,530	4,610	1,240	3,310	2,460	2,170	831	532	620	292
7	306	742	2,960	4,340	2,080	2,960	3,980	1,900	766	480	926	292
8	279	703	2,490	3,770	2,420	2,770	2,880	1,810	728	450	912	285
9	315	981	2,130	3,260	2,900	2,590	2,320	1,980	680	450	692	285
10	794	4,580	1,880	2,820	2,700	2,280	2,000	2,230	656	450	576	313
11	594	3,880	1,680	2,500	2,400	2,020	1,780	2,160	632	440	510	356
12	1,390	2,760	1,520	2,300	2,160	1,810	1,600	1,920	620	420	470	329
13	2,830	2,120	1,530	2,060	2,230	1,660	1,480	1,740	620	410	460	365
14	1,500	1,720	1,540	1,990	2,780	1,520	1,380	1,560	609	410	430	598
15	960	1,420	1,420	1,930	2,820	1,440	1,300	1,420	587	401	410	565
16	755	1,240	1,530	1,760	2,420	1,450	1,220	1,320	565	392	401	460
17	630	1,120	3,720	1,720	2,170	1,420	1,140	1,210	554	383	392	401
18	559	1,080	3,880	1,580	2,000	1,330	1,070	1,140	543	383	410	365
19	504	1,040	4,220	1,460	1,820	1,270	1,040	1,070	521	374	430	347
20	482	946	6,730	1,360	1,660	1,200	1,010	1,040	510	365	410	338
21	450	1,120	7,630	1,260	1,520	1,240	1,140	968	510	365	420	329
22	471	3,680	7,040	1,200	1,400	1,620	1,070	982	510	356	392	320
23	1,660	3,080	11,700	1,160	1,380	2,480	982	996	490	347	374	313
24	1,300	2,250	10,300	1,200	1,270	6,460	982	898	480	338	356	306
25	1,020	1,780	6,850	1,440	1,200	6,080	1,200	857	470	338	338	299
26	1,700	1,530	5,010	1,720	1,110	4,360	1,220	818	532	329	329	299
27	3,070	1,960	3,950	2,860	1,070	3,520	3,180	792	632	320	329	313
28	2,400	4,230	4,450	2,710	1,090	2,900	4,380	753	620	320	329	753
29	1,660	5,060	6,390	2,260	------	2,470	3,610	740	554	320	329	1,260
30	1,280	5,310	6,140	1,960	------	2,200	2,880	716	510	320	320	1,020
31	1,080	------	4,360	1,750	------	2,060	------	692	------	320	313	------
TOTAL	29,555	60,009	141,450	85,660	50,900	71,852	55,794	48,902	18,844	12,433	13,748	12,298
MEAN	953	2,000	4,563	2,763	1,818	2,318	1,860	1,577	628	401	443	410
MAX	3,070	5,310	11,700	9,690	2,900	6,460	4,380	3,280	912	532	926	1,260
MIN	249	703	1,420	1,160	1,070	982	982	692	470	320	313	285
CFSM	3.19	6.69	15.3	9.24	6.08	7.75	6.22	5.28	2.10	1.34	1.48	1.37
IN.	3.68	7.46	17.6	10.7	6.33	8.94	6.94	6.08	2.34	1.55	1.71	1.53
AC-FT	58,620	119,000	280,600	169,900	101,000	142,500	110,700	97,000	37,380	24,660	27,270	24,390

CAL YR 1961: TOTAL 927,200 MEAN 2,540 MAX 25,000 MIN 235 CFSM 8.50 IN 115.33 AC-FT 1,839,000
WAT YR 1962: TOTAL 601,445 MEAN 1,648 MAX 11,700 MIN 249 CFSM 5.51 IN 74.81 AC-FT 1,193,000

12-0350. Satsop River near Satsop, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	805	609	5,440	8,420	1,050	2,580	3,300	1,480	570	450	373	277
2	668	598	5,460	12,400	1,250	2,370	2,760	2,300	570	428	351	277
3	792	565	5,180	11,100	6,810	2,120	2,760	2,310	570	395	340	268
4	1,080	716	4,780	6,740	7,400	1,920	3,700	2,030	570	384	331	259
5	884	1,330	5,700	4,920	8,120	1,750	4,040	2,600	583	373	331	259
6	766	1,750	7,880	3,880	5,400	1,620	4,880	2,690	558	351	331	250
7	912	1,460	5,560	3,230	4,840	1,540	5,070	2,280	546	384	322	250
8	2,170	1,680	4,460	2,810	3,630	1,430	4,760	1,990	546	450	313	250
9	3,610	1,630	3,880	2,480	2,900	1,340	5,160	1,760	534	498	313	250
10	3,010	2,480	3,320	2,190	2,440	1,290	4,100	1,580	510	462	304	268
11	2,300	3,120	2,890	1,970	2,120	1,230	3,300	1,460	486	439	313	277
12	4,480	3,070	2,580	1,820	1,900	1,200	2,820	1,340	474	428	313	259
13	5,370	2,940	2,540	1,690	1,790	1,150	2,550	1,270	462	395	304	277
14	3,800	3,240	4,920	1,620	1,810	1,120	2,260	1,190	450	384	286	331
15	2,530	3,120	5,980	1,530	1,680	1,130	2,260	1,150	439	373	286	351
16	1,940	2,800	5,360	1,470	1,790	1,180	2,090	1,080	439	362	277	362
17	1,600	2,640	4,170	1,400	1,820	1,150	1,900	1,010	428	362	277	331
18	1,330	2,460	3,400	1,320	2,340	1,270	1,820	952	428	351	277	304
19	1,200	11,400	3,130	1,230	2,760	1,460	1,930	896	428	351	295	277
20	1,080	24,200	2,730	1,200	3,200	2,320	1,850	868	417	340	362	277
21	982	9,160	2,500	1,130	2,570	2,040	1,740	826	417	373	340	268
22	912	6,000	2,320	1,090	2,140	1,750	1,610	798	406	1,020	340	286
23	844	4,550	2,140	1,050	1,900	1,530	1,540	770	395	910	340	340
24	779	4,060	2,020	1,020	1,720	1,400	1,500	742	384	700	362	340
25	740	8,300	1,890	980	1,860	1,500	1,510	714	428	609	362	304
26	805	10,000	1,780	966	3,740	1,960	1,400	687	406	534	362	286
27	805	7,460	1,790	910	3,230	3,060	1,300	687	395	486	331	277
28	704	6,020	2,030	854	2,760	2,810	1,120	648	417	462	313	268
29	668	5,030	3,120	826	------	3,400	1,230	622	406	439	295	268
30	632	5,760	10,700	770	------	4,240	1,270	609	439	428	286	268
31	620	------	9,450	966	------	3,940	------	596	------	395	277	------
TOTAL	48,818	138,148	129,100	83,982	84,970	58,800	77,530	39,935	14,101	14,316	9,907	8,559
MEAN	1,575	4,605	4,165	2,709	3,035	1,897	2,584	1,288	470	462	320	285
MAX	5,370	24,200	10,700	12,400	8,120	4,240	5,160	2,690	583	1,020	373	362
MIN	620	565	1,780	770	1,050	1,120	1,120	596	384	340	277	250
CFSM	5.27	15.4	13.9	9.06	10.1	6.34	8.64	4.31	1.57	1.54	1.07	.95
IN.	6.07	17.2	16.1	10.4	10.6	7.31	9.64	4.97	1.75	1.78	1.23	1.06
AC-FT	96,830	274,000	256,100	166,600	168,500	116,600	153,800	79,210	27,970	28,400	19,650	16,980

CAL YR 1962: TOTAL 686,497 MEAN 1,881 MAX 24,200 MIN 285 CFSM 6.29 IN 85.39 AC-FT 1,362,000
WAT YR 1963: TOTAL 708,166 MEAN 1,940 MAX 24,200 MIN 250 CFSM 6.49 IN 88.08 AC-FT 1,405,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	268	2,400	3,060	9,560	7,090	3,230	1,800	1,240	670	480	610	392
2	259	4,070	2,650	8,140	5,650	2,840	1,650	1,190	655	469	1,240	381
3	268	3,600	2,360	5,450	4,470	2,530	1,490	1,140	640	458	1,160	370
4	268	3,710	2,180	5,190	3,920	2,890	1,430	1,110	805	458	1,060	352
5	277	3,330	2,320	4,410	3,790	3,790	1,410	1,080	1,020	447	970	343
6	313	3,280	2,370	5,030	3,160	3,210	1,320	1,030	925	447	850	334
7	331	4,070	2,120	4,300	2,790	2,670	1,250	985	895	436	760	334
8	322	5,550	2,180	3,710	2,470	2,530	1,240	985	850	425	700	361
9	304	4,340	2,240	3,940	2,280	2,910	1,280	955	805	425	655	343
10	295	5,230	2,050	4,750	2,180	3,100	1,460	955	745	403	610	334
11	286	4,450	1,920	4,690	2,180	6,800	1,910	925	745	392	558	325
12	304	4,090	1,810	3,820	1,990	6,530	1,830	880	715	381	519	316
13	785	5,190	1,670	3,860	1,880	4,710	1,830	880	685	370	519	307
14	1,150	7,150	1,600	4,110	1,780	5,610	1,750	835	655	403	506	307
15	826	6,390	1,650	4,170	2,000	7,040	2,360	760	640	584	480	325
16	648	5,650	2,050	8,680	2,020	4,990	2,150	730	715	1,110	458	343
17	546	5,490	2,360	8,410	2,440	4,240	1,860	715	835	940	447	436
18	486	4,690	2,440	7,330	2,580	3,800	1,650	790	805	850	436	414
19	439	5,790	2,870	6,800	2,760	3,160	1,510	730	730	730	436	392
20	450	5,890	6,540	7,400	2,440	2,870	1,400	790	700	670	425	458
21	2,600	4,530	5,890	5,790	2,180	2,740	1,350	940	670	715	403	436
22	7,050	4,690	5,640	4,710	1,990	2,450	1,590	1,090	640	670	403	480
23	3,850	8,740	11,100	3,920	1,840	2,230	1,440	1,040	597	610	392	447
24	7,370	7,550	8,800	5,020	1,760	2,070	1,330	925	571	558	381	425
25	6,450	6,310	6,870	12,600	1,640	1,940	1,280	880	545	493	370	403
26	4,490	9,320	5,430	8,210	1,520	1,920	1,270	820	519	480	403	381
27	3,320	9,110	5,210	6,530	1,430	1,760	1,270	790	532	469	381	370
28	3,580	5,990	5,090	6,890	1,400	1,670	1,240	760	558	447	436	352
29	3,600	4,550	4,220	7,620	1,520	1,620	1,170	730	506	436	403	370
30	3,060	3,660	3,510	6,890	------	1,700	1,140	700	480	425	425	1,520
31	2,500	------	3,920	6,390	------	1,760	------	685	------	493	403	------
TOTAL	56,695	158,810	114,120	188,320	75,150	101,310	45,660	28,065	20,853	16,674	17,799	12,351
MEAN	1,829	5,294	3,681	6,075	2,591	3,268	1,522	905	695	538	574	412
MAX	7,370	9,320	11,100	12,600	7,090	7,040	2,360	1,240	1,020	1,110	1,240	1,520
MIN	259	2,400	1,600	3,710	1,400	1,620	1,140	685	480	370	370	307
CFSM	6.12	17.7	12.3	20.3	8.67	10.9	5.09	3.03	2.32	1.80	1.92	1.38
IN.	7.05	19.8	14.2	23.4	9.35	12.6	5.68	3.49	2.59	2.07	2.21	1.54
AC-FT	112,500	315,000	226,400	373,500	149,100	200,900	90,570	55,670	41,360	33,070	35,300	24,500

CAL YR 1963: TOTAL 721,725 MEAN 1,977 MAX 12,400 MIN 250 CFSM 6.61 IN 89.77 AC-FT 1,432,000
WAT YR 1964: TOTAL 835,807 MEAN 2,284 MAX 12,600 MIN 259 CFSM 7.64 IN 103.96 AC-FT 1,658,000

12-0350. Satsop River near Satsop, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,910	760	16,200	2,420	6,960	3,800	1,150	1,560	791	400	281	244
2	1,590	880	10,200	2,590	5,430	3,100	1,100	1,460	756	400	281	243
3	1,570	1,280	6,330	2,420	4,670	2,640	992	1,400	734	392	273	243
4	1,170	4,470	4,550	2,170	6,500	2,360	920	2,010	712	392	273	238
5	940	2,720	3,600	2,070	12,600	2,170	896	1,680	679	383	273	237
6	835	1,910	3,100	2,120	9,490	1,980	884	1,620	646	374	273	236
7	745	1,520	2,800	1,980	6,210	1,860	920	1,460	635	365	265	233
8	790	1,270	4,200	1,980	6,050	1,740	920	1,330	625	356	265	228
9	1,350	1,110	3,900	1,830	5,550	1,650	884	1,220	614	356	273	235
10	1,220	1,060	3,800	1,770	4,430	1,580	860	1,140	604	365	273	233
11	1,030	1,110	3,500	1,720	3,740	1,500	848	1,080	646	356	273	229
12	910	1,060	3,200	1,660	3,440	1,430	826	1,000	635	356	314	234
13	850	985	3,000	1,620	4,140	1,350	826	968	604	365	383	233
14	880	925	2,800	1,600	4,190	1,280	848	920	614	356	365	285
15	1,000	895	2,600	1,990	3,550	1,200	802	1,080	594	347	314	324
16	1,080	850	2,400	3,010	4,970	1,150	826	3,350	553	347	290	284
17	1,090	820	2,200	3,080	7,510	1,100	860	2,600	542	347	281	256
18	955	775	2,100	2,740	5,730	1,040	826	2,090	542	339	273	246
19	880	745	2,000	2,640	4,750	992	1,940	1,780	532	331	290	238
20	790	700	1,900	2,880	4,310	968	7,920	1,660	503	339	356	233
21	730	670	2,200	3,190	3,660	920	6,510	1,490	484	339	347	229
22	670	730	3,000	3,740	3,150	884	4,550	1,350	474	331	298	228
23	625	1,510	3,470	3,660	2,700	860	3,170	1,230	465	331	281	228
24	610	8,540	3,310	4,610	2,450	860	2,620	1,150	436	322	281	225
25	571	5,270	2,900	4,310	2,260	837	2,200	1,080	436	314	281	221
26	545	4,790	3,700	4,370	3,060	837	1,880	1,020	436	314	281	226
27	519	3,900	4,730	10,500	6,470	826	1,680	968	427	306	281	228
28	519	3,030	3,910	10,100	5,190	848	1,520	920	418	298	265	223
29	506	3,590	3,200	10,100	------	1,320	1,390	884	418	298	250	220
30	545	16,200	2,790	12,300	------	1,440	1,390	860	409	290	250	222
31	597	------	2,360	11,800	------	1,190	------	826	------	281	250	------
TOTAL	28,022	74,075	119,950	122,970	143,160	45,712	52,958	43,186	16,964	10,690	8,934	7,182
MEAN	904	2,469	3,869	3,967	5,113	1,475	1,765	1,393	565	345	288	239
MAX	1,910	16,200	16,200	12,300	12,600	3,800	7,920	3,350	791	400	383	324
MIN	506	670	1,900	1,600	2,260	826	802	826	409	281	250	220
CFSM	3.02	8.26	12.9	13.3	17.1	4.93	5.90	4.66	1.89	1.15	.96	.80
IN.	3.49	9.21	14.9	15.3	17.8	5.69	6.59	5.37	2.11	1.33	1.11	.89
AC-FT	55,580	146,900	237,900	243,900	284,000	90,670	105,000	85,660	33,650	21,200	17,720	14,250

CAL YR 1964: TOTAL 728,229 MEAN 1,990 MAX 16,200 MIN 307 CFSM 6.65 IN 90.58 AC-FT 1,444,000
WAT YR 1965: TOTAL 673,803 MEAN 1,846 MAX 16,200 MIN 220 CFSM 6.17 IN 83.81 AC-FT 1,336,000

12-0360. Wynoochee River above Save Creek, near Aberdeen, Wash.

Location.--Lat 47°18'00", long 123°39'05", in NE¼NE¼ sec.23 (revised), T.21 N., R.8 W., on left bank 0.8 mile upstream from Save Creek, 3 miles downstream from Oxbow, and 22 miles northeast of Aberdeen.

Drainage area.--74.1 sq mi.

Records available.--May 1925 to September 1965. Published as "at Oxbow, near Aberdeen" 1925-52, where drainage area was 70.7 sq mi. Records published for both sites October 1951 to October 1952.

Gage.--Water-stage recorder at present site and datum since Oct. 5, 1951. Datum of gage is 401 ft above mean sea level (stadia traverse). Prior to Nov. 7, 1925, staff gage at site 1,200 ft downstream from Oxbow, 3 miles upstream from present site at different datum. Nov. 7, 1925, to Sept. 3, 1947, water-stage recorder at site 1 mile downstream from Oxbow at datum 444.0 ft above mean sea level (levels by city of Aberdeen). Sept. 4, 1947, to Oct. 13, 1952, water-stage recorder at Oxbow at datum about 91 ft higher.

Average discharge.--40 years, 805 cfs (582,800 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (6,800 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 12 1960	1230	7,650	10.40	Nov. 19, 1962	2400	* 15,900	14.04	Nov. 30, 1964	0100	* 11,800	12.38
Jan. 10, 1961	1800	10,700	11.93	Nov. 25, 1962	1600	8,090	10.62	Feb. 4, 1965	1900	7,530	10.46
Jan. 15, 1961	1700	* 20,200	15.77	Jan. 1, 1963	1800	7,070	10.10				
Feb. 21, 1961	0500	11,900	12.59								
Jan. 3, 1962	1100	* 6,280	9.65	Oct. 21, 1963	2230	* 7,530	10.34				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28,29,30,1961	106	a 3.95	1964	Oct. 2, 3, 1963	121	4.03
1962	Oct. 2-5, 1961	120	4.11	1965	Sept.28-30, 1965	94	4.17
1963	Sept. 9, 1963	112	4.00				

a Occurred Oct. 5, 6, 1960.

1925-65: Maximum discharge, 23,600 cfs Dec. 9, 1956 (gage height, 16.95 ft), from rating curve extended above 9,000 cfs; minimum, 64 cfs Jan. 27, 1949.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1346: 1952. WSP 1736: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	132	1,360	1,250	506	2,840	3,450	1,040	1,300	503	248	145	882
2	130	1,070	1,080	470	3,090	2,020	1,170	1,610	573	238	145	482
3	128	878	1,160	452	2,100	1,580	1,130	1,280	573	230	142	300
4	125	750	1,010	665	2,380	1,360	983	1,060	538	221	139	238
5	125	656	854	1,910	3,190	1,290	875	911	496	252	135	209
6	174	600	750	1,810	3,420	1,210	794	803	596	248	139	185
7	1,310	537	678	1,300	2,400	1,130	724	724	531	225	132	174
8	607	506	621	1,540	2,160	1,160	700	794	454	217	132	163
9	404	470	572	3,310	2,820	1,260	676	1,350	489	213	132	155
10	300	953	551	6,080	2,200	1,360	644	1,240	482	205	129	148
11	271	1,320	918	4,670	2,290	1,620	620	1,070	434	205	126	148
12	261	973	4,960	2,890	2,030	1,650	644	902	422	201	123	142
13	234	878	2,720	2,440	1,820	1,630	612	812	398	193	123	136
14	377	964	1,940	4,280	1,780	3,780	573	776	386	189	123	132
15	355	1,040	1,380	16,400	2,290	3,150	552	758	398	185	123	129
16	300	2,000	1,150	5,980	1,750	2,140	538	749	410	181	123	129
17	261	3,300	1,160	3,420	1,530	1,670	612	776	410	181	123	126
18	242	2,570	2,950	2,530	1,400	1,430	573	785	398	181	123	123
19	221	2,770	2,560	1,970	2,180	1,450	552	794	368	178	117	120
20	208	2,570	1,610	1,690	4,220	2,120	538	776	338	174	114	120
21	428	1,740	1,260	1,500	8,850	1,550	812	684	320	166	114	117
22	937	1,450	1,070	1,350	3,610	1,440	902	620	310	163	114	117
23	2,020	1,540	955	1,240	2,400	2,130	732	628	300	159	114	117
24	1,950	2,100	886	1,130	2,400	1,820	660	636	295	159	112	117
25	1,200	2,000	798	1,040	1,960	1,560	604	566	285	155	112	114
26	1,870	1,590	742	956	1,670	1,460	566	580	280	152	112	114
27	2,280	1,270	663	884	1,540	1,280	538	580	266	148	109	114
28	2,120	1,070	614	830	1,760	1,160	559	531	266	148	109	145
29	1,240	928	579	1,280	------	1,060	947	503	261	148	106	142
30	1,010	902	537	3,680	------	1,000	1,250	496	256	148	112	132
31	1,350	------	530	2,490	------	965	------	475	------	148	518	------
TOTAL	22,570	40,755	38,508	80,693	72,080	51,885	22,120	25,569	12,036	5,859	4,224	5,470
MEAN	728	1,359	1,242	2,603	2,574	1,674	737	825	401	189	136	182
MAX	2,280	3,300	4,960	16,400	8,850	3,780	1,250	1,610	596	252	518	882
MIN	125	470	530	452	1,400	965	538	475	256	148	106	114
CFSM	9.83	18.3	16.8	35.1	34.7	22.6	9.95	11.1	5.41	2.55	1.84	2.46
IN.	11.3	20.5	19.3	40.5	36.2	26.0	11.1	12.8	6.04	2.94	2.12	2.75
AC-FT	44,770	80,840	76,380	160,100	143,000	102,900	43,870	50,720	23,870	11,620	8,380	10,850

CAL YR 1960: TOTAL 304,057 MEAN 831 MAX 7,280 MIN 125 CFSM 11.2 IN 152.60 AC-FT 603,100
WAT YR 1961: TOTAL 381,769 MEAN 1,046 MAX 16,400 MIN 106 CFSM 14.1 IN 191.61 AC-FT 757,200

12-0360. Wynoochee River above Save Creek, near Aberdeen, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	129	628	3,740	1,310	614	358	766	1,470	341	301	148	180
2	123	545	2,050	1,990	630	352	718	1,160	704	281	155	176
3	120	559	1,510	4,670	662	341	638	1,420	590	272	172	168
4	120	496	2,290	2,350	622	469	622	1,160	508	258	168	165
5	123	434	1,760	1,850	552	774	622	938	482	277	194	155
6	148	404	1,290	1,680	568	766	1,660	798	443	272	564	155
7	152	386	1,100	1,530	1,300	694	1,650	718	420	254	956	155
8	148	368	929	1,350	1,490	646	1,050	734	425	240	686	151
9	521	816	822	1,190	1,480	582	830	1,070	420	236	437	148
10	598	2,610	718	1,040	1,140	530	702	1,210	385	236	347	168
11	374	1,700	654	920	929	482	622	992	358	232	301	172
12	1,430	1,100	590	830	893	437	568	830	347	223	277	155
13	1,420	839	590	758	1,080	420	560	742	341	215	249	309
14	740	724	552	742	1,220	408	614	686	331	206	236	678
15	510	588	515	670	1,060	402	606	622	331	198	223	368
16	422	531	552	630	884	431	538	590	336	194	219	281
17	350	489	992	598	766	443	482	545	326	191	227	245
18	315	468	814	552	710	425	475	530	311	187	291	219
19	275	454	1,220	515	654	420	502	495	296	183	331	206
20	266	428	2,170	489	590	414	552	475	286	180	291	198
21	238	489	2,390	456	530	420	646	462	281	176	281	194
22	276	1,380	2,500	437	508	508	560	469	281	172	245	191
23	992	911	3,370	420	469	814	502	469	281	168	236	180
24	566	692	2,920	431	437	1,460	766	449	277	165	232	176
25	675	588	1,870	560	414	1,310	893	443	281	161	219	168
26	1,500	531	1,410	694	396	1,100	766	431	430	155	215	165
27	1,590	1,690	1,160	1,300	374	965	1,550	420	670	151	202	172
28	1,080	2,970	1,780	929	379	798	1,470	425	425	151	194	900
29	794	2,220	2,980	750	------	734	1,140	402	352	151	194	1,280
30	644	3,440	2,220	686	------	726	1,020	385	326	148	191	911
31	566	------	1,520	662	------	758	------	352	------	148	183	------
TOTAL	17,205	29,478	48,978	32,989	21,351	19,387	24,090	21,892	11,585	6,382	8,864	8,789
MEAN	555	983	1,580	1,064	763	625	803	706	386	206	286	293
MAX	1,590	3,440	3,740	4,670	1,490	1,460	1,660	1,470	704	301	956	1,280
MIN	120	368	515	420	374	341	475	352	277	148	148	148
CFSM	7.49	13.3	21.3	14.4	10.3	8.44	10.8	9.53	5.21	2.78	3.86	3.95
IN.	8.64	14.8	24.6	16.6	10.7	9.73	12.1	11.0	5.81	3.20	4.45	4.41
AC-FT	34,130	58,470	97,150	65,430	42,350	38,450	47,780	43,420	22,980	12,660	17,580	17,430

CAL YR 1961: TOTAL 375,597 MEAN 1,029 MAX 16,400 MIN 106 CFSM 13.9 IN 188.51 AC-FT 745,000
WAT YR 1962: TOTAL 250,990 MEAN 688 MAX 4,670 MIN 120 CFSM 9.28 IN 125.97 AC-FT 497,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	582	277	1,440	4,020	326	868	835	763	303	226	217	131
2	469	263	1,470	3,990	616	779	755	1,010	298	209	209	128
3	806	249	1,320	3,060	3,910	701	900	843	289	198	201	124
4	710	536	1,440	1,910	4,150	628	1,320	717	298	194	194	121
5	538	1,060	2,540	1,490	3,750	585	1,390	1,300	289	190	186	118
6	456	875	2,690	1,270	2,790	538	1,680	1,110	274	182	182	118
7	686	678	1,800	1,110	2,200	505	1,450	876	260	190	178	118
8	1,140	956	1,670	983	1,450	473	1,500	755	260	260	174	115
9	1,620	902	1,550	875	1,170	455	1,520	650	256	284	171	115
10	1,170	1,150	1,380	774	968	430	1,210	592	247	243	168	131
11	1,220	1,140	1,280	702	835	412	1,040	558	243	217	164	124
12	2,980	1,210	1,180	646	748	401	976	524	238	209	164	121
13	3,350	1,370	1,290	614	732	390	934	492	226	198	160	271
14	1,730	1,510	2,820	560	694	390	925	486	221	190	157	251
15	1,170	1,240	3,310	522	686	384	993	486	213	182	154	230
16	920	1,020	2,430	495	859	407	811	467	205	174	150	213
17	758	983	1,750	462	851	372	717	448	205	174	146	186
18	662	857	1,450	437	1,050	372	701	473	201	168	143	171
19	575	8,130	1,310	420	1,350	642	763	518	201	164	154	157
20	515	7,210	1,170	396	1,200	1,260	679	505	198	160	171	146
21	462	2,770	1,080	374	900	993	620	498	205	510	157	140
22	425	2,040	974	363	771	819	585	479	201	1,410	146	150
23	402	1,660	893	352	679	585	551	424	198	657	146	182
24	385	1,960	822	341	613	578	551	402	201	467	168	164
25	358	4,420	758	331	771	795	538	372	217	372	168	146
26	379	3,180	718	326	1,770	925	498	361	201	319	157	140
27	347	2,290	726	316	1,150	1,180	479	345	201	289	143	137
28	326	1,770	822	311	950	1,230	467	334	205	260	140	134
29	311	1,590	2,180	291	------	1,160	518	324	201	247	137	131
30	296	1,520	5,070	286	------	1,030	650	319	217	234	134	128
31	286	------	2,820	331	------	942	------	313	------	221	134	------
TOTAL	26,034	54,816	52,153	28,358	37,939	21,229	26,556	17,744	6,972	8,998	5,073	4,541
MEAN	840	1,827	1,682	915	1,355	685	885	572	232	290	164	151
MAX	3,350	8,130	5,070	4,020	4,150	1,260	1,680	1,300	303	1,410	217	271
MIN	286	249	718	286	326	372	467	313	198	160	134	115
CFSM	11.3	24.7	22.7	12.3	18.3	9.24	11.9	7.72	3.14	3.92	2.21	2.04
IN.	13.1	27.5	26.2	14.2	19.0	10.7	13.3	8.91	3.50	4.52	2.55	2.28
AC-FT	51,640	108,700	103,400	56,250	75,250	42,110	52,670	35,190	13,830	17,850	10,060	9,010

CAL YR 1962: TOTAL 288,332 MEAN 790 MAX 8,130 MIN 148 CFSM 10.7 IN 144.71 AC-FT 571,900
WAT YR 1963: TOTAL 290,413 MEAN 796 MAX 8,130 MIN 115 CFSM 10.7 IN 145.76 AC-FT 576,000

12-0360. Wynoochee River above Save Creek, near Aberdeen, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	124	1,180	1,120	3,840	2,230	1,010	892	550	793	407	427	205
2	121	1,440	1,000	2,160	1,730	811	722	483	688	414	757	200
3	121	1,250	900	1,850	1,460	739	629	462	637	374	757	190
4	134	1,540	868	1,810	1,560	980	621	455	1,500	362	820	190
5	150	1,240	900	1,610	1,480	1,130	613	448	1,210	355	654	190
6	182	1,150	934	1,670	1,230	883	565	427	940	355	550	190
7	168	1,420	843	1,370	1,080	739	550	427	829	355	476	190
8	157	1,490	843	1,230	960	775	565	427	739	362	434	190
9	150	1,440	803	1,280	847	847	621	455	688	355	407	186
10	146	1,500	740	1,370	847	920	811	476	739	331	381	182
11	146	1,240	686	1,210	820	1,840	990	462	662	325	355	174
12	186	1,740	657	1,030	748	1,370	930	483	613	337	337	174
13	1,230	2,500	606	1,360	704	1,040	820	490	581	337	337	170
14	909	3,380	599	1,270	670	1,800	865	441	581	394	313	170
15	531	2,440	642	1,470	730	1,950	1,170	420	558	982	301	182
16	407	1,940	851	3,790	820	1,400	920	420	613	1,130	284	186
17	340	1,850	934	2,160	920	1,360	766	629	573	793	278	256
18	289	1,500	976	1,720	1,010	1,250	670	820	565	662	273	215
19	270	1,660	1,580	1,570	980	1,060	629	629	520	535	268	230
20	372	1,420	2,520	1,490	820	930	613	679	483	505	251	278
21	4,330	1,240	1,640	1,220	730	838	613	739	462	550	240	240
22	4,010	1,530	2,170	1,040	688	766	713	811	448	505	235	268
23	2,060	3,050	5,730	910	679	713	629	662	469	455	230	240
24	3,690	2,030	3,520	1,440	645	654	589	597	476	420	225	225
25	2,250	2,080	2,800	2,720	597	637	573	542	434	400	225	215
26	1,680	4,700	1,920	1,720	565	621	558	528	427	381	225	205
27	1,290	2,860	1,700	2,030	558	573	535	565	434	362	240	195
28	1,380	1,850	1,620	1,980	550	558	520	629	427	349	235	190
29	1,290	1,470	1,320	2,290	624	583	512	621	381	337	230	210
30	1,090	1,270	1,260	1,910	------	748	512	654	388	325	240	1,550
31	942	------	1,940	2,060	------	811	------	766	------	368	230	------
TOTAL	30,145	55,400	44,622	54,580	27,282	30,336	20,716	17,197	18,858	14,122	11,215	7,486
MEAN	972	1,847	1,439	1,761	941	979	691	555	629	456	362	250
MAX	4,330	4,700	5,730	3,840	2,230	1,950	1,170	820	1,500	1,130	820	1,550
MIN	121	1,150	599	910	550	558	512	420	381	325	225	170
CFSM	13.1	24.9	19.4	23.8	12.7	13.2	9.32	7.49	8.48	6.15	4.88	3.37
IN.	15.1	27.8	22.4	27.4	13.7	15.2	10.4	8.63	9.46	7.09	5.63	3.76
AC-FT	59,790	109,900	88,510	108,300	54,110	60,170	41,090	34,110	37,400	28,010	22,240	14,850

CAL YR 1963: TOTAL 287,577 MEAN 788 MAX 5,730 MIN 115 CFSM 10.6 IN 144.33 AC-FT 570,400
WAT YR 1964: TOTAL 331,959 MEAN 907 MAX 5,730 MIN 121 CFSM 12.2 IN 166.61 AC-FT 658,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,130	613	6,140	537	1,760	1,240	614	726	410	208	127	118
2	1,310	520	3,340	530	1,330	1,040	558	677	416	204	127	118
3	910	884	1,950	482	1,130	945	500	812	428	204	127	114
4	637	1,920	1,430	470	3,900	892	470	936	416	204	127	111
5	505	970	1,130	470	5,250	852	458	780	410	204	127	111
6	434	760	963	482	2,890	844	446	700	410	200	124	108
7	394	630	999	452	1,880	820	458	660	399	196	121	108
8	505	540	1,870	440	1,940	812	434	620	393	196	124	105
9	739	540	1,380	428	1,560	772	428	600	364	192	124	105
10	565	600	1,420	416	1,290	780	416	595	359	192	121	105
11	476	540	1,100	434	1,120	836	399	600	404	180	121	105
12	420	500	1,060	422	1,080	796	393	607	353	168	144	105
13	407	455	900	404	1,500	748	399	565	332	164	212	105
14	637	410	828	446	1,350	698	399	518	316	164	168	133
15	637	375	772	733	1,160	670	416	647	305	164	140	136
16	613	345	670	1,180	1,830	628	518	1,630	290	164	133	124
17	535	325	621	1,090	2,070	586	518	963	300	161	130	114
18	483	325	593	963	1,610	544	488	748	300	158	127	108
19	434	313	579	990	1,570	500	1,240	677	290	158	130	105
20	400	307	551	1,150	1,480	488	3,540	663	286	158	164	102
21	381	301	518	1,310	1,240	476	3,220	614	276	154	154	102
22	349	349	663	1,100	1,060	476	1,720	586	262	154	140	99
23	343	1,140	712	1,040	945	452	1,160	551	252	147	136	99
24	325	3,250	621	1,560	860	434	1,020	530	252	144	140	99
25	307	1,530	558	1,200	812	405	900	506	248	140	140	96
26	301	1,300	812	1,280	1,520	393	876	494	239	136	144	96
27	290	990	868	3,240	2,670	382	884	506	230	133	136	96
28	278	820	698	2,800	1,670	452	812	506	221	130	133	94
29	268	2,920	621	2,650	------	772	698	476	212	130	130	94
30	331	9,000	558	4,120	------	670	691	458	208	127	127	94
31	307	------	500	2,830	------	586	------	416	------	127	121	------
TOTAL	15,651	33,472	35,425	35,649	48,477	20,989	25,073	20,367	9,581	5,161	4,219	3,209
MEAN	505	1,116	1,143	1,150	1,731	677	836	657	319	166	136	107
MAX	1,310	9,000	6,140	4,120	5,250	1,240	3,540	1,630	428	208	212	136
MIN	268	301	500	404	812	382	393	416	208	127	121	94
CFSM	6.81	15.1	15.4	15.5	23.4	9.14	11.3	8.87	4.31	2.25	1.84	1.44
IN.	7.86	16.8	17.8	17.9	24.3	10.5	12.6	10.2	4.81	2.59	2.12	1.61
AC-FT	31,040	66,390	70,260	70,710	96,150	41,630	49,730	40,400	19,000	10,240	8,370	6,360

CAL YR 1964: TOTAL 286,340 MEAN 782 MAX 9,000 MIN 170 CFSM 10.6 IN 143.71 AC-FT 567,900
WAT YR 1965: TOTAL 257,273 MEAN 705 MAX 9,000 MIN 94 CFSM 9.51 IN 129.12 AC-FT 510,300

12-0374. Wynoochee River above Black Creek, near Montesano, Wash.

Location.--Lat 47°00'40", long 123°39'35", in SE¼SE¼ sec.27, T.18 N., R.8 W., 2,000 ft upstream from mouth of Black Creek and 3½ miles northwest of Montesano.

Drainage area.--155 sq mi (revised).

Records available.--October 1956 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 40 ft (from topographic map).

Average discharge.--9 years, 1,261 cfs (912,900 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (8,900 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 12, 1960	1830	9,380	13.03	Nov. 20, 1962	0230	* 23,200	20.06	Dec. 23, 1963	1930	* 10,300	13.62
Jan. 11, 1961	1330	13,900	15.82	Nov. 25, 1962	2230	10,000	13.45				
Jan. 16, 1961	0100	* 23,300	20.12	Dec. 30, 1962	2300	9,790	13.28	Nov. 24, 1964	0900	9,550	12.61
Feb. 21, 1961	1300	21,200	19.26	Jan. 2, 1963	0100	11,000	14.10	Nov. 30, 1964	1330	* 15,900	16.41
								Jan. 30, 1965	2230	10,700	13.40
Jan. 3, 1962a	-	* 8,600	b12.60	Nov. 26, 1963	1930	9,760	13.26	Feb. 5, 1965	0230	10,900	13.53

a About.
b From recorded range in stage.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28, 29, 1961	4.8	a 3.36	1964	Oct. 3, 1963	50	3.43
1962	Oct. 4, 5, 1961	24	3.59	1965	Sept.27, 28, 1965	5.0	2.97
1963	Sept. 3, 1963	34	3.30				

a Occurred Oct. 5, 6, 1960.

1956-65: Maximum discharge, 24,500 cfs Dec. 10, 1956 (gage height, 20.54 ft); minimum, 4.8 cfs Aug. 28, 29, 1961; minimum gage height, 2.97 ft Sept. 27, 28, 1965.

Remarks.--Records excellent except those for period of no gage-height record, which are good. City of Aberdeen diverts about 110 cfs for municipal supply at intake 2¼ miles upstream. Other small diversions for irrigation and domestic use. No regulation. Records of suspended-sediment loads for water years 1962-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	52	2,250	1,570	840	4,000	5,130	1,290	1,560	477	185	52	619
2	50	1,680	1,640	780	5,690	3,780	1,520	2,040	526	175	49	632
3	49	1,350	1,520	722	3,740	2,820	1,430	1,900	565	182	41	337
4	48	1,120	1,510	744	3,810	2,300	1,300	1,600	554	208	39	248
5	46	972	1,270	2,830	6,010	2,230	1,130	1,350	494	226	41	205
6	61	864	1,120	3,740	5,970	2,340	1,030	1,170	510	248	39	150
7	723	774	1,010	2,540	4,610	2,110	940	1,040	595	216	35	104
8	846	690	924	2,280	3,580	1,970	900	1,030	460	175	33	90
9	510	634	870	4,710	4,000	2,140	879	1,640	466	159	36	78
10	349	1,200	816	7,500	3,920	2,360	809	1,710	494	150	36	69
11	283	2,200	1,010	8,860	3,550	3,050	760	1,530	435	138	30	64
12	261	1,660	5,960	4,800	3,560	3,420	830	1,250	400	135	24	56
13	230	1,390	4,800	3,720	3,320	3,490	816	1,150	365	132	26	47
14	223	1,590	3,470	5,370	2,980	5,250	746	1,110	346	132	24	43
15	341	1,760	2,440	15,500	4,130	6,270	684	1,030	346	129	30	43
16	298	3,260	1,880	13,500	3,260	3,950	651	972	355	127	35	39
17	258	4,110	1,740	5,600	2,950	3,000	690	956	350	132	32	38
18	223	5,180	3,480	4,150	2,550	2,440	732	932	342	121	26	33
19	200	3,890	5,400	3,140	4,780	2,180	718	908	328	107	20	30
20	179	5,490	3,220	2,560	6,640	2,980	697	886	290	92	16	29
21	200	3,660	2,350	2,140	17,100	2,520	900	830	270	82	12	24
22	780	2,910	1,880	1,800	7,620	2,130	1,350	739	252	80	11	24
23	1,750	3,010	1,610	1,560	4,490	2,710	1,260	697	233	78	10	26
24	2,670	4,160	1,430	1,410	4,580	2,620	1,090	718	226	73	11	19
25	1,760	4,440	1,290	1,240	3,990	2,290	956	638	219	69	10	16
26	2,250	3,460	1,230	1,110	3,200	2,140	858	625	212	64	7.4	14
27	2,930	2,520	1,100	1,000	2,980	1,950	767	651	205	62	6.5	14
28	4,120	2,010	993	932	2,700	1,670	739	589	198	60	5.7	38
29	2,230	1,660	918	1,340	------	1,480	980	543	195	60	5.7	64
30	1,610	1,440	864	4,110	------	1,350	1,390	510	195	58	5.7	64
31	1,660	------	870	4,140	------	1,270	------	488	------	56	151	------
TOTAL	27,190	71,334	60,185	114,668	129,710	85,340	28,842	32,792	10,903	3,911	900.0	3,257
MEAN	877	2,378	1,941	3,699	4,633	2,753	961	1,058	363	126	29.0	109
MAX	4,120	5,490	5,960	15,500	17,100	6,270	1,520	2,040	595	248	151	632
MIN	46	634	816	722	2,550	1,270	651	488	195	56	5.7	14
AC-FT	53,930	141,500	119,400	227,400	257,300	169,300	57,210	65,040	21,630	7,760	1,790	6,460

CAL YR 1960: TOTAL 452,687 MEAN 1,237 MAX 11,900 MIN 46 AC-FT 897,000
WAT YR 1961: TOTAL 569,032.0 MEAN 1,559 MAX 17,100 MIN 5.7 AC-FT 1,129,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0374. Wynoochee River above Black Creek, near Montesano, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	64	795	6,450	2,500	911	512	1,040	2,050	375	292	77	98
2	50	739	3,610	4,000	855	490	974	1,880	551	276	82	101
3	36	774	2,580	7,500	883	470	869	2,060	770	263	135	111
4	27	684	3,240	4,500	862	450	822	1,950	610	271	141	98
5	27	607	3,270	3,500	770	1,500	803	1,530	622	300	149	84
6	43	521	2,240	3,200	800	1,400	1,530	1,270	532	313	274	80
7	62	472	1,840	2,900	1,600	1,300	2,950	1,110	473	267	744	80
8	64	440	1,510	2,500	2,000	1,250	1,770	1,050	458	236	890	80
9	109	674	1,290	2,200	2,100	1,190	1,330	1,300	452	225	527	75
10	653	3,690	1,120	1,900	1,700	1,050	1,100	1,640	422	210	380	89
11	415	3,060	964	1,600	1,500	946	960	1,450	389	193	296	141
12	946	2,070	872	1,400	1,400	850	876	1,220	366	177	251	108
13	2,030	1,490	916	1,200	1,800	750	822	1,080	362	168	225	149
14	1,090	1,180	916	1,100	2,000	650	810	967	344	161	197	448
15	677	940	816	1,000	1,700	580	822	869	335	155	177	452
16	494	788	1,000	900	1,400	620	751	810	335	149	171	292
17	385	704	2,500	850	1,200	650	666	744	322	146	168	221
18	314	677	2,140	800	1,100	640	616	699	305	138	186	186
19	270	651	2,160	750	1,000	620	622	647	284	132	255	164
20	237	571	3,690	700	900	600	654	597	271	124	251	149
21	212	757	4,580	650	800	650	796	550	263	119	221	132
22	212	2,270	5,000	620	700	842	744	562	259	114	203	124
23	998	1,850	6,000	610	650	1,260	647	573	251	106	180	116
24	872	1,310	5,000	620	600	3,150	699	527	247	103	161	106
25	638	1,020	3,500	700	560	2,900	1,030	500	244	96	149	101
26	1,550	865	2,500	967	520	2,140	925	478	300	93	141	98
27	2,290	1,450	2,000	2,570	510	1,770	2,020	463	603	91	130	103
28	1,820	3,610	3,500	1,520	520	1,460	2,760	458	494	86	127	429
29	1,240	3,770	5,000	1,220	------	1,230	2,080	442	362	84	121	1,150
30	924	4,140	4,000	1,060	------	1,100	1,630	422	309	82	114	1,180
31	760	------	3,000	981	------	1,050	------	389	------	80	103	------
TOTAL	19,509	42,569	87,204	56,518	31,341	34,070	34,118	30,287	11,910	5,250	7,226	6,745
MEAN	629	1,419	2,813	1,823	1,119	1,099	1,137	977	397	169	233	225
MAX	2,290	4,140	6,450	7,500	2,100	3,150	2,950	2,060	770	313	890	1,180
MIN	27	440	816	610	510	450	616	389	244	80	77	75
AC-FT	38,700	84,430	173,000	112,100	62,160	67,580	67,670	60,070	23,620	10,410	14,330	13,380

CAL YR 1961: TOTAL 559,605.0 MEAN 1,533 MAX 17,100 MIN 5.7 AC-FT 1,110,000
WAT YR 1962: TOTAL 366,747 MEAN 1,005 MAX 7,500 MIN 27 AC-FT 727,400

Note.--No gage-height record Dec. 22 to Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	725	408	2,840	5,630	474	1,540	1,790	972	304	163	147	65
2	516	394	2,820	8,110	660	1,430	1,520	1,450	300	147	137	46
3	680	380	2,640	6,840	4,690	1,260	1,430	1,380	277	137	129	36
4	904	463	2,450	3,870	5,470	1,120	1,930	1,210	281	142	120	56
5	699	1,180	3,140	2,780	6,740	1,020	2,170	1,700	292	142	115	47
6	562	1,430	4,910	2,170	4,110	891	2,630	1,860	261	127	111	45
7	660	1,070	3,170	1,820	3,900	821	2,920	1,530	243	132	102	44
8	1,350	1,310	2,600	1,580	2,540	761	2,540	1,270	236	147	94	41
9	2,460	1,290	2,290	1,400	1,930	702	2,690	1,100	240	216	90	39
10	2,000	1,800	2,000	1,220	1,570	652	2,290	948	226	193	89	44
11	1,610	1,930	1,770	1,080	1,290	610	1,870	856	209	161	90	56
12	3,700	1,940	1,590	940	1,140	574	1,600	787	199	139	87	50
13	5,230	2,040	1,610	870	1,040	544	1,490	716	193	127	81	71
14	3,300	2,410	3,580	835	1,080	522	1,360	670	181	117	78	210
15	2,140	2,220	4,790	787	964	506	1,420	640	169	111	76	199
16	1,570	1,890	4,180	722	1,120	544	1,320	622	163	100	73	190
17	1,230	1,760	2,950	670	1,140	517	1,150	568	161	96	66	152
18	1,050	1,590	2,290	610	1,500	490	1,060	550	155	90	65	120
19	925	8,540	2,010	562	1,820	670	1,160	568	152	85	70	102
20	816	16,600	1,710	517	2,100	1,370	1,090	574	144	80	94	89
21	751	5,680	1,540	490	1,580	1,490	988	568	139	107	96	80
22	686	3,590	1,400	463	1,290	1,180	898	539	137	1,140	78	85
23	616	2,720	1,270	437	1,120	980	849	495	132	884	80	120
24	550	2,660	1,170	417	980	828	821	442	134	528	100	117
25	516	5,760	1,080	397	1,110	884	814	402	155	392	117	94
26	532	6,280	996	374	2,530	1,220	742	383	142	304	117	81
27	544	4,260	996	351	2,100	1,360	683	360	137	254	92	73
28	488	3,320	1,120	342	1,690	1,930	640	342	134	219	78	68
29	473	2,880	2,230	312	------	2,420	652	329	139	199	70	65
30	442	3,210	8,130	304	------	2,380	768	321	152	178	63	60
31	427	------	6,490	407	------	2,120	------	308	------	166	63	------
TOTAL	38,152	91,005	81,762	47,307	57,678	33,336	43,285	24,460	5,787	7,023	2,868	2,545
MEAN	1,231	3,034	2,637	1,526	2,060	1,075	1,443	789	193	227	92.5	84.8
MAX	5,230	16,600	8,130	8,110	6,740	2,420	2,920	1,860	304	1,140	147	210
MIN	427	380	996	304	474	490	640	308	132	80	63	36
AC-FT	75,670	180,500	162,200	93,830	114,400	66,120	85,850	48,520	11,480	13,930	5,690	5,050

CAL YR 1962: TOTAL 428,384 MEAN 1,174 MAX 16,600 MIN 75 AC-FT 849,700
WAT YR 1963: TOTAL 435,208 MEAN 1,192 MAX 16,600 MIN 36 AC-FT 863,200

12-0374. Wynoochee River above Black Creek, near Montesano, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	57	1,420	1,720	6,280	3,780	1,860	1,050	646	835	360	380	172
2	54	2,520	1,470	4,880	2,970	1,590	964	597	793	365	744	166
3	50	2,070	1,280	3,200	2,360	1,400	828	562	716	360	800	159
4	57	2,310	1,190	3,130	2,030	1,640	779	527	1,030	350	926	150
5	71	2,080	1,250	2,540	2,150	2,100	779	514	1,640	350	800	141
6	109	1,960	1,340	3,070	1,770	1,770	723	490	1,140	341	625	141
7	115	2,380	1,230	2,570	1,520	1,440	688	472	1,010	332	514	172
8	104	3,140	1,200	2,160	1,360	1,390	688	466	891	318	460	185
9	89	2,520	1,170	2,270	1,230	1,580	751	484	786	314	418	159
10	81	2,930	1,040	2,630	1,180	1,720	870	520	793	274	380	133
11	76	2,330	948	2,510	1,170	4,040	1,200	508	765	252	341	116
12	87	2,440	863	2,010	1,060	3,450	1,200	508	674	256	332	114
13	717	3,320	800	2,130	980	2,410	1,160	541	625	269	323	106
14	1,200	5,290	774	2,270	905	3,020	1,120	508	604	296	274	101
15	754	4,160	794	2,330	1,120	4,030	1,560	466	576	583	256	111
16	500	3,420	1,050	5,650	1,120	2,720	1,440	442	632	1,260	244	136
17	378	3,330	1,240	5,090	1,360	2,340	1,210	472	702	898	228	206
18	296	2,700	1,280	4,020	1,520	2,080	1,070	863	639	793	216	202
19	261	3,270	1,790	3,610	1,560	1,730	926	744	576	611	216	182
20	265	2,970	3,850	3,620	1,360	1,540	856	779	527	548	206	244
21	2,260	2,330	3,450	2,760	1,190	1,450	835	905	490	576	192	232
22	6,420	2,500	3,180	2,250	1,090	1,290	856	1,010	454	541	179	260
23	3,320	5,240	8,920	1,890	1,000	1,160	814	877	454	460	172	240
24	5,430	4,420	6,740	2,510	948	1,060	793	758	460	406	159	206
25	4,380	3,820	4,900	6,420	884	1,000	751	660	436	370	163	188
26	2,890	6,850	3,520	4,000	814	988	723	604	412	346	179	179
27	2,170	5,820	3,070	3,210	772	877	716	597	418	323	182	163
28	2,250	3,480	2,870	3,620	758	807	674	653	436	300	220	153
29	2,140	2,580	2,360	4,040	891	786	632	674	385	282	196	159
30	1,820	2,050	1,970	3,580	------	856	611	674	355	274	202	1,130
31	1,510	------	2,620	3,320	------	964	------	786	------	328	188	------
TOTAL	39,911	95,650	69,879	103,570	40,852	55,088	27,267	19,307	20,254	13,336	10,715	6,006
MEAN	1,287	3,188	2,254	3,341	1,409	1,777	909	623	675	430	346	200
MAX	6,420	6,850	8,920	6,420	3,780	4,040	1,560	1,010	1,640	1,260	926	1,130
MIN	50	1,420	774	1,890	758	786	611	442	355	252	159	101
AC-FT	79,160	189,700	138,600	205,400	81,030	109,300	54,080	38,290	40,170	26,450	21,250	11,910

CAL YR 1963: TOTAL 429,729 MEAN 1,177 MAX 8,920 MIN 36 AC-FT 852,400
WAT YR 1964: TOTAL 501,835 MEAN 1,371 MAX 8,920 MIN 50 AC-FT 995,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,680	548	11,600	1,330	4,050	2,390	716	1,040	475	142	38	31
2	1,390	674	6,860	1,830	2,970	1,930	667	960	455	139	44	29
3	1,450	889	4,050	1,360	2,390	1,650	600	944	465	153	50	24
4	980	2,920	2,830	1,160	4,270	1,480	540	1,350	450	168	48	23
5	758	1,830	2,180	1,070	9,640	1,360	516	1,260	430	174	41	24
6	604	1,250	1,790	1,160	6,290	1,270	510	1,060	425	150	38	86
7	520	980	1,620	1,080	3,900	1,210	528	944	410	123	36	95
8	555	828	2,690	1,120	3,760	1,160	510	848	385	111	35	38
9	912	702	2,470	1,080	3,280	1,090	475	793	380	111	41	20
10	877	702	2,530	980	2,580	1,060	455	772	355	116	38	13
11	730	723	2,180	926	2,170	1,060	430	765	385	106	41	12
12	604	716	1,890	884	2,020	1,020	415	758	380	101	62	12
13	534	660	1,800	835	2,590	952	415	723	326	97	106	12
14	611	590	1,700	828	2,580	872	425	654	322	86	123	36
15	849	548	1,610	1,160	2,160	824	420	783	294	82	82	76
16	835	508	1,380	1,810	3,200	758	475	2,400	278	82	60	56
17	779	484	1,220	1,820	4,940	709	564	1,800	262	78	48	38
18	695	454	1,110	1,640	3,420	648	528	1,380	262	78	40	28
19	597	424	1,080	1,590	2,910	606	1,100	1,160	250	74	45	21
20	527	400	1,020	1,790	2,680	576	5,030	1,060	234	78	82	18
21	472	390	1,080	2,290	2,270	546	5,080	952	214	78	86	14
22	436	412	1,560	2,230	1,960	522	3,220	864	207	64	67	12
23	400	942	1,740	2,130	1,700	498	2,450	786	198	65	56	7.5
24	375	6,920	1,610	2,940	1,530	492	1,730	730	189	62	58	6.0
25	336	3,360	1,390	2,480	1,370	455	1,460	674	183	56	57	5.5
26	318	2,850	1,940	2,480	2,000	440	1,290	636	177	51	58	5.5
27	310	2,240	2,370	6,520	4,560	430	1,230	612	168	46	57	5.5
28	287	1,740	1,890	6,360	3,300	450	1,150	624	153	44	54	5.5
29	274	2,080	1,560	6,220	------	888	1,000	594	153	40	45	5.5
30	310	12,900	1,340	7,840	------	928	936	558	147	37	42	5.5
31	332	------	1,140	7,030	------	737	------	510	------	37	33	------
TOTAL	20,337	50,664	71,230	73,973	90,490	29,011	34,865	28,994	9,012	2,829	1,711	764.5
MEAN	656	1,689	2,298	2,386	3,232	936	1,162	935	300	91.3	55.2	25.5
MAX	1,680	12,900	11,600	7,840	9,640	2,390	5,080	2,400	475	174	123	95
MIN	274	390	1,020	828	1,370	430	415	510	147	37	33	5.5
AC-FT	40,340	100,500	141,300	146,700	179,500	57,540	69,150	57,510	17,880	5,610	3,390	1,520

CAL YR 1964: TOTAL 438,626 MEAN 1,198 MAX 12,900 MIN 101 AC-FT 870,000
WAT YR 1965: TOTAL 413,880.5 MEAN 1,134 MAX 12,900 MIN 5.5 AC-FT 820,900

12-0390. Humptulips River near Humptulips, Wash.

Location.--Lat 47°13'45", long 123°56'25", in NE¼NE¼ sec.17, T.20 N., R.10 W., on right bank 1 mile southeast of Humptulips, 2.5 miles upstream from Stevens Creek, and 3¼ miles downstream from confluence of East and West Forks.

Drainage area.--130 sq mi.

Records available.--May 1933 to January 1935, July 1942 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 120 ft (from topographic map). Prior to Jan. 14, 1935, and Mar. 1, 1950, to Jan. 16, 1953, water-stage recorder and July 1, 1942, to Feb. 28, 1950, and Jan. 17, 1953, to Sept. 30, 1959, staff gage; all at sites 400 ft downstream at different datums.

Average discharge.--24 years (1933-34, 1942-65), 1,318 cfs (954,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (10,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 12, 1960	1230	10,100	8.85	Nov. 19, 1962	1900	* 29,300	13.70	Nov. 24, 1964	0230	10,100	8.54
Jan. 10, 1961	1830	18,400	11.35	Dec. 30, 1962	1830	12,000	9.21	Nov. 30, 1964	0230	* 16,200	10.46
Jan. 15, 1961	1800	23,900	12.57	Jan. 1, 1963	1930	13,900	9.82	Jan. 30, 1965	1600	12,500	9.22
Feb. 21, 1961	0300	* 26,300	13.10					Feb. 4, 1965	2100	13,000	9.41
Mar. 1, 1961	0400	10,200	8.58	Nov. 26, 1963	1400	* 12,200	9.27				
Dec. 22, 1961	2400	* 10,300	8.64	Dec. 23, 1963	1730	10,800	8.78				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 23-24,29,30	97	1.81	1964	Oct. 3, 1963	182	1.94
1962	Oct. 5, 1961	127	1.90	1965	Sept.28-30, 1965	108	1.48
1963	Sept. 9, 10, 1963	164	1.85				

1933-35, 1942-65: Maximum discharge, 33,000 cfs Jan. 22, 1935 (gage height, 12.7 ft, datum then in use, from floodmarks), from rating curve extended above 16,500 cfs; minimum observed, 82 cfs Sept. 11, 1944.

Revisions.--The figure of maximum discharge for the water year 1960 has been revised to 26,200 cfs Nov. 20, 1959 (gage height, 13.17 ft), superseding that published in WSP 1716.

Remarks.--Records excellent. No diversion above station. Slight regulation by fish hatchery on West Fork for short periods at low flow. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1216: 1934-35, 1943-46, 1947(M), 1949(M). WSP 1246: Drainage area. WSP 1396: 1964(M), 1954(P).

Revised peak discharge.--1959-60: Nov. 20 (time unknown) 26,200 cfs (13.17 ft); Nov. 22 (2300) 21,400 cfs (12.11 ft); Dec. 14 (2100) 21,600 cfs (12.15 ft); Jan. 29 (1200) 16,200 cfs (10.74 ft); Feb. 6 (2300) 13,500 cfs (9.92 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	172	2,400	1,600	800	4,280	6,750	1,310	1,420	422	239	130	1,010
2	169	1,800	1,700	736	5,330	3,550	1,590	1,770	428	231	130	635
3	166	1,400	1,500	698	3,480	2,570	1,450	1,570	428	224	127	370
4	163	1,200	1,300	988	4,010	2,000	1,270	1,320	416	216	127	291
5	158	1,000	1,150	3,920	6,210	2,020	1,130	1,150	400	251	134	255
6	211	900	1,050	3,530	6,320	1,950	1,020	1,000	446	275	130	216
7	1,490	800	974	2,420	4,480	1,740	946	906	483	243	127	202
8	922	750	906	2,540	3,640	1,740	922	978	416	224	127	184
9	603	700	848	5,480	4,350	1,940	890	1,650	496	213	127	169
10	468	1,500	808	11,400	3,630	2,230	818	1,490	502	205	127	166
11	422	2,500	1,180	8,350	3,760	3,010	782	1,340	440	202	120	158
12	434	1,700	6,830	4,890	3,630	3,400	850	1,130	395	194	120	148
13	370	1,400	4,440	4,280	3,380	3,270	826	1,030	370	191	120	138
14	536	1,700	3,270	6,670	3,110	6,740	782	1,000	356	184	120	130
15	582	2,500	2,310	19,400	4,310	5,530	768	922	356	184	124	130
16	492	3,500	1,820	9,160	3,260	3,530	754	866	342	187	127	130
17	434	6,000	1,760	5,150	2,970	2,620	800	826	328	198	120	127
18	385	4,900	4,580	3,640	2,730	2,090	850	796	315	180	114	124
19	355	4,000	4,860	2,670	5,830	1,970	750	754	307	173	107	124
20	332	5,500	2,890	2,090	10,300	3,300	700	719	291	169	107	124
21	766	3,500	2,160	1,730	19,100	2,390	900	670	279	166	104	120
22	1,820	3,000	1,750	1,490	6,930	2,050	1,400	635	275	166	101	117
23	2,940	3,200	1,500	1,320	4,000	2,920	1,200	614	267	162	97	114
24	3,360	4,000	1,350	1,180	4,440	2,560	1,000	621	259	158	97	107
25	2,000	4,500	1,200	1,050	3,280	2,150	900	554	255	155	104	107
26	2,780	3,500	1,140	954	2,610	2,070	850	548	251	144	101	104
27	3,530	2,500	1,040	874	2,450	1,880	803	568	247	141	101	104
28	4,060	2,000	940	826	2,540	1,620	768	516	239	141	101	173
29	2,250	1,700	872	1,410	------	1,430	1,020	483	247	134	101	191
30	1,800	1,400	816	4,840	------	1,320	1,380	458	243	130	104	162
31	1,900	------	872	3,450	------	1,220	------	440	------	130	646	------
TOTAL	36,070	75,450	59,416	117,936	134,360	83,560	29,429	28,744	10,499	5,810	4,122	6,130
MEAN	1,164	2,515	1,917	3,804	4,799	2,695	981	927	350	187	133	204
MAX	4,060	6,000	6,830	19,400	19,100	6,750	1,590	1,770	502	275	646	1,010
MIN	158	700	808	698	2,450	1,220	700	440	239	130	97	104
CFSM	8.95	19.3	14.7	29.3	36.9	20.7	7.55	7.13	2.69	1.44	1.02	1.57
IN.	10.3	21.6	17.0	33.7	38.4	23.9	8.42	8.22	3.00	1.66	1.18	1.75
AC-FT	71,540	149,700	117,800	233,900	266,500	165,700	58,370	57,010	20,820	11,520	8,180	12,160

CAL YR 1960: TOTAL 480,085 MEAN 1,312 MAX 12,000 MIN 138 CFSM 10.1 IN 137.34 AC-FT 952,200
WAT YR 1961: TOTAL 591,526 MEAN 1,621 MAX 19,400 MIN 97 CFSM 12.5 IN 169.22 AC-FT 1,173,000

12-0390. Humptulips River near Humptulips, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	187	1,010	5,870	2,060	961	543	1,090	2,620	400	322	160	243
2	155	858	3,260	2,980	884	513	992	2,020	853	301	167	240
3	144	906	2,490	7,630	892	496	900	2,280	854	281	258	232
4	134	782	3,820	4,300	907	902	892	1,870	760	289	247	226
5	141	691	3,270	3,410	789	1,640	847	1,500	810	344	281	215
6	239	635	2,250	3,110	789	1,610	2,750	1,250	691	357	911	208
7	251	594	1,870	2,800	1,880	1,380	3,060	1,090	605	305	1,450	208
8	224	554	1,570	2,380	2,180	1,280	1,800	1,080	555	285	1,060	201
9	579	1,100	1,370	2,000	2,520	1,160	1,370	1,340	519	273	691	194
10	1,030	4,420	1,230	1,680	1,920	1,010	1,150	1,610	485	266	519	251
11	561	2,710	1,100	1,450	1,520	907	1,000	1,420	447	258	436	297
12	1,990	1,800	1,000	1,250	1,360	818	907	1,190	431	247	395	229
13	2,780	1,350	1,060	1,100	1,550	760	840	1,070	421	236	353	422
14	1,280	1,120	1,070	1,050	1,930	711	818	938	395	232	322	1,060
15	842	954	978	950	1,720	691	818	854	381	229	301	650
16	656	842	1,050	900	1,390	760	732	781	367	222	313	468
17	542	775	2,780	850	1,190	746	670	725	353	222	317	381
18	464	775	2,210	800	1,110	704	631	697	344	212	452	339
19	416	768	2,700	760	1,010	677	631	657	322	204	592	309
20	375	670	4,390	720	914	691	691	605	313	201	513	293
21	346	928	4,870	680	832	732	1,010	567	301	191	485	277
22	360	2,590	5,640	660	781	992	818	611	297	187	415	262
23	1,690	1,730	8,300	650	739	1,720	711	579	285	184	371	251
24	986	1,280	6,510	640	684	3,260	847	537	285	181	344	240
25	904	1,050	4,010	1,000	631	2,590	1,210	507	281	181	317	232
26	2,240	930	2,720	1,370	586	2,040	1,120	485	367	177	301	229
27	3,180	1,960	2,090	2,550	561	1,760	2,860	468	684	170	285	232
28	2,000	4,000	3,000	1,810	555	1,440	2,860	457	474	167	285	1,060
29	1,350	3,330	5,360	1,410	------	1,220	2,090	436	386	167	269	1,170
30	1,050	4,490	4,260	1,210	------	1,130	1,730	415	344	164	258	1,040
31	898	------	2,650	1,070	------	1,110	------	400	------	160	247	------
TOTAL	27,994	45,602	94,748	55,230	32,785	35,993	37,845	31,059	14,010	7,215	13,315	11,659
MEAN	903	1,520	3,056	1,782	1,171	1,161	1,262	1,002	467	233	430	389
MAX	3,180	4,490	8,300	7,630	2,520	3,260	3,060	2,620	854	357	1,450	1,170
MIN	134	554	978	640	555	496	631	400	281	160	160	194
CFSM	6.95	11.7	23.5	13.7	9.01	8.93	9.70	7.71	3.59	1.79	3.30	2.99
IN.	8.01	13.0	27.1	15.8	9.38	10.3	10.8	8.89	4.01	2.06	3.81	3.34
AC-FT	55,530	90,450	187,900	109,500	65,030	71,390	75,060	61,600	27,790	14,310	26,410	23,130

CAL YR 1961: TOTAL 588,934 MEAN 1,614 MAX 19,400 MIN 97 CFSM 12.4 IN 168.48 AC-FT 1,168,000
WAT YR 1962: TOTAL 407,455 MEAN 1,116 MAX 8,300 MIN 134 CFSM 8.59 IN 116.56 AC-FT 808,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	739	452	2,470	7,350	481	1,450	1,530	1,080	309	285	264	184
2	592	431	2,640	7,920	788	1,340	1,330	1,610	309	241	250	184
3	1,100	415	2,360	6,340	4,590	1,180	1,420	1,380	305	226	244	180
4	1,110	850	2,310	3,340	5,460	1,040	2,300	1,180	309	220	235	173
5	840	1,690	3,680	2,490	5,640	944	2,320	1,820	321	212	229	169
6	725	1,450	4,610	1,960	4,100	864	2,860	1,660	293	205	223	167
7	1,030	1,120	2,850	1,580	3,490	800	2,700	1,340	282	218	218	166
8	1,680	1,640	2,320	1,360	2,280	751	2,650	1,120	274	317	212	166
9	2,300	1,470	1,980	1,210	1,710	688	2,860	976	278	395	208	164
10	1,810	1,790	1,680	1,050	1,390	647	2,130	864	268	321	202	171
11	1,680	1,750	1,460	928	1,180	621	1,720	786	260	282	200	177
12	4,440	1,880	1,320	840	1,030	583	1,480	744	257	260	200	169
13	5,270	2,180	1,260	786	1,020	559	1,340	681	250	241	198	353
14	2,820	2,740	3,660	744	1,030	577	1,240	634	241	229	195	380
15	1,820	2,240	4,260	709	944	559	1,330	621	232	226	195	380
16	1,430	1,760	3,160	660	1,210	667	1,180	577	229	212	191	334
17	1,170	1,790	2,320	628	1,180	577	1,040	547	223	210	184	297
18	1,020	1,550	1,860	583	1,650	577	1,010	523	220	205	182	254
19	900	15,200	1,640	553	1,940	1,130	1,190	525	220	200	200	232
20	818	12,800	1,390	517	1,880	2,010	1,040	505	220	198	305	218
21	774	4,690	1,280	505	1,450	1,500	944	487	215	371	229	208
22	739	3,040	1,160	481	1,240	1,220	872	464	215	1,840	205	212
23	664	2,240	1,050	464	1,070	992	832	436	210	976	202	282
24	624	2,450	960	448	952	872	832	405	218	634	247	235
25	579	5,680	888	436	1,190	1,170	808	385	260	493	241	220
26	644	5,060	840	410	3,000	1,350	737	370	226	410	241	208
27	605	3,800	856	405	1,940	1,480	688	356	226	356	215	202
28	549	2,810	1,020	390	1,580	2,020	640	338	220	325	202	195
29	525	2,600	2,700	366	------	2,080	660	330	220	309	195	191
30	502	2,810	10,500	352	------	1,950	840	321	254	289	188	188
31	474	------	5,680	464	------	1,810	------	309	------	274	186	------
TOTAL	39,973	90,378	76,164	46,269	55,415	34,008	42,523	23,374	7,564	11,180	6,686	6,659
MEAN	1,289	3,013	2,457	1,493	1,979	1,097	1,417	754	252	361	216	222
MAX	5,270	15,200	10,500	7,920	5,640	2,080	2,860	1,820	321	1,840	305	380
MIN	474	415	840	352	481	559	640	309	210	198	182	164
CFSM	9.92	23.2	18.9	11.5	15.2	8.44	10.9	5.80	1.94	2.77	1.66	1.71
IN.	11.4	25.9	21.8	13.2	15.9	9.73	12.2	6.69	2.16	3.20	1.91	1.90
AC-FT	79,290	179,300	151,100	91,770	109,900	67,450	84,340	46,360	15,000	22,180	13,260	13,210

CAL YR 1962: TOTAL 445,626 MEAN 1,221 MAX 15,200 MIN 160 CFSM 9.39 IN 127.48 AC-FT 883,900
WAT YR 1963: TOTAL 440,193 MEAN 1,206 MAX 15,200 MIN 164 CFSM 9.28 IN 125.93 AC-FT 873,100

12-0390. Humptulips River near Humptulips, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	186	1,540	1,590	6,620	3,490	2,340	1,220	808	702	385	538	347
2	184	2,080	1,370	4,000	2,600	1,690	1,040	744	660	380	1,180	338
3	182	1,760	1,220	2,980	2,050	1,480	928	702	595	370	1,230	312
4	198	2,380	1,160	3,000	2,040	1,970	904	667	1,100	352	1,440	300
5	195	1,960	1,260	2,750	1,900	2,320	912	654	1,240	347	1,120	288
6	218	1,820	1,360	3,270	1,530	1,860	824	608	952	360	896	280
7	220	2,440	1,220	2,520	1,310	1,520	772	588	904	356	758	284
8	202	2,710	1,210	2,080	1,170	1,600	772	569	808	334	667	304
9	195	2,470	1,130	2,240	1,040	1,790	856	595	730	324	628	270
10	193	2,650	1,020	2,810	1,080	2,060	1,180	602	716	308	576	259
11	193	2,020	936	2,530	1,090	4,910	1,570	569	667	292	524	248
12	220	2,590	864	1,960	984	3,400	1,580	569	621	280	494	242
13	1,500	3,310	800	2,360	928	2,320	1,460	576	582	280	488	236
14	1,130	4,720	779	2,260	896	4,040	1,560	543	582	334	442	236
15	730	3,880	912	2,520	1,170	4,610	2,180	500	543	943	415	280
16	535	3,140	1,370	6,250	1,310	2,920	1,680	482	640	1,630	395	308
17	431	3,140	1,410	4,520	1,740	2,610	1,360	640	688	1,140	380	530
18	375	2,500	1,410	3,750	1,880	2,220	1,160	904	681	936	380	405
19	330	3,060	2,230	3,490	1,800	1,810	1,020	709	614	723	365	415
20	395	2,570	4,400	3,270	1,460	1,650	944	779	576	674	352	595
21	4,890	2,050	3,400	2,520	1,260	1,540	896	952	524	730	334	500
22	6,390	2,380	3,510	2,060	1,120	1,370	1,220	1,290	500	674	320	634
23	3,440	4,870	9,060	1,730	1,030	1,220	976	1,020	476	595	308	518
24	6,080	3,810	6,060	2,790	968	1,090	880	864	464	543	296	459
25	4,000	3,680	5,000	5,740	880	1,040	816	751	448	500	308	415
26	2,860	8,640	3,360	3,400	808	1,090	772	695	420	464	324	375
27	2,080	5,520	2,900	3,480	751	968	779	674	448	432	356	347
28	2,210	3,380	2,650	3,480	758	912	730	674	470	410	426	329
29	1,990	2,450	2,130	4,070	1,030	912	716	647	420	390	380	365
30	1,720	1,930	1,840	3,160	------	1,040	688	647	395	380	415	2,100
31	1,420	------	2,750	3,200	------	1,100	------	688	------	432	385	------
TOTAL	44,892	91,450	70,311	100,810	40,073	61,402	32,395	21,710	19,166	16,298	17,120	12,519
MEAN	1,448	3,048	2,268	3,252	1,382	1,981	1,080	700	639	526	552	417
MAX	6,390	8,640	9,060	6,620	3,490	4,910	2,180	1,290	1,240	1,630	1,440	2,100
MIN	182	1,540	779	1,730	751	912	688	482	395	280	296	236
CFSM	11.1	23.4	17.4	25.0	10.6	15.2	8.31	5.39	4.91	4.04	4.25	3.21
IN.	12.8	26.2	20.1	28.8	11.5	17.6	9.27	6.21	5.48	4.66	4.90	3.58
AC-FT	89,040	181,400	139,500	200,000	79,480	121,800	64,250	43,060	38,020	32,330	33,960	24,830

CAL YR 1963: TOTAL 440,331 MEAN 1,206 MAX 9,060 MIN 164 CFSM 9.28 IN 125.97 AC-FT 873,400
WAT YR 1964: TOTAL 528,146 MEAN 1,443 MAX 9,060 MIN 182 CFSM 11.1 IN 151.09 AC-FT 1,048,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,610	864	11,500	1,380	3,570	2,000	761	922	430	195	133	136
2	2,180	800	7,020	1,640	2,510	1,640	677	850	415	195	133	130
3	1,630	1,190	3,930	1,250	2,030	1,420	605	904	410	195	133	126
4	1,140	2,600	2,660	1,060	6,680	1,280	557	1,510	400	195	133	123
5	888	1,410	2,030	1,040	9,540	1,180	528	1,210	395	192	130	120
6	758	1,050	1,650	1,100	5,360	1,110	523	1,030	381	189	123	118
7	674	880	1,600	978	3,390	1,060	551	906	372	186	120	116
8	856	744	3,210	994	3,760	1,020	534	810	363	180	120	113
9	1,260	674	2,510	946	2,980	970	501	747	354	177	126	113
10	1,000	716	2,940	890	2,260	954	480	712	345	186	118	113
11	848	702	2,210	890	1,850	938	450	670	390	174	116	113
12	744	654	1,940	850	1,740	890	440	638	350	171	179	113
13	688	614	1,880	810	2,970	818	435	599	337	165	297	118
14	912	562	1,680	882	2,380	754	440	551	350	162	223	274
15	920	530	1,530	1,430	2,000	719	430	716	325	160	180	273
16	968	506	1,300	2,120	4,370	684	490	2,330	309	157	157	192
17	880	476	1,140	1,920	5,420	638	534	1,410	293	152	143	162
18	779	459	1,050	1,720	3,390	599	501	1,070	289	146	136	146
19	702	437	1,030	1,760	2,850	569	1,770	914	281	143	152	136
20	640	415	970	2,040	2,460	557	4,900	850	273	160	237	128
21	588	400	994	2,550	2,000	528	4,130	768	262	165	206	123
22	550	459	1,450	2,210	1,740	523	2,340	705	254	149	171	120
23	512	1,760	1,480	2,230	1,490	506	1,600	650	248	143	162	116
24	476	6,310	1,320	3,330	1,340	485	1,330	612	237	138	177	116
25	448	2,770	1,170	2,380	1,200	460	1,130	575	230	138	165	116
26	415	2,450	1,840	2,600	2,420	455	1,010	545	223	136	189	113
27	395	1,900	2,100	7,420	4,810	430	946	528	216	136	186	113
28	380	1,490	1,620	6,540	2,840	525	866	506	209	133	165	110
29	365	3,890	1,380	6,170	------	1,310	768	490	206	133	157	108
30	459	14,100	1,190	8,820	------	1,020	775	480	202	133	146	108
31	442	------	1,020	6,120	------	796	------	450	------	133	138	------
TOTAL	25,107	51,812	69,344	76,070	89,350	26,838	31,002	25,658	9,349	5,017	4,951	4,006
MEAN	810	1,727	2,237	2,454	3,191	866	1,033	828	312	162	160	134
MAX	2,180	14,100	11,500	8,820	9,540	2,000	4,900	2,330	430	195	297	274
MIN	365	400	970	810	1,200	430	430	450	202	133	116	108
CFSM	6.23	13.3	17.2	18.9	24.5	6.66	7.95	6.37	2.40	1.24	1.23	1.03
IN.	7.18	14.8	19.8	21.8	25.6	7.68	8.87	7.34	2.67	1.44	1.42	1.15
AC-FT	49,800	102,800	137,500	150,900	177,200	53,230	61,490	50,890	18,540	9,950	9,820	7,950

CAL YR 1964: TOTAL 467,756 MEAN 1,278 MAX 14,100 MIN 236 CFSM 9.83 IN 133.81 AC-FT 927,800
WAT YR 1965: TOTAL 418,504 MEAN 1,147 MAX 14,100 MIN 108 CFSM 8.82 IN 119.72 AC-FT 830,100

12-0393. North Fork Quinault River near Amanda Park, Wash.
(Hydrologic bench-mark station)

Location.--Lat 47°35'45", long 123°37'25", in SW¼ sec.6, T.24 N., R.7 W., on right bank 5¼ miles upstream from mouth and 18 miles northeast of Amanda Park.

Drainage area.--74.1 sq mi.

Records available.--November 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 620 ft (from topographic map).

Extremes.--Maximum and minimum discharges for November 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (4,700 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1965	Nov. 29, 1964 Jan. 30, 1965 Feb. 4, 1965 Apr. 20, 1965	2030 1300 1630 2130	* 13,400 5,000 4,750 5,340	10.07 6.74 6.61 6.92	Sept. 27-30, 1965	110	1.95

1964-65: Maximum discharge, 13,400 cfs Nov. 29, 1964 (gage height, 10.07 ft), from rating curve extended above 4,200 cfs; minimum, 110 cfs Sept. 27-30, 1965 (gage height, 1.95 ft).

Remarks.--Records excellent. No regulation or diversion above station. Records of chemical analyses, suspended-sediment loads, and water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1		400	4,200	370	1,070	606	468	772	942	814	306	160
2		450	2,170	388	865	576	374	687	1,210	828	290	157
3		600	1,380	344	758	570	339	700	1,150	807	263	151
4		1,300	1,060	326	2,750	570	335	706	1,140	772	252	148
5		700	888	326	3,190	576	339	625	1,230	732	244	143
6		524	765	314	1,530	588	314	582	1,230	772	240	140
7		470	950	294	1,080	613	298	576	1,190	752	237	138
8		430	1,700	286	1,070	625	286	606	1,210	582	237	135
9		400	1,070	271	858	675	294	732	1,140	512	226	135
10		400	958	282	739	786	290	880	1,100	502	223	132
11		390	772	298	656	814	286	998	1,360	468	220	132
12		380	713	274	656	732	306	1,060	958	448	556	130
13		360	668	294	910	643	344	950	800	496	530	138
14		340	613	631	706	600	335	835	765	535	271	276
15		320	547	982	637	570	438	1,290	752	512	237	196
16		310	455	1,120	878	530	675	1,970	918	485	223	162
17		300	450	1,010	1,070	474	496	1,090	1,120	453	216	143
18		285	448	926	966	432	443	902	958	398	209	135
19		267	438	1,050	1,010	407	1,850	910	880	365	234	130
20		250	412	1,150	865	388	4,120	926	865	417	314	125
21		245	398	966	752	374	2,470	888	807	370	234	127
22		240	547	746	656	370	1,300	918	746	344	206	130
23		3,000	490	765	588	361	990	918	821	361	230	130
24		1,700	407	902	541	339	982	918	739	384	230	122
25		807	379	668	524	326	1,050	982	662	384	216	120
26		637	559	807	854	314	1,260	1,090	625	379	271	117
27		524	474	1,380	1,200	298	1,440	1,230	582	352	223	115
28		458	407	1,540	739	306	1,220	1,200	625	322	190	110
29		5,000	384	1,810	------	356	950	1,040	720	310	174	110
30		8,390	361	3,120	------	335	872	918	739	310	165	110
31		------	335	1,600	------	344	------	835	------	306	160	------
TOTAL		29,877	25,398	25,240	28,118	15,498	25,164	28,734	27,984	15,472	7,827	4,197
MEAN		996	819	814	1,004	500	839	927	933	499	252	140
MAX		8,390	4,200	3,120	3,190	814	4,120	1,970	1,360	828	556	276
MIN		240	335	271	524	298	286	576	582	306	160	110
CFSM		13.4	11.1	11.0	13.5	6.75	11.3	12.5	12.6	6.73	3.40	1.89
IN.		14.99	12.75	12.67	14.11	7.78	12.63	14.42	14.04	7.77	3.93	2.11
AC-FT		59,260	50,380	50,060	55,770	30,740	49,910	56,990	55,510	30,690	15,520	8,320

12-0395. Quinault River at Quinault Lake, Wash.

Location.--Lat 47°27'30", long 123°53'30", in SW¼NE¼ sec.25, T.23 N., R.10 W., on left bank at outlet of Quinault Lake, 50 ft downstream from Olympic Highway bridge on U.S. Highway 101 and 4 miles southwest of Quinault.

Drainage area.--264 sq mi.

Records available.--October 1911 to September 1965. Monthly discharge only for some periods, published in WSP 1316.

Gage.--Digital water-stage recorder. Datum of gage is 184.60 ft above mean sea level (State Highway Department bench mark). Prior to Jan. 1, 1913, staff gage on south shore of Quinault Lake 3 miles northeast of present site and Jan. 1, 1913, to Sept. 30, 1916, staff gage at mouth of Canoe Creek 4 miles northeast of present site; all at datum 1.06 ft higher. Oct. 1, 1916, to May 2, 1935, graphic water-stage recorder at site 300 ft downstream from present site at datum 0.36 ft higher than present datum. May 3, 1935, to Sept. 13, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--54 years, 2,785 cfs (2,016,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (12,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 12, 1960	2200	12,200	9.39	Oct. 13, 1962	1330	13,100	9.75	Oct. 22, 1963	0700	14,700	10.39
Jan. 11, 1961	0100	19,500	12.17	Nov. 20, 1962	0430	* 28,900	15.12	Nov. 26, 1963	2400	13,500	9.94
Jan. 15, 1961	2030	* 43,300	18.85	Nov. 26, 1962	0430	13,000	9.74	Dec. 23, 1963	2300	* 17,300	11.38
Feb. 6, 1961	2000	12,600	9.56	Dec. 15, 1962	a1100	12,800	9.64	Jan. 1, 1964	1800	12,000	9.33
Feb. 21, 1961	1700	23,900	13.60	Dec. 31, 1962	0030	13,000	9.73				
				Jan. 3, 1963	0230	13,100	9.76	Nov. 30, 1964	1730	* 21,700	12.89
Jan. 3, 1962a	-	* 14,000	10.12	Feb. 5, 1963	0500	21,100	12.71	Feb. 5, 1965a	-	13,500	9.93

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	465	2.17	1964	Oct. 3, 1963	460	2.20
1962	Oct. 5, 1961	530	2.30	1965	Sept.30, 1965	365	2.01
1963	Sept.30, 1963	490	2.25				

1911-22, 1926-65: Maximum discharge, 50,200 cfs Nov. 4, 1955 (gage height, 20.51 ft); minimum, 276 cfs Sept. 12, 1944 (gage height, 1.96 ft).

Flood in November 1909 reached a stage of approximately 22 ft, present datum (discharge, 52,600 cfs).

Remarks.--Records excellent except those for periods of no gage-height record, which are good. Natural regulation by Quinault Lake. No diversion above station. Records of chemical analyses for the water years 1964-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 442: Drainage area. WSP 1286: 1915-16(M), 1934, 1936-39(M). WSP 1316: 1923, 1925, 1933. WSP 1636: 1916 (calendar year only), 1917.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	620	5,050	3,190	1,740	8,320	7,280	2,820	3,990	2,770	1,830	900	1,900
2	602	4,620	3,380	1,640	10,100	7,000	3,190	5,270	3,230	1,760	860	1,950
3	596	3,910	3,240	1,560	8,430	5,480	3,530	5,360	3,720	1,730	830	1,680
4	572	3,320	3,120	1,670	7,000	4,440	3,600	4,610	4,010	1,720	800	1,400
5	548	2,870	2,810	3,060	8,480	3,780	3,320	3,910	3,960	1,740	780	1,210
6	602	2,520	2,510	4,910	11,500	3,420	2,980	3,380	4,070	1,840	760	1,080
7	1,660	2,280	2,280	4,760	11,200	3,060	2,690	3,010	4,410	1,810	740	960
8	2,370	2,060	2,110	4,930	8,570	2,880	2,480	2,810	3,970	1,700	720	878
9	2,170	1,920	1,980	7,220	7,740	3,030	2,360	3,400	3,540	1,610	700	815
10	1,850	2,280	1,910	13,300	8,290	3,220	2,250	3,860	3,340	1,590	700	766
11	1,620	3,850	2,030	17,600	7,450	3,470	2,160	3,830	3,050	1,610	700	710
12	1,460	3,780	8,160	12,900	7,240	3,780	2,140	3,470	2,840	1,670	698	680
13	1,340	3,360	11,300	9,070	6,370	4,040	2,130	3,100	2,670	1,730	686	644
14	1,390	3,190	9,140	9,990	5,560	5,390	2,110	2,890	2,590	1,800	680	614
15	1,450	3,100	6,390	31,600	5,980	9,810	2,020	2,730	2,690	1,780	660	602
16	1,410	4,450	4,830	30,900	5,750	8,680	1,910	2,730	3,020	1,710	690	584
17	1,340	6,670	4,010	17,100	5,180	6,610	1,920	2,880	3,400	1,620	670	572
18	1,250	9,600	4,770	11,500	4,540	5,200	1,970	3,080	3,680	1,510	650	560
19	1,180	8,570	7,940	8,160	5,070	4,420	1,940	3,320	3,650	1,420	630	548
20	1,100	8,870	6,490	6,210	8,360	5,120	1,860	3,620	3,230	1,340	610	536
21	1,200	6,900	4,980	5,090	20,900	5,120	1,910	3,650	2,950	1,290	600	525
22	1,830	5,480	4,010	4,410	17,900	4,500	2,180	3,400	2,650	1,270	580	520
23	3,150	4,790	3,440	3,860	11,300	4,980	2,220	3,230	2,480	1,240	560	505
24	5,360	4,980	3,100	3,470	8,360	5,430	2,110	3,160	2,430	1,190	540	495
25	4,980	5,520	2,810	3,170	6,690	4,950	2,000	2,910	2,430	1,140	560	485
26	5,340	5,180	2,560	2,890	5,470	4,500	1,930	2,840	2,430	1,090	560	475
27	6,450	4,370	2,360	2,630	4,710	4,090	1,850	2,940	2,310	1,060	560	475
28	7,560	3,680	2,170	2,400	4,360	3,590	1,840	2,910	2,130	1,020	560	510
29	5,860	3,120	2,000	2,550	------	3,200	2,350	2,810	1,990	992	560	554
30	4,540	2,850	1,860	5,060	------	2,950	3,340	2,740	1,930	950	560	578
31	4,330	------	1,830	8,500	------	2,820	------	2,650	------	930	850	------
TOTAL	75,730	133,140	122,710	243,850	230,820	146,240	71,110	104,490	91,570	45,692	20,954	23,811
MEAN	2,443	4,438	3,958	7,866	8,244	4,717	2,370	3,371	3,052	1,474	676	794
MAX	7,560	9,600	11,300	31,600	20,900	9,810	3,600	5,360	4,410	1,840	900	1,950
MIN	548	1,920	1,830	1,560	4,360	2,820	1,840	2,650	1,930	930	540	475
CFSM	9.25	16.8	15.0	29.8	31.2	17.9	8.98	12.8	11.6	5.58	2.56	3.01
IN.	10.7	18.8	17.3	34.4	32.5	20.6	10.0	14.7	12.9	6.44	2.95	3.35
AC-FT	150,200	264,100	243,400	483,700	457,800	290,100	141,000	207,300	181,600	90,630	41,560	47,230

CAL YR 1960: TOTAL 1,043,121 MEAN 2,850 MAX 19,100 MIN 548 CFSM 10.8 IN 146.95 AC-FT 2,069,000
WAT YR 1961: TOTAL 1,310,117 MEAN 3,589 MAX 31,600 MIN 475 CFSM 13.6 IN 184.56 AC-FT 2,599,000

12-0395. Quinault River at Quinault Lake, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	584	2,100	9,500	5,000	2,300	1,240	1,780	3,920	1,920	2,260	1,080	780
2	578	2,000	7,000	7,000	2,320	1,220	1,800	3,940	2,330	2,080	1,050	759
3	560	1,900	5,000	12,500	2,580	1,190	1,760	3,960	3,040	1,900	1,070	738
4	542	1,800	6,000	9,000	2,740	1,240	1,720	3,880	2,860	1,830	1,090	717
5	542	1,700	5,000	7,000	2,560	1,580	1,760	3,430	2,600	1,860	1,160	698
6	596	1,650	4,000	6,000	2,380	1,810	2,450	3,010	2,380	1,860	1,380	680
7	662	1,600	3,500	6,000	3,120	1,860	4,750	2,690	2,260	1,790	1,780	662
8	686	1,600	3,000	5,500	4,160	1,820	4,360	2,460	2,320	1,760	2,140	650
9	884	3,000	2,700	5,000	4,820	1,790	3,540	2,600	2,460	1,780	1,970	638
10	1,780	6,500	2,500	4,500	4,480	1,690	2,960	2,980	2,420	1,790	1,720	650
11	1,770	5,300	2,280	4,000	3,800	1,580	2,540	2,980	2,280	1,770	1,500	692
12	2,570	4,500	2,070	3,500	3,310	1,460	2,280	2,800	2,220	1,740	1,350	692
13	4,730	3,600	1,980	3,000	3,140	1,360	2,160	2,610	2,160	1,670	1,240	724
14	4,040	3,000	1,910	2,600	3,110	1,270	2,200	2,430	2,120	1,590	1,150	1,120
15	3,110	2,500	1,810	2,400	3,040	1,200	2,380	2,300	2,210	1,520	1,060	1,300
16	2,460	2,400	1,790	2,200	2,810	1,210	2,360	2,200	2,340	1,440	1,040	1,220
17	2,020	2,310	2,310	2,000	2,550	1,220	2,190	2,140	2,370	1,390	1,040	1,110
18	1,720	2,100	2,510	1,900	2,370	1,220	2,070	2,090	2,320	1,350	1,150	1,000
19	1,480	1,900	2,680	1,800	2,210	1,210	2,090	2,030	2,240	1,270	1,270	920
20	1,320	1,800	4,220	1,700	2,030	1,210	2,190	1,920	2,200	1,230	1,290	864
21	1,190	2,500	6,000	1,600	1,880	1,230	2,360	1,870	2,220	1,220	1,300	822
22	1,130	3,500	8,000	1,550	1,770	1,310	2,340	1,890	2,260	1,240	1,250	787
23	1,570	3,000	9,000	1,500	1,680	1,590	2,260	2,030	2,280	1,270	1,170	752
24	1,720	2,600	8,000	1,500	1,570	2,140	2,460	2,030	2,370	1,310	1,090	724
25	1,710	2,400	7,000	1,650	1,460	2,500	3,110	2,030	2,390	1,340	1,030	698
26	3,330	2,200	6,000	1,820	1,370	2,510	3,080	2,060	2,560	1,320	984	674
27	4,460	4,500	5,000	2,550	1,300	2,430	3,500	2,140	3,040	1,290	936	662
28	3,500	6,000	7,000	2,760	1,260	2,240	4,520	2,250	2,820	1,260	899	1,000
29	3,000	6,500	8,000	2,580	------	2,020	4,280	2,260	2,580	1,220	871	2,500
30	2,500	7,000	7,000	2,430	------	1,860	3,780	2,160	2,430	1,180	836	3,350
31	2,200	------	6,000	2,360	------	1,780	------	2,020	------	1,130	808	------
TOTAL	58,944	93,460	148,760	114,900	72,120	49,990	81,030	79,110	72,000	47,660	37,704	28,583
MEAN	1,901	3,115	4,799	3,706	2,576	1,613	2,701	2,552	2,400	1,537	1,216	953
MAX	4,730	7,000	9,500	12,500	4,820	2,510	4,750	3,960	3,040	2,260	2,140	3,350
MIN	542	1,600	1,790	1,500	1,260	1,190	1,720	1,870	1,920	1,130	808	638
CFSM	7.20	11.8	18.2	14.0	9.76	6.11	10.2	9.67	9.09	5.82	4.61	3.61
IN.	8.30	13.2	21.0	16.2	10.2	7.04	11.4	11.1	10.1	6.71	5.31	4.03
AC-FT	116,900	185,400	295,100	227,900	143,000	99,150	160,700	156,900	142,800	94,530	74,780	56,690

CAL YR 1961: TOTAL 1,279,701 MEAN 3,506 MAX 31,600 MIN 475 CFSM 13.3 IN 180.27 AC-FT 2,538,000
WAT YR 1962: TOTAL 884,261 MEAN 2,423 MAX 12,500 MIN 542 CFSM 9.18 IN 124.57 AC-FT 1,754,000

Note.--No gage-height record Dec. 21 to Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,870	1,340	4,560	10,500	976	3,550	2,820	2,100	1,950	1,160	1,100	600
2	2,370	1,260	4,330	12,500	1,050	3,180	2,540	2,340	1,840	1,140	1,050	600
3	2,320	1,220	4,110	12,000	5,460	2,840	2,370	2,510	1,790	1,110	1,000	580
4	2,390	1,360	3,800	8,450	11,700	2,550	2,680	2,410	1,740	1,100	960	568
5	2,160	2,200	4,670	6,070	19,100	2,320	3,120	3,040	1,750	1,090	920	562
6	1,910	2,680	7,470	4,730	14,400	2,140	3,730	4,000	1,720	1,060	880	550
7	1,880	2,600	6,460	3,920	13,700	1,970	4,060	3,760	1,650	1,030	840	538
8	2,410	3,110	5,690	3,400	9,120	1,860	3,980	3,280	1,610	1,140	810	532
9	3,490	3,180	5,210	3,070	6,380	1,750	4,060	2,870	1,580	1,280	780	520
10	3,940	3,490	4,650	2,740	4,940	1,650	3,740	2,560	1,560	1,290	760	532
11	3,900	3,910	4,320	2,460	4,030	1,560	3,320	2,320	1,610	1,250	750	544
12	6,790	4,250	4,020	2,250	3,430	1,490	3,000	2,160	1,690	1,190	740	544
13	11,900	4,560	4,320	2,100	3,050	1,430	2,820	2,020	1,670	1,130	730	652
14	9,880	4,870	8,660	1,970	2,890	1,390	2,820	1,920	1,610	1,070	720	878
15	6,560	4,510	12,300	1,880	2,670	1,370	3,140	1,890	1,610	1,050	715	878
16	4,730	3,910	9,000	1,790	2,620	1,360	3,070	1,880	1,620	1,020	710	843
17	3,760	3,450	7,000	1,710	2,550	1,310	2,800	1,870	1,670	984	690	794
18	3,180	3,070	5,500	1,620	2,600	1,290	2,540	1,940	1,660	944	670	738
19	2,850	9,180	4,500	1,540	2,860	1,420	2,420	2,240	1,610	920	697	690
20	2,560	24,900	4,140	1,460	3,580	2,020	2,280	2,550	1,540	892	724	652
21	2,460	14,300	3,720	1,400	3,280	2,550	2,120	2,800	1,460	1,030	710	619
22	2,330	8,660	3,350	1,340	2,860	2,670	2,010	2,980	1,400	2,630	690	593
23	2,160	5,900	3,040	1,290	2,540	2,510	1,940	2,860	1,300	3,220	684	606
24	1,980	4,960	2,730	1,260	2,270	2,280	1,880	2,600	1,270	2,690	731	600
25	1,840	7,650	2,500	1,200	2,280	2,300	1,830	2,380	1,280	2,240	752	580
26	1,790	12,100	2,300	1,150	4,370	2,630	1,760	2,210	1,260	1,890	738	556
27	1,760	9,190	2,200	1,100	4,780	2,970	1,690	2,080	1,220	1,660	710	544
28	1,650	6,760	2,240	1,050	4,030	3,360	1,620	2,010	1,190	1,480	684	526
29	1,560	5,420	3,300	1,000	------	3,600	1,670	2,000	1,160	1,360	658	508
30	1,480	5,010	9,770	950	------	3,400	1,870	2,020	1,140	1,270	632	490
31	1,410	------	11,600	950	------	3,140	------	2,010	------	1,200	619	------
TOTAL	102,270	169,000	161,460	98,850	143,516	69,860	79,700	75,610	46,160	42,520	23,854	18,417
MEAN	3,299	5,633	5,208	3,189	5,126	2,254	2,657	2,439	1,539	1,372	769	614
MAX	11,900	24,900	12,300	12,500	19,100	3,600	4,060	4,000	1,950	3,220	1,100	878
MIN	1,410	1,220	2,200	950	976	1,290	1,620	1,870	1,140	892	619	490
CFSM	12.5	21.3	19.7	12.1	19.4	8.54	10.1	9.24	5.83	5.20	2.91	2.33
IN.	14.4	23.8	22.7	13.9	20.2	9.84	11.2	10.7	6.50	5.99	3.36	2.59
AC-FT	202,800	335,200	320,300	196,100	284,700	138,600	158,100	150,000	91,560	84,340	47,310	36,530

CAL YR 1962: TOTAL 1,015,827 MEAN 2,783 MAX 24,900 MIN 638 CFSM 10.5 IN 143.10 AC-FT 2,015,000
WAT YR 1963: TOTAL 1,031,217 MEAN 2,825 MAX 24,900 MIN 490 CFSM 10.7 IN 145.27 AC-FT 2,045,000

12-0395. Quinault River at Quinault Lake, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	484	3,220	3,840	9,810	5,200	2,340	2,190	1,690	4,500	2,770	2,310	1,140
2	466	4,030	3,290	9,970	4,400	2,300	2,300	1,640	4,750	2,850	2,630	1,090
3	460	4,080	2,930	7,500	3,600	2,190	2,210	1,570	4,350	2,800	2,770	1,030
4	466	4,590	2,670	6,200	3,800	2,300	2,100	1,500	4,940	2,700	3,000	984
5	478	4,540	2,720	5,500	3,500	2,510	2,070	1,480	6,500	2,690	2,930	944
6	520	4,080	2,800	5,380	3,100	2,420	1,960	1,450	5,920	2,650	2,650	913
7	562	3,900	2,700	4,820	2,800	2,220	1,870	1,450	5,380	2,640	2,440	899
8	568	4,320	2,550	4,160	2,600	2,190	1,840	1,500	5,060	2,810	2,280	899
9	562	4,320	2,380	3,940	2,500	2,250	1,880	1,700	4,700	2,840	2,150	885
10	550	4,330	2,210	4,000	2,380	2,410	2,060	1,900	4,820	2,640	2,030	857
11	556	4,020	2,040	3,880	2,330	3,460	2,390	1,800	4,650	2,580	1,900	829
12	586	4,520	1,920	3,490	2,210	3,560	2,590	1,900	4,270	2,770	1,860	801
13	556	6,190	1,820	3,400	2,090	3,100	2,650	2,000	3,940	2,960	1,790	773
14	2,250	10,000	1,750	3,700	1,980	3,400	2,670	1,800	3,790	3,080	1,700	759
15	2,160	9,280	1,770	3,660	2,020	4,540	3,150	1,700	3,700	3,840	1,600	759
16	1,830	7,470	1,900	7,000	2,090	4,190	3,180	1,600	3,730	5,120	1,500	801
17	1,550	6,920	2,090	7,910	2,270	3,730	2,870	1,900	3,780	4,650	1,430	968
18	1,330	5,870	2,310	6,500	2,410	3,540	2,560	2,100	3,740	4,120	1,390	1,040
19	1,180	5,350	3,260	5,430	2,500	3,120	2,330	2,400	3,610	3,540	1,360	1,040
20	1,180	4,890	5,040	4,700	2,380	2,780	2,130	2,700	3,380	3,190	1,310	1,130
21	5,200	4,240	5,180	3,900	2,220	2,510	2,020	3,000	3,150	3,180	1,260	1,130
22	13,500	3,900	5,040	3,400	2,080	2,280	2,130	3,300	3,010	3,070	1,250	1,160
23	9,860	5,160	13,300	2,900	1,950	2,080	2,100	3,000	3,050	2,820	1,230	1,120
24	9,720	5,900	14,800	3,800	1,880	1,900	1,980	2,600	3,140	2,610	1,230	1,060
25	9,400	5,540	11,600	5,000	1,800	1,800	1,920	2,300	3,110	2,540	1,220	1,010
26	7,090	10,000	8,200	3,800	1,710	1,750	1,890	2,200	3,010	2,520	1,230	976
27	5,380	12,100	6,260	4,400	1,620	1,660	1,870	2,400	2,960	2,500	1,240	920
28	4,640	8,410	5,310	4,800	1,610	1,550	1,810	2,600	2,900	2,470	1,270	878
29	4,320	5,940	4,490	5,600	1,880	1,490	1,780	2,900	2,730	2,430	1,250	871
30	3,900	4,620	3,940	5,200	------	1,600	1,720	3,200	2,650	2,330	1,250	2,580
31	3,390	------	5,430	5,000	------	1,840	------	3,800	------	2,300	1,210	------
TOTAL	94,694	171,730	135,540	158,750	72,910	79,010	66,220	67,080	119,220	92,010	54,670	30,246
MEAN	3,055	5,724	4,372	5,121	2,514	2,549	2,207	2,164	3,974	2,968	1,764	1,008
MAX	13,500	12,100	14,800	9,970	5,200	4,540	3,180	3,800	6,500	5,120	3,000	2,580
MIN	460	3,220	1,750	2,900	1,610	1,490	1,720	1,450	2,650	2,300	1,210	759
CFSM	11.6	21.7	16.6	19.4	9.52	9.65	8.36	8.20	15.1	11.2	6.68	3.82
IN.	13.3	24.2	19.1	22.4	10.3	11.1	9.33	9.45	16.8	13.0	7.70	4.26
AC-FT	187,800	340,600	268,800	314,900	144,600	156,700	131,300	133,100	236,500	182,500	108,400	59,990

CAL YR 1963: TOTAL 1,000,451 MEAN 2,741 MAX 19,100 MIN 460 CFSM 10.4 IN 140.93 AC-FT 1,984,000
WAT YR 1964: TOTAL 1,142,080 MEAN 3,120 MAX 14,800 MIN 460 CFSM 11.8 IN 160.89 AC-FT 2,265,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,040	1,500	19,800	1,700	7,500	3,820	1,420	2,870	2,260	1,470	752	550
2	4,350	1,760	15,600	1,700	5,400	3,210	1,410	2,640	2,280	1,540	738	532
3	4,350	1,830	10,200	1,900	4,400	2,840	1,360	2,480	2,460	1,590	724	514
4	3,430	3,610	6,600	1,750	6,200	2,580	1,290	2,770	2,510	1,600	710	496
5	2,770	3,670	4,700	1,720	9,200	2,390	1,240	2,730	2,550	1,590	690	472
6	2,320	3,030	3,700	1,700	11,500	2,300	1,200	2,510	2,610	1,570	664	466
7	2,020	2,540	4,300	1,610	7,400	2,250	1,180	2,310	2,640	1,560	645	449
8	1,960	2,220	5,100	1,590	5,400	2,210	1,160	2,160	2,630	1,520	632	444
9	2,160	1,920	6,100	1,520	4,700	2,200	1,120	2,090	2,600	1,420	632	432
10	2,150	1,800	5,000	1,420	4,200	2,240	1,100	2,150	2,550	1,330	612	427
11	1,950	1,740	4,100	1,360	3,700	2,340	1,070	2,250	2,600	1,250	600	425
12	1,770	1,650	3,500	1,340	3,300	2,370	1,030	2,390	2,640	1,180	664	422
13	1,650	1,530	3,200	1,300	3,400	2,300	1,040	2,460	2,410	1,120	906	430
14	1,830	1,420	3,000	1,390	3,800	2,200	1,060	2,420	2,210	1,100	952	479
15	2,220	1,310	2,700	1,830	3,350	2,080	1,070	2,430	2,020	1,090	899	534
16	2,300	1,230	2,400	2,780	3,760	1,970	1,200	4,110	1,900	1,080	822	544
17	2,200	1,190	2,250	3,480	4,700	1,860	1,380	4,320	1,960	1,060	766	531
18	2,020	1,150	2,100	3,640	4,460	1,750	1,400	3,600	2,080	1,040	717	509
19	1,840	1,120	2,000	3,720	4,190	1,650	1,810	3,200	2,020	992	697	485
20	1,700	1,070	1,950	4,000	4,030	1,560	6,020	3,010	1,970	968	731	463
21	1,560	1,020	1,900	4,220	3,620	1,470	9,400	2,820	1,910	952	759	446
22	1,430	1,010	2,000	3,980	3,260	1,410	7,450	2,690	1,830	913	724	433
23	1,360	1,350	2,100	3,700	2,910	1,360	5,360	2,600	1,770	885	697	422
24	1,270	4,970	2,000	4,170	2,630	1,300	4,160	2,480	1,740	871	690	413
25	1,190	5,060	1,900	4,000	2,410	1,240	3,560	2,440	1,670	857	684	404
26	1,130	4,400	1,850	3,760	2,890	1,210	3,330	2,440	1,570	850	690	396
27	1,080	3,660	2,100	6,030	4,540	1,160	3,430	2,550	1,490	843	697	386
28	1,030	3,000	2,000	7,410	4,600	1,170	3,520	2,700	1,410	836	678	376
29	992	3,860	1,900	7,760	------	1,420	3,260	2,720	1,390	808	645	368
30	1,020	18,300	1,800	9,580	------	1,500	3,010	2,590	1,430	787	606	363
31	1,080	------	1,750	10,500	------	1,440	------	2,420	------	773	580	------
TOTAL	62,172	83,920	129,600	106,560	131,450	60,800	76,040	83,350	63,110	35,445	22,003	13,611
MEAN	2,006	2,797	4,181	3,437	4,695	1,961	2,535	2,689	2,104	1,143	710	454
MAX	4,350	18,300	19,800	10,500	11,500	3,820	9,400	4,320	2,640	1,600	952	550
MIN	992	1,010	1,750	1,300	2,410	1,160	1,030	2,090	1,390	773	580	363
CFSM	7.60	10.6	15.8	13.0	17.8	7.43	9.60	10.2	7.97	4.33	2.69	1.72
IN.	8.76	11.8	18.3	15.0	18.5	8.56	10.7	11.7	8.89	4.99	3.10	1.92
AC-FT	123,300	166,500	257,100	211,400	260,700	120,600	150,800	165,300	125,200	70,300	43,640	27,000

CAL YR 1964: TOTAL 1,015,808 MEAN 2,775 MAX 19,800 MIN 759 CFSM 10.5 IN 143.10 AC-FT 2,015,000
WAT YR 1965: TOTAL 868,061 MEAN 2,378 MAX 19,800 MIN 363 CFSM 9.01 IN 122.28 AC-FT 1,722,000

Note.--No gage-height record Dec. 4 to Jan. 4, Feb. 2-14.

12-0410. Hoh River near Forks, Wash.

Location.--Lat 47°48'20", long 124°06'20", in SW¼NE¼ sec.34, T.27 N., R.11 W., on left bank 1 mile downstream from Maple Creek, 5 miles downstream from South Fork, and 16½ miles southeast of Forks.

Drainage area.--208 sq mi.

Records available.--August 1926 to September 1964 (discontinued). Prior to October 1958, published as "near Spruce."

Gage.--Water-stage recorder. Altitude of gage is 320 ft (from river-profile map).

Average discharge.--38 years, 2,028 cfs (1,468,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (12,000 cfs, revised), water years 1961-64

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1530	15,500	11.47	Nov. 19, 1962	2400	* 38,700	18.8	Nov. 26, 1963	-	14,500	10.70
Dec. 12, 1960	1200	17,000	12.15	Nov. 25, 1962	-	20,000	12.66	Dec. 23, 1963	-	13,000	10.13
Jan. 10, 1961	1430	17,900	12.51	Dec. 15, 1962	0430	16,700	11.47	Jan. 1, 1964a	-	-	-
Jan. 15, 1961	1430	* 28,800	16.90	Dec. 30, 1962	0830	12,000	9.74				
Feb. 21, 1961	0300	19,200	13.04	Feb. 4, 1963	2200	24,000	14.03				
Jan. 3, 1962	1100	* 13,600	10.66	Oct. 21, 1963	2200	* 21,200	13.11				

a About.

Annual minimum discharge, water years 1961-64

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.22, 1961	395	a 0.64	1963	Sept.25, 1963	620	0.90
1962	Oct. 4, 1961	386	.65	1964	Oct. 5, 1963	540	.70

a Occurred Oct. 4, 1960.

1926-64: Maximum discharge, 38,700 cfs Nov. 26, 1949, from rating curve extended on basis of slope-area measurement of peak flow, and Nov. 19, 1962, from rating curve extended above 19,000 cfs; maximum gage height, 22.2 ft, from high watermarks, Nov. 26, 1949; minimum discharge, 247 cfs Nov. 14, 15, 1929.

Maximum stage known since at least 1891, that of Nov. 26, 1949.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. No regulation or diversion above station. Large diurnal fluctuation during summer months caused by melting glaciers at source.

Revisions (water years).--WSP 1182: 1935(M). WSP 1216: Drainage area. WSP 1286: 1934. WSP 1636: 1945(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	530	3,370	2,460	1,190	5,070	5,510	2,040	2,720	2,040	1,260	1,140	3,240
2	500	2,610	2,000	1,120	6,180	3,410	2,380	3,480	2,600	1,370	1,180	1,900
3	467	2,170	1,890	1,060	3,770	2,710	2,570	2,650	2,750	1,360	1,250	1,320
4	440	1,850	1,720	1,740	3,450	2,340	2,120	2,240	2,650	1,440	1,280	1,260
5	440	1,670	1,520	3,720	6,040	2,180	1,810	1,970	2,450	1,610	1,330	1,220
6	1,060	1,530	1,400	3,570	10,000	1,990	1,640	1,770	3,270	1,620	1,160	1,000
7	4,700	1,380	1,310	3,100	5,640	1,830	1,520	1,670	2,850	1,440	1,090	855
8	2,120	1,260	1,260	4,040	3,960	2,100	1,500	1,730	2,160	1,300	1,080	745
9	1,400	1,200	1,240	6,020	4,800	2,180	1,470	2,300	2,130	1,350	1,060	680
10	1,090	2,590	1,200	13,400	4,030	2,300	1,380	2,090	1,860	1,470	1,060	655
11	960	3,760	1,750	11,000	4,310	2,470	1,340	1,850	1,700	1,680	1,080	650
12	955	2,260	11,800	6,130	3,740	2,640	1,360	1,680	1,620	1,980	1,160	605
13	785	1,970	7,110	4,760	3,140	2,620	1,430	1,600	1,580	2,180	1,200	600
14	965	2,040	4,260	9,610	3,220	5,520	1,300	1,530	1,710	2,170	1,220	575
15	1,170	2,160	2,970	24,800	4,030	6,430	1,250	1,500	2,120	1,860	1,310	560
16	1,080	4,290	2,430	11,800	3,160	4,230	1,230	1,640	2,430	1,620	1,260	520
17	975	7,790	2,190	6,810	2,870	3,070	1,440	1,840	2,660	1,520	1,040	495
18	870	5,340	4,480	4,630	2,580	2,570	1,370	1,980	2,860	1,440	1,000	530
19	795	5,950	4,940	3,530	4,110	2,350	1,300	2,150	2,500	1,440	1,020	545
20	720	5,050	3,230	2,920	9,360	2,900	1,240	2,340	2,050	1,530	1,080	525
21	1,400	3,400	2,570	2,600	15,800	2,390	1,430	2,160	1,770	1,590	990	444
22	2,210	2,850	2,260	2,330	7,450	2,360	1,410	1,910	1,620	1,550	950	408
23	5,330	2,800	2,030	2,100	4,600	3,610	1,290	1,960	1,730	1,500	1,000	444
24	5,030	3,310	1,960	1,910	4,200	2,790	1,240	1,770	1,790	1,320	955	454
25	3,120	3,120	1,760	1,740	3,410	2,420	1,220	1,560	1,950	1,220	835	480
26	4,830	2,760	1,640	1,590	2,870	2,280	1,190	1,720	1,900	1,260	785	490
27	4,780	2,320	1,480	1,460	2,720	1,980	1,160	1,790	1,580	1,260	725	490
28	4,390	2,020	1,370	1,380	3,240	1,790	1,330	1,680	1,420	1,140	720	1,050
29	2,840	1,810	1,290	1,880	------	1,680	2,400	1,630	1,390	1,120	800	710
30	2,500	1,770	1,240	6,740	------	1,680	2,430	1,620	1,310	1,100	850	580
31	3,470	------	1,280	4,490	------	1,680	------	1,580	------	1,120	2,630	------
TOTAL	61,922	86,400	80,040	153,170	137,750	86,010	46,790	60,110	62,450	45,820	34,240	24,030
MEAN	1,997	2,880	2,582	4,941	4,920	2,775	1,560	1,939	2,082	1,478	1,105	801
MAX	5,330	7,790	11,800	24,800	15,800	6,430	2,570	3,480	3,270	2,180	2,630	3,240
MIN	440	1,200	1,200	1,060	2,580	1,680	1,160	1,500	1,310	1,100	720	408
CFSM	9.60	13.8	12.4	23.8	23.7	13.3	7.50	9.32	10.0	7.11	5.31	3.85
IN.	11.1	15.4	14.3	27.4	24.6	15.4	8.37	10.7	11.2	8.19	6.12	4.30
AC-FT	122,800	171,400	158,800	303,800	273,200	170,600	92,810	119,200	123,900	90,880	67,910	47,660

CAL YR 1960: TOTAL 731,012 MEAN 1,997 MAX 14,500 MIN 440 CFSM 9.60 IN 130.70 AC-FT 1,450,000
WAT YR 1961: TOTAL 878,732 MEAN 2,407 MAX 24,800 MIN 408 CFSM 11.6 IN 157.12 AC-FT 1,743,000

12-0410. Hoh River near Forks, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	565	1,980	5,520	2,840	1,370	690	1,220	2,720	1,220	1,420	1,390	855
2	472	1,600	3,480	3,880	1,730	685	1,180	2,350	2,780	1,250	1,220	805
3	431	1,540	2,720	11,600	2,070	650	1,120	2,760	2,460	1,180	1,320	740
4	426	1,330	4,010	5,860	1,760	860	1,160	2,300	2,010	1,260	1,260	705
5	665	1,200	3,210	4,300	1,430	1,160	1,260	1,970	1,730	1,490	1,340	745
6	1,060	1,140	2,490	3,890	1,400	1,140	3,470	1,730	1,580	1,390	1,650	750
7	930	1,120	2,200	4,450	2,160	1,120	3,560	1,560	1,570	1,260	1,960	705
8	670	1,090	1,890	4,240	2,180	1,140	2,300	1,510	1,880	1,430	1,680	625
9	2,450	2,640	1,660	3,430	1,930	1,090	1,900	1,720	1,900	1,460	1,240	585
10	2,000	6,530	1,490	2,810	1,700	1,010	1,610	1,670	1,630	1,460	1,110	760
11	1,330	3,800	1,370	2,440	1,490	965	1,450	1,540	1,490	1,400	1,080	830
12	3,770	2,540	1,270	2,190	1,400	900	1,390	1,480	1,520	1,400	1,200	645
13	3,530	2,150	1,290	1,950	1,370	835	1,430	1,400	1,430	1,300	1,080	1,280
14	2,210	2,040	1,250	1,840	1,480	785	1,730	1,300	1,550	1,240	980	1,580
15	1,880	1,680	1,210	1,710	1,370	780	1,910	1,260	1,870	1,200	995	1,060
16	1,530	1,510	1,340	1,550	1,250	890	1,510	1,220	1,950	1,130	1,280	860
17	1,220	1,400	2,120	1,480	1,180	875	1,330	1,250	1,730	1,260	1,320	825
18	1,060	1,340	1,760	1,370	1,130	860	1,340	1,250	1,600	1,090	1,370	855
19	970	1,240	2,510	1,270	1,080	845	1,530	1,180	1,550	1,040	1,480	850
20	865	1,140	4,310	1,180	1,020	910	1,520	1,100	1,630	1,100	1,520	825
21	770	1,360	4,580	1,120	975	895	1,540	1,130	1,720	1,240	1,450	860
22	826	1,850	4,980	1,070	950	1,050	1,390	1,300	1,690	1,360	1,120	790
23	1,420	1,550	5,950	1,020	915	1,550	1,370	1,450	1,800	1,490	1,010	690
24	1,110	1,350	5,390	1,040	850	1,810	2,220	1,340	1,970	1,630	1,010	665
25	2,190	1,220	3,640	1,340	805	1,740	2,300	1,340	1,980	1,600	995	740
26	3,630	1,160	2,800	1,660	760	1,530	1,980	1,430	2,350	1,530	925	735
27	3,380	2,390	2,400	2,230	720	1,430	3,260	1,510	2,140	1,560	825	690
28	2,440	4,260	3,710	1,720	700	1,240	3,000	1,620	1,670	1,630	850	2,100
29	1,900	3,930	5,760	1,510	------	1,160	2,460	1,530	1,620	1,480	860	2,600
30	1,840	4,840	4,660	1,470	------	1,120	2,240	1,350	1,640	1,400	810	1,900
31	1,700	------	3,260	1,420	------	1,160	------	1,250	------	1,460	820	------
TOTAL	49,240	62,920	94,230	79,880	37,175	32,875	55,680	48,520	53,660	42,140	37,150	28,655
MEAN	1,588	2,097	3,040	2,577	1,328	1,060	1,856	1,565	1,789	1,359	1,198	955
MAX	3,770	6,530	5,950	11,600	2,180	1,810	3,560	2,760	2,780	1,630	1,960	2,600
MIN	426	1,090	1,210	1,020	700	650	1,120	1,100	1,220	1,040	810	585
CFSM	7.64	10.1	14.6	12.4	6.38	5.10	8.92	7.52	8.60	6.54	5.76	4.59
IN.	8.80	11.2	16.8	14.3	6.65	5.88	9.96	8.68	9.59	7.53	6.64	5.12
AC-FT	97,670	124,800	186,900	158,400	73,740	65,210	110,400	96,240	106,400	83,580	73,690	56,840

CAL YR 1961: TOTAL 856,760 MEAN 2,347 MAX 24,800 MIN 408 CFSM 11.3 IN 153.19 AC-FT 1,699,000
WAT YR 1962: TOTAL 622,125 MEAN 1,704 MAX 11,600 MIN 426 CFSM 8.19 IN 111.23 AC-FT 1,234,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,430	925	3,120	7,620	692	2,250	1,540	1,450	1,270	1,010	1,080	1,020
2	1,310	980	3,160	7,160	1,040	2,050	1,360	1,750	1,320	1,030	1,060	970
3	2,320	945	2,740	6,650	9,300	1,830	1,410	1,660	1,200	1,040	1,080	900
4	1,650	1,860	2,770	4,420	14,700	1,700	1,800	1,480	1,280	1,160	1,140	965
5	1,250	2,080	5,700	3,470	11,600	1,600	2,050	3,300	1,550	1,160	1,160	940
6	1,150	2,150	6,020	2,950	13,800	1,490	2,550	2,790	1,350	1,070	1,140	858
7	1,330	1,730	4,250	2,560	8,760	1,350	2,240	2,250	1,290	1,100	1,120	866
8	2,100	3,270	4,080	2,290	4,930	1,240	2,080	1,890	1,470	1,590	1,140	955
9	2,540	2,200	3,290	2,080	3,800	1,160	2,110	1,650	1,360	1,470	1,170	1,010
10	2,000	2,580	2,900	1,850	3,000	1,110	1,820	1,480	1,330	1,380	1,150	1,160
11	1,880	2,800	2,650	1,650	2,400	1,100	1,640	1,380	1,500	1,350	1,180	1,090
12	5,470	2,780	2,470	1,510	2,100	1,040	1,600	1,320	1,610	1,280	1,210	1,000
13	7,860	3,350	3,050	1,410	2,000	995	1,650	1,240	1,410	1,280	1,260	2,170
14	3,610	3,060	6,520	1,320	1,900	1,050	1,860	1,210	1,420	1,310	1,140	1,590
15	2,500	2,550	12,400	1,240	1,800	980	2,150	1,260	1,500	1,230	1,010	1,120
16	2,020	2,120	6,510	1,160	1,700	960	1,730	1,210	1,620	1,140	950	930
17	1,710	2,000	4,400	1,120	1,700	925	1,510	1,200	1,610	1,100	935	808
18	1,660	1,790	3,350	1,040	1,900	940	1,440	1,450	1,600	1,100	895	722
19	1,610	15,000	2,910	995	2,540	1,350	1,380	1,840	1,500	1,120	1,070	684
20	1,630	17,000	2,490	965	2,330	1,940	1,280	2,080	1,360	1,150	915	714
21	1,710	6,000	2,360	920	1,900	2,000	1,200	2,210	1,350	2,300	858	768
22	1,540	4,500	2,160	880	1,600	1,980	1,170	2,200	1,230	5,030	822	758
23	1,330	3,200	1,930	858	1,500	1,600	1,160	1,750	1,090	2,740	848	985
24	1,220	4,000	1,750	835	1,400	1,400	1,100	1,540	1,160	1,910	1,220	750
25	1,180	8,500	1,620	804	2,200	1,710	1,040	1,420	1,200	1,560	1,010	680
26	1,250	7,000	1,520	781	5,000	1,710	1,000	1,360	1,100	1,450	905	684
27	1,140	5,000	1,570	754	2,880	2,040	970	1,300	1,060	1,400	858	862
28	1,060	4,200	1,730	727	2,350	2,190	935	1,320	1,000	1,330	848	980
29	1,120	3,800	4,930	680	------	2,070	1,140	1,450	950	1,220	866	880
30	1,060	3,830	10,900	668	------	1,890	1,440	1,450	965	1,150	945	776
31	950	------	6,190	692	------	1,720	------	1,350	------	1,100	1,000	------
TOTAL	60,590	121,200	121,440	62,059	110,822	47,370	46,355	51,240	39,655	45,260	31,985	28,595
MEAN	1,955	4,040	3,917	2,002	3,958	1,528	1,545	1,653	1,322	1,460	1,032	953
MAX	7,860	17,000	12,400	7,620	14,700	2,250	2,550	3,300	1,620	5,030	1,260	2,170
MIN	950	925	1,520	668	692	925	935	1,200	950	1,010	822	680
CFSM	9.40	19.4	18.8	9.62	19.0	7.35	7.43	7.95	6.35	7.02	4.96	4.58
IN.	10.8	21.7	21.7	11.1	19.8	8.47	8.29	9.16	7.09	8.09	5.72	5.11
AC-FT	120,200	240,400	240,900	123,100	219,800	93,960	91,940	101,600	78,650	89,770	63,440	56,720

CAL YR 1962: TOTAL 718,965 MEAN 1,970 MAX 17,000 MIN 585 CFSM 9.47 IN 128.55 AC-FT 1,426,000
WAT YR 1963: TOTAL 766,571 MEAN 2,100 MAX 17,000 MIN 668 CFSM 10.1 IN 137.06 AC-FT 1,520,000

12-0410. Hoh River near Forks, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	696	2,720	2,300	8,800	4,120	2,030	2,400	1,180	3,750	2,250	1,860	1,120
2	632	3,200	2,000	5,600	3,240	1,650	1,910	1,140	3,560	2,240	2,120	1,060
3	640	2,650	1,800	4,600	2,700	1,560	1,650	1,080	2,880	2,140	2,240	1,020
4	664	3,320	1,800	4,000	3,270	1,830	1,750	1,110	4,800	2,170	2,390	990
5	588	2,740	2,000	3,800	2,950	2,040	1,660	1,130	4,510	2,220	1,980	980
6	672	2,540	1,970	3,900	2,400	1,770	1,550	1,080	3,580	2,220	1,750	965
7	600	3,220	1,700	3,300	2,100	1,590	1,510	1,100	3,800	2,740	1,840	970
8	572	3,250	1,600	2,800	1,880	1,600	1,510	1,160	3,530	2,880	1,720	940
9	596	2,910	1,500	2,680	1,720	1,630	1,520	1,380	3,620	2,530	1,660	840
10	794	2,740	1,400	2,960	1,790	1,790	1,710	1,530	3,900	2,210	1,630	794
11	848	2,330	1,300	2,620	1,700	3,800	1,810	1,440	3,450	2,530	1,630	781
12	947	5,350	1,200	2,360	1,590	2,750	2,000	1,560	3,060	2,930	1,770	776
13	4,280	6,070	1,150	2,990	1,510	2,110	1,840	1,590	2,880	2,840	1,650	768
14	2,880	8,110	1,200	2,860	1,450	3,180	2,100	1,390	2,890	3,100	1,420	781
15	2,070	5,500	1,300	3,220	1,600	3,610	2,610	1,290	2,800	4,880	1,300	885
16	1,420	4,800	1,500	8,080	1,680	2,710	2,100	1,310	3,030	4,440	1,250	1,320
17	1,180	5,000	1,700	5,280	1,750	2,850	1,830	1,600	2,720	3,430	1,240	2,120
18	1,020	4,000	1,900	4,040	1,970	2,630	1,650	2,000	2,920	2,960	1,370	1,360
19	866	4,200	3,000	3,710	1,970	2,210	1,530	1,870	2,590	2,440	1,300	1,450
20	1,330	3,400	4,000	3,500	1,710	1,970	1,470	2,100	2,440	2,530	1,210	1,870
21	12,100	2,800	3,200	2,770	1,590	1,770	1,480	2,270	2,270	2,960	1,330	1,380
22	10,600	3,300	3,500	2,340	1,530	1,650	1,660	2,310	2,310	2,550	1,350	1,420
23	5,050	4,600	11,000	2,050	1,510	1,540	1,490	1,930	2,700	2,120	1,430	1,280
24	8,180	3,600	9,000	2,760	1,450	1,410	1,400	1,740	2,560	2,050	1,430	1,240
25	5,610	3,800	7,100	4,020	1,350	1,370	1,390	1,580	2,340	2,110	1,490	1,220
26	4,190	11,000	5,000	2,880	1,290	1,340	1,350	1,560	2,240	2,100	1,550	1,070
27	3,170	7,000	3,800	3,400	1,220	1,250	1,340	1,800	2,250	2,010	1,490	965
28	3,210	4,000	3,300	3,390	1,200	1,200	1,260	2,220	2,110	2,190	1,590	910
29	3,160	3,300	2,700	4,860	1,580	1,260	1,280	2,360	1,890	2,210	1,420	1,040
30	2,570	2,600	2,500	3,860	------	1,560	1,210	2,770	2,080	2,000	1,490	6,220
31	2,210	------	4,500	3,910	------	2,010	------	3,310	------	2,000	1,220	------
TOTAL	83,345	124,050	91,920	117,340	55,820	61,670	49,970	51,890	89,460	79,980	49,120	38,535
MEAN	2,689	4,135	2,965	3,785	1,925	1,989	1,666	1,674	2,982	2,580	1,585	1,285
MAX	12,100	11,000	11,000	8,800	4,120	3,800	2,610	3,310	4,800	4,880	2,390	6,220
MIN	572	2,330	1,150	2,050	1,200	1,200	1,210	1,080	1,890	2,000	1,210	768
CFSM	12.9	19.9	14.3	18.2	9.25	9.56	8.01	8.05	14.3	12.4	7.62	6.18
IN.	14.9	22.2	16.4	21.0	9.98	11.0	8.93	9.28	16.0	14.3	8.78	6.89
AC-FT	165,300	246,000	182,300	232,700	110,700	122,300	99,110	102,900	177,400	158,600	97,430	76,430

CAL YR 1963: TOTAL 762,656 MEAN 2,089 MAX 14,700 MIN 572 CFSM 10.0 IN 136.36 AC-FT 1,513,000
WAT YR 1964: TOTAL 893,100 MEAN 2,440 MAX 12,100 MIN 572 CFSM 11.7 IN 159.68 AC-FT 1,771,000

Note.--No gage-height record Dec. 8 to Jan. 8.

12-0412. Hoh River at U.S. Highway 101, near Forks, Wash.

Location.--Lat 47°48'25", long 124°15'00", in NE¼NE¼ sec.33, T.27 N., R.12 W., on left bank 250 ft downstream from U.S. Highway 101, 1 mile downstream from Hell Roaring Creek, and 11 miles southeast of Forks.

Drainage area.--253 sq mi.

Records available.--October 1960 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 163.64 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Mar. 29, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--5 years, 2,476 cfs (1,793,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (16,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1800	16,600	10.58	Nov. 20, 1962	0100	* 45,400	17.64	Nov. 26, 1963	1200	17,800	10.98
Dec. 12, 1960	1200	19,700	11.56	Nov. 25, 1962	1730	20,700	11.84	Dec. 23, 1963	1730	19,700	11.57
Jan. 10, 1961	1500	24,400	12.86	Dec. 15, 1962	0600	18,200	11.08				
Jan. 15, 1961	1500	* 46,000	17.74	Feb. 4, 1963	2200	26,800	13.51	Nov. 30, 1964	1100	* 24,300	12.85
Feb. 21, 1961	0600	25,700	13.21	Feb. 6, 1963	1500	20,800	11.86	Feb. 4, 1965	1800	18,500	11.21
Jan. 3, 1962	1100	* 15,900	10.36	Oct. 21, 1963	2330	* 26,500	13.42				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	440	2.40	1964	Oct. 5, 8, 9, 1963	662	2.86
1962	Oct. 5, 1961	526	2.54	1965	Sept.30, 1965	410	2.80
1963	Jan. 30, 1963	702	a 2.93				

a Occurred Sept. 25, 26, 1963.

1960-65: Maximum discharge, 46,000 cfs Jan. 15, 1961 (gage height, 17.74 ft), from rating curve extended above 12,000 cfs on basis of slope-area measurement of peak flow; minimum, 410 cfs Sept. 30, 1965; minimum gage height, 2.40 ft Sept. 27, 1961.

Remarks.--Records excellent. No regulation or diversion above station. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	650	4,250	3,040	1,690	5,940	7,660	2,370	2,910	2,110	1,340	1,170	3,420
2	600	3,330	2,510	1,550	7,580	4,520	2,780	4,150	2,610	1,480	1,200	2,130
3	550	2,720	2,440	1,490	5,060	3,510	2,910	3,270	2,800	1,450	1,290	1,420
4	500	2,340	2,250	2,500	4,540	2,880	2,420	2,620	2,720	1,530	1,320	1,330
5	500	2,120	1,990	5,300	7,130	2,800	2,120	2,280	2,510	1,680	1,380	1,300
6	1,300	1,970	1,830	4,720	11,000	2,660	1,910	2,020	3,310	1,770	1,210	1,080
7	5,400	1,800	1,710	3,940	6,640	2,380	1,750	1,870	2,970	1,600	1,110	928
8	2,500	1,650	1,630	5,350	4,780	2,720	1,750	1,990	2,250	1,410	1,110	820
9	1,700	1,550	1,580	7,700	5,760	3,020	1,740	2,780	2,280	1,440	1,080	772
10	1,400	2,880	1,530	16,900	4,880	3,270	1,610	2,470	2,000	1,550	1,080	742
11	1,250	5,000	2,170	12,500	5,220	3,490	1,550	2,160	1,820	1,700	1,110	720
12	1,250	2,960	12,900	7,690	4,700	3,520	1,610	1,920	1,710	1,990	1,170	698
13	1,100	2,570	8,220	6,060	4,030	3,460	1,710	1,820	1,650	2,210	1,200	698
14	1,250	2,910	5,320	10,400	4,200	5,970	1,560	1,740	1,760	2,250	1,240	677
15	1,500	2,910	3,760	37,100	5,540	7,400	1,490	1,690	2,150	1,990	1,310	663
16	1,350	5,210	3,030	13,700	4,180	5,180	1,430	1,810	2,480	1,730	1,340	642
17	1,300	8,390	2,730	8,200	4,130	3,790	1,740	1,950	2,710	1,610	1,090	628
18	1,200	6,570	5,370	5,960	3,550	3,030	1,770	2,080	3,000	1,530	1,030	628
19	1,100	6,980	6,350	4,670	5,820	2,750	1,630	2,220	2,640	1,530	1,030	649
20	1,050	6,150	4,130	3,960	11,200	3,520	1,530	2,410	2,170	1,580	1,110	642
21	2,320	4,320	3,250	3,520	21,300	2,780	1,990	2,210	1,920	1,650	1,020	579
22	2,910	3,710	2,790	3,120	8,980	2,660	1,870	1,930	1,740	1,630	962	539
23	6,040	3,570	2,520	2,860	5,780	4,500	1,630	2,110	1,820	1,590	1,020	506
24	6,120	4,220	2,550	2,650	5,540	3,410	1,520	1,890	1,880	1,400	1,000	476
25	3,720	4,160	2,280	2,440	4,380	2,820	1,480	1,650	2,040	1,280	877	482
26	6,060	3,790	2,170	2,280	3,720	2,720	1,410	1,830	2,030	1,310	836	458
27	5,180	2,960	1,980	2,130	3,690	2,350	1,350	1,880	1,700	1,330	780	458
28	5,760	2,540	1,830	2,040	4,250	2,120	1,430	1,770	1,530	1,200	765	1,000
29	3,710	2,290	1,740	2,590	------	1,970	2,550	1,710	1,510	1,160	836	877
30	3,120	2,240	1,650	7,400	------	1,930	2,760	1,690	1,420	1,130	936	720
31	4,070	------	1,850	5,940	------	1,920	------	1,670	------	1,160	2,880	------
TOTAL	76,460	108,060	99,100	198,350	173,520	106,710	55,370	66,500	65,240	48,210	35,492	26,682
MEAN	2,466	3,602	3,197	6,398	6,197	3,442	1,846	2,145	2,175	1,555	1,145	889
MAX	6,120	8,390	12,900	37,100	21,300	7,660	2,910	4,150	3,310	2,250	2,880	3,420
MIN	500	1,550	1,530	1,490	3,550	1,920	1,350	1,650	1,420	1,130	765	458
CFSM	9.75	14.2	12.6	25.3	24.5	13.6	7.30	8.48	8.60	6.15	4.53	3.51
IN.	11.24	15.88	14.57	29.16	25.51	15.69	8.14	9.78	9.59	7.09	5.22	3.92
AC-FT	151,700	214,300	196,600	393,400	344,200	211,700	109,800	131,900	129,400	95,620	70,400	52,920

CAL YR 1960: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 1,059,694 MEAN 2,903 MAX 37,100 MIN 458 CFSM 11.5 IN 155.79 AC-FT 2,102,000

12-0412. Hoh River at U.S. Highway 101, near Forks, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	705	2,250	7,040	3,310	1,650	840	1,460	3,510	1,370	1,580	1,500	930
2	614	1,850	4,300	4,440	1,910	858	1,400	2,860	3,040	1,410	1,340	903
3	572	1,810	3,460	13,200	2,320	804	1,310	3,430	2,900	1,310	1,410	849
4	552	1,530	4,800	6,610	2,110	1,580	1,370	2,780	2,340	1,380	1,390	786
5	698	1,410	4,060	5,020	1,740	1,890	1,470	2,320	2,020	1,630	1,490	822
6	1,170	1,310	2,970	4,500	1,670	1,640	4,000	2,070	1,830	1,560	1,790	831
7	1,080	1,280	2,550	5,240	2,600	1,520	4,650	1,850	1,760	1,380	2,090	786
8	796	1,220	2,240	4,630	2,520	1,570	2,760	1,770	2,020	1,530	1,920	718
9	2,660	2,800	2,000	3,780	2,330	1,450	2,220	1,990	2,060	1,570	1,410	668
10	2,510	7,590	1,830	3,130	2,040	1,290	1,930	1,970	1,810	1,580	1,240	804
11	1,590	4,520	1,690	2,740	1,820	1,210	1,730	1,800	1,640	1,510	1,180	957
12	4,340	2,940	1,610	2,490	1,710	1,130	1,620	1,730	1,670	1,510	1,290	752
13	4,490	2,420	1,650	2,240	1,730	1,060	1,640	1,690	1,590	1,410	1,220	1,290
14	2,510	2,300	1,690	2,170	1,980	1,010	1,910	1,550	1,650	1,360	1,060	1,850
15	2,070	1,970	1,560	2,060	1,770	1,000	2,130	1,500	1,940	1,300	1,050	1,210
16	1,740	1,760	1,820	1,920	1,590	1,110	1,740	1,430	2,040	1,200	1,380	966
17	1,440	1,670	3,140	1,850	1,490	1,080	1,530	1,430	1,850	1,350	1,500	894
18	1,230	1,690	2,480	1,690	1,380	1,050	1,510	1,440	1,730	1,190	1,550	912
19	1,120	1,580	3,100	1,580	1,290	1,050	1,700	1,370	1,670	1,100	1,670	930
20	1,030	1,420	5,200	1,440	1,200	1,130	1,740	1,260	1,730	1,150	1,670	894
21	920	1,830	5,740	1,370	1,140	1,160	1,850	1,260	1,800	1,310	1,710	930
22	1,010	2,470	6,860	1,310	1,100	1,490	1,620	1,460	1,800	1,410	1,300	885
23	2,040	2,080	7,770	1,260	1,050	2,490	1,570	1,640	1,880	1,560	1,140	770
24	1,480	1,810	6,640	1,310	984	2,880	2,470	1,520	2,030	1,690	1,110	736
25	2,070	1,600	4,390	1,920	939	2,450	2,800	1,500	2,040	1,690	1,110	778
26	4,220	1,490	3,440	2,340	894	2,090	2,410	1,570	2,480	1,620	1,010	822
27	4,690	2,850	2,850	3,270	867	1,890	4,140	1,620	2,380	1,630	939	736
28	3,060	4,820	4,650	2,240	867	1,650	3,980	1,750	1,850	1,730	948	2,360
29	2,240	4,590	7,040	1,930	------	1,490	3,100	1,690	1,750	1,590	957	3,020
30	2,000	5,860	5,600	1,800	------	1,400	2,760	1,510	1,790	1,490	903	2,160
31	1,890	------	3,860	1,730	------	1,410	------	1,400	------	1,530	894	------
TOTAL	58,537	74,720	118,030	94,520	44,691	44,672	66,520	56,670	58,460	45,260	41,171	31,949
MEAN	1,888	2,491	3,807	3,049	1,596	1,441	2,217	1,828	1,949	1,460	1,328	1,065
MAX	4,690	7,590	7,770	13,200	2,600	2,880	4,650	3,510	3,040	1,730	2,090	3,020
MIN	552	1,220	1,560	1,260	867	804	1,310	1,260	1,370	1,100	894	668
CFSM	7.46	9.85	15.0	12.1	6.31	5.70	8.76	7.23	7.70	5.77	5.25	4.21
IN.	8.60	10.98	17.35	13.89	6.57	6.57	9.78	8.33	8.59	6.65	6.05	4.70
AC-FT	116,100	148,200	234,100	187,500	88,640	88,610	131,900	112,400	116,000	89,770	81,660	63,370

CAL YR 1961: TOTAL 1,027,361 MEAN 2,815 MAX 37,100 MIN 458 CFSM 11.1 IN 151.03 AC-FT 2,038,000
WAT YR 1962: TOTAL 735,200 MEAN 2,014 MAX 13,200 MIN 552 CFSM 7.96 IN 108.06 AC-FT 1,458,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,640	1,070	3,900	9,950	804	2,660	1,940	1,930	1,380	1,100	1,160	1,110
2	1,470	1,110	3,980	8,920	1,400	2,400	1,710	2,360	1,410	1,110	1,140	1,060
3	2,700	1,080	3,540	8,110	9,800	2,090	1,730	2,210	1,350	1,130	1,140	992
4	1,990	1,930	3,490	4,940	15,900	1,920	2,270	1,890	1,370	1,210	1,220	1,030
5	1,510	3,530	5,980	3,760	13,000	1,750	2,480	4,500	1,670	1,300	1,220	1,040
6	1,350	2,630	7,450	3,100	15,500	1,640	3,190	3,340	1,470	1,170	1,210	952
7	1,560	2,180	4,650	2,720	9,660	1,540	2,850	2,680	1,380	1,160	1,190	944
8	2,600	4,210	4,480	2,460	5,340	1,450	2,610	2,210	1,570	1,620	1,210	1,020
9	3,160	2,690	3,690	2,260	4,050	1,380	2,690	1,930	1,480	1,620	1,240	1,070
10	2,440	3,330	3,270	2,040	3,240	1,310	2,190	1,710	1,430	1,500	1,220	1,230
11	2,250	3,560	3,000	1,860	2,730	1,300	1,950	1,590	1,570	1,490	1,270	1,200
12	7,020	3,460	2,780	1,730	2,400	1,220	1,880	1,540	1,730	1,400	1,270	1,110
13	9,320	4,070	3,270	1,640	2,240	1,150	1,910	1,450	1,540	1,380	1,320	2,180
14	4,520	3,840	7,020	1,570	2,100	1,220	2,140	1,370	1,490	1,410	1,320	1,870
15	3,000	3,110	13,200	1,490	1,930	1,180	2,620	1,420	1,570	1,370	1,090	1,290
16	2,380	2,550	7,360	1,410	1,930	1,180	2,100	1,390	1,690	1,230	1,020	1,070
17	2,030	2,560	4,900	1,350	1,870	1,080	1,830	1,350	1,710	1,210	1,000	968
18	1,940	2,250	3,680	1,260	1,970	1,110	1,750	1,520	1,690	1,180	960	856
19	1,920	21,200	3,220	1,180	2,840	1,860	1,810	1,890	1,600	1,210	1,160	788
20	1,850	21,400	2,780	1,130	2,720	2,540	1,600	2,130	1,470	1,270	1,070	780
21	2,030	7,590	2,650	1,070	2,060	2,440	1,480	2,280	1,450	2,460	968	872
22	1,890	5,260	2,410	1,020	1,820	2,340	1,430	2,340	1,370	5,560	936	840
23	1,620	4,080	2,160	984	1,670	1,820	1,390	1,920	1,200	3,180	928	1,080
24	1,470	4,900	1,990	948	1,570	1,580	1,340	1,660	1,250	2,150	1,340	880
25	1,390	11,400	1,850	912	2,120	2,040	1,270	1,540	1,300	1,750	1,160	772
26	1,490	9,010	1,750	876	6,050	2,000	1,210	1,480	1,210	1,580	1,040	758
27	1,390	6,100	1,750	849	3,480	2,400	1,170	1,440	1,180	1,510	960	920
28	1,260	4,540	2,130	795	2,760	2,750	1,130	1,410	1,140	1,450	944	1,040
29	1,320	4,560	5,960	752	------	2,720	1,280	1,520	1,050	1,340	952	1,000
30	1,260	4,940	13,400	718	------	2,500	1,820	1,560	1,050	1,180	1,010	864
31	1,130	------	7,600	786	------	2,230	------	1,460	------	1,210	1,080	------
TOTAL	72,900	154,140	139,290	72,590	122,954	56,800	56,770	59,020	42,770	49,440	34,748	31,586
MEAN	2,352	5,138	4,493	2,342	4,391	1,832	1,892	1,904	1,426	1,595	1,121	1,053
MAX	9,320	21,400	13,400	9,950	15,900	2,750	3,190	4,500	1,730	5,560	1,340	2,180
MIN	1,130	1,070	1,750	718	804	1,080	1,130	1,350	1,050	1,100	928	758
CFSM	9.30	20.3	17.8	9.26	17.4	7.24	7.48	7.53	5.64	6.30	4.43	4.16
IN.	10.72	22.66	20.48	10.67	18.07	8.35	8.34	8.68	6.29	7.27	5.11	4.64
AC-FT	144,600	305,700	276,300	144,000	243,900	112,700	112,600	117,100	84,830	98,060	68,920	62,650

CAL YR 1962: TOTAL 850,243 MEAN 2,329 MAX 21,400 MIN 668 CFSM 9.21 IN 124.99 AC-FT 1,686,000
WAT YR 1963: TOTAL 893,008 MEAN 2,447 MAX 21,400 MIN 718 CFSM 9.67 IN 131.28 AC-FT 1,771,000

12-0412. Hoh River at U.S. Highway 101, near Forks, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	795	2,960	2,620	10,600	5,140	3,190	2,710	1,390	3,740	2,330	2,180	1,280
2	712	4,100	2,360	5,880	3,890	2,190	2,230	1,330	3,670	2,300	2,520	1,220
3	712	3,180	2,140	5,400	3,190	2,010	1,890	1,260	2,990	2,200	2,520	1,170
4	810	3,980	2,090	4,690	3,830	2,410	1,980	1,240	4,630	2,190	2,800	1,110
5	705	3,480	2,370	4,440	3,460	2,650	1,960	1,260	4,860	2,300	2,300	1,090
6	848	3,140	2,400	4,620	2,800	2,290	1,790	1,210	3,830	2,250	2,010	1,060
7	735	3,850	2,110	3,600	2,440	1,980	1,690	1,210	4,070	2,680	2,070	1,060
8	676	4,050	1,980	3,180	2,190	2,150	1,680	1,260	3,870	2,980	1,960	1,070
9	690	3,760	1,810	3,780	2,020	2,270	1,700	1,450	3,730	2,640	1,910	943
10	780	3,500	1,670	4,540	2,150	2,880	2,020	1,660	4,070	2,230	1,870	872
11	944	2,790	1,560	3,580	2,110	5,980	2,200	1,560	3,640	2,480	1,810	848
12	920	5,380	1,470	3,010	1,960	3,800	2,520	1,650	3,230	2,910	2,010	840
13	4,680	6,440	1,390	3,820	1,920	2,770	2,260	1,740	3,010	2,900	1,880	832
14	3,140	9,940	1,400	3,650	1,820	4,250	2,680	1,550	2,990	3,110	1,620	840
15	2,350	6,460	1,520	4,120	2,270	4,670	3,230	1,420	2,930	5,180	1,480	961
16	1,620	5,460	1,690	9,720	2,430	3,360	2,590	1,390	3,160	5,080	1,420	1,510
17	1,330	5,880	2,090	7,230	2,460	3,500	2,180	1,600	2,900	3,730	1,390	2,560
18	1,160	4,600	2,250	5,500	2,640	3,210	1,930	2,070	3,040	3,240	1,500	1,670
19	992	4,940	3,780	5,040	2,540	2,640	1,770	1,960	2,740	2,600	1,480	1,660
20	1,500	3,800	4,960	4,630	2,160	2,360	1,670	2,150	2,580	2,600	1,340	2,300
21	13,200	3,260	3,500	3,570	1,960	2,160	1,690	2,500	2,410	3,190	1,470	1,710
22	13,800	3,980	3,960	2,930	1,830	2,050	2,070	2,720	2,400	2,820	1,490	1,750
23	6,110	5,770	16,700	2,580	1,790	1,880	1,760	2,160	2,770	2,300	1,560	1,540
24	10,500	4,140	10,200	3,570	1,710	1,740	1,610	1,940	2,680	2,190	1,590	1,480
25	7,020	4,580	8,030	5,160	1,600	1,750	1,570	1,750	2,440	2,220	1,640	1,450
26	5,520	13,500	5,160	3,580	1,500	1,750	1,540	1,670	2,330	2,230	1,760	1,270
27	4,000	7,900	4,440	4,390	1,430	1,560	1,580	1,850	2,390	2,150	1,690	1,140
28	4,010	4,770	3,730	4,330	1,430	1,460	1,460	2,250	2,300	2,320	1,870	1,030
29	4,020	3,640	3,090	5,960	2,270	1,470	1,510	2,430	2,010	2,390	1,670	1,200
30	3,180	3,010	2,960	4,710	------	1,760	1,400	2,720	2,110	2,180	1,790	6,880
31	2,680	------	5,260	4,790	------	2,190	------	3,310	------	2,190	1,450	------
TOTAL	100,139	146,240	110,690	146,600	68,940	80,330	58,870	55,660	93,520	84,110	56,050	44,346
MEAN	3,230	4,875	3,571	4,729	2,377	2,591	1,962	1,795	3,117	2,713	1,808	1,478
MAX	13,800	13,500	16,700	10,600	5,140	5,980	3,230	3,310	4,860	5,180	2,800	6,880
MIN	676	2,790	1,390	2,580	1,430	1,460	1,400	1,210	2,010	2,150	1,340	832
CFSM	12.8	19.3	14.1	18.7	9.40	10.2	7.75	7.09	12.3	10.7	7.15	5.84
IN.	14.72	21.50	16.27	21.55	10.13	11.81	8.65	8.18	13.75	12.36	8.24	6.52
AC-FT	198,600	290,100	219,600	290,800	136,700	159,300	116,800	110,400	185,500	166,800	111,200	87,960

CAL YR 1963: TOTAL 883,747 MEAN 2,421 MAX 16,700 MIN 676 CFSM 9.57 IN 129.91 AC-FT 1,753,000

WAT YR 1964: TOTAL 1,045,495 MEAN 2,857 MAX 16,700 MIN 676 CFSM 11.3 IN 153.68 AC-FT 2,074,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,940	3,160	12,400	3,220	4,970	2,740	1,270	2,240	1,620	1,590	1,420	698
2	6,280	2,010	9,010	2,750	3,810	2,400	1,150	1,850	1,840	1,770	1,470	698
3	3,670	1,980	5,550	1,960	3,200	2,230	1,050	2,150	2,070	1,820	1,300	621
4	2,600	5,260	4,030	1,680	11,200	2,100	990	2,480	1,940	1,830	1,180	593
5	2,200	2,760	3,160	1,600	11,300	2,020	963	2,100	1,970	1,770	1,140	572
6	2,010	2,110	2,690	1,620	6,570	1,940	936	1,830	2,060	1,770	1,120	565
7	1,890	1,870	2,740	1,450	4,640	1,870	918	1,670	2,020	1,890	1,120	551
8	2,270	1,620	4,480	1,460	5,070	1,820	868	1,580	2,040	1,730	1,120	565
9	2,480	1,480	3,760	1,390	3,920	1,800	868	1,580	2,050	1,400	1,120	572
10	1,980	1,460	3,830	1,310	3,280	1,870	844	1,700	1,960	1,300	1,140	572
11	1,710	1,650	3,100	1,340	2,870	1,900	804	1,710	2,270	1,240	1,160	579
12	1,670	1,440	3,070	1,280	2,780	1,830	788	1,870	2,070	1,150	1,760	565
13	1,760	1,360	2,990	1,320	4,220	1,680	836	1,830	1,700	1,190	2,540	551
14	2,980	1,230	2,570	1,970	3,320	1,590	820	1,670	1,550	1,350	1,610	868
15	2,700	1,140	2,330	3,180	3,050	1,520	828	1,890	1,450	1,450	1,310	1,140
16	2,220	1,070	2,010	3,920	4,770	1,450	1,040	4,430	1,410	1,400	1,220	983
17	1,940	1,030	1,840	3,470	4,640	1,350	1,090	3,030	1,760	1,370	1,170	737
18	1,690	1,010	1,730	3,160	3,690	1,280	981	2,370	1,970	1,250	1,190	635
19	1,590	961	1,770	3,370	3,650	1,210	1,910	2,110	1,720	1,130	1,310	591
20	1,490	907	1,730	3,780	3,300	1,190	6,420	2,040	1,660	1,140	1,380	564
21	1,390	880	1,680	3,760	2,920	1,140	6,660	1,920	1,610	1,200	1,270	597
22	1,310	864	2,260	3,070	2,740	1,130	3,690	1,850	1,490	1,070	1,160	683
23	1,230	2,700	2,040	3,450	2,400	1,070	2,660	1,830	1,530	1,110	1,100	739
24	1,190	6,710	1,760	4,750	2,220	1,040	2,310	1,760	1,650	1,210	1,040	732
25	1,110	3,450	1,580	3,250	2,070	999	2,230	1,780	1,440	1,390	972	682
26	1,020	3,110	2,360	4,120	3,980	963	2,190	1,800	1,320	1,480	1,010	598
27	961	2,390	2,310	8,310	5,030	909	2,560	1,960	1,240	1,480	981	512
28	916	2,010	1,920	7,860	3,440	1,030	2,570	2,110	1,180	1,410	852	468
29	925	7,140	1,730	7,240	------	1,820	2,090	2,010	1,310	1,300	740	430
30	1,230	19,500	1,580	11,700	------	1,410	2,090	1,880	1,450	1,320	670	433
31	1,370	------	1,440	7,640	------	1,170	------	1,710	------	1,370	656	------
TOTAL	61,722	84,262	95,450	110,380	119,050	48,471	54,424	62,740	51,350	43,880	37,231	19,094
MEAN	1,991	2,809	3,079	3,561	4,252	1,564	1,814	2,024	1,712	1,415	1,201	636
MAX	6,280	19,500	12,400	11,700	11,300	2,740	6,660	4,430	2,270	1,890	2,540	1,140
MIN	916	864	1,440	1,280	2,070	909	788	1,580	1,180	1,070	656	430
CFSM	7.87	11.1	12.2	14.1	16.8	6.18	7.17	8.00	6.77	5.59	4.75	2.51
IN.	9.07	12.39	14.03	16.23	17.50	7.13	8.00	9.22	7.55	6.45	5.47	2.81
AC-FT	122,400	167,100	189,300	218,900	236,100	96,140	107,900	124,400	101,900	87,030	73,850	37,870

CAL YR 1964: TOTAL 929,860 MEAN 2,541 MAX 19,500 MIN 832 CFSM 10.0 IN 136.69 AC-FT 1,844,000

WAT YR 1965: TOTAL 788,054 MEAN 2,159 MAX 19,500 MIN 430 CFSM 8.53 IN 115.84 AC-FT 1,563,000

12-0415. Soleduck River near Fairholm, Wash.

Location.--Lat 48°02'40", long 123°57'35", in lot 4, SE¼SW¼ sec.35, T.30 N., R.10 W., on right bank 300 ft downstream from South Fork, 2.5 miles southwest of Fairholm, and 17 miles east of Beaver.

Drainage area.--83.8 sq mi.

Records available.--October 1917 to September 1921, October 1933 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 1,060 ft (from topographic map). October 1917 to September 1921 graphic water-stage recorder and Oct. 4 to Nov. 4, 1933, staff gage, at same site at datum 1.2 ft higher. Nov. 9, 1933, to Sept. 16, 1964, graphic water-stage recorder at same site and datum.

Average discharge.--36 years, 623 cfs (451,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (6,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 12, 1960	0900	7,040	8.23	Nov. 19, 1962	1930	* 13,900	12.22	Nov. 30, 1964	0930	* 8,030	8.85
Jan. 10, 1961	1400	7,610	8.59	Nov. 25, 1962a	-	8,540	9.17	Feb. 4, 1965	1915	6,130	7.66
Jan. 15, 1961	1230	* 15,300	12.90	Feb. 4, 1963	1900	7,760	8.68				
Feb. 21, 1961	0730	8,000	8.83								
				Oct. 21, 1963	2300	* 8,350	9.05				
Jan. 3, 1962	0800	* 5,770	7.44	Nov. 26, 1963	1030	7,170	8.31				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.25-27, 1961	a 75	-	1964	Oct. 3, 1963	76	0.90
1962	Oct. 4, 5, 1961	80	b 0.95	1965	Sept.28-30, 1965	69	.86
1963	Sept.30, 1963	77	.91				

a Minimum daily.
b Occurred Oct. 5, 1961.

1917-21, 1933-65: Maximum discharge, 23,500 cfs Nov. 26, 1949 (gage height, 16.42 ft, from high watermark in well), from rating curve extended above 13,000 cfs on basis of slope-area measurement of peak flow; minimum, 51 cfs Sept. 11, 12, 1944; minimum gage height, 0.79 ft Oct. 17-20, 1952.

Remarks.--Records excellent except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1182: 1918-19, 1920(M), 1921, 1934-39, 1940(M), 1941-42, 1943(M), 1944-46, 1947-48(M). WSP 1216: Drainage area. WSP 1286: 1939, 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	87	939	677	399	2,340	2,190	820	802	652	280	140	517
2	86	722	600	367	2,700	1,250	1,020	1,160	754	283	137	265
3	84	585	615	359	1,570	967	1,160	862	760	283	134	167
4	83	501	546	961	1,400	802	855	700	706	283	130	144
5	83	429	488	2,170	2,090	736	688	620	635	340	128	140
6	125	386	447	1,880	3,110	646	590	545	748	331	128	124
7	721	348	420	1,420	1,940	590	518	504	615	292	124	116
8	385	319	407	1,780	1,440	635	500	513	500	265	122	107
9	225	302	395	2,620	1,680	625	487	625	565	262	118	103
10	180	644	386	5,590	1,490	620	459	652	487	265	114	99
11	163	1,030	656	3,570	1,560	658	447	595	455	283	110	95
12	163	605	4,450	2,240	1,350	760	455	531	435	292	109	92
13	148	528	2,520	1,620	1,130	827	459	508	419	283	107	90
14	163	560	1,570	3,620	1,170	1,620	419	487	455	272	106	89
15	174	660	1,020	11,400	1,350	2,060	407	487	518	255	109	88
16	165	1,580	794	3,930	1,050	1,480	411	545	600	232	110	86
17	148	2,620	672	2,220	911	1,110	491	620	595	222	103	83
18	137	1,890	1,580	1,630	790	911	439	694	610	208	100	82
19	133	2,230	1,870	1,280	1,280	827	411	772	513	203	96	81
20	126	1,750	1,170	1,090	3,260	953	383	808	439	200	95	80
21	240	1,080	884	967	6,420	802	415	700	387	196	94	79
22	399	890	758	848	2,520	784	423	610	364	189	92	78
23	858	860	682	754	1,490	1,190	411	595	379	182	91	77
24	1,200	1,060	682	694	1,420	995	403	518	387	176	90	76
25	728	960	605	635	1,130	827	395	487	411	167	89	75
26	1,690	776	565	580	932	742	379	550	387	163	88	75
27	1,660	640	519	536	848	658	372	565	331	157	86	75
28	1,320	565	474	491	938	590	451	504	304	153	85	100
29	764	514	447	630	------	590	827	491	307	150	84	95
30	630	506	420	2,450	------	570	760	483	289	144	90	90
31	905	------	420	1,830	------	615	------	491	------	146	338	------
TOTAL	13,973	26,479	27,739	60,561	49,309	28,630	16,255	19,024	15,007	7,157	3,547	3,468
MEAN	451	883	895	1,954	1,761	924	542	614	500	231	114	116
MAX	1,690	2,620	4,450	11,400	6,420	2,190	1,160	1,160	760	340	338	517
MIN	83	302	386	359	790	570	372	483	289	144	84	75
CFSM	5.38	10.5	10.7	23.3	21.0	11.0	6.47	7.32	5.97	2.76	1.37	1.38
IN.	6.20	11.8	12.3	26.9	21.9	12.7	7.21	8.44	6.66	3.18	1.57	1.54
AC-FT	27,720	52,520	55,020	120,100	97,800	56,790	32,240	37,730	29,770	14,200	7,040	6,880

CAL YR 1960: TOTAL 225,555 MEAN 616 MAX 6,570 MIN 83 CFSM 7.35 IN 100.10 AC-FT 447,400
WAT YR 1961: TOTAL 271,149 MEAN 743 MAX 11,400 MIN 75 CFSM 8.86 IN 120.33 AC-FT 537,800

12-0415. Soleduck River near Fairholm, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	90	630	1,980	1,100	500	225	368	939	360	347	188	105
2	85	476	1,200	2,090	630	230	371	814	884	320	176	100
3	85	448	890	4,490	760	220	354	1,030	676	305	185	95
4	82	378	1,530	1,950	640	260	402	827	565	326	198	95
5	115	338	1,190	1,540	500	340	444	688	508	368	198	95
6	225	320	848	1,380	470	310	1,330	585	476	392	202	100
7	208	311	712	1,430	660	290	1,320	512	488	332	208	95
8	134	305	595	1,320	570	300	766	496	580	338	195	95
9	764	1,100	516	1,110	520	280	580	512	550	341	180	90
10	509	2,800	460	918	480	270	488	516	460	329	160	95
11	344	1,530	424	790	440	260	432	492	420	317	150	102
12	986	911	396	712	430	250	424	468	428	311	160	96
13	786	724	392	635	410	240	456	452	406	293	150	190
14	420	646	374	585	420	228	590	428	464	281	140	195
15	317	524	360	528	390	230	676	410	516	266	130	138
16	263	464	364	500	380	260	504	402	516	255	140	112
17	230	428	520	472	370	255	436	416	460	275	150	104
18	208	406	448	436	350	255	440	410	432	248	160	99
19	188	368	987	402	330	260	496	378	416	238	165	96
20	183	338	1,700	374	310	281	484	354	432	238	170	94
21	167	396	1,660	374	300	266	508	360	436	248	170	93
22	189	488	2,040	364	290	281	456	424	436	250	140	91
23	436	413	2,750	338	280	341	456	468	456	252	130	90
24	302	357	2,250	335	270	428	715	420	476	252	120	88
25	696	329	1,330	440	260	440	700	424	468	242	120	87
26	1,130	320	974	567	250	410	590	452	500	230	110	85
27	1,010	874	796	766	240	378	1,050	492	436	220	105	87
28	688	1,500	1,530	570	230	332	1,000	508	388	220	110	265
29	504	1,330	2,620	512	------	305	784	448	396	210	105	565
30	500	1,670	1,850	512	------	296	688	385	396	200	100	290
31	512	------	1,240	508	------	323	------	357	------	200	100	------
TOTAL	12,356	21,122	34,926	28,048	11,680	9,044	18,308	15,867	14,425	8,644	4,715	3,932
MEAN	399	704	1,127	905	417	292	610	512	481	279	152	131
MAX	1,130	2,800	2,750	4,490	760	440	1,330	1,030	884	392	208	565
MIN	82	305	360	335	230	220	354	354	360	200	100	85
CFSM	4.76	8.40	13.4	10.8	4.98	3.48	7.28	6.11	5.74	3.33	1.81	1.56
IN.	5.48	9.37	15.5	12.4	5.18	4.01	8.12	7.04	6.40	3.84	2.09	1.75
AC-FT	24,510	41,890	69,270	55,630	23,170	17,940	36,310	31,470	28,610	17,150	9,350	7,800

CAL YR 1961: TOTAL 271,362 MEAN 743 MAX 11,400 MIN 75 CFSM 8.87 IN 120.43 AC-FT 538,200
WAT YR 1962: TOTAL 183,067 MEAN 502 MAX 4,490 MIN 82 CFSM 5.99 IN 81.24 AC-FT 363,100

Note.--No gage-height record Feb. 1 to May 13, Aug. 9 to Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	195	200	1,040	3,280	227	802	396	520	329	202	181	103
2	169	195	1,060	2,970	603	676	368	620	335	193	175	103
3	354	185	862	2,540	3,110	590	410	560	317	191	167	100
4	255	313	911	1,520	5,310	528	560	540	350	193	162	97
5	202	652	2,470	1,150	3,380	496	700	1,200	416	191	156	95
6	205	520	2,600	946	4,430	460	897	900	335	183	152	93
7	278	541	1,640	796	2,520	432	760	700	323	193	148	90
8	666	949	1,560	712	1,460	399	646	600	357	273	145	89
9	918	652	1,280	635	1,120	378	630	550	329	265	138	89
10	605	1,110	1,130	550	897	360	580	500	311	239	136	93
11	492	1,230	1,050	496	760	347	540	450	329	222	131	96
12	1,720	1,150	946	476	658	329	520	420	350	206	129	90
13	2,620	1,210	1,000	456	620	311	540	400	314	193	128	192
14	1,130	1,030	1,830	432	570	311	600	385	302	191	124	187
15	706	820	4,120	406	524	293	680	402	311	195	123	136
16	528	670	2,300	385	504	290	540	385	317	183	120	132
17	448	620	1,510	368	484	282	500	382	305	175	115	108
18	410	565	1,160	344	480	273	480	460	302	167	118	102
19	385	7,550	1,020	329	830	406	500	570	293	163	154	96
20	364	3,950	848	314	706	555	430	620	270	171	128	93
21	371	2,000	790	302	550	580	400	640	279	317	121	90
22	344	1,300	706	290	500	605	370	610	262	762	116	92
23	305	1,000	625	279	464	476	360	480	234	464	116	102
24	281	1,300	560	270	432	420	340	416	234	317	131	95
25	263	3,000	524	262	738	464	330	385	241	268	129	89
26	266	2,000	500	249	2,010	436	320	368	229	239	123	85
27	252	1,400	488	241	1,120	524	310	360	224	222	115	82
28	238	1,200	560	229	890	555	300	354	224	206	109	80
29	228	1,100	2,000	213	------	516	320	374	209	195	106	79
30	218	1,400	4,330	209	------	472	480	382	202	189	103	79
31	210	------	2,320	231	------	432	------	350	------	185	103	------
TOTAL	15,626	39,812	43,740	21,880	35,897	13,998	14,807	15,883	8,833	7,353	4,102	3,057
MEAN	504	1,327	1,411	706	1,282	452	494	512	294	237	132	102
MAX	2,620	7,550	4,330	3,280	5,310	802	897	1,200	416	762	181	192
MIN	169	185	488	209	227	273	300	350	202	163	103	79
CFSM	6.02	15.8	16.8	8.42	15.3	5.39	5.89	6.11	3.51	2.83	1.58	1.22
IN.	6.93	17.7	19.4	9.71	15.9	6.21	6.57	7.05	3.92	3.26	1.82	1.36
AC-FT	30,990	78,970	86,760	43,400	71,200	27,760	29,370	31,500	17,520	14,580	8,140	6,060

CAL YR 1962: TOTAL 213,841 MEAN 586 MAX 7,550 MIN 85 CFSM 6.99 IN 94.90 AC-FT 424,100
WAT YR 1963: TOTAL 224,988 MEAN 616 MAX 7,550 MIN 79 CFSM 7.36 IN 99.85 AC-FT 446,300

Note.--No gage-height record Apr. 9 to May 13.

12-0415. Soleduck River near Fairholm, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	77	890	754	3,460	1,540	605	1,080	368	1,560	730	448	224
2	77	1,160	682	1,790	1,140	480	766	347	1,300	718	512	215
3	82	876	635	1,450	925	440	610	335	1,030	670	476	206
4	114	1,100	682	1,270	1,320	496	635	347	1,420	676	504	200
5	99	904	718	1,090	1,200	528	590	354	1,390	688	436	191
6	109	820	694	1,110	918	468	545	347	1,220	640	396	185
7	102	1,100	600	925	748	424	545	360	1,300	742	396	187
8	99	1,260	600	802	652	428	570	402	1,180	760	374	191
9	96	1,080	540	855	590	424	575	532	1,330	658	382	181
10	96	1,060	492	834	595	424	640	595	1,420	590	360	171
11	95	841	468	730	555	1,090	652	528	1,270	670	341	165
12	103	1,530	444	670	508	754	658	590	1,090	772	350	163
13	508	1,710	424	953	480	555	600	600	1,050	730	335	158
14	290	2,540	410	932	452	962	670	500	1,040	772	302	158
15	202	1,800	444	1,050	460	1,230	827	456	981	1,050	284	160
16	165	1,640	516	3,320	476	876	670	464	1,090	1,020	270	204
17	145	1,670	688	1,770	488	939	575	550	918	754	265	436
18	139	1,230	784	1,240	532	869	512	712	918	664	311	238
19	128	1,030	1,320	1,110	570	700	468	694	802	570	293	243
20	227	808	1,490	1,030	500	600	448	778	760	600	259	324
21	4,270	706	1,040	820	464	540	448	820	706	670	259	242
22	3,730	1,010	1,310	700	456	488	520	772	736	585	252	229
23	1,490	1,820	5,080	605	460	452	472	630	890	508	252	207
24	2,840	1,360	2,900	918	464	413	452	575	814	504	245	194
25	1,860	1,480	2,390	1,490	444	392	456	516	724	508	255	187
26	1,360	4,930	1,520	1,040	416	371	448	516	688	500	268	177
27	1,000	2,390	1,330	1,130	388	350	432	640	700	488	265	170
28	1,130	1,430	1,140	1,140	378	344	410	932	676	508	293	164
29	1,240	1,080	939	2,060	444	364	410	1,040	600	500	259	198
30	960	890	897	1,470	------	492	382	1,240	670	456	287	2,040
31	766	------	1,400	1,460	------	808	------	1,470	------	444	249	------
TOTAL	23,599	42,145	33,331	39,224	18,563	18,306	17,066	19,010	30,273	20,145	10,178	8,008
MEAN	761	1,405	1,075	1,265	640	591	569	613	1,009	650	328	267
MAX	4,270	4,930	5,080	3,460	1,540	1,230	1,080	1,470	1,560	1,050	512	2,040
MIN	77	706	410	605	378	344	382	335	600	444	245	158
CFSM	9.08	16.8	12.8	15.1	7.64	7.05	6.79	7.32	12.0	7.75	3.92	3.19
IN.	10.5	18.7	14.8	17.4	8.24	8.12	7.57	8.44	13.4	8.94	4.52	3.55
AC-FT	46,810	83,590	66,110	77,800	36,820	36,310	33,850	37,710	60,050	39,960	20,190	15,880

CAL YR 1963: TOTAL 224,885 MEAN 616 MAX 5,310 MIN 77 CFSM 7.35 IN 99.80 AC-FT 446,100
WAT YR 1964: TOTAL 279,848 MEAN 765 MAX 5,080 MIN 77 CFSM 9.12 IN 124.20 AC-FT 555,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	936	489	3,350	396	1,330	769	357	520	471	325	136	93
2	1,350	338	2,210	394	1,000	667	316	464	551	335	134	92
3	768	474	1,350	340	836	615	293	482	568	326	132	90
4	526	1,330	992	316	3,400	600	280	524	522	316	131	89
5	425	655	789	300	3,940	590	271	476	534	309	128	86
6	366	494	666	279	2,090	584	261	440	560	306	123	84
7	330	435	664	262	1,370	581	252	425	528	311	120	84
8	346	373	1,130	255	1,300	579	246	419	533	283	118	83
9	341	335	946	244	1,020	602	249	451	525	251	117	81
10	301	324	969	236	851	673	243	517	493	263	114	81
11	275	320	763	233	731	706	233	548	558	239	112	80
12	256	296	692	228	705	659	232	622	465	223	222	79
13	263	277	644	262	1,080	580	247	563	393	218	273	80
14	419	258	569	516	861	524	238	484	383	224	171	96
15	518	247	509	879	739	489	254	684	364	224	139	114
16	427	242	429	1,200	859	453	332	1,550	372	216	126	106
17	374	246	380	1,120	1,100	416	310	935	441	208	118	89
18	331	236	360	1,030	1,050	388	288	754	455	197	114	83
19	310	225	340	1,170	1,200	365	690	675	405	189	115	80
20	291	217	333	1,260	1,110	354	2,040	633	380	192	138	79
21	271	209	349	1,080	891	342	2,270	597	362	190	136	76
22	254	207	377	852	743	342	1,180	568	336	175	120	75
23	241	669	351	752	641	322	821	565	357	167	114	74
24	234	1,740	325	808	578	303	713	528	359	167	114	72
25	224	865	307	658	545	295	701	542	317	165	111	71
26	214	663	465	817	987	285	727	557	295	165	111	74
27	205	519	440	1,960	1,460	270	890	635	279	162	111	71
28	200	436	388	1,990	986	273	839	658	275	156	106	69
29	195	2,500	363	1,870	------	336	609	594	294	147	102	69
30	210	6,090	339	3,280	------	316	567	537	308	143	99	69
31	235	------	316	2,150	------	305	------	480	------	139	95	------
TOTAL	11,636	21,709	22,105	27,137	33,403	14,583	16,949	18,427	12,683	6,931	4,000	2,469
MEAN	375	724	713	875	1,193	470	565	594	423	224	129	82.3
MAX	1,350	6,090	3,350	3,280	3,940	769	2,270	1,550	568	335	273	114
MIN	195	207	307	228	545	270	232	419	275	139	95	69
CFSM	4.48	8.64	8.51	10.4	14.2	5.61	6.74	7.09	5.04	2.67	1.54	.98
IN.	5.16	9.63	9.81	12.0	14.8	6.47	7.52	8.18	5.63	3.08	1.78	1.10
AC-FT	23,080	43,060	43,840	53,830	66,250	28,920	33,620	36,550	25,160	13,750	7,930	4,900

CAL YR 1964: TOTAL 236,223 MEAN 645 MAX 6,090 MIN 158 CFSM 7.70 IN 104.83 AC-FT 468,500
WAT YR 1965: TOTAL 192,032 MEAN 526 MAX 6,090 MIN 69 CFSM 6.28 IN 85.22 AC-FT 380,900

12-0430.8. East Fork Dickey River near La Push, Wash.

Location.--Lat 47°59'10", long 124°32'45", in SE¼SE¼ sec.30, T.29 N., R.14 W., on left bank at crossing of logging road, a quarter of a mile upstream from confluence with West Fork and 6½ miles northeast of La Push.

Drainage area.--39.8 sq mi.

Records available.--August to October 1962, March 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,000 cfs), August to October 1962, March 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
(a)	-	* 256	2.43	Oct. 21, 1963	2230	3,200	7.29	Nov. 30, 1964	1030	3,740	7.77
				Nov. 26, 1963	0700	4,960	9.64	Jan. 1, 1965	1730	3,900	7.98
Mar. 20, 1963	1900	* 1,070	3.98	Dec. 23, 1963	1400	* 5,400	10.19	Feb. 4, 1965	1700	* 4,530	8.76

a Sept. 28, 29, 1962.

Annual minimum discharge, August to October 1962, March 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	Aug. 1, 2, 1962	10	1.20	1964	Oct. 2, 3, 1963	16	1.27
1963	Sept. 6-9, 1963	10	1.23	1965	Aug. 2-4,7-11,1965	12	1.20

1962-65: Maximum discharge, 5,400 cfs Dec. 23, 1963 (gage height, 10.19 ft); minimum, 10 cfs Aug. 1, 2, 1962, Sept. 6-9, 1963.

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1962

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	10	20	6	51	16	11	28	28	16	24	30	21	86	21	26	30	19
2	13	19	7	87	16	12	26	22	17	70	26	22	57	21	27	28	26
3	25	19	8	63	16	13	25	46	18	75	24	23	43	20	28	30	181
4	24	17	9	40	15	14	21	70	19	65	22	24	36	20	29	28	224
5	14	17	10	31	21	15	19	40	20	77	22	25	33	19	30	24	112
															31	22	-
TOTAL																1,205	1,169
MEAN																38.9	39.0
MAX																87	224
MIN																10	15
CFSM																.977	1.13
IN.																.975	1.09
AC-FT																2,390	2,320

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1962, MARCH TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	73					-	363	197	28	22	31	12
2	63					-	233	395	30	19	29	14
3	154					-	224	301	28	18	27	14
4	145					-	497	206	33	18	25	12
5	93					-	387	467	41	21	24	11
6	89					-	551	383	31	19	24	11
7	97					-	449	262	28	25	22	10
8	341					-	327	194	27	33	21	10
9	590					-	355	160	29	44	19	10
10	387					-	239	135	27	39	19	12
11	245					-	215	117	25	33	18	13
12	-					-	170	104	25	27	18	13
13	-					-	158	91	22	24	17	18
14	-					-	218	82	20	22	16	27
15	-					114	400	87	19	22	17	19
16	-					119	312	78	19	21	16	17
17	-					99	212	67	19	19	15	37
18	-					91	185	60	18	18	14	29
19	-					396	331	56	18	17	16	21
20	-					815	256	51	19	27	21	18
21	-					535	182	47	19	172	18	17
22	-					308	152	43	20	647	15	17
23	-					212	135	40	19	222	14	17
24	-					170	124	38	19	110	16	17
25	-					194	117	36	21	75	20	15
26	-					175	99	34	24	59	19	14
27	-					209	89	33	26	48	16	15
28	-					248	80	31	22	43	15	15
29	-				------	335	84	30	19	39	13	15
30	-				------	400	176	29	25	36	13	17
31	-	------			------	408	------	28	------	34	13	------
TOTAL	-					-	7,320	3,882	720	1,973	581	487
MEAN	-					-	244	125	24.0	63.6	18.7	16.2
MAX	-					-	551	467	41	647	31	37
MIN	-					-	80	28	18	17	13	10
CFSM	-					-	6.13	3.14	.601	1.60	.465	.402
IN.	-					-	6.84	3.63	.67	1.84	.53	.45
AC-FT	-					-	14,520	7,700	1,430	3,910	1,150	966

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0430.8. East Fork Dickey River near La Push, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	17	399	220	1,270	665	1,000	135	140	44	44	66	41
2	16	600	180	615	404	412	119	133	47	42	106	38
3	16	404	155	1,160	295	321	108	128	53	41	95	36
4	18	404	155	725	510	456	126	106	114	40	83	32
5	22	352	194	755	364	416	133	95	126	38	68	29
6	24	306	232	715	252	313	103	85	81	41	58	28
7	22	602	200	412	210	246	89	79	126	40	55	28
8	21	586	183	317	177	358	85	74	135	37	53	28
9	21	542	153	452	163	452	89	85	99	50	66	26
10	24	496	126	720	229	720	145	89	81	44	61	25
11	25	327	110	501	246	1,800	226	79	81	36	48	24
12	28	696	99	325	213	720	295	93	74	32	45	22
13	572	965	93	344	256	460	246	93	68	30	47	22
14	185	1,160	101	336	210	978	636	79	68	60	42	21
15	104	998	326	524	456	725	510	68	65	400	38	45
16	70	745	456	1,320	483	416	352	61	74	420	36	200
17	57	877	510	1,370	452	586	239	65	81	239	33	191
18	53	650	514	1,010	555	372	186	66	70	166	32	95
19	46	904	833	943	404	266	153	58	66	123	31	99
20	194	510	760	740	270	249	131	55	59	119	30	155
21	1,860	438	408	510	216	263	138	70	53	133	28	175
22	1,470	705	528	372	177	200	256	138	48	123	28	291
23	800	1,010	3,760	295	153	174	150	95	44	101	26	150
24	1,570	635	1,450	618	133	161	121	99	41	81	25	110
25	695	811	954	725	117	163	110	83	40	72	28	97
26	855	3,000	555	412	108	171	106	70	38	63	36	79
27	456	1,000	635	492	99	145	148	61	53	58	45	66
28	408	510	510	496	114	126	135	55	108	51	53	53
29	555	340	340	710	602	112	145	53	66	48	59	91
30	368	280	288	528	------	103	121	48	50	50	70	1,030
31	313	------	510	582	------	110	------	44	------	56	53	------
TOTAL	10,885	21,252	15,538	20,294	8,533	12,994	5,536	2,547	2,153	2,878	1,550	3,333
MEAN	351	708	501	655	294	419	185	82.2	71.8	92.8	50.0	111
MAX	1,860	3,000	3,760	1,370	665	1,800	636	140	135	420	106	1,030
MIN	16	280	93	295	99	103	85	44	38	30	25	21
CSFM	8.82	17.8	12.6	16.5	7.39	10.5	4.65	2.07	1.80	2.33	1.26	2.79
IN.	10.17	19.86	14.52	18.96	7.97	12.14	5.17	2.38	2.01	2.69	1.45	3.11
AC-FT	21,590	42,150	30,820	40,250	16,920	25,770	10,980	5,050	4,270	5,710	3,070	6,610

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 107,493 MEAN 294 MAX 3,760 MIN 16 CFSM 7.39 IN 100.43 AC-FT 213,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	372	336	1,390	1,790	521	315	146	293	46	18	13	17
2	1,260	242	640	1,170	358	240	114	188	43	18	12	16
3	442	317	502	521	285	201	96	371	39	18	12	16
4	252	684	342	338	2,680	165	81	516	38	17	13	15
5	180	295	264	304	1,800	146	73	308	36	17	13	15
6	140	206	210	370	779	125	72	226	33	16	13	15
7	119	183	210	264	497	114	73	165	32	16	12	15
8	140	145	188	500	774	102	70	133	31	16	12	15
9	210	123	483	456	460	92	68	114	30	19	12	15
10	166	117	625	315	350	85	64	98	29	21	12	15
11	123	203	438	271	271	77	57	87	32	20	12	15
12	106	155	560	233	311	70	52	81	30	19	26	15
13	110	133	530	264	856	66	54	72	26	17	59	15
14	263	114	350	438	506	62	52	66	26	16	38	32
15	284	103	274	525	483	59	48	133	26	16	24	48
16	392	95	190	488	1,570	56	48	544	25	15	19	39
17	277	87	165	354	1,060	52	48	311	24	15	16	28
18	188	81	140	293	525	49	45	188	23	15	15	23
19	145	77	145	296	556	48	186	138	21	14	16	21
20	121	72	185	370	429	49	483	125	21	17	36	19
21	106	68	210	560	334	48	615	109	21	18	31	18
22	95	66	425	412	315	52	311	92	21	16	22	18
23	87	484	278	589	240	46	198	83	23	16	19	18
24	85	1,100	207	906	204	42	188	73	22	15	19	18
25	79	550	171	460	188	42	143	66	21	15	20	17
26	72	615	379	960	1,100	45	120	62	21	14	40	16
27	65	412	383	1,730	894	42	102	57	20	14	40	17
28	61	295	257	1,570	470	121	96	52	20	13	29	17
29	58	1,270	210	1,180	------	535	85	51	19	13	23	17
30	74	2,710	176	1,940	------	350	144	56	19	13	20	18
31	95	------	148	954	------	168	------	52	------	13	18	------
TOTAL	6,167	11,338	10,675	20,821	18,816	3,664	3,932	4,910	818	500	666	583
MEAN	199	378	344	672	672	118	131	158	27.3	16.1	21.5	19.4
MAX	1,260	2,710	1,390	1,940	2,680	535	615	544	46	21	59	48
MIN	58	66	140	233	188	42	45	51	19	13	12	15
CFSM	5.00	9.50	8.64	16.9	16.9	2.96	3.29	3.97	.686	.405	.540	.487
IN.	5.76	10.59	9.97	19.46	17.58	3.42	3.67	4.59	.76	.47	.62	.54
AC-FT	12,230	22,490	21,170	41,300	37,320	7,270	7,800	9,740	1,620	992	1,320	1,160

CAL YR 1964: TOTAL 87,998 MEAN 240 MAX 2,710 MIN 21 CFSM 6.03 IN 82.20 AC-FT 174,500
WAT YR 1965: TOTAL 82,890 MEAN 227 MAX 2,710 MIN 12 CFSM 5.70 IN 77.43 AC-FT 164,400

12-0431. Dickey River near La Push, Wash.

Location.--Lat 47°57'55", long 124°32'50", in NE¼NE¼ sec.6, T.28 N., R.14 W., on left bank 1 mile upstream from Colby Creek and 5½ miles northeast of La Push.

Drainage area.--86.3 sq mi.

Records available.--August 1962 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 50 ft (from topographic map). Prior to Mar. 30, 1965, graphic water-stage recorder at same site and datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (5,000 cfs), August 1962 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.29, 1962	0900	* 518	2.90	Oct. 21, 1963	2230	5,870	11.44	Nov. 30, 1964	1030	6,260	12.00
				Nov. 26, 1963	0800	7,820	14.02	Jan. 1, 1965	1800	6,560	12.43
Nov. 19, 1962	1300	* 10,300	15.82	Dec. 23, 1963	1500	* 9,570	15.00	Jan. 30, 1965	1400	5,210	10.50
Dec. 30, 1962	0630	7,130	13.16	Mar. 11, 1964	0900	5,410	10.77	Feb. 4, 1965	1730	* 7,580	13.48
Jan. 1, 1963	1600	9,870	15.35								

Annual minimum discharge, August 1962 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	Sept. 8 or 9, 1962	22	1.11	1964	Oct. 3, 1963	22	1.00
1963	Sept.30, 1963	19	.97	1965	Aug. 6, 1965	11	.81

1962-65: Maximum discharge, 10,300 cfs Nov. 19, 1962 (gage height, 15.82 ft), from rating curve extended above 5,000 cfs; minimum, 11 cfs Aug. 6, 1965 (gage height, 0.81 ft).

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, 1962

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	37	6	-	24	11	-	45	16	-	75	21	-	50	26	66	36
2	-	32	7	-	23	12	-	36	17	-	65	22	-	47	27	61	47
3	-	29	8	-	22	13	-	108	18	-	61	23	-	44	28	63	350
4	-	27	9	† 94	22	14	-	175	19	-	58	24	83	41	29	61	454
5	-	25	10	-	30	15	† 43	100	20	-	53	25	72	40	30	50	254
															31	43	-
TOTAL																-	2,410
MEAN																-	80.3
MAX																-	454
MIN																-	22
CFSM																-	.930
IN.																-	1.04
AC-FT																-	4,780

† Result of discharge measurement.
Note.--Result of discharge measurement, also on July 19, 1962 (37 cfs).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	170	153	865	5,370	108	592	706	436	53	52	80	25
2	143	141	970	3,480	280	621	482	814	56	40	74	28
3	262	132	930	2,620	1,650	466	455	604	54	35	68	29
4	284	420	1,040	1,330	1,750	376	945	440	56	35	63	27
5	197	950	1,850	865	1,910	318	782	947	74	39	60	24
6	189	698	1,810	642	2,550	277	1,040	724	60	38	59	23
7	200	706	1,030	517	1,570	245	890	532	53	43	54	22
8	548	1,570	832	455	850	220	667	410	52	54	52	22
9	883	784	642	400	633	197	720	336	54	75	49	22
10	658	834	525	350	493	180	513	284	52	79	47	24
11	506	734	436	300	395	170	447	245	47	69	44	25
12	1,370	775	384	275	326	150	365	211	45	57	42	25
13	2,320	1,160	425	250	290	143	333	189	43	49	39	32
14	1,080	1,250	1,710	230	277	214	465	167	39	47	37	48
15	658	991	2,410	210	257	242	764	175	36	47	38	38
16	494	752	1,320	200	280	267	613	157	33	47	37	32
17	394	991	1,060	180	287	226	402	139	32	42	34	45
18	337	829	746	170	432	200	391	125	30	39	30	40
19	304	6,160	742	160	697	710	637	113	30	36	33	32
20	280	3,330	466	150	617	1,460	548	108	30	49	42	27
21	438	1,570	675	145	414	1,050	399	97	35	322	37	24
22	570	1,100	572	140	373	633	326	90	38	1,140	32	23
23	406	796	451	130	287	466	294	83	33	462	29	27
24	318	1,170	384	125	254	384	264	79	33	257	33	27
25	274	1,960	333	120	760	417	251	75	39	183	38	25
26	290	1,620	294	115	1,960	384	214	71	42	150	39	22
27	261	1,120	290	110	787	447	191	66	48	130	33	22
28	223	905	525	100	646	497	175	63	43	115	29	21
29	197	1,080	2,780	90	------	642	178	59	37	102	27	20
30	175	1,360	5,480	85	------	756	361	57	59	94	26	22
31	165	------	2,120	97	------	792	------	53	------	87	25	------
TOTAL	14,594	36,041	34,097	19,411	21,133	13,742	14,818	7,949	1,336	4,014	1,330	823
MEAN	471	1,201	1,100	626	755	443	494	256	44.5	129	42.9	27.4
MAX	2,320	6,160	5,480	5,370	2,550	1,460	1,040	947	74	1,140	80	48
MIN	143	132	290	85	108	143	175	53	30	35	25	20
CFSM	5.46	13.9	12.7	7.26	8.75	5.14	5.72	2.97	.52	1.50	.50	.32
IN.	6.29	15.5	14.7	8.36	9.11	5.92	6.39	3.43	.58	1.73	.57	.35
AC-FT	28,950	71,490	67,630	38,500	41,920	27,260	29,390	15,770	2,650	7,960	2,640	1,630

CAL YR 1962: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1963: TOTAL 169,288 MEAN 464 MAX 6,160 MIN 20 CFSM 5.37 IN 72.95 AC-FT 335,800

12-0431. Dickey River near La Push, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	810	490	2,690	1,450	2,140	274	280	95	95	136	92
2	23	1,130	402	1,350	880	935	245	270	97	90	232	85
3	22	805	340	2,350	640	742	226	245	102	87	206	76
4	24	760	344	1,570	1,100	980	254	206	230	84	183	68
5	30	671	436	1,610	800	890	280	186	274	82	155	62
6	38	600	493	1,610	550	689	220	165	172	88	132	58
7	38	1,210	440	935	450	556	194	157	251	85	128	58
8	33	1,200	406	715	380	799	178	148	322	85	123	58
9	30	1,100	351	925	350	930	186	162	232	108	145	52
10	33	1,000	290	1,390	500	1,360	331	167	186	100	132	48
11	35	646	254	1,040	530	3,760	466	150	180	83	110	45
12	44	1,320	229	702	450	1,710	568	172	165	72	104	39
13	1,120	1,790	208	724	544	1,140	493	180	150	68	106	39
14	388	2,380	211	693	459	2,060	1,250	155	153	128	97	39
15	235	2,150	622	1,200	960	1,580	1,060	134	145	865	87	120
16	167	1,480	945	2,780	970	945	728	123	155	905	80	466
17	141	1,860	985	2,920	920	1,260	525	123	175	532	75	432
18	123	1,300	1,010	2,140	1,140	828	421	125	153	402	71	211
19	110	1,820	1,780	2,050	846	608	351	113	143	304	68	211
20	477	1,040	1,640	1,600	592	556	298	106	136	290	65	244
21	3,840	880	885	1,100	478	576	304	125	121	373	62	359
22	3,020	1,340	1,020	800	402	470	532	280	113	336	56	654
23	1,810	1,880	6,390	650	336	402	336	197	106	264	52	351
24	3,370	1,360	3,360	1,350	298	351	270	203	99	214	51	261
25	1,630	2,100	2,440	1,550	261	347	242	186	92	183	56	214
26	1,870	5,560	1,380	900	232	365	220	150	88	165	69	180
27	1,040	2,110	1,420	1,050	208	315	290	134	125	150	92	155
28	940	1,160	1,180	1,050	229	274	284	121	230	134	121	141
29	1,330	787	787	1,500	1,060	238	287	112	150	125	117	197
30	810	596	667	1,150	------	217	251	104	105	125	143	2,180
31	684	------	1,130	1,300	------	220	------	99	------	130	113	------
TOTAL	23,478	42,845	32,535	43,394	18,015	28,243	11,564	5,078	4,745	6,752	3,367	7,195
MEAN	757	1,428	1,050	1,400	621	911	385	164	158	218	109	240
MAX	3,840	5,560	6,390	2,920	1,450	3,760	1,250	280	322	905	232	2,180
MIN	22	596	208	650	208	217	178	99	88	68	51	39
CFSM	8.78	16.5	12.2	16.2	7.20	10.6	4.47	1.90	1.83	2.52	1.26	2.78
IN.	10.1	18.5	14.0	18.7	7.76	12.2	4.98	2.19	2.04	2.91	1.45	3.10
AC-FT	46,570	84,980	64,530	86,070	35,730	56,020	22,940	10,070	9,410	13,390	6,680	14,270

CAL YR 1963: TOTAL 183,414 MEAN 503 MAX 6,390 MIN 20 CFSM 5.82 IN 79.04 AC-FT 363,800
WAT YR 1964: TOTAL 227,211 MEAN 621 MAX 6,390 MIN 22 CFSM 7.19 IN 97.91 AC-FT 450,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	805	600	2,930	3,050	1,220	720	342	538	100	26	15	32
2	2,730	505	1,890	2,650	823	549	275	417	91	25	15	30
3	1,000	573	1,140	1,260	642	447	229	673	84	25	15	29
4	596	1,420	760	800	4,840	375	200	1,130	78	24	15	27
5	436	576	580	693	3,880	326	177	648	72	23	16	26
6	344	414	462	846	1,900	284	165	484	67	23	15	24
7	287	362	447	588	1,250	252	166	371	63	22	15	23
8	318	294	1,140	1,080	1,750	225	159	308	59	22	15	22
9	432	251	875	990	1,090	204	147	264	56	25	15	22
10	347	235	1,210	667	785	183	143	231	54	29	15	21
11	267	391	841	560	616	169	129	205	58	29	14	21
12	223	326	1,040	486	652	153	118	184	54	26	39	21
13	229	277	1,040	517	1,860	140	122	165	50	24	127	22
14	497	229	667	832	1,090	133	113	147	49	22	77	48
15	521	203	540	935	1,020	126	103	282	47	21	47	93
16	724	183	402	860	3,490	119	103	1,230	44	21	34	80
17	517	167	322	633	2,550	110	102	632	41	20	29	59
18	362	155	294	532	1,290	102	98	410	39	20	26	47
19	287	148	301	528	1,320	96	355	321	37	19	28	40
20	242	139	399	642	1,000	96	1,050	286	35	22	78	36
21	206	128	428	1,040	740	96	1,260	250	34	23	72	34
22	183	128	800	792	680	104	688	217	33	22	48	32
23	167	902	552	1,070	526	98	446	194	37	21	38	32
24	160	2,310	425	1,900	443	86	418	171	36	20	38	31
25	150	1,050	351	935	395	82	342	152	33	19	40	31
26	136	1,260	718	1,740	2,290	90	289	138	30	18	81	29
27	128	818	733	3,410	2,080	82	249	126	29	17	88	31
28	115	604	505	3,290	1,090	239	226	117	29	17	60	31
29	108	2,380	432	2,570	------	1,210	199	110	28	16	49	31
30	130	5,020	376	3,890	------	830	276	120	27	16	41	33
31	153	------	322	2,150	------	399	------	112	------	16	36	------
TOTAL	12,800	22,048	22,922	41,936	41,312	8,125	8,689	10,633	1,494	673	1,241	1,038
MEAN	413	735	739	1,353	1,475	262	290	343	49.8	21.7	40.0	34.6
MAX	2,730	5,020	2,930	3,890	4,840	1,210	1,260	1,230	100	29	127	93
MIN	108	128	294	486	395	82	98	110	27	16	14	21
CFSM	4.78	8.52	8.57	15.7	17.1	3.04	3.36	3.97	.58	.25	.46	.40
IN.	5.52	9.50	9.88	18.1	17.8	3.50	3.74	4.58	.64	.29	.53	.45
AC-FT	25,390	43,730	45,470	83,180	81,940	16,120	17,230	21,090	2,960	1,330	2,460	2,060

CAL YR 1964: TOTAL 186,123 MEAN 509 MAX 5,020 MIN 39 CFSM 5.89 IN 80.21 AC-FT 369,200
WAT YR 1965: TOTAL 172,911 MEAN 474 MAX 5,020 MIN 14 CFSM 5.49 IN 74.51 AC-FT 343,000

12-0433. Hoko River near Sekiu, Wash.

Location.--Lat 48°14'30", long 124°22'55", in NE¼SW¼ sec.28, T.32 N., R.13 W., on left bank 1¼ miles upstream from Little Hoko River and 4 miles southwest of Sekiu.
Drainage area.--51.2 sq mi.
Records available.--July 1962 to September 1965.
Gage.--Digital water-stage recorder. Altitude of gage is 50 ft (from topographic map). Prior to Mar. 30, 1965, graphic water-stage recorder at same site and datum.
Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,500 cfs), July 1962 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.29, 1962	0400	317	2.89	Oct. 21, 1963	2030	4,520	8.18	Jan. 1, 1965	1700	3,950	7.50
				Nov. 26, 1963	0800	* 5,970	9.30	Jan. 26, 1965	2300	3,750	7.32
Nov. 19, 1962	1200	* 11,200	12.49	Dec. 23, 1963	1730	5,720	9.12	Jan. 30, 1965	1400	4,810	8.23
Dec. 30, 1962	0900	3,810	7.57					Feb. 4, 1965	1900	4,530	7.95
Jan. 1, 1963	1730	6,700	9.80	Nov. 30, 1964	1100	* 5,370	8.67				

Annual minimum discharge, July 1962 to September 1965.

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	July 31, Aug. 1, 2	25	1.38	1964	Oct. 2, 3, 1963	22	b 1.32
1963	Sept.27-30, 1963	22	a 1.32	1965	Aug. 7,8,10,11,12	16	c 1.20

a Occurred Sept. 29, 30, 1963.
b Occurred Oct. 3, 1963.
c Occurred Aug. 11, 1965.

1962-65: Maximum discharge, 11,200 cfs Nov. 19, 1962 (gage height, 12.49 ft), from rating curve extended above 2,100 cfs on basis of slope-area measurement of peak flow; minimum, 16 cfs Aug. 7, 8, 10, 11, 12, 1965; minimum gage height, 1.20 ft Aug. 11, 1965.
Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, 1962

DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.	DAY	JULY	AUG.	SEPT.
1	-	25	44	9	-	67	31	17	46	73	69	25	30	65	40
2	-	27	43	10	47	58	62	18	42	96	60	26	30	60	40
3	-	40	40	11	45	51	59	19	38	98	55	27	28	56	44
4	-	40	38	12	43	54	43	20	37	129	52	28	27	61	145
5	-	60	36	13	43	50	132	21	34	148	48	29	26	55	249
6	-	88	35	14	43	43	181	22	32	105	46	30	26	50	148
7	-	120	34	15	42	40	105	23	31	83	45	31	26	46	-
8	-	96	32	16	42	44	80	24	30	73	42				
TOTAL													-	2,101	2,078
MEAN													-	67.8	69.3
MAX													-	148	249
MIN													-	25	31
CFSM													-	1.32	1.35
IN.													-	1.53	1.51
AC-FT													-	4,170	4,120

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	109	120	665	3,370	80	462	415	232	55	36	63	30
2	91	110	720	2,260	190	415	338	507	56	33	59	31
3	158	105	680	1,560	1,000	338	342	419	54	31	54	31
4	181	204	775	885	1,140	289	570	342	60	35	51	29
5	137	507	1,240	615	1,450	258	538	665	69	36	48	26
6	127	453	1,280	471	1,580	223	645	570	55	32	45	25
7	150	407	852	391	1,080	200	620	453	51	37	42	25
8	335	778	660	376	645	183	484	356	51	58	40	23
9	543	512	498	334	462	169	427	289	54	88	38	24
10	407	512	403	280	356	156	345	246	50	69	36	25
11	327	480	342	232	293	148	296	216	45	56	35	27
12	910	507	296	205	249	135	258	190	45	50	34	25
13	1,770	731	296	193	232	127	246	169	43	46	33	40
14	820	830	770	178	210	148	296	154	40	44	32	56
15	498	690	1,580	169	200	146	435	154	39	47	34	43
16	349	520	1,060	156	203	144	349	139	38	44	32	35
17	274	556	758	150	200	127	293	127	36	38	31	38
18	240	502	561	141	277	129	274	114	35	36	30	32
19	210	6,340	525	129	448	430	338	105	36	34	37	29
20	213	3,280	411	122	440	736	277	96	37	42	48	26
21	364	1,170	471	116	331	595	240	90	37	146	44	25
22	431	764	387	112	274	440	213	86	38	600	38	25
23	317	561	327	105	238	331	200	80	34	331	35	26
24	255	716	283	100	210	277	190	76	36	195	38	26
25	218	1,290	249	98	516	296	183	74	41	144	41	24
26	216	1,150	223	91	1,260	264	163	70	48	118	38	24
27	188	819	218	86	715	313	150	67	51	98	35	22
28	167	630	338	83	538	391	141	62	42	88	32	22
29	139	706	1,290	74	------	466	141	60	38	80	31	22
30	137	819	3,000	77	------	538	208	59	38	72	30	22
31	127	------	1,420	80	------	498	------	56	------	68	30	------
TOTAL	10,408	26,769	22,578	13,239	14,817	9,372	9,615	6,323	1,352	2,832	1,214	858
MEAN	336	892	728	427	529	302	321	204	45.1	91.4	39.2	28.6
MAX	1,770	6,340	3,000	3,370	1,580	736	645	665	69	600	63	56
MIN	91	105	218	74	80	127	141	56	34	31	30	22
CFSM	6.56	17.4	14.2	8.34	10.3	5.90	6.26	3.98	.88	1.78	.76	.56
IN.	7.56	19.4	16.4	9.62	10.8	6.81	6.98	4.59	.98	2.06	.88	.62
AC-FT	20,640	53,100	44,780	26,260	29,390	18,590	19,070	12,540	2,680	5,620	2,410	1,700

CAL YR 1962:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1963:	TOTAL 119,377	MEAN 327	MAX 6,340	MIN 22	CFSM 6.39	IN 86.71	AC-FT 236,800

12-0433. Hoko River near Sekiu, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	484	372	1,800	1,000	980	216	218	93	101	103	85
2	22	570	306	1,050	715	600	203	208	94	93	135	76
3	23	476	261	1,360	548	494	188	186	96	91	131	73
4	28	480	286	1,130	726	620	229	169	170	86	129	66
5	28	458	320	1,000	600	665	223	161	169	83	112	62
6	32	476	387	1,000	471	520	195	148	146	85	96	61
7	29	645	364	695	383	407	178	139	203	79	91	60
8	27	720	383	566	324	462	167	129	200	73	90	60
9	27	726	338	710	289	585	165	141	169	91	109	58
10	26	670	286	1,190	317	1,120	208	137	150	79	96	53
11	26	512	246	885	324	2,340	267	127	146	74	86	51
12	27	742	221	625	303	1,210	379	137	135	67	82	48
13	524	1,050	200	552	327	792	368	137	127	65	85	47
14	240	1,390	205	480	296	1,370	808	127	125	98	77	47
15	152	1,210	383	644	494	1,230	748	114	118	416	73	67
16	96	981	605	2,020	570	775	552	107	127	552	70	158
17	94	1,150	792	1,680	610	863	415	109	131	387	67	181
18	86	969	775	1,460	731	635	331	107	124	303	65	114
19	76	1,040	1,140	1,320	650	494	277	100	124	243	65	152
20	191	742	1,060	1,150	480	444	240	93	114	223	61	190
21	2,590	630	680	780	372	427	243	135	105	252	60	207
22	1,860	824	650	600	313	356	334	274	96	223	58	327
23	945	1,290	3,840	484	270	313	243	190	91	190	54	216
24	2,010	1,050	2,200	766	235	283	218	190	86	167	53	172
25	1,160	1,160	1,530	1,040	208	283	198	165	80	148	59	150
26	1,100	3,840	927	685	190	300	190	146	77	133	72	127
27	720	1,430	903	764	176	258	252	131	121	124	83	112
28	600	836	792	819	178	232	223	122	195	110	91	101
29	742	590	600	1,000	432	210	232	114	129	105	98	142
30	566	453	507	824	------	195	200	105	110	103	120	1,260
31	476	------	670	830	------	198	------	98	------	103	101	------
TOTAL	14,547	27,594	22,229	29,909	12,532	19,661	8,690	4,464	3,851	4,947	2,672	4,523
MEAN	469	920	717	965	432	634	290	144	128	160	86.2	151
MAX	2,590	3,840	3,840	2,020	1,000	2,340	808	274	203	552	135	1,260
MIN	22	453	200	480	176	195	165	93	77	65	53	47
CFSM	9.17	18.0	14.0	18.8	8.44	12.4	5.66	2.81	2.51	3.12	1.68	2.94
IN.	10.6	20.0	16.1	21.7	9.10	14.3	6.31	3.24	2.80	3.59	1.94	3.29
AC-FT	28,850	54,730	44,090	59,320	24,860	39,000	17,240	8,850	7,640	9,810	5,300	8,970

CAL YR 1963: TOTAL 123,992 MEAN 340 MAX 3,840 MIN 22 CFSM 6.63 IN 90.06 AC-FT 245,900
WAT YR 1964: TOTAL 155,619 MEAN 425 MAX 3,840 MIN 22 CFSM 8.30 IN 113.04 AC-FT 308,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	610	317	2,000	1,720	938	555	184	306	82	30	17	22
2	1,540	249	1,270	1,310	670	432	151	261	76	29	17	22
3	736	287	795	740	528	353	132	392	72	29	17	22
4	453	685	575	523	2,600	296	119	612	68	28	17	21
5	317	391	452	448	2,430	256	110	490	64	27	18	20
6	249	296	369	448	1,270	228	104	398	61	26	17	19
7	210	264	365	369	842	202	107	309	58	26	17	19
8	203	218	660	482	1,180	180	99	254	55	28	17	19
9	216	190	610	496	824	167	94	214	55	36	17	19
10	188	183	770	440	635	152	91	184	53	36	17	19
11	163	235	610	404	505	141	84	163	55	32	16	19
12	148	203	665	361	514	128	79	148	51	29	33	19
13	154	183	710	428	1,110	120	82	133	49	27	93	26
14	283	165	550	675	785	112	76	120	48	25	51	79
15	300	152	452	968	730	107	71	185	46	24	35	81
16	349	141	350	932	2,000	100	76	565	44	24	26	58
17	303	133	292	700	1,580	93	74	450	43	23	23	43
18	243	124	272	570	884	90	73	318	41	22	21	37
19	208	118	259	560	818	86	223	255	40	22	22	33
20	183	110	259	650	680	85	605	219	39	26	52	30
21	165	105	266	790	565	82	853	190	38	27	44	29
22	148	101	408	655	500	83	540	165	38	24	32	27
23	135	440	320	605	416	76	368	148	40	22	28	24
24	133	1,160	275	806	361	72	329	132	38	21	28	23
25	124	731	243	605	328	70	271	120	36	20	29	21
26	114	695	481	1,430	1,250	70	227	111	35	19	44	22
27	105	520	541	2,940	1,280	67	196	103	34	19	46	22
28	98	395	404	2,560	780	108	173	96	34	18	35	21
29	93	1,540	338	1,800	------	424	153	93	33	18	30	21
30	110	3,790	286	2,980	------	338	200	98	31	18	26	21
31	116	------	246	1,640	------	209	------	89	------	17	24	------
TOTAL	8,397	14,121	16,093	30,035	27,003	5,482	5,944	7,321	1,457	772	909	858
MEAN	271	471	519	969	964	177	198	236	48.6	24.9	29.3	28.6
MAX	1,540	3,790	2,000	2,980	2,600	555	853	612	82	36	93	81
MIN	93	101	243	361	328	67	71	89	31	17	16	19
CFSM	5.29	9.19	10.1	18.9	18.8	3.45	3.87	4.61	.95	.49	.57	.56
IN.	6.10	10.3	11.7	21.8	19.6	3.98	4.32	5.32	1.06	.56	.66	.62
AC-FT	16,660	28,010	31,920	59,570	53,560	10,870	11,790	14,520	2,890	1,530	1,800	1,700

CAL YR 1964: TOTAL 129,860 MEAN 355 MAX 3,790 MIN 47 CFSM 6.93 IN 94.33 AC-FT 257,600
WAT YR 1965: TOTAL 118,392 MEAN 324 MAX 3,790 MIN 16 CFSM 6.34 IN 86.00 AC-FT 234,800

12-0433.5. Clallam River near Clallam Bay, Wash.

Location.--Lat 48°13'30", long 124°15'15", in NE¼SW¼ sec.33, T.32 N., R.12 W., on left bank 1 mile upstream from Charley Creek and 2 miles south of Clallam Bay.

Drainage area.--137 sq mi.

Records available.--July to October 1962 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map).

Extremes.--Maximum daily discharge during period, 127 cfs Oct. 9; minimum discharge, 2.2 cfs July 29 to Aug. 2 (gage height, 0.92 ft).

Remarks.--Records excellent. Some diversion for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO OCTOBER 1962

DAY	JULY	AUG.	SEPT.	OCT.	DAY	JULY	AUG.	SEPT.	OCT.	DAY	JULY	AUG.	SEPT.	OCT.
1	-	2.2	5.2	22	11	-	7.3	12	69	21	-	23	8.4	-
2	-	2.6	5.2	19	12	-	7.8	7.3	-	22	-	17	8.4	-
3	-	5.6	4.3	55	13	-	6.8	64	-	23	-	13	7.8	-
4	-	5.2	3.9	58	14	-	5.6	38	-	24	-	10	7.3	-
5	-	9.5	3.9	34	15	-	5.2	20	-	25	-	9.0	6.8	-
6	-	16	3.6	30	16	-	5.2	15	-	26	2.8	8.4	6.8	-
7	-	20	3.6	52	17	-	13	13	-	27	2.6	7.3	7.3	-
8	-	15	3.2	110	18	-	19	11	-	28	2.6	8.4	35	-
9	-	11	3.2	127	19	-	19	9.5	-	29	2.2	7.3	70	-
10	-	9.0	10	91	20	-	20	9.0	-	30	2.2	6.2	31	-
										31	2.2	5.6	-	-
TOTAL											-	320.2	433.7	-
MEAN											-	10.3	14.5	-
MAX											-	23	70	-
MIN											-	2.2	3.2	-
CFSM											-	.08	.11	-
IN.											-	.09	.12	-
AC-FT											-	635	860	-

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0434.3. East Twin River near Pysht, Wash.

Location.--Lat 48°09'48", long 123°56'35", in NW¼SW¼ sec.24, T.31 N., R.10 W., on right bank on downstream side of highway crossing, 1,400 ft upstream from mouth and 8 miles southeast of Pysht.

Drainage area.--14.0 sq mi.

Records available.--August 1962 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map). Prior to June 10, 1964, at site 120 ft upstream at same datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (550 cfs), August 1962 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.29, 1962	1030	31	2.23	Jan. 1, 1963	1400	583	4.52	Jan. 1, 1965	1430	* 654	a 3.97
								Jan. 27, 1965	1330	639	3.96
Nov. 19, 1962	2130	* 1,220	6.62	Mar. 11, 1964	0800	* 526	4.53	Jan. 30, 1965	1500	616	3.96
Nov. 25, 1962	1430	875	5.56	Nov. 30, 1964	-	564	3.58	Feb. 5, 1965	1230	620	3.97

a Occurred Feb. 5, 1965.

Annual minimum discharge, August 1962 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	Sept. 8, 9, 10	3.7	1.74	1964	Oct. 1-3, 1963	4.2	b 0.91
1963	Sept.27-30, 1963	4.2	a 1.87	1965	Sept. 5-10, 1965	3.8	c .91

a Occurred Oct. 2, 1962.
b Occurred Aug. 24, 25, Sept. 10-15, 1964.
c Occurred Aug. 1, 2, 1965.

1962-65: Maximum discharge, 1,220 cfs Nov. 19, 1962 (gage height 6.62 ft, site then in use), from rating curve extended above 200 cfs on basis of slope-area measurements at gage heights, 4.95 and 6.62 ft; minimum, 3.8 cfs Sept. 5-10, 1965.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	4.6
2											-	4.3
3											-	4.0
4											-	4.0
5											-	4.0
6											-	4.0
7											-	4.0
8											-	4.0
9											-	3.7
10											-	5.5
11											-	5.5
12											-	4.6
13											-	9.2
14											-	9.2
15											-	6.5
16											-	5.5
17											-	5.2
18											-	4.6
19											-	4.6
20											-	4.6
21											-	4.6
22											-	4.6
23											-	4.6
24											5.5	4.3
25											5.5	4.3
26											5.2	4.3
27											5.2	4.6
28											4.9	12
29					------						4.9	23
30					------						4.6	13
31		------			------		------		------		4.6	------
TOTAL											-	180.9
MEAN											-	6.03
MAX											-	23
MIN											-	3.7
CFSM											-	.43
IN.											-	.48
AC-FT											-	359

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0434.3. East Twin River near Pysht, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.8	13	148	367	17	105	80	51	13	6.9	7.2	5.2
2	8.0	12	190	405	38	94	69	108	14	6.6	6.9	4.9
3	14	12	175	391	178	84	69	92	13	6.3	6.6	4.9
4	12	18	142	296	312	76	88	67	15	6.9	6.6	4.6
5	10	44	189	207	264	69	92	132	14	6.6	6.3	4.6
6	10	44	212	142	313	62	125	145	13	6.3	6.3	4.6
7	16	37	131	114	263	56	117	110	12	6.9	6.0	4.6
8	29	76	103	96	168	52	92	82	12	12	6.0	4.4
9	67	56	86	82	120	48	82	65	12	8.7	5.7	4.6
10	39	144	70	70	94	45	73	56	12	7.6	5.7	4.9
11	30	157	60	64	74	43	62	46	11	6.9	5.7	5.2
12	145	131	53	60	62	39	57	41	9.9	6.6	5.7	4.6
13	220	159	48	56	56	37	52	38	9.1	6.3	5.7	8.7
14	103	118	70	52	50	37	51	34	9.1	6.0	5.7	8.3
15	60	87	322	47	45	34	56	32	8.7	6.0	5.7	6.0
16	42	68	244	42	43	33	50	29	8.3	6.0	5.4	5.4
17	34	62	168	38	40	31	45	27	8.3	5.7	5.4	4.9
18	30	54	121	33	39	31	44	25	8.3	6.0	5.2	4.9
19	26	558	103	30	60	65	44	23	7.9	5.7	5.4	4.6
20	23	462	82	29	60	65	41	23	7.6	7.6	5.7	4.6
21	22	200	70	27	50	57	39	21	7.6	20	5.4	4.6
22	20	123	57	24	44	67	37	20	7.6	31	5.2	4.6
23	19	79	51	23	40	56	33	19	6.9	24	4.9	4.9
24	18	145	45	23	38	48	32	18	7.2	16	5.2	4.6
25	17	497	39	22	57	51	31	18	7.6	12	4.9	4.4
26	18	416	35	20	190	48	29	17	7.2	9.9	4.9	4.4
27	17	272	34	20	138	50	27	16	7.2	9.1	4.9	4.4
28	15	172	36	19	115	84	26	16	6.9	8.3	4.9	4.2
29	15	140	111	17	------	105	27	14	6.6	7.9	4.6	4.2
30	14	160	207	17	------	110	41	14	6.9	7.6	4.6	4.2
31	14	------	168	17	------	94	------	14	------	7.6	4.9	------
TOTAL	1,115.8	4,516	3,570	2,850	2,968	1,876	1,711	1,413	289.9	291.0	173.3	149.0
MEAN	36.0	151	115	91.9	106	60.5	57.0	45.6	9.66	9.39	5.59	4.97
MAX	220	558	322	405	313	110	125	145	15	31	7.2	8.7
MIN	8.0	12	34	17	17	31	26	14	6.6	5.7	4.6	4.2
CFSM	2.57	10.8	8.23	6.57	7.57	4.32	4.07	3.26	.69	.67	.40	.35
IN.	2.96	12.0	9.48	7.57	7.88	4.98	4.55	3.75	.77	.77	.46	.40
AC-FT	2,210	8,960	7,080	5,650	5,890	3,720	3,390	2,800	575	577	344	296

CAL YR 1962: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1963: TOTAL 20,923.0 MEAN 57.3 MAX 558 MIN 4.2 CFSM 4.09 IN 55.58 AC-FT 41,500

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.2	92	84	297	300	125	73	32	39	13	9.6	8.6
2	4.2	110	71	184	193	76	64	32	33	12	10	8.3
3	4.6	92	62	145	135	64	56	30	30	12	11	8.0
4	5.4	122	57	140	135	74	62	29	35	12	13	8.0
5	5.2	135	60	120	117	86	64	29	35	11	11	7.7
6	5.4	215	73	135	92	71	58	27	32	11	10	7.7
7	5.4	187	64	115	78	60	54	27	40	11	9.3	8.0
8	5.2	173	71	100	71	58	52	27	39	10	9.3	7.7
9	5.2	159	76	130	62	64	52	30	34	10	9.6	7.7
10	5.2	173	67	182	62	74	52	30	34	10	9.3	7.4
11	4.9	127	60	138	57	384	52	29	30	9.3	8.6	7.2
12	4.9	143	56	110	54	210	69	30	26	9.0	8.6	7.2
13	16	173	51	135	52	130	67	29	24	9.0	9.0	7.2
14	9.5	260	48	135	52	159	71	29	26	10	8.6	7.2
15	7.2	249	54	115	54	179	88	27	22	16	8.3	7.7
16	6.3	226	69	263	52	127	76	26	28	20	8.3	8.6
17	5.7	232	103	326	57	127	65	27	26	15	8.0	14
18	5.7	190	98	271	62	110	60	29	26	13	8.6	9.3
19	5.4	184	135	238	65	92	54	29	22	12	8.0	9.6
20	14	151	151	218	56	82	50	29	22	12	8.0	11
21	230	127	108	159	51	84	50	40	20	16	7.7	9.3
22	280	207	105	127	45	84	57	56	18	15	7.7	9.3
23	145	305	198	120	40	74	51	44	17	13	7.4	9.0
24	206	210	165	173	37	69	45	38	16	12	7.4	8.6
25	204	165	184	229	33	64	44	33	16	11	7.4	8.3
26	187	327	138	168	31	62	41	30	15	10	7.7	8.3
27	130	277	143	210	30	56	41	30	16	9.6	8.0	8.0
28	135	184	122	218	27	54	38	33	15	9.3	8.3	8.0
29	168	132	100	346	51	52	38	33	14	9.0	8.3	9.0
30	127	103	88	257	------	52	34	33	13	9.3	9.0	72
31	98	------	92	254	------	60	------	35	------	9.3	8.6	------
TOTAL	2,039.6	5,480	2,953	5,758	2,151	3,063	1,678	982	763	360.8	273.6	317.9
MEAN	65.8	183	95.3	186	74.2	98.8	55.9	31.7	25.4	11.6	8.83	10.6
MAX	280	327	198	346	300	384	88	56	40	20	13	72
MIN	4.2	92	48	100	27	52	34	26	13	9.0	7.4	7.2
CFSM	4.70	13.0	6.80	13.3	5.30	7.06	4.00	2.26	1.82	.83	.63	.76
IN.	5.42	14.6	7.84	15.3	5.71	8.14	4.46	2.61	2.03	.96	.73	.84
AC-FT	4,050	10,870	5,860	11,420	4,270	6,080	3,330	1,950	1,510	716	543	631

CAL YR 1963: TOTAL 22,193.8 MEAN 60.8 MAX 405 MIN 4.2 CFSM 4.34 IN 58.96 AC-FT 44,020
WAT YR 1964: TOTAL 25,819.9 MEAN 70.5 MAX 384 MIN 4.2 CFSM 5.04 IN 68.59 AC-FT 51,210

12-0434.3. East Twin River near Pysht, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	44	40	260	313	161	96	33	49	22	6.6	4.2	4.0
2	59	30	155	198	116	81	26	44	21	6.3	4.2	4.0
3	43	40	115	119	93	72	23	46	20	6.3	4.3	4.0
4	30	90	86	86	276	64	22	64	18	5.8	4.3	4.0
5	22	55	68	71	524	59	20	59	17	5.8	4.3	4.0
6	19	37	59	59	272	55	20	51	17	5.6	4.3	3.8
7	18	33	56	52	163	52	20	46	16	5.6	4.2	3.8
8	18	28	59	47	258	50	18	41	15	5.4	4.2	3.8
9	19	24	64	44	157	50	19	38	15	6.0	4.2	3.8
10	18	24	84	42	114	50	18	36	15	7.0	4.2	3.8
11	16	27	69	41	93	50	17	32	15	6.0	4.0	4.0
12	15	24	84	38	87	47	17	31	13	5.8	5.8	4.0
13	16	22	97	50	143	44	17	29	13	5.6	7.7	4.3
14	22	21	76	95	102	40	17	27	13	5.4	5.0	6.0
15	52	19	64	121	88	39	16	34	12	5.2	4.4	6.3
16	49	18	56	130	99	37	20	76	12	5.2	4.3	5.6
17	38	17	52	126	114	34	18	96	11	5.2	4.2	4.6
18	30	16	44	115	99	31	18	68	11	5.0	4.0	4.3
19	26	15	41	134	118	30	43	56	10	5.0	4.2	4.2
20	22	15	36	157	112	30	99	49	10	5.4	6.3	4.2
21	20	14	34	152	91	28	222	45	9.8	5.4	6.6	4.2
22	18	14	40	126	80	30	109	41	9.4	5.0	5.0	4.2
23	17	55	35	111	70	27	78	38	9.8	5.0	4.4	4.2
24	16	145	32	95	65	26	76	34	9.0	4.8	4.6	4.0
25	16	90	30	82	61	24	65	31	8.1	4.6	4.6	4.0
26	15	75	59	155	125	23	58	29	7.3	4.4	4.6	4.3
27	14	55	76	478	205	22	54	28	7.3	4.4	4.4	4.3
28	14	45	56	374	129	22	49	27	7.3	4.4	4.3	4.2
29	13	170	47	290	------	36	44	25	7.0	4.3	4.2	4.2
30	13	460	40	455	------	30	46	24	7.0	4.3	4.0	4.2
31	15	------	34	285	------	28	------	24	------	4.2	4.0	------
TOTAL	747	1,718	2,108	4,641	4,015	1,307	1,302	1,318	378.0	165.0	143.0	128.3
MEAN	24.1	57.3	68.0	150	143	42.2	43.4	42.5	12.6	5.32	4.61	4.28
MAX	59	460	260	478	524	96	222	96	22	7.0	7.7	6.3
MIN	13	14	30	38	61	22	16	24	7.0	4.2	4.0	3.8
CFSM	1.72	4.09	4.86	10.7	10.2	3.01	3.10	3.04	.90	.38	.33	.31
IN.	1.98	4.56	5.60	12.3	10.7	3.47	3.46	3.50	1.00	.44	.38	.34
AC-FT	1,480	3,410	4,180	9,210	7,960	2,590	2,580	2,610	750	327	284	254

CAL YR 1964: TOTAL 19,920.3 MEAN 54.4 MAX 460 MIN 7.2 CFSM 3.89 IN 52.92 AC-FT 39,510
WAT YR 1965: TOTAL 17,970.3 MEAN 49.2 MAX 524 MIN 3.8 CFSM 3.52 IN 47.74 AC-FT 35,640

Note.--No gage-height record Oct. 31 to Dec. 2.

12-0450. Lake Mills at Glines Canyon, near Port Angeles, Wash.

Location.--Lat 48°00'05", long 123°36'00", on Elwha River in SW¼SE¼ sec.17, T.29 N., R.7 W., at Glines Canyon Dam, 2 miles upstream from Griff Creek, 4 miles south of Elwha, and 11 miles southwest of Port Angeles.

Drainage area.--245 sq mi.

Records available.--April 1927 to September 1965. Prior to October 1950 monthly change in contents, published in WSP 1316.

Gage.--Staff gage read twice daily. Datum of gage is 19.67 ft below mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximums and minimums (contents in acre-feet, gage height in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum observed			Minimum observed		
	Date	Contents	Gage height	Date	Contents	Gage height
1961	Mar. 13, 1961	39,120	611.1	May 14, 1961	34,660	600.5
1962	Dec. 7, 1961	39,040	610.9	May 21, 22, 1962	33,790	598.4
1963	Jan. 6, Feb. 11	39,080	611.0	Nov. 27, 1962	35,730	603.1
1964	(a)	39,040	610.9	May 16, 17, 1964	33,020	596.5
1965	July 6, 7, 1965	39,080	611.0	Nov. 14, 1964	32,970	596.4

a Nov. 23, Dec. 2, 3, 1963, June 16, 1964.

1927-65: Maximum contents observed, 39,940 acre-ft Dec. 22, 1936 (gage height, 613.0 ft); minimum observed since reservoir first filled in May 1927, 24,290 acre-ft Nov. 14, 1929 (gage height, 574.4 ft).

Remarks.--Reservoir is formed by concrete dam, completed in 1927; storage began Apr. 1, 1927. Total capacity, 37,790 acre-ft at gage height 608 ft (top of gates). Figures given herein represent total contents. Water is used for power by Crown Zellerbach Corp.

Cooperation.--Gage-height record furnished by Crown Zellerbach Corp.

MONTH-END GAGE HEIGHT AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	608.3	37,920	+590
Nov. 30	607.9	37,750	-170
Dec. 31	608.6	38,050	+300
Calendar year 1960	-	-	-770
Jan. 31, 1961	609.3	38,350	+300
Feb. 28	609.6	38,480	+130
Mar. 31	609.6	38,480	0
Apr. 30	606.6	37,200	-1,280
May 31	610.4	38,820	+1,620
June 30	608.0	37,790	-1,030
July 31	608.8	38,130	+340
Aug. 31	608.9	38,180	+50
Sept.30	605.2	36,610	-1,570
Water year 1961	-	-	-720
Oct. 31	605.6	36,780	+170
Nov. 30	609.3	38,350	+1,570
Dec. 31	610.5	38,860	+510
Calendar year 1961	-	-	+810
Jan. 31, 1962	606.8	37,290	-1,570
Feb. 28	602.7	35,560	-1,730
Mar. 31	600.5	34,660	-900
Apr. 30	608.0	37,790	+3,130
May 31	606.9	37,330	-460
June 30	608.7	38,090	+760
July 31	610.2	38,740	+650
Aug. 31	607.5	37,580	-1,160
Sept.30	609.2	38,310	+730
Water year 1962	-	-	+1,700
Oct. 31	605.6	36,780	-1,530
Nov. 30	609.3	38,350	+1,570
Dec. 31	609.4	38,390	+40
Calendar year 1962	-	-	-470
Jan. 31, 1963	606.9	37,330	-1,060
Feb. 28	610.2	38,740	+1,410
Mar. 31	609.3	38,350	-390
Apr. 30	604.0	36,110	-2,240
May 31	609.7	38,520	+2,410
June 30	606.9	37,330	-1,190
July 31	607.7	37,660	+330
Aug. 31	607.4	37,540	-120
Sept.30	606.8	37,290	-250
Water year 1963	-	-	-1,020
Oct. 31, 1963	609.7	38,520	+1,230
Nov. 30	610.5	38,860	+340
Dec. 31	610.4	38,820	-40
Calendar year 1963	-	-	+430
Jan. 31, 1964	609.7	38,520	-300
Feb. 29	606.5	37,160	-1,360
Mar. 31	605.7	36,820	-340
Apr. 30	599.8	34,370	-2,450
May 31	610.4	38,820	+4,450
June 30	610.1	38,690	-130
July 31	610.5	38,860	+170
Aug. 31	609.1	38,260	-600
Sept.30	610.1	38,690	+430
Water year 1964	-	-	+1,400
Oct. 31	606.9	37,330	-1,360
Nov. 30	608.0	37,790	+460
Dec. 31	607.3	37,500	-290
Calendar year 1964	-	-	-1,320
Jan. 31, 1965	609.6	38,480	+980
Feb. 28	610.2	38,740	+260
Mar. 31	604.5	36,320	-2,420
Apr. 30	610.7	38,950	+2,630
May 31	609.7	38,520	-430
June 30	604.4	36,280	-2,240
July 31	607.2	37,450	+1,170
Aug. 31	606.8	37,290	-160
Sept.30	605.0	36,530	-760
Water year 1965	-	-	-2,160

12-0455. Elwha River at McDonald Bridge, near Port Angeles, Wash.

Location.--Lat 48°03'20", long 123°34'55", in NE¼NW¼ sec.33, T.30 N., R.7 W., on right bank 300 ft upstream from site of McDonald Bridge (now removed), half a mile upstream from Little River, 7 miles upstream from mouth, and 8 miles southwest of Port Angeles.

Drainage area.--269 sq mi.

Records available.--October 1897 to December 1901, October 1918 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 200.00 ft above mean sea level, datum of 1929. Oct. 1, 1897, to Dec. 31, 1901, wire-weight gage at McDonald Bridge at different datum. Dec. 9, 1918, to May 1, 1936, graphic water-stage recorder under McDonald Bridge at datum 7.4 ft higher. May 2, 1936, to Aug. 4, 1964, graphic water-stage recorder at present site and datum.

Average discharge.--51 years, 1,487 cfs (1,077,000 acre-ft per year), adjusted for storage since April 1927.

Extremes.--Maximum, minimum, and minimum daily discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum			Minimum daily	
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)
1961	Jan. 15, 1961	22,100	21.17	June 11, 1961	222	8.57	Oct. 3, 1960	304
1962	Jan. 3, 1962	8,140	14.97	Sept. 3, 1962	217	8.56	Sept. 3, 1962	255
1963	Nov. 19, 1962	21,700	21.03	(a)	164	8.31	Sept.27, 1963	370
1964	Oct. 21, 1963	12,400	17.00	Sept. 8, 1964	310	8.64	Oct. 2, 1963	345
1965	Nov. 30, 1964	9,790	15.78	Sept. 7, 1965	146	8.26	Nov. 17, 1964	242

a Occurred sometime during period Aug. 29 to Sept. 10, 1963.

1897-1901, 1918-65: Maximum discharge, 41,600 cfs Nov. 18, 1897 (gage height, 14.5 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 3,300 cfs on basis of two determinations of flow over dam at discharge 26,700 and 30,100 cfs, referred to 1897 datum; minimum daily, 10 cfs Oct. 3, 1938.

Remarks.--Records excellent. Water is diverted through Glines Canyon powerhouse and returned to river above gage. Flow partly regulated by Lake Mills (see station 12-0450). Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1246: Drainage area. WSP 1286: 1898, 1899(M), 1900-1902, 1919, 1920-31(M), 1932, 1933(M). WSP 1566: 1957(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	401	1,550	1,080	1,100	3,240	2,940	1,600	1,370	2,700	1,540	976	1,230
2	332	1,250	1,300	1,100	4,080	2,070	1,940	2,790	3,200	1,480	1,040	1,100
3	304	1,200	1,340	1,070	3,010	2,110	2,160	2,380	3,700	1,570	992	1,220
4	354	1,230	1,070	1,380	2,820	1,900	1,940	1,730	3,700	1,760	1,010	498
5	348	1,100	809	2,510	4,030	1,870	1,630	1,860	3,740	2,100	1,040	598
6	484	997	1,210	2,180	6,000	1,500	1,640	1,850	4,090	1,990	976	634
7	1,090	917	1,230	2,440	3,850	1,590	1,680	1,410	3,980	1,570	960	510
8	1,110	845	1,070	2,170	3,280	1,580	1,730	1,440	3,020	1,510	952	480
9	668	742	1,060	3,090	3,430	1,580	1,300	1,700	2,640	1,540	875	480
10	529	1,060	1,060	7,220	3,210	1,600	1,270	1,770	2,100	1,700	882	480
11	522	2,030	789	6,820	3,080	1,450	1,260	1,720	1,970	1,840	810	480
12	581	1,460	5,610	4,380	2,940	1,260	1,300	1,620	2,270	2,210	768	474
13	444	1,320	4,110	3,540	2,620	1,510	1,140	1,610	2,440	2,100	679	474
14	444	1,040	2,930	5,560	2,380	2,370	1,230	1,210	2,360	2,260	775	468
15	490	1,030	2,270	18,600	2,920	3,630	1,150	928	2,670	1,940	852	468
16	522	2,040	1,960	8,960	1,940	2,250	1,120	1,340	3,090	1,700	1,000	468
17	490	4,270	1,810	6,040	1,950	2,260	1,020	1,790	3,570	1,660	882	468
18	470	3,430	3,140	4,440	1,950	1,970	1,260	1,880	4,050	1,630	768	432
19	464	3,110	3,120	4,520	2,160	1,800	1,260	1,900	3,680	1,580	761	408
20	464	3,010	2,670	3,010	3,810	1,990	1,240	2,770	2,890	1,520	761	408
21	464	1,740	2,170	1,870	8,920	1,850	1,260	2,710	2,600	1,580	719	402
22	698	2,000	1,770	2,180	5,180	1,780	1,200	2,680	2,300	1,580	672	402
23	1,030	1,980	1,740	2,290	3,620	2,280	1,150	2,500	2,200	1,490	653	402
24	1,640	1,980	1,590	2,000	3,060	1,990	1,140	2,110	2,530	1,330	646	402
25	1,330	1,810	1,210	1,920	2,560	1,840	1,190	1,960	2,670	1,320	634	379
26	2,100	1,370	1,350	1,760	2,170	1,700	1,200	2,160	2,760	1,210	588	346
27	1,910	1,130	1,350	1,760	2,120	1,570	1,240	2,560	2,350	1,110	588	352
28	2,020	1,300	1,260	1,620	2,240	1,560	1,290	2,400	2,000	1,170	588	507
29	1,300	1,540	1,340	1,580	------	1,380	1,600	2,230	1,860	1,140	542	510
30	1,200	1,270	1,310	3,870	------	1,450	1,580	2,010	1,850	992	523	438
31	1,820	------	1,080	3,180	------	1,550	------	2,200	------	992	985	------
TOTAL	26,023	49,751	55,808	114,160	92,570	58,180	41,720	60,588	84,980	49,114	24,897	15,918
MEAN	839	1,658	1,800	3,683	3,306	1,877	1,391	1,954	2,833	1,584	803	531
MAX	2,100	4,270	5,610	18,600	8,920	3,630	2,160	2,790	4,090	2,260	1,040	1,230
MIN	304	742	789	1,070	1,940	1,260	1,020	928	1,850	992	523	346
AC-FT	51,620	98,680	110,700	226,400	183,600	115,400	82,750	120,200	168,600	97,420	49,380	31,570
(†)	+590	-170	+300	+300	+130	0	-1,280	+1,620	-1,030	+340	+50	-1,570
MEAN ‡	849	1,656	1,805	3,687	3,308	1,877	1,369	1,981	2,817	1,590	804	504
CFSM ‡	3.16	6.16	6.71	13.7	12.3	6.98	5.09	7.36	10.5	5.91	2.99	1.87
IN ‡	3.64	6.87	7.74	15.80	12.80	8.04	5.68	8.49	11.68	6.81	3.45	2.09
AC-FT‡	52,210	98,510	111,000	226,700	183,700	115,400	81,470	121,800	167,600	97,760	49,430	30,000

OBSERVED

CAL YR 1960: TOTAL 550,536 MEAN 1,504 MAX 11,300 MIN 304 AC-FT 1,092,000
WAT YR 1961: TOTAL 673,709 MEAN 1,846 MAX 18,600 MIN 304 AC-FT 1,336,000

ADJUSTED ‡

CAL YR 1960: MEAN 1,503 CFSM 5.59 IN 76.07 AC-FT 1,091,000
WAT YR 1961: MEAN 1,844 CFSM 6.86 IN 93.09 AC-FT 1,335,000

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† Change in contents, in acre-feet, in Lake Mills.
‡ Adjusted for change in contents in Lake Mills.

12-0455. Elwha River at McDonald Bridge, near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	408	952	2,710	1,960	944	679	692	1,360	1,610	1,890	1,190	542
2	379	920	1,970	3,450	984	679	754	1,370	1,860	1,850	1,150	530
3	346	882	1,680	7,080	1,710	672	747	1,550	1,840	1,370	1,100	255
4	357	733	2,070	3,950	1,620	686	775	1,380	1,740	661	884	295
5	390	646	1,680	3,330	1,290	912	875	1,360	1,600	1,410	1,060	523
6	582	588	1,390	2,900	1,220	810	1,110	1,510	1,750	1,770	1,060	474
7	480	588	1,340	3,550	1,630	679	1,270	1,240	1,730	1,540	1,120	474
8	352	614	1,340	3,670	1,630	660	1,270	1,020	1,670	1,420	910	468
9	668	962	1,300	3,220	1,620	672	1,260	1,390	1,850	1,600	951	468
10	1,110	4,300	1,180	2,240	1,290	672	1,240	1,440	1,720	1,580	1,020	504
11	817	2,210	952	1,800	1,260	620	1,220	1,410	1,620	1,440	845	516
12	1,010	1,290	692	1,960	1,240	608	1,180	1,270	1,540	1,490	761	486
13	1,300	1,280	875	1,750	1,170	594	1,120	1,220	1,580	1,520	754	594
14	1,140	1,270	1,000	1,670	1,190	594	1,170	1,060	1,750	1,390	761	754
15	936	1,230	1,000	1,480	1,210	594	1,260	1,180	2,340	1,320	686	660
16	789	1,050	1,030	1,350	1,200	594	1,340	1,170	2,300	1,210	692	438
17	620	968	1,100	1,290	1,200	594	1,340	1,170	2,040	1,260	824	408
18	542	968	1,000	1,180	1,200	594	1,250	1,170	1,940	1,320	838	408
19	523	968	1,040	1,190	1,180	594	1,350	1,170	1,930	1,220	789	408
20	438	890	1,390	1,190	1,020	594	1,430	1,160	1,930	1,120	768	414
21	438	875	1,960	1,170	817	594	1,300	1,190	1,970	1,190	761	420
22	444	968	1,940	1,130	810	568	1,260	1,210	2,150	1,150	712	426
23	614	984	2,790	1,040	817	627	1,320	1,250	2,130	1,060	614	426
24	614	875	2,230	992	817	692	1,410	1,350	2,250	1,210	575	426
25	766	761	1,780	1,020	686	782	1,450	1,200	2,320	1,140	608	402
26	1,300	686	1,390	1,050	686	775	1,540	1,620	2,280	1,280	620	362
27	1,290	860	1,580	1,130	686	761	1,520	1,620	2,290	1,310	562	368
28	1,180	1,210	1,820	1,060	686	653	1,470	1,330	2,160	1,310	510	730
29	952	1,750	2,940	1,020	------	614	1,380	1,620	1,670	1,260	510	1,280
30	775	2,730	2,510	952	------	608	1,320	1,620	1,800	1,220	510	1,260
31	868	------	1,870	882	------	646	------	1,400	------	1,040	530	------
TOTAL	22,428	35,008	49,549	61,656	31,813	20,421	36,623	41,010	57,360	41,551	24,675	15,719
MEAN	723	1,167	1,598	1,989	1,136	659	1,221	1,323	1,912	1,340	796	524
MAX	1,300	4,300	2,940	7,080	1,710	912	1,540	1,620	2,340	1,890	1,190	1,280
MIN	346	588	692	882	686	568	692	1,020	1,540	661	510	255
AC-FT	44,490	69,440	98,280	122,300	63,100	40,500	72,640	81,340	113,800	82,420	48,940	31,180
(†)	+170	+1,570	+510	-1,570	-1,730	-900	+3,130	-460	+760	+650	-1,160	.+730
MEAN ‡	726	1,193	1,607	1,963	1,105	644	1,273	1,315	1,926	1,351	777	536
CFSM ‡	2.70	4.43	5.97	7.30	4.11	2.39	4.73	4.89	7.16	5.02	2.89	1.99
IN ‡	3.11	4.95	6.89	8.41	4.28	2.76	5.28	5.64	7.99	5.79	3.33	2.22
AC-FT‡	44,660	71,010	98,790	120,700	61,370	39,600	75,770	80,880	114,600	83,070	47,780	31,910

OBSERVED

CAL YR 1961: TOTAL 649,112 MEAN 1,778 MAX 18,600 MIN 346 AC-FT 1,287,000
WAT YR 1962: TOTAL 437,813 MEAN 1,199 MAX 7,080 MIN 255 AC-FT 868,400

ADJUSTED ‡

CAL YR 1961: MEAN 1,780 CFSM 6.62 IN. 89.79 AC-FT 1,289,000
WAT YR 1962: MEAN 1,202 CFSM 4.47 IN. 60.65 AC-FT 870,100

† Change in contents, in acre-feet, in Lake Mills.
‡ Adjusted for change in contents in Lake Mills.

12-0455. Elwha River at McDonald Bridge, near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	944	761	2,080	4,180	779	1,780	989	1,000	1,730	1,010	780	520
2	754	782	2,120	4,610	821	1,730	989	1,100	1,630	1,080	720	500
3	905	782	1,870	4,370	4,600	1,260	1,030	900	1,720	1,230	700	480
4	1,000	920	1,770	3,210	10,300	1,140	1,020	1,100	1,470	548	750	440
5	817	1,180	3,090	2,450	8,110	1,250	1,160	1,200	1,180	576	780	420
6	646	1,160	3,580	2,320	8,100	1,260	1,230	1,400	1,780	1,020	740	400
7	789	1,060	3,000	2,220	6,400	1,180	1,140	1,300	1,670	982	700	500
8	1,060	1,260	3,130	1,850	4,190	1,220	1,240	1,100	1,520	1,310	700	480
9	1,220	1,260	2,720	1,720	3,590	1,110	789	1,300	1,710	1,240	720	450
10	992	1,310	2,610	1,520	2,310	1,030	1,160	1,200	1,760	1,170	660	550
11	1,050	1,650	2,700	1,450	2,520	1,050	1,160	1,100	1,760	1,130	680	586
12	1,940	1,620	2,570	1,360	2,360	870	1,170	1,100	1,580	1,140	700	473
13	4,680	1,860	2,970	1,360	2,160	989	1,170	1,000	1,590	1,000	700	823
14	1,730	1,630	5,100	1,300	1,970	968	1,160	996	1,760	1,020	660	884
15	1,240	1,380	9,700	1,250	1,850	816	1,220	1,020	1,650	1,070	620	712
16	1,400	1,240	6,050	1,260	1,680	1,080	1,260	1,070	1,760	1,030	560	550
17	1,080	1,210	4,150	1,370	1,510	933	1,220	1,090	1,560	954	500	484
18	1,250	1,070	3,190	1,130	1,530	835	1,180	1,260	1,860	863	500	395
19	1,300	8,450	2,730	1,220	2,040	884	1,220	1,460	1,720	807	650	395
20	1,260	9,720	1,890	982	1,800	982	1,040	1,740	1,770	870	650	395
21	1,380	4,310	2,440	982	1,670	1,030	982	2,420	1,750	1,070	600	390
22	1,170	3,430	1,930	919	1,570	1,020	940	2,780	1,520	1,560	550	390
23	1,140	2,750	1,590	884	1,480	968	900	2,190	1,250	1,470	517	425
24	1,130	1,790	1,600	877	1,180	912	950	2,010	1,310	1,030	534	451
25	1,120	6,630	1,650	870	1,460	835	950	1,730	1,300	950	586	435
26	1,120	5,690	1,480	870	2,890	870	950	1,710	1,200	900	528	390
27	1,080	4,130	1,530	800	2,050	919	950	1,690	1,060	950	495	370
28	1,050	2,390	1,510	786	1,870	1,080	1,000	1,750	1,050	900	517	375
29	968	1,920	2,020	670	------	954	1,000	1,830	1,020	850	522	420
30	944	2,490	4,610	652	------	658	1,100	1,930	1,010	950	500	440
31	838	------	2,370	730	------	772	------	1,860	------	800	500	------
TOTAL	37,997	75,835	89,750	50,172	82,790	32,385	32,269	45,336	45,650	31,480	19,319	14,523
MEAN	1,226	2,528	2,895	1,618	2,957	1,045	1,076	1,462	1,522	1,015	623	484
MAX	4,680	9,720	9,700	4,610	10,300	1,780	1,260	2,780	1,860	1,560	780	884
MIN	646	761	1,480	652	779	658	789	900	1,010	548	495	370
AC-FT	75,370	150,400	178,000	99,510	164,200	64,230	64,000	89,920	90,550	62,440	38,320	28,810
(†)	-1,530	+1,570	+40	-1,060	+1,410	-390	-2,240	+2,410	-1,190	+330	-120	-250
MEAN ‡	1,201	2,554	2,895	1,601	2,982	1,038	1,038	1,502	1,502	1,021	621	480
CFSM ‡	4.46	9.49	10.8	5.95	11.1	3.86	3.86	5.58	5.58	3.80	2.31	1.78
IN ‡	5.15	10.59	12.41	6.86	11.54	4.45	4.30	6.44	6.23	4.38	2.66	1.99
AC-FT‡	73,840	152,000	178,000	98,450	165,600	63,840	61,760	92,330	89,360	62,770	38,200	28,560

OBSERVED

CAL YR 1962: TOTAL 534,410 MEAN 1,464 MAX 9,720 MIN 255 AC-FT 1,060,000
WAT YR 1963: TOTAL 557,506 MEAN 1,527 MAX 10,300 MIN 370 AC-FT 1,106,000

ADJUSTED ‡

CAL YR 1962: MEAN 1,464 CFSM 5.44 IN 73.85 AC-FT 1,060,000
WAT YR 1963: MEAN 1,526 CFSM 5.67 IN 77.00 AC-FT 1,105,000

† Change in contents, in acre-feet, in Lake Mills.
‡ Adjusted for change in contents in Lake Mills.

12-0455. Elwha River at McDonald Bridge, near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	390	1,460	1,940	6,100	2,460	1,210	1,220	1,000	4,120	2,420	1,490	700
2	345	2,020	1,680	4,000	1,830	1,050	1,160	835	3,980	2,400	1,490	688
3	360	1,650	1,630	3,400	1,810	912	1,240	856	2,900	2,540	1,400	688
4	420	1,810	1,650	2,590	1,940	961	1,260	947	3,730	2,290	1,500	686
5	365	1,420	1,860	2,350	1,900	1,020	1,200	767	4,400	2,390	1,420	648
6	355	1,490	1,620	2,370	1,690	968	1,100	862	3,350	2,380	1,390	622
7	380	1,540	1,560	1,980	1,570	919	1,050	1,040	3,370	2,700	1,250	394
8	375	1,700	1,560	1,880	1,550	905	1,070	961	3,130	2,880	1,220	491
9	370	1,580	1,360	1,880	1,540	870	1,110	1,260	3,300	2,460	1,210	628
10	370	1,540	1,210	1,860	1,210	828	1,080	1,570	3,880	2,200	1,080	565
11	375	1,400	1,290	1,660	1,220	1,220	1,200	1,440	4,080	2,410	1,210	528
12	375	2,570	1,240	1,510	1,230	1,140	1,110	1,400	3,670	3,020	1,290	528
13	958	3,600	1,240	1,640	1,230	1,130	994	1,300	3,470	2,770	1,230	520
14	1,180	5,320	1,230	1,670	1,220	1,180	1,100	1,310	3,210	2,680	1,110	496
15	1,080	3,080	1,220	1,660	1,160	1,070	1,110	1,280	3,170	3,280	1,140	524
16	702	2,800	1,020	3,520	1,160	1,180	1,110	1,230	3,770	3,060	996	738
17	517	2,420	1,270	2,950	1,100	1,220	1,080	1,380	3,030	2,160	926	972
18	473	2,160	1,440	2,420	1,060	1,220	1,000	1,620	2,920	2,220	918	777
19	405	1,960	1,910	1,990	954	1,240	1,000	1,720	2,520	2,010	1,070	596
20	608	1,550	2,510	1,980	968	1,180	900	1,780	2,520	1,990	955	699
21	5,110	1,580	1,670	1,690	968	1,130	850	1,840	2,410	2,070	914	742
22	5,090	1,760	2,500	1,560	863	1,010	700	1,780	2,240	1,890	948	476
23	2,310	2,440	5,200	1,470	933	891	1,200	1,590	2,720	1,660	990	618
24	3,760	2,160	4,600	1,590	884	891	1,030	1,500	2,770	1,610	948	616
25	2,820	2,060	3,700	2,280	933	835	1,110	1,390	2,610	1,630	945	600
26	2,230	6,410	2,300	1,800	912	779	856	1,270	2,560	1,880	959	557
27	1,440	4,430	2,600	2,050	933	779	940	1,370	2,340	1,640	912	492
28	1,520	2,660	2,300	1,840	926	779	870	1,810	2,130	1,810	925	479
29	1,740	2,420	1,900	2,520	989	779	891	1,490	1,840	1,890	835	519
30	1,440	2,140	1,900	2,240	------	870	842	2,050	1,960	1,670	788	2,630
31	1,440	------	3,400	2,130	------	1,040	------	3,640	------	1,490	730	------
TOTAL	39,303	71,130	62,510	70,580	37,143	31,206	31,383	44,288	92,100	69,500	34,189	20,217
MEAN	1,268	2,371	2,016	2,277	1,281	1,007	1,046	1,429	3,070	2,242	1,103	674
MAX	5,110	6,410	5,200	6,100	2,460	1,240	1,260	3,640	4,400	3,280	1,500	2,630
MIN	345	1,400	1,020	1,470	863	779	700	767	1,840	1,490	730	394
AC-FT	77,960	141,100	124,000	140,000	73,670	61,900	62,250	87,840	182,700	137,900	67,810	40,100
(†)	+1,230	+340	-40	-300	-1,360	-340	-2,450	+4,450	-130	+170	-600	+430
MEAN ‡	1,288	2,376	2,017	2,272	1,257	1,001	1,005	1,501	3,069	2,246	1,093	681
CFSM ‡	4.79	8.83	7.50	8.45	4.67	3.72	3.74	5.58	11.4	8.35	4.06	2.53
IN ‡	5.52	9.86	8.64	9.74	5.04	4.29	4.17	6.43	12.73	9.63	4.68	2.83
AC-FT‡	79,190	141,400	124,000	139,700	72,310	61,560	59,800	92,290	182,600	138,100	67,210	40,530

OBSERVED

CAL YR 1963: TOTAL 526,867 MEAN 1,443 MAX 10,300 MIN 345 AC-FT 1,045,000
WAT YR 1964: TOTAL 603,549 MEAN 1,649 MAX 6,410 MIN 345 AC-FT 1,197,000

ADJUSTED ‡

CAL YR 1963: MEAN 1,443 CFSM 5.36 IN 72.87 AC-FT 1,045,000
WAT YR 1964: MEAN 1,650 CFSM 6.13 IN 83.56 AC-FT 1,198,000

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† Change in contents, in acre-feet, in Lake Mills.
‡ Adjusted for change in contents in Lake Mills.

12-0455. Elwha River at McDonald Bridge, near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,310	973	4,630	846	2,530	1,370	793	1,690	1,930	1,580	863	450
2	1,700	655	3,400	1,140	2,400	1,360	792	1,500	2,110	1,560	850	468
3	1,220	699	2,490	776	1,820	1,330	789	1,440	2,510	1,640	799	447
4	1,030	1,530	2,060	689	3,920	1,310	787	1,410	2,280	758	780	411
5	761	1,070	1,490	684	5,570	1,310	786	1,280	2,170	1,270	758	404
6	682	1,030	1,270	678	3,830	1,280	784	1,130	2,410	1,650	717	443
7	691	1,030	1,330	629	2,910	1,200	760	1,220	2,510	1,710	695	307
8	827	946	1,620	595	2,640	1,270	705	1,360	2,320	1,600	696	407
9	864	737	1,500	584	2,160	1,240	702	1,410	2,470	1,360	695	404
10	836	839	1,410	598	1,870	1,230	701	1,380	2,330	1,270	694	405
11	649	1,030	1,280	586	1,730	1,290	700	1,500	2,610	1,240	695	392
12	542	1,140	1,260	589	1,710	1,210	660	1,680	2,430	1,200	682	376
13	598	1,010	1,250	570	1,720	1,290	692	1,760	2,050	1,180	1,010	368
14	924	703	1,240	921	1,540	1,300	670	1,840	1,780	1,180	871	460
15	910	416	1,090	1,110	1,380	1,240	697	1,760	1,860	1,180	734	561
16	739	303	935	1,310	1,400	1,200	828	2,450	1,850	1,170	692	493
17	650	242	771	1,420	1,570	1,130	849	1,840	1,840	1,160	614	427
18	578	345	697	1,430	1,560	1,030	799	1,890	1,970	1,160	679	400
19	619	355	683	1,790	1,800	994	986	1,790	2,060	1,090	661	368
20	601	365	767	1,900	1,620	978	2,110	1,780	1,810	1,020	786	379
21	580	366	860	1,670	1,540	976	3,420	1,760	1,820	997	672	417
22	509	367	1,060	1,650	1,540	975	1,980	1,800	1,590	950	658	443
23	534	872	1,090	1,290	1,340	851	1,900	1,780	1,680	911	658	367
24	497	1,700	582	1,430	1,340	821	1,730	1,690	1,860	909	629	398
25	499	604	359	1,330	1,310	878	1,710	1,780	1,840	966	579	367
26	481	938	665	1,560	1,290	818	1,920	1,920	1,700	965	570	392
27	446	873	820	1,990	1,910	859	2,390	2,090	1,450	974	579	383
28	463	751	719	2,220	1,610	821	2,810	2,280	1,300	978	478	364
29	401	1,380	621	3,180	------	799	1,840	2,230	1,420	919	459	374
30	466	7,120	639	4,700	------	795	1,910	2,130	1,560	821	462	282
31	550	------	626	3,310	------	795	------	1,850	------	843	450	------
TOTAL	22,157	30,389	39,214	43,175	57,560	33,950	38,200	53,420	59,520	36,211	21,165	12,157
MEAN	715	1,013	1,265	1,393	2,056	1,095	1,273	1,723	1,984	1,168	683	405
MAX	1,700	7,120	4,630	4,700	5,570	1,370	3,420	2,450	2,610	1,710	1,010	561
MIN	401	242	359	570	1,290	795	660	1,130	1,300	758	450	282
AC-FT	43,950	60,280	77,780	85,640	114,200	67,340	75,770	106,000	118,100	71,820	41,980	24,110
(†)	-1,360	+460	-290	+980	+260	-2,420	+2,630	-430	-2,240	+1,170	-160	-760
MEAN ‡	693	1,021	1,260	1,409	2,062	1,056	1,318	1,717	1,948	1,187	680	392
CFSM ‡	2.58	3.80	4.68	5.24	7.67	3.93	4.90	6.38	7.24	4.41	2.53	1.46
IN ‡	2.97	4.23	5.40	6.04	7.98	4.53	5.46	7.36	8.08	5.09	2.91	1.63
AC-FT‡	42,590	60,740	77,490	86,620	114,500	64,920	78,400	105,600	115,900	72,990	41,820	23,350

OBSERVED

CAL YR 1964: TOTAL 522,366 MEAN 1,427 MAX 7,120 MIN 242 AC-FT 1,036,000
WAT YR 1965: TOTAL 447,118 MEAN 1,225 MAX 7,120 MIN 242 AC-FT 886,800

ADJUSTED ‡

CAL YR 1964: MEAN 1,426 CFSM 4.68 IN 72.14 AC-FT 1,035,000
WAT YR 1965: MEAN 1,222 CFSM 4.54 IN 61.68 AC-FT 884,800

† Change in contents, in acre-feet, in Lake Mills.
‡ Adjusted for change in contents in Lake Mills.

12-0475. Siebert Creek near Port Angeles, Wash.

Location.--Lat 48°05'00", long 123°16'52", in SW¼NE¼ sec.23, T.30 N., R.5 W., on right bank 300 ft downstream from Emery Creek, 3¼ miles upstream from mouth, and 6½ miles southeast of Port Angeles.

Drainage area.--15.5 sq mi.

Records available.--June 1952 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 280 ft (from topographic map). Prior to Apr. 22, 1960, at sites within three-quarters of a mile downstream at different datums.

Average discharge.--13 years, 17.8 cfs (12,890 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 6, 1961	-	163	2.49	Nov. 19, 1962	2230	294	2.99	Jan. 16, 1964	1030	108	2.01
Jan. 15, 1961	1630	* 1,120	5.30	Nov. 25, 1962	1530	* 487	3.68				
Feb. 21, 1961	1530	140	2.36	Feb. 4, 1963	1830	256	2.94	Jan. 30, 1965	1500	* 264	2.84
Mar. 4, 1961	2100	106	2.13					Feb. 5, 1965	1730	159	2.32
				Oct. 22, 1963	0200	* 153	2.29	Apr. 21, 1965	0400	101	1.96
Jan. 3, 1962	1200	* 72	1.84	Oct. 25, 1963	1000	127	2.13				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.22-27, 1961	a 2.1	-	1964	Sept.28, 29, 1964	2.6	0.76
1962	Feb. 25, 1962	2.0	0.52	1965	Dec. 16, 1964	2.0	b .70
1963	Oct. 3, 1962	2.4	.56		Aug. 1, 2, 1965		

a Minimum daily.
b Probably Dec. 16, 1964.

1952-65: Maximum discharge, 1,620 cfs Nov. 3, 1955 (gage height, 9.50 ft, site and datum then in use), from rating curve extended above 260 cfs on basis of computations of peak flow through culvert at gage heights, 4.25 and 8.12 ft; minimum, 2.0 cfs Sept. 3-5, 1952, Aug. 19-26, 1958, Aug. 25, 26, 1959, Feb. 25, 1962, probably Dec. 16, 1964, Aug. 1, 2, 1965.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1346: 1953(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.4	4.3	9.4	5.0	25	60	15	9.1	10	4.3	3.0	4.0
2	2.4	4.6	10	5.0	45	47	15	9.7	9.1	4.3	2.9	3.5
3	2.4	6.0	9.4	5.0	35	38	15	20	8.6	4.2	2.9	3.2
4	2.6	4.6	8.7	6.0	30	32	14	58	8.0	3.8	2.9	3.1
5	2.6	3.9	7.4	10	70	29	13	75	7.6	9.4	3.0	3.0
6	3.0	3.9	6.5	15	90	26	13	47	8.0	8.3	3.0	2.8
7	4.6	3.9	6.3	17	60	23	12	35	7.8	6.1	2.9	2.7
8	4.1	3.6	6.0	19	50	23	12	31	7.6	5.0	2.9	2.6
9	3.4	3.6	6.0	30	40	25	12	28	7.3	4.5	2.8	2.5
10	3.0	6.5	5.7	60	35	26	11	27	7.3	4.2	2.6	2.4
11	3.0	7.7	5.5	100	37	32	11	26	7.3	3.8	2.6	2.3
12	3.0	6.0	39	50	37	44	11	21	6.8	3.8	2.5	2.3
13	3.0	5.2	23	32	35	49	12	22	6.6	3.6	2.5	2.2
14	3.0	5.2	13	29	31	52	11	25	6.1	3.6	2.5	2.2
15	2.8	4.8	11	506	53	77	10	22	5.6	3.7	3.6	2.3
16	2.8	6.3	10	240	52	52	9.5	19	5.4	3.7	4.2	2.3
17	2.8	22	9.0	103	40	40	10	16	5.2	3.6	3.4	2.3
18	2.8	20	15	64	33	32	10	14	5.0	3.4	3.1	2.3
19	2.8	11	18	47	29	28	9.5	13	4.9	3.4	2.9	2.2
20	2.8	21	16	38	30	26	9.0	12	4.9	3.3	2.9	2.2
21	2.8	14	14	32	110	22	10	11	4.7	3.1	2.8	2.2
22	2.8	11	12	28	84	20	12	11	4.7	3.1	2.7	2.1
23	3.2	13	10	23	54	20	13	14	4.5	3.3	2.6	2.1
24	4.1	28	9.0	20	52	19	12	12	4.3	3.3	2.6	2.1
25	3.6	34	8.0	19	46	19	10	11	4.3	3.1	2.6	2.1
26	4.1	20	7.0	17	38	19	10	12	4.3	3.1	2.5	2.1
27	5.0	14	7.0	16	35	19	9.4	19	4.3	3.1	2.4	2.1
28	3.9	10	6.0	15	32	18	9.1	17	4.5	3.3	2.3	2.4
29	3.6	8.7	6.0	15	------	16	9.4	14	5.0	3.3	2.3	2.6
30	3.9	8.4	6.0	15	------	16	9.1	12	4.7	3.1	2.4	2.5
31	3.9	------	6.0	18	------	15	------	11	------	3.1	3.5	------
TOTAL	100.2	315.2	325.9	1,599.0	1,308	964	339.0	673.8	184.4	124.9	87.8	74.7
MEAN	3.23	10.5	10.5	51.6	46.7	31.1	11.3	21.7	6.15	4.03	2.83	2.49
MAX	5.0	34	39	506	110	77	15	75	10	9.4	4.2	4.0
MIN	2.4	3.6	5.5	5.0	25	15	9.0	9.1	4.3	3.1	2.3	2.1
CFSM	.21	.68	.68	3.33	3.01	2.01	.73	1.40	.40	.26	.18	.16
IN.	.24	.76	.78	3.84	3.14	2.31	.81	1.62	.44	.30	.21	.18
AC-FT	199	625	646	3,170	2,590	1,910	672	1,340	366	248	174	148

CAL YR 1960: TOTAL 5,883.8 MEAN 16.1 MAX 450 MIN 2.4 CFSM 1.04 IN 14.12 AC-FT 11,670
WAT YR 1961: TOTAL 6,096.9 MEAN 16.7 MAX 506 MIN 2.1 CFSM 1.08 IN 14.63 AC-FT 12,090

Note.--No gage-height record Aug. 27 to Sept. 30. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0475. Siebert Creek near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.5	3.7	16	9.6	7.0	5.0	9.2	7.0	8.4	4.0	2.5	2.4
2	2.4	3.6	13	11	7.0	5.0	9.0	7.0	15	4.2	2.6	2.3
3	2.4	3.4	10	57	7.0	4.5	8.4	7.0	17	3.8	3.3	2.3
4	2.6	3.3	11	37	6.6	5.0	8.4	6.8	15	4.4	6.3	2.3
5	3.0	3.3	11	24	6.3	6.0	8.0	6.3	14	4.5	5.1	2.3
6	3.7	3.2	9.0	23	6.0	8.0	9.0	6.3	12	6.0	3.8	2.3
7	3.3	3.2	7.0	24	6.3	10	11	7.0	10	4.5	4.0	2.3
8	3.0	3.2	6.0	22	6.3	9.0	9.0	6.8	9.0	4.0	3.8	2.2
9	3.0	4.0	5.0	19	6.8	8.5	8.0	7.6	8.4	3.8	3.4	2.2
10	3.7	15	4.5	16	7.8	8.0	7.3	14	7.8	3.7	3.2	2.5
11	3.4	10	4.0	14	7.6	7.5	6.8	16	7.0	3.6	3.0	2.6
12	3.4	7.0	4.0	13	7.0	7.0	6.3	26	6.8	3.4	3.0	2.5
13	3.4	5.0	4.0	12	6.8	6.3	6.3	20	6.8	3.4	3.0	2.9
14	3.3	4.0	4.0	10	7.6	6.3	6.0	16	6.3	3.4	2.9	2.8
15	3.2	3.5	4.2	9.2	7.6	7.0	5.8	13	5.8	3.3	2.8	2.6
16	3.0	3.4	4.5	8.6	7.3	9.0	5.4	10	5.4	3.3	2.8	2.5
17	3.0	3.3	8.6	8.4	7.0	9.2	5.2	9.0	5.4	3.4	2.9	2.5
18	2.9	3.2	7.6	6.8	6.6	9.9	5.1	9.0	5.4	3.3	2.8	2.4
19	2.9	3.1	7.3	4.4	6.3	13	4.9	11	5.2	3.3	2.8	2.4
20	2.9	3.0	17	4.5	5.8	14	4.7	9.9	4.9	3.2	2.8	2.5
21	3.0	3.5	40	6.0	5.4	13	4.7	9.0	4.7	3.0	2.9	2.5
22	2.9	4.0	22	6.5	5.4	12	4.5	10	4.5	2.9	2.8	2.6
23	3.2	3.5	22	6.5	5.2	10	4.4	19	4.5	2.9	2.6	2.6
24	3.2	3.0	23	6.3	4.4	14	5.1	18	4.4	2.8	2.5	2.5
25	3.0	3.0	19	6.0	3.2	18	6.6	16	4.2	2.6	2.5	2.4
26	4.5	3.0	14	6.3	3.3	19	5.6	15	4.0	2.6	2.5	2.4
27	5.6	3.5	11	6.3	4.5	18	9.1	13	4.0	2.6	2.5	2.5
28	6.0	4.5	9.6	6.0	5.0	15	12	11	4.0	2.6	2.5	3.6
29	4.9	8.0	11	6.0	------	13	8.4	11	3.8	2.5	2.6	4.4
30	3.8	20	12	6.6	------	11	7.6	10	3.8	2.5	2.5	3.3
31	3.6	------	11	7.0	------	9.6	------	9.6	------	2.5	2.4	------
TOTAL	104.7	147.4	352.3	403.0	173.1	310.8	211.8	357.3	217.5	106.0	95.1	77.6
MEAN	3.38	4.91	11.4	13.0	6.18	10.0	7.06	11.5	7.25	3.42	3.07	2.59
MAX	6.0	20	40	57	7.8	19	12	26	17	6.0	6.3	4.4
MIN	2.4	3.0	4.0	4.4	3.2	4.5	4.4	6.3	3.8	2.5	2.4	2.2
CFSM	.22	.32	.73	.84	.40	.65	.46	.74	.47	.22	.20	.17
IN.	.25	.35	.85	.97	.42	.75	.51	.86	.52	.25	.23	.19
AC-FT	208	292	699	799	343	616	420	709	431	210	189	154

CAL YR 1961: TOTAL 5,960.0 MEAN 16.3 MAX 506 MIN 2.1 CFSM 1.05 IN 14.30 AC-FT 11,820
WAT YR 1962: TOTAL 2,556.6 MEAN 7.00 MAX 57 MIN 2.2 CFSM .45 IN 6.13 AC-FT 5,070

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.8	3.8	30	43	8.6	12	12	11	5.6	7.0	4.9	5.1
2	2.5	3.7	40	55	8.4	11	11	12	5.6	8.5	4.7	4.9
3	2.4	3.7	36	54	15	11	10	12	5.8	7.8	4.5	4.7
4	2.6	3.8	30	40	114	9.9	10	12	5.8	7.3	4.4	4.5
5	2.5	4.4	32	31	118	9.9	12	19	6.3	7.0	4.4	4.2
6	2.8	4.9	52	25	101	9.6	14	24	5.6	6.6	4.2	4.0
7	2.8	4.7	38	22	86	9.2	13	19	5.6	6.0	4.0	4.0
8	4.8	12	31	19	54	9.0	12	16	5.8	13	3.8	4.0
9	6.8	7.8	26	18	39	8.6	11	15	5.6	13	3.8	4.0
10	4.7	6.8	23	14	30	8.6	11	13	5.2	15	3.6	4.2
11	4.5	7.6	20	8.0	24	8.4	13	12	4.9	13	4.4	4.4
12	25	8.6	19	8.0	20	8.4	12	12	4.7	11	5.1	4.5
13	72	17	17	13	18	8.0	11	11	4.5	9.6	4.5	7.6
14	25	13	17	12	17	8.0	11	10	4.4	8.6	4.4	6.6
15	12	9.6	63	12	15	8.0	11	9.2	4.4	8.0	4.2	5.2
16	7.8	9.0	62	12	15	8.0	11	9.0	4.3	7.8	4.0	5.2
17	6.6	8.6	44	11	14	8.4	11	8.6	4.2	7.3	3.8	6.3
18	5.8	8.0	35	11	14	8.0	12	8.4	4.2	6.3	4.2	5.2
19	5.4	111	29	9.6	15	8.0	14	7.8	4.0	6.0	11	4.9
20	5.1	137	25	9.2	15	8.0	16	7.6	4.0	5.8	12	4.5
21	4.7	55	23	9.0	14	8.0	15	7.6	9.0	6.6	7.8	4.4
22	4.5	36	20	9.0	13	8.0	13	6.8	7.0	7.3	7.0	4.4
23	4.4	28	19	8.6	12	7.8	13	6.8	6.0	6.6	6.0	4.4
24	4.2	38	17	8.4	12	7.6	13	6.8	6.5	6.0	15	4.2
25	4.0	220	16	8.6	12	7.6	12	6.6	7.0	5.6	20	4.0
26	4.4	152	15	8.4	13	7.6	12	6.3	7.5	5.4	12	3.8
27	4.2	65	15	7.8	12	7.6	11	6.0	7.0	5.1	8.4	3.8
28	4.0	41	15	7.0	12	11	11	6.0	6.6	5.1	7.0	3.8
29	3.8	33	15	4.9	------	13	10	5.8	6.0	4.9	6.0	3.8
30	3.8	34	22	5.0	------	13	11	5.6	6.0	4.9	5.4	3.8
31	3.8	------	29	5.0	------	12	------	5.6	------	5.2	5.1	------
TOTAL	249.7	1,087.0	875	508.5	841.0	283.2	359	318.5	169.1	237.3	199.6	138.4
MEAN	8.05	36.2	28.2	16.4	30.0	9.14	12.0	10.3	5.64	7.65	6.44	4.61
MAX	72	220	63	55	118	13	16	24	9.0	15	20	7.6
MIN	2.4	3.7	15	4.9	8.4	7.6	10	5.6	4.0	4.9	3.6	3.8
CFSM	.52	2.34	1.82	1.06	1.94	.59	.77	.66	.36	.49	.42	.30
IN.	.60	2.61	2.10	1.22	2.02	.68	.86	.76	.41	.57	.48	.33
AC-FT	495	2,160	1,740	1,010	1,670	562	712	632	335	471	396	275

CAL YR 1962: TOTAL 4,163.9 MEAN 11.4 MAX 220 MIN 2.2 CFSM .74 IN 9.99 AC-FT 8,260
WAT YR 1963: TOTAL 5,266.3 MEAN 14.4 MAX 220 MIN 2.4 CFSM .93 IN 12.64 AC-FT 10,450

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0475. Siebert Creek near Port Angeles, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.7	16	23	59	69	24	32	7.3	6.9	6.9	4.0	2.8
2	3.7	21	26	58	56	16	24	7.7	7.3	6.5	5.8	2.8
3	4.0	19	18	42	42	14	20	7.3	6.5	6.5	4.8	2.8
4	4.8	17	16	39	36	15	19	6.9	6.5	6.1	4.5	2.8
5	4.5	15	17	32	31	16	17	6.9	8.6	6.1	4.2	2.8
6	5.1	37	28	32	25	14	15	6.5	8.6	6.1	4.0	2.8
7	4.8	39	22	27	23	13	14	6.1	8.6	5.8	3.7	3.2
8	4.5	30	24	24	20	13	13	6.1	15	5.8	3.7	3.7
9	4.5	34	26	26	19	12	12	6.1	17	5.8	3.7	3.2
10	4.5	29	22	25	19	12	12	6.5	12	5.4	3.5	2.8
11	4.2	25	19	23	17	15	12	6.1	11	4.8	3.5	2.8
12	4.0	23	17	22	16	17	11	6.1	9.9	4.8	3.2	2.8
13	4.8	24	16	22	15	15	9.9	6.1	9.4	4.5	3.5	2.8
14	5.1	32	15	24	15	16	9.9	5.8	11	4.8	3.5	2.8
15	4.8	35	16	23	14	16	11	5.8	14	5.1	3.5	2.8
16	4.5	28	19	84	13	14	10	5.8	25	4.8	3.2	3.0
17	4.5	23	24	78	13	16	9.9	5.8	26	4.8	3.2	4.2
18	4.5	20	25	65	12	16	9.0	5.8	25	4.8	4.2	3.2
19	4.2	24	28	56	12	14	8.6	5.8	22	4.8	3.7	3.2
20	4.8	20	36	55	11	13	8.2	7.7	19	4.8	3.5	3.2
21	26	18	31	42	11	33	8.2	9.0	16	4.8	3.2	3.0
22	81	19	29	34	11	49	8.2	7.7	13	4.5	3.2	3.0
23	30	34	38	28	10	39	7.7	7.3	12	4.2	3.0	3.0
24	49	38	37	29	9.9	30	7.3	6.5	10	4.0	3.0	3.0
25	113	36	41	40	9.4	25	6.9	6.1	9.9	4.0	3.0	3.0
26	57	49	33	34	9.0	23	6.9	5.8	9.0	3.7	3.2	2.8
27	32	80	27	35	8.6	21	6.9	5.8	8.6	3.5	3.5	2.8
28	25	51	23	36	9.0	20	6.9	5.8	8.2	3.5	3.7	2.8
29	24	37	20	45	9.4	20	7.3	5.8	7.7	3.5	3.5	2.8
30	22	28	19	42	------	29	7.3	5.8	7.3	3.7	3.5	14
31	18	------	24	42	------	36	------	5.8	------	4.0	3.2	------
TOTAL	566.5	901	759	1,223	565.3	626	351.1	199.6	371.0	152.4	112.9	100.7
MEAN	18.3	30.0	24.5	39.5	19.5	20.2	11.7	6.44	12.4	4.92	3.64	3.36
MAX	113	80	41	84	69	49	32	9.0	26	6.9	5.8	14
MIN	3.7	15	15	22	8.6	12	6.9	5.8	6.5	3.5	3.0	2.8
CFSM	1.18	1.94	1.58	2.55	1.26	1.30	.76	.42	.80	.32	.23	.22
IN.	1.36	2.16	1.82	2.93	1.36	1.50	.84	.48	.89	.37	.27	.24
AC-FT	1,120	1,790	1,510	2,430	1,120	1,240	696	396	736	302	224	200

CAL YR 1963: TOTAL 5,281.1 MEAN 14.5 MAX 118 MIN 3.6 CFSM .93 IN 12.67 AC-FT 10,470
WAT YR 1964: TOTAL 5,928.5 MEAN 16.2 MAX 113 MIN 2.8 CFSM 1.05 IN 14.22 AC-FT 11,760

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.3	4.8	33	7.7	68	22	6.5	10	6.1	3.5	2.1	2.8
2	5.1	4.5	26	23	47	20	6.4	9.9	5.8	3.2	2.1	2.8
3	4.0	4.2	25	13	36	19	6.4	9.0	5.1	3.2	2.6	2.8
4	3.7	9.9	18	9.4	53	17	6.5	9.0	4.8	3.2	2.6	2.8
5	3.6	6.9	14	8.2	132	15	7.3	8.2	4.8	3.2	2.6	2.8
6	3.5	5.4	12	7.7	99	14	8.2	8.2	4.5	3.0	2.4	2.6
7	3.6	4.8	10	6.9	60	14	7.7	7.7	4.2	3.0	2.3	2.6
8	3.7	4.5	9.4	6.5	56	14	7.7	7.3	4.2	3.0	2.1	2.4
9	4.1	4.2	9.0	6.5	43	14	7.7	6.9	4.2	3.5	2.4	2.4
10	4.0	4.2	9.0	6.1	36	14	8.2	6.9	4.2	4.0	2.3	2.6
11	3.8	4.2	8.2	6.1	31	14	7.7	6.5	6.1	3.7	2.3	2.8
12	3.7	4.2	7.7	6.5	28	13	7.3	6.5	5.4	3.5	3.5	2.8
13	3.7	5.8	6.9	8.2	28	12	7.7	6.1	4.8	3.2	3.0	2.8
14	4.0	5.8	7.3	17	25	11	7.3	6.1	5.1	3.0	2.8	3.2
15	4.1	5.1	6.9	29	24	9.9	7.3	6.5	4.8	3.0	2.4	4.0
16	3.8	4.8	5.7	39	24	9.4	10	11	4.5	2.6	2.3	4.2
17	3.7	4.8	4.5	40	25	8.6	12	8.2	4.2	2.6	2.3	3.0
18	3.6	5.8	3.0	36	26	8.2	9.9	7.3	4.2	2.6	2.1	2.8
19	3.5	5.8	3.3	42	29	8.0	18	7.3	4.2	2.6	2.4	2.6
20	3.4	5.4	4.5	47	29	8.0	56	9.0	4.0	2.8	6.1	2.6
21	3.3	5.4	5.4	44	26	9.1	84	11	4.0	3.0	4.2	2.6
22	3.3	5.4	5.2	34	23	10	47	9.4	4.0	2.8	3.0	2.6
23	3.2	5.8	5.5	29	20	8.9	34	8.6	4.0	2.6	3.2	2.6
24	3.1	24	5.1	23	19	8.1	26	8.2	3.7	2.6	3.7	2.6
25	3.1	15	5.1	19	19	7.4	22	7.3	3.7	2.4	3.5	2.4
26	3.1	10	5.4	19	20	6.8	20	6.9	3.7	2.4	3.5	2.6
27	3.0	8.6	6.1	60	30	6.6	17	6.5	3.7	2.4	3.2	2.8
28	3.0	6.9	6.1	73	26	6.5	16	6.3	3.7	2.3	3.0	2.6
29	3.0	11	5.8	135	------	6.4	13	6.5	3.7	2.3	3.0	2.6
30	3.0	49	5.8	188	------	6.2	12	6.9	3.5	2.3	2.8	2.6
31	3.2	------	5.1	120	------	6.0	------	6.5	------	2.1	2.6	------
TOTAL	114.2	246.2	284.0	1,109.8	1,082	347.1	506.8	241.7	132.9	89.6	88.4	83.4
MEAN	3.68	8.21	9.16	35.8	38.6	11.2	16.9	7.80	4.43	2.89	2.85	2.78
MAX	7.3	49	33	188	132	22	84	11	6.1	4.0	6.1	4.2
MIN	3.0	4.2	3.0	6.1	19	6.0	6.4	6.1	3.5	2.1	2.1	2.4
CFSM	.24	.53	.59	2.31	2.49	.72	1.09	.50	.29	.19	.18	.18
IN.	.27	.59	.68	2.66	2.60	.83	1.22	.58	.32	.21	.21	.20
AC-FT	227	488	563	2,200	2,150	688	1,010	479	264	178	175	165

CAL YR 1964: TOTAL 4,346.4 MEAN 11.9 MAX 84 MIN 2.8 CFSM .77 IN 10.43 AC-FT 8,620
WAT YR 1965: TOTAL 4,326.1 MEAN 11.9 MAX 188 MIN 2.1 CFSM .76 IN 10.38 AC-FT 8,580

12-0480. Dungeness River near Sequim, Wash.

Location.--Lat 48°00'50", long 123°07'55", in NW¼NE¼ sec.13, T.29 N., R.4 W., on right bank three-quarters of a mile upstream from Canyon Creek, 4½ miles southwest of Sequim, and 11½ miles upstream from mouth.

Drainage area.--156 sq mi.

Records available.--June 1923 to September 1930, June 1937 to September 1965. July 1897 to July 1898 at site below Canyon Creek, published as "near Sequim," records not equivalent.

Gage.--Digital water-stage recorder. Datum of gage is 569.3 ft above mean sea level (river-profile survey). June 8, 1923, to Sept. 30, 1930, staff gage just above fish-hatchery diversion half a mile downstream at different datum. June 19 to Aug. 12, 1937, staff gage and Aug. 13, 1937, to Sept. 17, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--35 years, 373 cfs (270,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	1845	* 5,900	7.65	Nov. 20, 1962	0300	2,740	6.05	Nov. 14, 1963	0630	1,530	5.03
June 6, 1961	1630	1,880	5.15	Nov. 25, 1962	1700	2,850	6.14	Jan. 1, 1964	1200	2,070	5.56
				Dec. 15, 1962	0730	2,550	5.91				
Jan. 3, 1962	1130	* 1,380	4.74	Feb. 4, 1963	1930	* 3,670	6.74	Nov. 30, 1964	1200	* 1,850	5.20
Oct. 13, 1962	0230	1,850	5.27	Oct. 22, 1963	0030	* 2,630	5.97				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 6, 1960	100	2.57	1964	Sept.28, 29, 1964	133	2.70
1962	Oct. 22, 1961	115	2.51	1965	Sept.30, 1965	105	2.54
1963	Sept.26, 27, 1963	150	a 2.70				

a Occurred Oct. 7, 1962.

1923-30, 1937-65: Maximum discharge, 6,820 cfs Nov. 27, 1949 (gage height, 7.3 ft), from rating curve extended above 2,000 cfs on basis of slope-area measurement of peak flow; minimum observed, 77 cfs Sept. 10, 1928.

Revisions.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)	WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1516, 1736	1957	Dec. 9, 1956	3,880	6.36	1636, 1736	1959	Apr. 29, 1959	2,900	5.99
1566, 1736	1958	Feb. 24, 1958	2,330	5.56	1716, 1736	1960	Jan. 29, 1960	4,800	7.10

Remarks.--Records excellent. No regulation or diversion above station. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1316: 1924-25(M), 1927(M). Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1957 and 1960, superseding those published in WSP 1516, 1566, 1716, and 1736, are given herewith:

Dec. 10, 1956	2,200	Feb. 25, 1957	1,610	Jan. 29, 1960	2,770
Feb. 24, 1957	2,290	26	2,200	30	1,840

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December 1956	16,138	2,200	195	521	3.34	3.85	32,010
Calendar year 1956	-	2,200	139	509	3.26	44.38	369,200
February 1957	12,005	2,290	130	429	2.75	2.86	23,810
Water year 1956-57	-	2,290	130	409	2.62	35.58	296,100
Calendar year 1957	-	2,290	118	348	2.23	30.28	252,000
January 1960	11,343	2,770	150	366	2.35	2.70	22,500
Water year 1959-60	-	2,770	106	398	2.55	34.70	288,700

Revised peak discharge.--1956-57: Dec. 9 (1900) 3,880 cfs (6.36 ft); Feb. 24 (0900) 2,790 cfs (5.87 ft).
1959-60: Nov. 23 (0100 and 0130) 2,580 cfs (5.78 ft); probably Dec. 15 (time unknown) 2,850 cfs (5.96 ft); Jan. 29 (1300) 4,800 cfs (7.10 ft).
1962-63: Oct. 13 (0230) 1,850 cfs (5.27 ft); Nov. 20 (0300) 2,740 cfs (6.05 ft); Nov. 25 (1600 and 1750) 2,850 cfs (6.14 ft); Dec. 15 (0730) 2,550 cfs (5.91 ft); Feb. 4 (1930) 3,670 cfs (6.74 ft).
1963-64: Oct. 22 (0030) 2,630 cfs (5.97 ft); Nov. 14 (0630) 1,530 cfs (5.03 ft); Jan. 1 (1200) 2,070 cfs (5.56 ft).

12-0480. Dungeness River near Sequim, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	104	271	290	190	534	558	365	606	1,050	682	408	351
2	104	218	245	178	788	488	439	618	1,300	714	413	280
3	104	184	214	178	656	434	499	546	1,380	708	419	234
4	104	190	193	204	558	398	460	552	1,410	728	424	234
5	102	156	175	383	636	393	424	540	1,340	865	455	231
6	124	150	167	460	980	365	393	482	1,730	830	403	212
7	278	140	164	430	774	342	365	445	1,410	695	360	198
8	193	133	164	571	636	379	360	419	1,060	618	351	184
9	150	128	170	521	594	379	346	439	932	650	342	179
10	130	218	164	924	558	384	333	482	851	702	342	177
11	126	322	175	1,200	600	369	329	460	858	774	337	172
12	121	235	1,020	856	570	365	329	419	823	900	333	169
13	113	199	848	632	504	384	315	424	816	956	346	162
14	113	184	571	619	494	540	299	413	908	948	351	160
15	113	167	425	3,830	630	1,030	295	424	1,040	858	408	157
16	117	238	356	2,320	534	767	295	494	1,220	728	403	157
17	113	614	318	1,230	482	612	307	576	1,430	696	333	157
18	108	563	433	879	424	528	307	669	1,540	630	307	155
19	106	388	475	714	413	516	292	774	1,350	606	299	155
20	104	388	374	624	455	540	284	924	1,120	630	303	151
21	104	302	331	570	1,170	466	329	940	988	650	288	148
22	110	260	298	510	924	439	324	893	908	643	268	144
23	170	249	286	460	695	439	307	851	940	618	265	137
24	235	294	278	429	624	413	299	734	1,010	552	258	135
25	175	282	256	398	558	389	303	702	1,050	494	240	133
26	231	228	249	365	477	369	307	879	1,040	494	231	129
27	199	199	235	351	450	355	315	886	851	494	218	129
28	199	190	221	324	413	337	346	809	760	466	212	148
29	164	178	214	324	------	333	499	816	702	439	212	142
30	167	190	205	540	------	389	564	858	630	403	222	135
31	205	------	199	576	------	346	------	837	------	403	324	------
TOTAL	4,486	7,458	9,713	21,790	17,131	14,046	10,629	19,911	32,447	20,574	10,075	5,255
MEAN	145	249	313	703	612	453	354	642	1,082	664	325	175
MAX	278	614	1,020	3,830	1,170	1,030	564	940	1,730	956	455	351
MIN	102	128	164	178	413	333	284	413	630	403	212	129
CFSM	.93	1.59	2.01	4.51	3.92	2.90	2.27	4.12	6.93	4.25	2.08	1.12
IN.	1.07	1.78	2.32	5.19	4.08	3.35	2.53	4.75	7.74	4.90	2.40	1.25
AC-FT	8,900	14,790	19,270	43,220	33,980	27,860	21,080	39,490	64,360	40,810	19,980	10,420

CAL YR 1960: TOTAL 134,586 MEAN 368 MAX 2,770 MIN 102 CFSM 2.36 IN 32.09 AC-FT 267,000
WAT YR 1961: TOTAL 173,515 MEAN 475 MAX 3,830 MIN 102 CFSM 3.05 IN 41.37 AC-FT 344,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	131	157	360	234	190	153	144	237	450	534	342	165
2	127	142	237	374	251	146	151	234	723	450	315	160
3	123	142	198	1,190	346	142	155	234	695	408	329	155
4	121	127	222	795	333	144	162	222	588	466	355	151
5	121	125	228	594	280	151	179	215	516	522	307	146
6	135	127	192	499	265	146	342	209	477	455	303	146
7	131	125	179	844	303	142	311	203	510	413	351	144
8	125	125	162	1,060	303	142	254	212	650	477	324	140
9	133	156	153	816	276	135	215	231	702	488	272	135
10	179	581	129	630	258	133	201	254	624	477	254	146
11	155	369	142	528	237	131	190	292	564	455	244	148
12	165	244	135	460	225	127	190	320	576	466	254	135
13	225	215	135	398	222	125	209	320	528	439	251	153
14	187	215	131	365	225	125	276	311	576	403	228	169
15	177	195	129	324	212	127	333	299	702	389	218	153
16	165	179	129	307	203	131	288	284	747	365	237	137
17	155	174	137	288	198	129	268	295	702	374	240	131
18	144	167	129	265	190	129	288	303	669	333	228	131
19	135	155	135	237	184	133	337	307	650	315	222	131
20	129	144	225	230	174	133	320	288	650	351	228	131
21	123	151	303	225	169	131	288	307	669	379	228	131
22	119	160	234	222	172	129	280	355	662	398	201	131
23	129	148	320	215	165	127	292	460	708	429	184	129
24	121	135	360	210	153	131	342	472	747	466	182	125
25	123	127	299	203	144	133	320	504	734	450	187	121
26	209	131	244	198	133	129	288	594	695	408	182	123
27	177	144	212	195	146	124	370	636	570	398	177	127
28	151	182	228	184	160	121	311	702	528	403	179	222
29	135	218	254	182	------	121	268	636	570	384	179	268
30	157	421	280	182	------	125	244	546	618	351	167	244
31	160	------	240	184	------	133	------	482	------	351	162	------
TOTAL	4,567	5,681	6,461	12,638	6,117	4,128	7,816	10,964	18,800	12,997	7,530	4,528
MEAN	147	189	208	408	218	133	261	354	627	419	243	151
MAX	225	581	360	1,190	346	153	370	702	747	534	355	268
MIN	119	125	129	182	133	121	144	203	450	315	162	121
CFSM	.94	1.21	1.34	2.61	1.40	.85	1.67	2.27	4.02	2.69	1.56	.97
IM.	1.09	1.35	1.54	3.01	1.46	.98	1.86	2.61	4.48	3.10	1.80	1.08
AC-FT	9,060	11,270	12,820	25,070	12,130	8,190	15,500	21,750	37,290	25,780	14,940	8,980

CAL YR 1961: TOTAL 168,567 MEAN 462 MAX 3,830 MIN 119 CFSM 2.96 IN 40.19 AC-FT 334,300
WAT YR 1962: TOTAL 102,227 MEAN 280 MAX 1,190 MIN 119 CFSM 1.80 IN 24.37 AC-FT 202,800

12-0480. Dungeness River near Sequim, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	212	295	505	658	190	378	187	252	613	415	318	225
2	209	292	490	784	217	356	181	249	619	485	310	218
3	212	295	440	888	684	326	187	238	538	495	302	205
4	187	355	410	684	2,010	318	202	225	526	505	314	196
5	167	413	571	577	1,900	314	238	490	577	480	339	199
6	169	324	848	510	2,180	302	249	430	571	440	344	190
7	167	284	670	470	1,860	290	245	370	583	435	314	184
8	206	398	651	435	1,320	278	238	331	625	583	298	187
9	231	333	613	406	974	278	218	318	613	565	298	199
10	201	307	577	374	824	271	225	294	583	543	290	221
11	268	299	565	350	684	267	242	278	651	532	306	225
12	802	292	532	330	619	252	242	275	739	510	310	199
13	1,420	315	560	320	571	245	256	267	697	521	314	267
14	702	276	809	310	526	242	314	275	677	516	298	245
15	429	251	2,140	300	495	235	365	282	704	470	264	205
16	329	231	1,460	285	455	238	322	294	739	420	245	196
17	288	222	1,110	270	435	225	286	331	776	415	235	205
18	324	212	864	260	410	214	275	415	760	406	252	181
19	408	940	725	250	465	211	252	577	711	392	298	173
20	445	1,840	625	245	445	214	242	739	619	401	252	167
21	534	1,000	589	235	406	218	235	864	601	440	238	167
22	494	704	543	230	388	214	221	929	554	589	245	173
23	408	565	490	225	370	208	221	792	485	455	228	175
24	360	577	455	220	356	199	228	670	516	383	310	167
25	346	1,530	435	214	378	205	221	625	516	361	260	159
26	360	1,450	415	208	516	202	218	589	500	352	242	153
27	346	947	396	208	450	202	218	571	460	361	225	153
28	342	690	383	202	406	208	221	601	425	365	218	159
29	384	607	401	184	------	208	260	658	410	339	214	167
30	379	577	644	190	------	205	278	711	410	322	214	156
31	329	------	664	211	------	196	------	690	------	326	218	------
TOTAL	11,658	16,821	20,580	11,033	20,534	7,719	7,287	14,630	17,798	13,822	8,513	5,716
MEAN	376	561	664	356	733	249	243	472	593	446	275	191
MAX	1,420	1,840	2,140	888	2,180	378	365	929	776	589	344	267
MIN	167	212	383	184	190	196	181	225	410	322	214	153
CFSM	2.41	3.59	4.26	2.28	4.70	1.60	1.56	3.03	3.80	2.86	1.76	1.22
IN.	2.78	4.01	4.91	2.63	4.90	1.84	1.74	3.49	4.24	3.30	2.03	1.36
AC-FT	23,120	33,360	40,820	21,880	40,730	15,310	14,450	29,020	35,300	27,420	16,890	11,340

CAL YR 1962: TOTAL 134,577 MEAN 369 MAX 2,140 MIN 121 CFSM 2.36 IN 32.08 AC-FT 266,900
WAT YR 1963: TOTAL 156,111 MEAN 428 MAX 2,180 MIN 153 CFSM 2.74 IN 37.22 AC-FT 309,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	150	392	485	1,620	430	267	348	231	1,230	658	353	180
2	146	460	440	1,290	388	225	314	221	1,170	672	353	172
3	140	406	410	888	365	208	286	218	842	665	371	170
4	143	396	420	690	388	211	282	228	1,120	639	380	168
5	143	356	460	595	388	202	271	242	1,250	686	344	168
6	164	383	439	543	365	196	260	238	1,020	700	324	168
7	143	388	401	480	344	190	264	264	946	882	344	170
8	140	401	401	450	326	187	275	302	997	874	340	168
9	140	365	374	435	314	184	282	392	1,100	693	332	161
10	148	344	335	401	302	178	290	450	1,210	613	328	159
11	150	318	326	370	290	205	278	406	1,170	721	308	152
12	146	557	322	356	275	202	267	415	1,050	826	340	150
13	260	864	310	356	264	184	249	401	962	818	316	150
14	335	1,440	298	339	256	196	249	368	914	810	289	150
15	286	1,000	294	331	256	199	264	352	898	810	268	152
16	228	732	294	711	249	193	245	365	1,050	652	261	170
17	196	613	298	595	235	205	235	410	938	600	261	209
18	181	532	314	516	228	218	225	455	866	582	264	175
19	167	495	365	460	225	205	225	485	818	495	248	161
20	196	420	455	430	218	202	235	543	735	506	235	175
21	1,090	401	388	388	218	228	242	500	665	529	251	161
22	1,620	401	529	352	221	238	245	435	714	474	238	156
23	718	521	1,340	326	221	228	235	406	874	418	245	156
24	753	475	1,200	352	228	211	228	396	834	403	245	156
25	725	470	912	465	214	202	242	370	765	422	242	154
26	560	1,020	690	401	211	199	245	378	721	432	242	148
27	455	983	577	396	208	193	238	435	658	422	223	144
28	435	704	510	388	208	193	235	543	576	442	229	137
29	401	601	450	516	214	208	245	644	534	474	209	135
30	365	526	440	460	------	267	235	753	588	432	200	456
31	339	------	753	440	------	322	------	920	------	375	193	------
TOTAL	11,063	16,964	15,230	16,340	8,049	6,546	7,734	12,766	27,215	18,725	8,776	5,131
MEAN	357	565	491	527	278	211	258	412	907	604	283	171
MAX	1,620	1,440	1,340	1,620	430	322	348	920	1,250	882	380	456
MIN	140	318	294	326	208	178	225	218	534	375	193	135
CFSM	2.29	3.62	3.15	3.38	1.78	1.35	1.65	2.64	5.82	3.87	1.81	1.10
IN.	2.64	4.04	3.63	3.90	1.92	1.56	1.84	3.04	6.49	4.46	2.09	1.22
AC-FT	21,940	33,650	30,210	32,410	15,960	12,980	15,340	25,320	53,980	37,140	17,410	10,180

CAL YR 1963: TOTAL 150,309 MEAN 412 MAX 2,180 MIN 140 CFSM 2.64 IN 35.83 AC-FT 298,100
WAT YR 1964: TOTAL 154,539 MEAN 422 MAX 1,620 MIN 135 CFSM 2.71 IN 36.84 AC-FT 306,500

12-0480. Dungeness River near Sequim, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	289	209	922	154	758	264	187	442	540	490	275	154
2	242	166	600	156	582	251	177	389	626	529	278	156
3	212	156	458	156	484	248	168	353	735	529	271	154
4	185	389	362	144	733	248	166	336	672	518	261	150
5	170	245	308	144	1,140	245	168	308	679	529	251	146
6	161	198	275	144	906	242	170	289	721	523	251	141
7	156	177	254	135	679	242	172	278	714	552	245	137
8	163	163	251	133	582	242	172	278	728	501	245	135
9	172	159	232	131	490	245	172	296	758	408	245	135
10	168	150	220	131	432	254	175	332	721	384	238	135
11	156	144	206	129	384	264	168	384	946	384	242	129
12	152	137	198	129	362	258	166	468	818	358	271	129
13	154	139	193	135	353	251	182	501	606	371	271	129
14	168	127	187	223	328	245	177	474	529	394	235	137
15	161	127	177	316	312	242	177	508	484	413	218	152
16	152	127	146	512	300	242	209	742	512	394	212	148
17	144	127	144	540	304	223	203	552	672	380	209	127
18	139	125	185	506	316	215	195	463	721	353	206	122
19	137	121	187	576	336	209	315	437	626	320	220	117
20	131	119	168	594	336	209	795	427	588	320	286	115
21	129	117	163	529	328	203	834	418	582	328	232	114
22	125	117	168	432	308	203	588	403	523	296	212	115
23	123	123	161	380	286	193	463	427	564	296	212	118
24	121	308	154	362	275	185	408	442	564	312	212	116
25	119	203	148	312	271	187	408	479	495	332	203	114
26	119	172	152	293	275	180	458	546	458	340	193	112
27	115	154	150	474	320	172	620	639	418	332	190	109
28	117	144	144	529	282	170	750	765	403	312	180	105
29	119	258	139	874	------	170	606	721	453	282	170	104
30	121	1,300	139	1,210	------	166	512	606	474	275	163	104
31	123	------	135	1,090	------	166	------	546	------	275	159	------
TOTAL	4,743	6,201	7,326	11,573	12,462	6,834	9,961	14,249	18,330	12,030	7,056	3,859
MEAN	153	207	236	373	445	220	332	460	611	388	228	129
MAX	289	1,300	922	1,210	1,140	264	834	765	946	552	286	156
MIN	115	117	135	129	271	166	166	278	403	275	159	104
CFSM	.98	1.33	1.51	2.39	2.85	1.41	2.13	2.95	3.92	2.49	1.46	.82
IN.	1.13	1.48	1.75	2.76	2.97	1.63	2.37	3.40	4.37	2.87	1.68	.92
AC-FT	9,410	12,300	14,530	22,950	24,720	13,560	19,760	28,260	36,360	23,860	14,000	7,650

CAL YR 1964: TOTAL 129,552 MEAN 354 MAX 1,620 MIN 115 CFSM 2.27 IN 30.88 AC-FT 257,000
WAT YR 1965: TOTAL 114,624 MEAN 314 MAX 1,300 MIN 104 CFSM 2.01 IN 27.33 AC-FT 227,400

12-0505. Snow Creek near Maynard, Wash.

Location.--Lat 47°56'25", long 122°53'10", in NE¼NE¼ sec.11, T.28 N., R.2 W., on right bank 1,800 ft upstream from Andrews Creek and 4 miles south of Maynard.

Drainage area.--11.2 sq mi (revised).

Records available.--May 1952 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 220 ft (from topographic map). Prior to Apr. 20, 1961, at site 1,200 ft downstream at different datum.

Average discharge.--13 years, 16.0 cfs (11,580 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 11, 1961	1900	134	2.14	Oct. 13, 1962	0200	257	2.84	June 17, 1964	0030	* 82	2.28
Feb. 14, 1961	2230	173	2.30	Nov. 25, 1962	1500	* 456	3.49				
Mar. 15, 1961	0430	* 209	2.50	Feb. 6, 1963	1330	112	2.44	Jan. 29, 1965	2130	* 139	2.56
				May 5, 1963	1100	173	2.70				
Apr. 27, 1962	1000	* 127	2.29	July 8, 1963	1530	166	2.67				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	(a)	b 1.6	-	1964	Sept.16, 1964	2.9	e 1.54
1962	Sept. 3-7, 1962	1.8	0.98	1965	July 30-Aug.2,17-19, Sept. 6-11, 1965	1.8	f 1.47
1963	(c)	2.5	d 1.03				

a Aug. 11-14, 21-30, Sept. 12-26, 1961.
b Minimum daily.
c Oct. 2-3, 1962, Sept. 7-10, 1963.
d Occurred Oct. 2, 3, 1962.
e Occurred Oct. 10-12, 1963.
f Occurred July 30-31, Aug. 1, 2, 17-19, 1965.

1952-65: Maximum discharge, 733 cfs about Jan. 8, 1959 (gage height, 4.07 ft, from high watermark, site and datum then in use), from rating curve extended above 40 cfs on basis of slope-area measurement of peak flow; minimum, 1.1 cfs Aug. 7-11, 1959.

Remarks.--Records good. No known diversion above station. No regulation.

Revisions (water years).--WSP 1636: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APP.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.0	3.5	23	10	20	20	24	29	12	3.8	2.2	3.9
2	3.0	3.6	17	9.3	30	20	26	27	9.9	3.6	2.2	2.6
3	3.0	3.8	14	9.3	25	18	26	25	9.4	3.5	2.2	2.2
4	3.0	3.6	12	8.6	23	17	23	40	8.6	3.4	2.2	2.2
5	3.0	3.4	10	14	20	15	19	55	8.2	5.6	2.2	2.1
6	5.2	3.3	9.3	20	29	17	17	45	8.2	4.9	2.2	2.1
7	7.2	3.3	8.6	25	50	17	14	41	9.4	5.6	2.2	2.1
8	4.6	3.2	7.9	40	41	30	13	40	8.6	4.7	2.1	1.9
9	3.0	3.3	7.9	37	48	40	12	40	9.0	3.9	1.9	1.8
10	2.2	5.1	7.2	36	50	44	12	45	9.9	3.4	1.8	1.8
11	2.2	4.3	7.2	33	88	58	12	45	9.9	3.2	1.6	1.8
12	2.2	3.8	12	28	72	66	12	39	8.6	3.0	1.6	1.6
13	2.2	6.8	13	25	61	60	11	37	7.8	2.8	1.6	1.6
14	2.2	5.6	12	22	52	82	9.3	36	7.0	2.8	1.6	1.6
15	2.2	4.9	12	28	94	173	8.6	31	5.9	3.0	1.8	1.6
16	2.2	5.4	10	35	60	104	8.6	26	5.3	3.0	2.3	1.6
17	2.2	13	9.3	33	40	74	12	23	5.0	3.0	2.1	1.6
18	2.2	13	20	28	35	58	19	20	4.7	2.8	1.9	1.6
19	2.2	8.6	22	25	30	58	29	17	4.4	2.6	1.8	1.6
20	2.2	25	18	23	28	77	42	16	4.4	2.4	1.7	1.6
21	2.6	14	15	20	31	56	61	16	4.7	2.2	1.6	1.6
22	2.6	10	13	18	31	50	63	15	4.4	2.2	1.6	1.6
23	3.1	10	12	15	26	46	48	15	4.2	2.4	1.6	1.6
24	3.8	28	12	15	32	41	41	14	3.9	2.4	1.6	1.6
25	3.4	27	12	13	31	36	36	12	3.9	2.4	1.6	1.6
26	3.7	18	12	12	27	37	32	14	4.6	2.2	1.6	1.6
27	4.6	13	12	12	24	32	28	20	5.0	2.2	1.6	1.8
28	5.4	12	12	11	20	40	26	18	4.4	2.2	1.6	2.0
29	4.5	10	12	11	------	25	28	15	4.1	2.2	1.6	2.1
30	3.9	10	12	19	------	23	29	14	4.0	2.2	1.6	2.1
31	3.6	------	11	19	------	23	------	13	------	2.2	3.2	------
TOTAL	100.4	278.5	387.4	654.2	1,118	1,457	741.5	843	199.4	95.8	58.4	56.5
MEAN	3.24	9.28	12.5	21.1	39.9	47.0	24.7	27.2	6.65	3.09	1.88	1.88
MAX	7.2	28	23	40	94	173	63	55	12	5.6	3.2	3.9
MIN	2.2	3.2	7.2	8.6	20	15	8.6	12	3.9	2.2	1.6	1.6
CFSM	.29	.83	1.12	1.88	3.57	4.20	2.21	2.43	.59	.28	.17	.17
IN.	.33	.92	1.29	2.17	3.71	4.84	2.46	2.80	.66	.32	.19	.19
AC-FT	199	552	768	1,300	2,220	2,890	1,470	1,670	396	190	116	112

CAL YR 1960: TOTAL 5,273.4 MEAN 14.4 MAX 212 MIN 1.4 CFSM 1.29 IN 17.51 AC-FT 10,460
WAT YR 1961: TOTAL 5,990.1 MEAN 16.4 MAX 173 MIN 1.6 CFSM 1.47 IN 19.89 AC-FT 11,880

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0505. Snow Creek near Maynard, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.2	3.2	18	11	4.8	7.6	9.3	21	20	4.4	2.2	2.2
2	2.2	3.2	9.4	11	4.8	5.1	9.0	20	31	4.4	2.2	2.0
3	2.2	3.2	7.4	13	4.8	5.1	8.6	23	42	4.4	3.0	2.0
4	2.2	3.2	6.2	13	4.8	5.1	8.2	26	55	4.4	5.0	2.0
5	2.5	3.0	5.6	13	4.6	9.3	8.2	21	46	4.4	3.5	1.9
6	3.5	3.0	5.0	13	5.1	11	7.9	19	38	4.4	3.0	1.9
7	3.0	3.0	4.7	15	11	9.0	7.9	17	31	4.4	3.2	2.0
8	3.0	3.0	4.2	17	12	9.0	7.9	17	25	4.4	3.1	2.0
9	3.2	3.4	3.9	18	11	8.6	7.6	16	24	4.4	3.0	2.0
10	3.5	21	3.4	15	10	7.9	6.6	20	21	4.4	2.9	2.4
11	3.3	14	3.4	13	9.3	7.2	6.6	36	18	4.1	2.8	2.5
12	3.1	5.3	3.0	12	8.6	6.9	6.3	42	15	3.9	2.7	2.4
13	3.0	3.7	3.0	10	8.2	6.3	6.0	40	14	3.9	2.6	2.7
14	3.0	3.4	3.2	9.3	8.2	6.3	6.0	37	12	3.9	2.5	4.1
15	3.0	3.0	3.2	8.6	8.2	6.0	8.6	32	11	3.9	2.5	3.3
16	3.0	2.8	5.0	7.9	8.2	6.3	8.2	25	9.6	3.9	2.5	2.7
17	3.0	2.6	10	7.6	8.2	6.0	7.2	21	9.6	3.9	2.5	2.5
18	3.0	2.6	9.0	6.6	8.6	6.0	6.6	26	9.3	3.9	2.5	2.4
19	3.0	2.4	8.0	5.5	8.6	7.6	6.3	29	8.6	3.7	2.6	2.4
20	3.0	2.4	17	5.0	7.9	7.9	6.3	24	7.9	3.5	2.8	2.4
21	3.0	4.0	34	4.7	7.2	7.9	6.0	21	7.2	3.3	3.0	2.4
22	3.0	5.0	19	4.5	6.9	9.0	6.0	20	6.6	3.1	2.9	2.7
23	3.2	3.9	18	4.5	6.6	9.3	5.7	21	6.9	2.7	2.8	2.7
24	3.2	3.2	33	4.5	5.7	9.6	5.7	24	5.7	2.5	2.7	2.5
25	3.5	2.8	28	4.7	5.4	9.6	7.6	23	5.4	2.4	2.6	2.4
26	7.0	2.8	19	4.9	5.0	9.6	9.0	22	5.1	2.4	2.5	2.4
27	10	4.0	14	5.1	6.0	9.6	63	19	5.1	2.2	2.5	2.5
28	5.6	8.0	12	5.1	7.0	9.6	46	19	4.8	2.2	2.5	4.6
29	3.9	16	11	4.8	------	9.6	33	28	4.6	2.0	2.5	4.1
30	3.4	25	11	4.8	------	10	25	28	4.4	2.0	2.4	3.3
31	3.2	------	11	4.8	------	9.6	------	23	------	2.2	2.2	------
TOTAL	106.9	166.1	342.6	276.9	206.7	247.6	356.3	760	503.8	109.6	85.7	77.4
MEAN	3.45	5.54	11.1	8.93	7.38	7.99	11.9	24.5	16.8	3.54	2.76	2.58
MAX	10	25	34	18	12	11	63	42	55	4.4	5.0	4.6
MIN	2.2	2.4	3.0	4.5	4.6	5.1	5.7	16	4.4	2.0	2.2	1.9
CFSM	.31	.49	.99	.80	.66	.71	1.06	2.19	1.50	.32	.25	.23
IN.	.35	.55	1.14	.92	.69	.82	1.18	2.52	1.67	.36	.28	.26
AC-FT	212	329	680	549	410	491	707	1,510	999	217	170	154

CAL YR 1961: TOTAL 5,839.4 MEAN 16.0 MAX 173 MIN 1.6 CFSM 1.43 IN 19.39 AC-FT 11,580
WAT YR 1962: TOTAL 3,239.6 MEAN 8.88 MAX 63 MIN 1.9 CFSM .79 IN 10.76 AC-FT 6,430

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.9	4.6	30	16	6.0	8.4	8.9	14	7.0	12	7.5	4.6
2	2.5	4.6	33	17	6.2	8.4	8.9	20	18	11	7.0	4.6
3	2.9	4.4	28	20	7.5	7.9	8.9	34	17	11	6.2	4.2
4	3.9	4.4	24	18	62	7.5	8.9	34	13	9.8	5.8	3.8
5	3.3	4.4	26	17	66	7.9	11	147	12	8.9	5.8	3.4
6	5.7	4.4	32	16	93	7.9	15	98	11	8.4	5.8	3.0
7	5.1	4.4	31	15	80	7.5	21	68	11	8.4	5.4	2.8
8	4.6	4.8	28	14	58	7.0	22	52	12	79	5.0	2.8
9	4.8	4.8	26	13	40	7.0	18	38	13	85	4.6	2.8
10	4.6	4.6	22	12	31	7.0	16	31	11	70	4.6	3.0
11	15	4.8	20	12	24	6.6	15	26	11	56	4.6	3.0
12	90	7.9	17	11	21	6.2	13	22	11	38	4.6	3.0
13	154	15	17	11	19	6.2	13	20	9.8	30	5.0	3.8
14	58	9.0	20	10	17	6.6	13	17	8.4	33	5.0	3.8
15	34	7.2	71	10	15	6.6	14	17	6.6	36	4.6	3.4
16	24	6.0	50	9.5	15	7.9	14	16	5.8	29	4.2	3.8
17	17	6.0	39	9.0	14	7.5	15	15	5.0	22	4.2	3.8
18	14	6.0	32	8.5	13	7.0	15	13	5.0	21	4.2	3.4
19	12	12	27	8.5	13	7.0	15	12	5.4	16	6.6	3.4
20	11	32	23	8.0	13	7.0	13	11	7.5	15	5.8	3.4
21	11	21	21	8.0	12	6.6	12	9.4	24	13	6.2	3.8
22	6.9	17	20	7.5	11	6.2	11	8.9	25	13	7.5	4.6
23	6.3	13	17	7.0	9.8	6.2	13	8.9	17	13	8.6	4.6
24	6.0	24	15	7.0	9.4	6.2	17	8.4	16	11	13	4.2
25	5.7	209	14	7.0	9.4	7.9	15	8.4	17	9.8	7.5	4.2
26	6.0	130	13	6.6	9.4	7.5	13	7.5	17	9.4	6.2	4.2
27	5.7	66	12	6.2	8.9	7.5	13	7.0	17	8.9	5.4	4.2
28	5.4	43	11	6.0	8.9	9.8	13	6.6	15	7.9	4.6	4.2
29	5.4	33	12	5.5	------	11	12	6.2	15	7.9	4.6	5.0
30	5.1	30	16	5.5	------	9.8	12	6.2	13	7.5	4.6	5.0
31	4.8	------	14	5.5	------	8.9	------	6.6	------	7.5	4.2	------
TOTAL	537.6	737.3	761	327.3	692.5	232.7	409.6	789.1	376.5	708.4	178.9	113.8
MEAN	17.3	24.6	24.5	10.6	24.7	7.51	13.7	25.5	12.6	22.9	5.77	3.79
MAX	154	209	71	20	93	11	22	147	25	85	13	5.0
MIN	2.5	4.4	11	5.5	6.0	6.2	8.9	6.2	5.0	7.5	4.2	2.8
CFSM	1.55	2.19	2.19	.94	2.21	.67	1.22	2.27	1.12	2.04	.52	.34
IN.	1.79	2.45	2.53	1.09	2.30	.77	1.36	2.62	1.25	2.35	.59	.38
AC-FT	1,070	1,460	1,510	649	1,370	462	812	1,570	747	1,410	355	226

CAL YR 1962: TOTAL 4,659.9 MEAN 12.8 MAX 209 MIN 1.9 CFSM 1.14 IN 15.47 AC-FT 9,240
WAT YR 1963: TOTAL 5,864.7 MEAN 16.1 MAX 209 MIN 2.5 CFSM 1.43 IN 19.47 AC-FT 11,630

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0505. Snow Creek near Maynard, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.4	6.2	20	23	35	9.6	21	25	10	13	15	4.0
2	4.0	9.6	17	23	29	8.4	19	26	10	12	14	3.6
3	4.0	11	15	20	26	7.8	16	23	9.0	12	9.0	3.2
4	4.8	10	14	19	25	7.2	18	22	12	12	14	3.2
5	4.8	8.5	14	17	24	7.2	21	21	22	11	16	3.2
6	4.8	9.0	15	17	22	7.2	17	18	21	9.6	12	3.2
7	4.4	10	14	15	20	6.7	16	17	22	9.0	9.0	4.8
8	4.4	10	15	14	18	6.7	15	16	41	9.0	8.4	6.7
9	4.4	9.5	16	14	16	7.2	15	16	35	9.0	7.8	4.8
10	3.6	9.0	12	12	15	7.2	15	21	26	8.4	7.2	4.0
11	3.6	8.5	12	12	14	13	15	19	24	7.8	6.2	3.6
12	4.0	14	11	12	13	15	14	20	23	7.2	5.7	3.2
13	6.2	21	10	12	12	12	13	24	21	6.7	6.2	3.2
14	7.8	29	9.6	12	12	12	13	26	22	6.7	6.2	3.2
15	7.2	22	9.6	12	12	12	21	24	20	6.2	5.7	3.2
16	7.8	18	9.6	48	12	12	20	20	60	6.2	5.2	3.6
17	9.0	18	11	41	11	12	16	16	75	5.7	4.8	8.4
18	10	18	10	34	10	13	15	14	68	7.2	8.4	4.8
19	10	18	11	32	9.6	12	14	13	60	7.2	6.7	4.0
20	12	19	23	31	9.0	12	13	16	48	6.7	5.7	4.0
21	21	16	18	28	9.0	14	12	20	37	6.7	4.8	4.0
22	24	16	17	26	9.0	16	12	21	30	6.7	4.4	4.0
23	8.4	49	21	25	9.0	14	12	17	26	6.2	4.0	4.0
24	16	38	21	24	8.4	13	10	18	22	5.2	4.0	3.6
25	14	31	22	28	7.8	12	9.6	18	19	4.8	4.0	3.6
26	9.6	32	23	29	7.8	12	9.6	15	20	4.8	4.0	3.6
27	7.2	38	22	35	7.2	12	9.6	13	26	4.0	4.0	3.6
28	7.2	31	21	36	7.2	11	11	12	22	4.0	4.0	3.6
29	6.2	26	19	38	7.2	11	18	12	18	4.0	4.0	3.6
30	5.7	23	18	36	------	12	23	10	15	5.2	4.0	8.4
31	4.8	------	17	36	------	13	------	9.0	------	6.2	4.0	------
TOTAL	245.3	578.3	487.8	761	417.2	340.2	453.8	562.0	864.0	230.4	218.4	123.9
MEAN	7.91	19.3	15.7	24.5	14.4	11.0	15.1	18.1	28.8	7.43	7.05	4.13
MAX	24	49	23	48	35	16	23	26	75	13	16	8.4
MIN	3.6	6.2	9.6	12	7.2	6.7	9.6	9.0	9.0	4.0	4.0	3.2
CFSM	.71	1.72	1.40	2.19	1.28	.98	1.35	1.62	2.57	.66	.63	.37
IN.	.81	1.92	1.62	2.53	1.39	1.13	1.51	1.87	2.87	.77	.73	.41
AC-FT	487	1,150	968	1,510	828	675	900	1,110	1,710	457	433	246

CAL YR 1963: TOTAL 5,140.2 MEAN 14.1 MAX 147 MIN 2.8 CFSM 1.26 IN 17.07 AC-FT 10,200
WAT YR 1964: TOTAL 5,282.3 MEAN 14.4 MAX 75 MIN 3.2 CFSM 1.29 IN 17.54 AC-FT 10,480

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.2	16	23	13	66	18	7.9	17	6.2	3.0	1.8	2.1
2	4.8	9.0	38	35	49	16	7.9	16	5.8	2.7	2.1	2.4
3	4.4	7.8	50	25	38	16	7.5	15	5.4	2.7	3.0	2.7
4	4.0	26	31	20	45	16	7.5	18	5.0	2.7	3.0	2.4
5	3.6	15	22	17	73	16	7.5	18	5.0	2.4	3.0	2.4
6	3.6	9.6	17	15	70	16	9.8	16	4.6	2.4	2.7	2.1
7	3.2	7.2	14	14	53	16	9.2	15	4.6	2.4	2.4	1.8
8	4.4	6.2	12	13	47	18	8.9	14	4.2	4.2	2.1	1.8
9	4.4	5.2	12	12	38	19	9.4	12	4.6	5.8	2.1	1.8
10	4.8	5.7	14	12	32	21	18	11	4.6	5.8	2.1	1.8
11	4.4	5.7	14	12	28	19	15	11	6.6	5.8	2.4	2.1
12	4.0	5.2	12	11	26	18	12	10	6.2	4.6	3.8	2.1
13	3.6	6.2	11	12	25	15	15	9.8	5.4	3.8	3.8	2.1
14	3.6	6.2	11	18	23	12	15	9.4	5.4	3.4	2.7	2.7
15	4.8	6.2	9.6	29	22	12	15	8.4	5.0	3.4	2.4	3.8
16	4.0	5.9	8.0	48	21	11	18	8.9	4.6	3.4	2.1	3.8
17	3.6	6.2	6.0	54	22	10	17	8.4	4.6	3.0	2.1	3.0
18	3.2	5.7	6.0	53	24	9.8	15	7.9	4.6	3.0	2.1	2.7
19	2.9	5.7	7.0	60	28	9.4	29	7.5	4.2	3.0	2.7	2.4
20	2.9	5.7	9.0	68	29	9.4	46	7.9	4.2	3.4	7.9	2.7
21	2.9	5.2	10	65	26	9.4	49	7.9	4.2	4.6	4.2	2.7
22	2.6	5.2	11	53	23	10	40	7.5	3.8	3.4	3.4	2.7
23	2.6	5.7	11	46	20	9.4	33	7.5	3.8	3.0	3.4	2.7
24	2.9	14	10	41	18	8.4	28	7.5	3.8	2.7	4.2	2.7
25	3.2	12	9.0	34	18	8.4	25	7.0	3.8	2.4	4.8	2.7
26	3.2	9.0	10	29	18	7.9	22	6.6	3.4	2.4	5.0	3.0
27	2.9	7.8	11	38	23	7.5	20	6.6	3.4	2.4	5.0	3.4
28	2.9	6.7	11	58	19	7.5	18	6.2	3.4	2.1	3.8	3.0
29	2.9	9.0	10	108	------	7.5	16	6.6	3.0	2.1	3.0	3.0
30	3.2	26	10	125	------	7.5	15	6.6	3.0	2.1	2.7	3.0
31	3.6	------	10	100	------	7.5	------	6.6	------	1.8	2.4	------
TOTAL	113.3	267.0	439.6	1,238	924	388.6	556.6	317.8	136.4	99.9	98.2	77.6
MEAN	3.65	8.90	14.2	39.9	33.0	12.5	18.6	10.3	4.55	3.22	3.17	2.59
MAX	6.2	26	50	125	73	21	49	18	6.6	5.8	7.9	3.8
MIN	2.6	5.2	6.0	11	18	7.5	7.5	6.2	3.0	1.8	1.8	1.8
CFSM	.33	.79	1.27	3.57	2.95	1.12	1.66	.92	.41	.29	.28	.23
IN.	.38	.89	1.46	4.11	3.07	1.29	1.85	1.06	.45	.33	.33	.26
AC-FT	225	530	872	2,460	1,830	771	1,100	630	271	198	195	154

CAL YR 1964: TOTAL 4,790.8 MEAN 13.1 MAX 75 MIN 2.6 CFSM 1.17 IN 15.91 AC-FT 9,500
WAT YR 1965: TOTAL 4,657.0 MEAN 12.8 MAX 125 MIN 1.8 CFSM 1.14 IN 15.46 AC-FT 9,240

12-0540. Duckabush River near Brinnon, Wash.

Location.--Lat 47°41'00", long 123°00'40", in NW¼SW¼ sec.1, T.25 N., R.3 W., on left bank 4½ miles upstream from mouth and 5 miles west of Brinnon.

Drainage area.--66.5 sq mi.

Records available.--August to December 1910 (gage heights only), December 1910 to December 1911, June 1938 to September 1965. Published as "near Duckabush" 1910-11.

Gage.--Water-stage recorder. Datum of gage is 241.49 ft above mean sea level, datum of 1929. Aug. 19, 1910, to Dec. 31, 1911, staff gage at same site at different datum.

Average discharge.--27 years (1938-65), 409 cfs (296,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1600	3,020	6.12	Oct. 13, 1962	0030	4,720	7.35	Nov. 14, 1963	0230	4,680	7.35
Jan. 10, 1961	1730	2,550	5.70	Nov. 19, 1962	2400	* 5,980	8.33	Jan. 1, 1964	0930	3,010	6.09
Jan. 15, 1961	1500	* 5,280	7.79	Nov. 25, 1962	1630	4,500	7.17				
Feb. 21, 1961	0900	2,600	5.50	Dec. 15, 1962	0330	4,170	6.89	Nov. 30, 1964	1000	* 2,720	5.86
Mar. 14, 1961	2400	2,730	5.62	Feb. 4, 1963	1830	5,810	8.20				
Jan. 3, 1962	0900	* 2,550	5.48	Oct. 21, 1963	2030	* 4,980	7.56				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 6, 1960	63	1.48	1964	Oct. 3, 1963	70	1.59
1962	Sept.26, 27, 1962	69	a 1.53	1965	Sept.29, 30, 1965	53	1.49
1963	Sept.30, 1963	74	1.62				

a Occurred Oct. 4, 5, 1961.

1910-11, 1938-65: Maximum discharge, 8,960 cfs Nov. 26, 1949 (gage height, 10.06 ft), from rating curve extended above 1,800 cfs on basis of slope-area measurement of peak flow; minimum, 45 cfs Oct. 26, 28, 29, 1942; minimum gage height, 1.32 ft Sept. 30, 1939.

Remarks.--Records good. No regulation or diversion above station.

Revisions.--WSP 1216: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	68	389	705	214	944	773	521	995	965	438	225	250
2	67	272	526	203	1,140	578	614	995	1,180	499	225	180
3	66	220	431	192	754	478	695	740	1,250	488	225	140
4	66	186	368	240	638	413	596	602	1,180	521	222	130
5	64	169	314	498	995	395	510	532	1,070	620	219	123
6	117	155	275	590	1,660	360	452	488	1,370	555	203	117
7	605	142	248	526	1,010	323	404	452	1,060	438	190	110
8	248	132	239	675	799	418	395	532	806	408	184	106
9	153	126	236	874	1,200	418	382	1,060	721	447	180	102
10	117	265	232	1,880	1,080	473	368	1,060	664	499	172	99
11	101	376	351	1,770	1,570	494	368	740	651	544	165	98
12	96	289	1,720	1,180	1,120	488	368	602	645	614	163	94
13	87	255	1,150	874	792	483	356	549	645	638	161	92
14	88	242	802	1,180	754	1,480	327	510	728	602	161	90
15	87	226	585	4,430	916	1,980	308	521	902	499	170	88
16	82	476	480	2,490	676	1,090	308	614	1,050	433	168	88
17	78	1,470	436	1,370	555	780	339	728	1,160	400	157	87
18	74	998	1,050	988	473	664	316	806	1,140	377	146	87
19	70	802	928	780	515	812	290	902	965	372	140	86
20	69	790	630	651	962	1,140	287	965	818	386	140	86
21	69	560	503	578	2,240	780	400	874	728	386	134	86
22	88	449	444	526	1,300	734	390	760	676	372	130	82
23	337	418	436	467	874	923	360	754	728	352	130	81
24	454	550	406	438	786	792	360	657	754	312	126	80
25	294	570	368	395	657	708	368	620	786	283	121	78
26	570	449	345	364	561	651	368	792	734	283	117	78
27	449	360	311	331	504	566	368	786	590	276	115	77
28	444	307	282	312	467	499	433	708	515	259	112	88
29	293	272	258	343	------	457	909	702	473	250	112	88
30	258	346	242	1,110	------	462	902	714	442	231	114	80
31	381	------	229	1,020	------	488	------	702	------	228	197	------
TOTAL	6,040	12,261	15,530	27,489	25,942	21,100	13,062	22,462	25,396	13,010	5,024	3,071
MEAN	195	409	501	887	927	681	435	725	847	420	162	102
MAX	605	1,470	1,720	4,430	2,240	1,980	909	1,060	1,370	638	225	250
MIN	64	126	229	192	467	323	287	452	442	228	112	77
CFSM	2.93	6.15	7.53	13.3	13.9	10.2	6.55	10.9	12.7	6.31	2.44	1.54
IN.	3.38	6.86	8.69	15.4	14.5	11.8	7.30	12.6	14.2	7.28	2.81	1.72
AC-FT	11,980	24,320	30,800	54,520	51,460	41,850	25,910	44,550	50,370	25,800	9,960	6,090

CAL YR 1960: TOTAL 143,234 MEAN 391 MAX 4,390 MIN 64 CFSM 5.89 IN 80.10 AC-FT 284,100
WAT YR 1961: TOTAL 190,387 MEAN 522 MAX 4,430 MIN 64 CFSM 7.84 IM 106.47 AC-FT 377,600

12-0540. Duckabush River near Brinnon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	78	256	1,370	462	230	157	211	353	353	401	205	93
2	75	217	785	654	365	152	219	349	701	353	189	93
3	74	194	545	2,110	458	146	211	444	565	341	202	90
4	73	172	608	1,100	373	155	225	373	440	373	197	85
5	80	157	555	767	291	213	261	321	381	377	208	85
6	94	148	414	653	374	245	444	291	373	349	216	84
7	88	148	345	915	880	230	602	267	422	341	363	82
8	82	148	302	1,030	1,500	216	397	295	565	377	302	79
9	177	366	264	731	929	194	309	435	570	389	222	78
10	161	1,600	230	570	653	179	271	444	510	381	189	81
11	128	826	213	480	505	169	245	397	448	369	174	88
12	473	476	200	414	431	157	245	369	458	361	166	79
13	416	373	189	365	453	148	299	353	422	333	157	99
14	211	341	176	333	485	141	406	345	462	306	143	159
15	161	281	169	299	431	141	435	333	550	277	137	122
16	142	242	166	281	377	150	341	321	613	271	137	101
17	126	216	174	261	337	150	309	345	555	267	139	90
18	116	200	164	242	306	150	333	357	505	236	137	85
19	107	182	193	222	277	148	381	353	500	228	139	84
20	102	166	486	200	255	146	341	325	530	245	135	79
21	98	169	653	194	236	143	306	337	550	267	135	78
22	96	301	500	189	222	143	306	385	540	284	122	77
23	142	255	785	186	208	152	325	440	575	306	114	75
24	117	213	797	182	192	245	435	466	596	309	110	72
25	301	186	565	179	179	264	377	485	565	295	110	72
26	657	174	427	182	166	228	321	545	591	274	107	71
27	473	450	349	200	162	205	476	565	530	267	105	75
28	294	1,020	418	186	164	184	418	575	466	261	99	568
29	219	1,010	695	179	------	174	353	485	471	242	98	608
30	211	1,850	659	184	------	174	321	401	471	225	95	365
31	225	------	495	205	------	189	------	369	------	216	93	------
TOTAL	5,797	12,337	13,891	14,155	11,439	5,488	10,123	12,123	15,278	9,521	4,945	3,897
MEAN	187	411	448	457	409	177	337	391	509	307	160	130
MAX	657	1,850	1,370	2,110	1,500	264	602	575	701	401	363	608
MIN	73	148	164	179	162	141	211	267	353	216	93	71
CFSM	2.81	6.18	6.74	6.87	6.14	2.66	5.07	5.88	7.66	4.62	2.40	1.95
IN.	3.24	6.90	7.77	7.92	6.40	3.07	5.66	6.78	8.54	5.32	2.77	2.18
AC-FT	11,500	24,470	27,550	28,080	22,690	10,890	20,080	24,050	30,300	18,880	9,810	7,730

CAL YR 1961: TOTAL 188,581 MEAN 517 MAX 4,430 MIN 73 CFSM 7.77 IN 105.46 AC-FT 374,000
WAT YR 1962: TOTAL 118,994 MEAN 326 MAX 2,110 MIN 71 CFSM 4.90 IN 66.55 AC-FT 236,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	230	255	500	1,180	137	353	295	361	458	295	184	103
2	184	258	485	1,310	223	317	271	361	466	299	176	99
3	228	245	431	1,240	1,450	288	295	325	431	284	169	95
4	182	338	401	1,170	3,720	271	381	324	422	284	164	91
5	150	435	722	624	2,710	255	505	1,440	485	267	164	91
6	146	369	1,010	520	3,030	242	591	943	453	248	159	90
7	222	302	737	462	1,940	230	565	641	427	245	155	87
8	426	435	791	422	1,120	219	701	505	431	313	150	88
9	671	357	737	381	848	211	635	427	418	284	148	88
10	471	397	689	333	701	205	505	377	422	271	141	105
11	997	485	653	291	591	194	453	353	405	271	141	110
12	2,950	550	596	277	515	186	462	349	515	255	139	99
13	3,120	653	731	274	476	182	535	337	453	248	139	150
14	1,180	535	1,630	264	422	179	733	341	458	251	133	128
15	701	453	3,280	245	393	174	860	365	490	245	124	109
16	515	385	1,700	233	369	179	586	365	535	222	116	112
17	431	349	1,100	222	345	174	462	393	540	211	114	114
18	453	306	822	213	329	169	410	540	520	202	118	103
19	462	2,200	701	200	497	192	397	713	453	200	135	95
20	505	2,780	591	189	476	306	365	815	393	197	124	88
21	510	1,010	545	184	385	325	345	841	393	304	118	85
22	444	701	495	179	345	284	337	809	397	797	126	85
23	385	560	440	174	313	242	333	653	341	431	126	91
24	361	707	397	169	291	225	321	550	333	302	143	85
25	333	2,280	373	164	366	377	299	510	333	261	124	82
26	361	1,830	349	157	707	393	291	471	317	236	120	79
27	337	985	333	150	476	389	295	466	337	225	112	78
28	309	731	321	146	389	418	299	495	325	216	107	78
29	325	613	507	130	------	393	369	540	309	197	105	77
30	306	555	1,340	130	------	357	393	565	299	189	103	75
31	271	------	1,180	141	------	321	------	515	------	192	101	------
TOTAL	18,166	22,059	24,587	11,774	23,564	8,250	13,289	16,690	12,559	8,442	4,178	2,860
MEAN	586	735	793	380	842	266	443	538	419	272	135	95.3
MAX	3,120	2,780	3,280	1,310	3,720	418	860	1,440	540	797	184	150
MIN	146	245	321	130	137	169	271	324	299	189	101	75
CFSM	8.81	11.1	11.9	5.71	12.7	4.00	6.66	8.10	6.30	4.10	2.03	1.43
IN.	10.2	12.3	13.8	6.58	13.2	4.61	7.43	9.33	7.02	4.72	2.34	1.60
AC-FT	36,030	43,750	48,770	23,350	46,740	16,360	26,360	33,100	24,910	16,740	8,290	5,670

CAL YR 1962: TOTAL 151,781 MEAN 416 MAX 3,280 MIN 71 CFSM 6.25 IN 84.88 AC-FT 301,100
WAT YR 1963: TOTAL 166,418 MEAN 456 MAX 3,720 MIN 75 CFSM 6.86 IN 93.07 AC-FT 330,100

12-0540. Duckabush River near Brinnon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	74	500	445	2,190	665	306	368	208	1,000	536	297	126
2	71	585	407	1,160	512	253	314	195	820	550	306	120
3	70	571	387	802	432	230	271	185	630	512	324	118
4	74	820	383	630	517	230	256	192	1,550	508	331	116
5	88	545	441	545	490	230	244	205	1,150	522	290	116
6	114	522	436	503	399	210	233	203	874	508	262	110
7	99	570	383	436	345	197	244	219	910	570	265	110
8	98	595	383	403	314	187	265	256	916	590	253	110
9	96	526	353	391	284	180	277	349	947	503	241	105
10	95	508	320	364	271	180	293	395	996	458	235	99
11	96	428	300	338	256	284	281	345	940	522	230	96
12	91	932	284	320	247	259	259	368	826	625	238	94
13	329	2,170	271	449	233	221	244	360	754	610	224	92
14	494	3,260	259	395	227	244	241	314	712	610	205	91
15	284	1,540	250	387	221	297	262	293	690	695	192	94
16	194	1,020	253	1,160	216	265	241	306	838	630	185	105
17	159	808	284	730	208	293	221	395	730	522	182	130
18	137	645	341	580	210	310	208	508	724	462	187	105
19	122	605	590	490	221	268	200	498	650	411	180	96
20	168	517	856	424	213	244	205	550	600	419	170	116
21	2,620	449	590	379	213	233	213	494	590	432	180	98
22	2,140	462	873	338	219	219	227	403	590	387	180	98
23	786	1,040	1,750	310	227	203	210	356	650	349	182	94
24	1,300	712	1,250	324	233	192	210	342	630	353	177	92
25	950	635	1,040	522	221	177	233	320	580	375	175	92
26	650	1,420	742	432	210	170	235	334	550	387	173	87
27	498	1,120	635	543	203	165	221	419	522	379	163	81
28	522	736	605	550	195	165	213	585	454	391	163	79
29	498	590	508	620	205	185	219	665	424	379	150	81
30	415	512	541	522	------	284	213	742	490	338	148	476
31	360	------	1,010	575	------	360	------	862	------	303	135	------
TOTAL	13,692	25,343	17,170	17,812	8,407	7,241	7,321	11,866	22,737	14,836	6,623	3,427
MEAN	442	845	554	575	290	234	244	383	758	479	214	114
MAX	2,620	3,260	1,750	2,190	665	360	368	862	1,550	695	331	476
MIN	70	428	250	310	195	165	200	185	424	303	135	79
CFSM	6.64	12.7	8.33	8.64	4.36	3.51	3.67	5.76	11.4	7.20	3.21	1.72
IN.	7.66	14.2	9.60	9.96	4.70	4.05	4.09	6.64	12.7	8.30	3.70	1.92
AC-FT	27,160	50,270	34,060	35,330	16,680	14,360	14,520	23,540	45,100	29,430	13,140	6,800

CAL YR 1963: TOTAL 157,811 MEAN 432 MAX 3,720 MIN 70 CFSM 6.50 IN 88.26 AC-FT 313,000
WAT YR 1964: TOTAL 156,475 MEAN 428 MAX 3,260 MIN 70 CFSM 6.43 IN 87.51 AC-FT 310,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	287	293	1,830	190	700	334	235	399	415	345	148	81
2	290	187	975	190	536	303	235	356	512	368	148	81
3	210	430	615	170	449	281	213	331	575	353	145	78
4	156	922	467	160	884	271	203	314	550	345	137	76
5	130	436	379	150	1,560	268	205	290	580	334	133	74
6	118	293	328	140	1,030	271	205	268	600	331	126	73
7	110	238	320	135	690	287	197	256	575	338	124	71
8	118	200	407	130	575	297	192	259	560	297	120	70
9	145	175	353	125	480	314	192	284	560	253	116	70
10	126	170	328	120	411	368	213	353	545	247	114	68
11	109	156	287	120	364	395	203	407	670	256	114	68
12	99	141	265	115	328	383	197	494	575	235	135	68
13	98	133	244	135	320	342	219	480	445	227	175	68
14	152	124	233	210	303	320	221	449	391	235	128	73
15	156	120	213	407	287	303	238	461	371	238	114	79
16	128	116	182	650	277	287	303	730	391	227	109	73
17	114	116	170	690	324	262	281	517	480	221	105	67
18	105	114	165	630	383	241	256	428	503	205	105	64
19	99	109	155	724	436	227	596	403	436	190	110	62
20	94	105	155	772	432	216	1,460	415	419	192	139	61
21	89	101	170	650	387	208	1,410	407	407	200	114	61
22	86	107	185	498	349	203	796	403	375	190	105	61
23	82	301	175	428	314	197	575	415	387	182	107	61
24	79	832	165	403	293	185	490	411	375	180	109	60
25	79	454	150	356	277	177	503	445	331	180	107	58
26	78	328	220	349	331	173	555	503	314	180	109	57
27	74	259	210	742	580	165	665	575	293	173	101	56
28	74	221	195	766	407	163	675	615	290	163	94	55
29	74	447	180	916	------	173	545	565	303	154	89	53
30	84	2,240	170	1,340	------	173	472	472	317	148	86	53
31	92	------	155	1,080	------	175	------	411	------	148	82	------
TOTAL	3,735	9,868	10,046	13,491	13,707	7,962	12,750	13,116	13,545	7,335	3,648	2,000
MEAN	120	329	324	435	490	257	425	423	452	237	118	66.7
MAX	290	2,240	1,830	1,340	1,560	395	1,460	730	670	368	175	81
MIN	74	101	150	115	277	163	192	256	290	148	82	53
CFSM	1.81	4.95	4.87	6.54	7.36	3.86	6.39	6.36	6.79	3.56	1.77	1.00
IN.	2.09	5.52	5.62	7.54	7.67	4.45	7.13	7.34	7.58	4.10	2.04	1.12
AC-FT	7,410	19,570	19,930	26,760	27,190	15,790	25,290	26,020	26,870	14,550	7,240	3,970

CAL YR 1964: TOTAL 123,919 MEAN 339 MAX 2,240 MIN 74 CFSM 5.09 IN 69.30 AC-FT 245,800
WAT YR 1965: TOTAL 111,203 MEAN 305 MAX 2,240 MIN 53 CFSM 4.58 IN 62.19 AC-FT 220,600

12-0545. Hamma Hamma River near Eldon, Wash.

Location.--Lat 47°35'20", long 123°07'00", in SE¼NW¼ sec.7, T.24 N., R.3 W., on left bank a quarter of a mile downstream from Watson Creek, 4½ miles northwest of Eldon, and 6 miles upstream from mouth.

Drainage area.--51.3 sq mi.

Records available.--June 1951 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 510 ft (from topographic map).

Average discharge.--14 years, 358 cfs (259,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1530	2,440	4.00	Jan. 3, 1962	1000	* 1,790	3.32	Feb. 4, 1963	1900	* 4,340	5.58
Dec. 12, 1960	1100	2,020	3.58								
Jan. 10, 1961	1600	2,230	3.79	Oct. 13, 1962	0200	2,970	4.49	Oct. 21, 1963	2130	3,200	4.68
Jan. 15, 1961	1730	* 4,920	5.99	Nov. 19, 1962	2400	3,340	4.80	Nov. 14, 1963	0300	* 3,780	5.15
Feb. 21, 1961	0730	2,280	3.84	Nov. 25, 1962	1500	3,900	5.25	Jan. 1, 1964	1200	2,050	3.63
Mar. 15, 1961	0100	2,100	3.66	Dec. 15, 1962	0500	2,440	4.00				
								Nov. 30, 1964	1000	* 1,960	3.54

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 6, 1960	50	0.36	1964	Oct. 4, 5, 1963	52	0.47
1962	Oct. 3-9, 1961	50	.38	1965	Sept.30, 1965	39	.40
1963	Sept.28,29,30, 1963	62	.51				

1951-65: Maximum discharge, 5,810 cfs Nov. 3, 1955 (gage height, 6.58 ft), from rating curve extended above 1,900 cfs on basis of slope-area measurement at gage height 6.0 ft; minimum, 39 cfs Sept. 30, 1965; minimum gage height, 0.33 ft Sept. 15, 16, 1958.

Remarks.--Records excellent except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

Revisions (water years).--WSP 1716: 1956(M), 1958-59(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	53	322	528	229	901	639	443	734	651	304	144	120
2	53	274	490	217	1,040	533	500	796	810	313	141	117
3	51	241	418	206	720	453	555	633	901	295	138	94
4	51	214	369	217	627	398	500	528	887	304	135	85
5	50	195	322	393	887	369	438	474	817	341	132	81
6	59	181	287	500	1,330	336	400	433	922	327	126	79
7	329	167	261	474	943	309	360	403	775	287	120	74
8	202	157	245	585	768	322	340	423	609	265	117	72
9	138	147	241	887	1,170	364	330	838	544	270	115	68
10	112	210	233	1,830	1,100	384	320	908	506	282	110	66
11	99	287	340	1,540	1,420	398	310	657	490	295	104	64
12	90	265	1,560	1,100	1,100	388	310	538	469	318	102	64
13	81	257	1,060	866	775	384	310	484	464	332	99	62
14	79	257	768	1,180	708	1,130	290	448	490	327	99	61
15	74	245	579	3,790	866	1,620	270	438	573	295	102	61
16	72	403	484	2,330	669	915	260	479	639	274	99	61
17	68	1,240	458	1,280	550	663	260	544	688	257	94	61
18	66	971	1,040	929	474	579	280	603	694	241	92	59
19	64	796	929	704	506	663	265	669	627	233	90	57
20	61	775	633	583	936	1,040	270	727	555	233	87	57
21	61	567	516	538	2,000	740	336	701	506	233	85	57
22	66	464	453	495	1,200	657	341	615	469	225	83	55
23	212	428	428	448	789	866	318	579	469	217	83	53
24	282	538	403	418	701	768	304	533	469	210	81	53
25	217	573	374	388	591	675	304	500	474	195	79	53
26	360	464	345	360	511	615	300	591	458	181	76	51
27	408	388	318	332	464	544	295	591	403	177	74	51
28	438	332	291	309	428	484	318	544	364	174	72	51
29	313	295	274	332	------	453	633	533	341	164	72	51
30	274	309	257	959	------	438	701	538	318	157	70	51
31	309	------	245	950	------	438	------	528	------	147	92	------
TOTAL	4,792	11,962	15,149	25,369	24,174	18,565	10,861	18,010	17,382	7,873	3,113	1,989
MEAN	155	399	489	818	863	599	362	581	579	254	100	66.3
MAX	438	1,240	1,560	3,790	2,000	1,620	701	908	922	341	144	120
MIN	50	147	233	206	428	309	260	403	318	147	70	51
CFSM	3.01	7.77	9.53	16.0	16.8	11.7	7.06	11.3	11.3	4.95	1.96	1.29
IN.	3.47	8.67	11.0	18.4	17.5	13.5	7.87	13.1	12.6	5.71	2.26	1.44
AC-FT	9,500	23,730	30,050	50,320	47,950	36,820	21,540	35,720	34,480	15,620	6,170	3,950

CAL YR 1960: TOTAL 123,542 MEAN 338 MAX 3,370 MIN 50 CFSM 6.58 IN 89.56 AC-FT 245,000
WAT YR 1961: TOTAL 159,239 MEAN 436 MAX 3,790 MIN 50 CFSM 8.50 IN 115.44 AC-FT 315,800

12-0545. Hamma Hamma River near Eldon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	195	1,230	423	220	180	180	325	286	266	139	72
2	51	184	747	582	300	170	185	325	432	251	133	72
3	51	174	538	1,500	370	160	180	417	396	236	141	72
4	50	157	567	908	300	170	190	376	348	233	136	70
5	50	144	550	657	250	190	220	329	320	236	130	68
6	50	135	438	570	300	250	400	295	300	225	141	66
7	50	132	379	750	700	240	500	270	320	215	212	66
8	50	129	332	744	1,200	220	400	278	360	218	204	64
9	51	186	295	600	800	204	300	371	370	222	169	64
10	61	1,080	265	505	600	190	270	391	340	218	153	64
11	64	743	245	438	500	180	243	357	320	215	141	66
12	160	458	225	396	400	170	230	334	330	211	133	64
13	210	364	214	352	400	160	250	325	310	201	125	79
14	144	327	199	325	450	150	320	316	330	194	119	104
15	117	282	188	299	400	150	357	308	350	185	114	96
16	107	249	184	278	310	155	312	295	380	181	112	87
17	97	225	181	259	340	160	290	295	350	175	109	81
18	90	210	174	243	310	160	303	295	320	169	106	74
19	83	195	184	229	290	160	329	286	316	159	104	72
20	79	181	392	211	270	155	316	270	325	159	102	68
21	74	181	633	204	250	150	295	266	329	159	102	66
22	72	261	516	195	230	150	286	282	329	162	99	64
23	99	253	675	190	210	170	286	308	334	169	94	64
24	97	221	720	185	200	210	329	329	343	172	92	62
25	130	199	533	180	190	230	316	334	334	172	90	62
26	418	188	418	190	185	200	286	362	352	169	87	61
27	388	408	350	200	185	180	381	371	338	162	85	61
28	278	1,050	374	190	185	170	371	386	308	162	83	258
29	214	971	555	185	------	160	325	357	299	156	81	391
30	184	1,390	567	190	------	160	303	325	290	147	79	286
31	184	------	464	200	------	170	------	299	------	144	74	------
TOTAL	3,804	10,872	13,332	12,378	10,345	5,524	8,953	10,077	10,059	5,943	3,689	2,844
MEAN	123	362	430	399	369	178	298	325	335	192	119	94.8
MAX	418	1,390	1,230	1,500	1,200	250	500	417	432	266	212	391
MIN	50	129	174	180	185	150	180	266	286	144	74	61
CFSM	2.39	7.06	8.38	7.78	7.20	3.47	5.82	6.34	6.54	3.74	2.32	1.85
IN.	2.76	7.88	9.67	8.97	7.50	4.00	6.49	7.31	7.29	4.31	2.67	2.06
AC-FT	7,550	21,560	26,440	24,550	20,520	10,960	17,760	19,990	19,950	11,790	7,320	5,640

CAL YR 1961: TOTAL 155,344 MEAN 426 MAX 3,790 MIN 50 CFSM 8.30 IN 112.62 AC-FT 308,100
WAT YR 1962: TOTAL 97,820 MEAN 268 MAX 1,500 MIN 50 CFSM 5.22 IN 70.91 AC-FT 194,000

Note.--No gage-height record Jan. 22 to Mar. 8, Mar. 10 to Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	218	233	471	954	127	312	282	303	338	194	150	79
2	178	225	454	1,080	171	290	266	308	329	191	144	76
3	175	218	407	1,030	1,080	270	286	286	312	185	139	74
4	162	255	386	709	2,660	255	362	282	299	181	133	72
5	144	334	562	558	2,000	240	460	993	329	178	130	70
6	139	334	827	471	2,050	225	546	750	312	172	127	70
7	162	299	657	417	1,540	215	511	540	295	169	125	68
8	300	357	689	386	1,050	204	594	432	295	188	119	68
9	632	338	638	352	722	194	558	371	286	181	116	68
10	444	427	576	316	588	191	449	334	282	172	114	70
11	796	534	534	290	505	181	402	312	299	172	112	68
12	2,200	594	499	274	449	175	386	303	303	162	106	66
13	2,190	663	558	263	422	169	396	290	282	162	106	70
14	1,120	576	1,210	247	386	166	523	290	286	159	104	76
15	716	482	2,130	233	362	162	644	303	290	153	99	74
16	540	412	1,530	222	348	162	476	312	295	150	96	76
17	454	367	998	211	320	159	381	338	299	144	94	76
18	432	329	729	201	312	156	343	422	295	141	92	74
19	422	1,570	600	191	402	166	334	511	278	139	92	70
20	427	2,010	511	185	412	236	312	570	255	136	92	70
21	422	1,020	471	178	362	290	290	600	243	156	90	68
22	391	709	422	172	329	278	286	582	236	427	94	68
23	352	564	386	166	303	247	286	499	218	295	92	70
24	329	632	352	159	278	229	278	438	211	247	102	68
25	308	2,110	325	156	299	295	263	386	208	218	96	68
26	308	1,660	303	150	471	367	255	367	204	201	92	66
27	299	1,000	286	144	381	402	251	348	204	185	90	64
28	274	709	274	139	343	422	247	357	201	175	87	62
29	266	588	403	133	------	391	282	371	198	166	83	62
30	259	523	1,120	130	------	343	320	381	194	156	81	62
31	243	------	922	130	------	303	------	362	------	156	81	------
TOTAL	15,302	20,072	20,230	10,247	18,672	7,695	11,269	12,941	8,076	5,711	3,278	2,093
MEAN	494	669	653	331	667	248	376	417	269	184	106	69.8
MAX	2,200	2,110	2,130	1,080	2,660	422	644	993	338	427	150	79
MIN	139	218	274	130	127	156	247	282	194	136	81	62
CFSM	9.62	13.0	12.7	6.44	13.0	4.84	7.32	8.14	5.25	3.59	2.06	1.36
IN.	11.1	14.6	14.7	7.43	13.5	5.58	8.17	9.38	5.85	4.14	2.38	1.52
AC-FT	30,350	39,810	40,130	20,320	37,040	15,260	22,350	25,670	16,020	11,330	6,500	4,150

CAL YR 1962: TOTAL 125,416 MEAN 344 MAX 2,200 MIN 61 CFSM 6.70 IN 90.92 AC-FT 248,800
WAT YR 1963: TOTAL 135,586 MEAN 371 MAX 2,660 MIN 62 CFSM 7.24 IN 98.29 AC-FT 268,900

12-0545. Hamma Hamma River near Eldon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	466	410	1,630	560	242	306	185	673	355	202	90
2	54	565	375	1,110	480	234	270	176	589	360	209	88
3	54	526	346	790	410	216	238	169	494	342	220	85
4	52	748	332	619	450	212	223	166	1,090	328	212	82
5	54	538	346	526	410	216	216	169	958	332	195	80
6	67	499	355	488	360	202	202	166	769	324	182	78
7	69	521	324	435	310	189	206	173	762	332	179	76
8	69	548	324	400	290	179	223	189	804	346	169	76
9	67	521	310	385	270	173	226	242	790	319	163	76
10	65	521	286	355	250	166	246	286	790	294	160	73
11	62	455	270	337	240	230	242	270	734	306	154	69
12	62	730	250	314	230	216	230	286	643	337	154	69
13	177	1,650	238	375	220	192	216	286	583	342	148	67
14	282	2,770	226	385	210	206	212	258	538	346	142	65
15	209	1,490	220	360	205	258	226	246	510	390	136	65
16	166	980	220	980	200	250	216	254	583	370	130	65
17	145	748	246	673	195	266	202	310	538	332	127	69
18	130	595	274	504	195	294	189	395	538	302	125	69
19	116	571	472	430	206	262	182	395	499	278	122	65
20	127	499	839	385	206	234	182	425	472	270	116	65
21	1,540	440	583	346	202	220	185	400	460	270	113	65
22	1,710	445	721	310	202	206	192	346	445	254	113	62
23	776	995	1,430	290	209	192	189	314	460	234	113	62
24	1,240	720	1,060	340	212	176	189	302	445	230	111	60
25	888	595	958	480	206	169	195	290	415	230	105	58
26	637	1,040	706	430	198	160	198	294	405	230	105	58
27	510	902	601	510	189	154	192	342	385	226	102	56
28	521	643	607	520	182	151	189	425	350	226	100	54
29	504	532	526	510	185	163	192	482	332	223	98	54
30	450	460	510	470	------	226	192	526	346	212	95	172
31	395	------	825	540	------	290	------	595	------	198	92	------
TOTAL	11,254	22,713	15,190	16,227	7,682	6,544	6,366	9,362	17,400	9,138	4,392	2,173
MEAN	363	757	490	523	265	211	212	302	580	295	142	72.4
MAX	1,710	2,770	1,430	1,630	560	294	306	595	1,090	390	220	172
MIN	52	440	220	290	182	151	182	166	332	198	92	54
CFSM	7.08	14.8	9.55	10.2	5.16	4.11	4.14	5.89	11.3	5.75	2.76	1.41
IN.	8.16	16.5	11.0	11.8	5.57	4.74	4.62	6.79	12.6	6.62	3.18	1.58
AC-FT	22,320	45,050	30,130	32,190	15,240	12,980	12,630	18,570	34,510	18,120	8,710	4,310

CAL YR 1963: TOTAL 129,139 MEAN 354 MAX 2,770 MIN 52 CFSM 6.90 IN 93.62 AC-FT 256,100
WAT YR 1964: TOTAL 128,441 MEAN 351 MAX 2,770 MIN 52 CFSM 6.84 IN 93.11 AC-FT 254,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	163	133	1,450	173	643	346	198	395	319	212	98	58
2	148	122	902	176	504	302	212	355	355	212	98	58
3	130	266	625	169	430	274	206	337	385	212	98	56
4	111	776	494	166	650	266	202	324	390	212	95	56
5	100	375	415	169	1,320	262	198	298	395	206	92	54
6	92	270	365	163	988	270	195	278	405	202	90	54
7	88	220	350	157	667	282	192	262	400	202	88	52
8	88	189	430	148	565	290	189	254	390	192	85	52
9	98	169	380	142	488	302	185	266	390	179	85	52
10	98	163	355	139	430	337	182	302	375	173	82	52
11	90	154	314	136	375	370	179	342	435	173	80	50
12	85	142	286	130	342	360	173	385	390	163	85	48
13	80	136	262	130	324	332	182	380	332	157	90	48
14	102	127	246	151	310	306	189	355	302	154	85	48
15	113	119	226	282	290	294	195	370	290	154	80	48
16	102	113	206	510	282	278	242	554	282	148	76	48
17	98	113	189	543	310	262	246	430	310	145	73	48
18	90	111	185	510	360	242	230	370	319	142	73	47
19	88	105	185	565	415	226	452	355	294	133	73	45
20	82	100	179	631	430	212	1,140	355	290	133	82	45
21	80	100	173	565	380	206	1,120	346	278	133	78	43
22	76	105	195	455	342	198	692	342	266	127	73	43
23	73	245	223	400	306	189	532	346	258	122	73	43
24	69	797	206	390	282	182	460	332	250	119	73	43
25	69	466	189	346	266	176	455	346	234	116	73	43
26	67	342	209	332	310	169	482	370	223	116	71	43
27	65	274	226	613	548	163	554	410	209	113	69	43
28	62	238	209	679	430	160	565	435	202	108	67	43
29	62	415	195	790	------	173	482	420	202	105	65	41
30	62	1,680	185	1,050	------	169	435	370	202	102	62	41
31	69	------	176	944	------	169	------	337	------	100	60	------
TOTAL	2,800	8,565	10,230	11,754	12,987	7,767	10,964	11,021	9,372	4,765	2,472	1,445
MEAN	90.3	286	330	379	464	251	365	356	312	154	79.7	48.2
MAX	163	1,680	1,450	1,050	1,320	370	1,140	554	435	212	98	58
MIN	62	100	173	130	266	160	173	254	202	100	60	41
CFSM	1.76	5.57	6.43	7.39	9.04	4.88	7.12	6.93	6.09	3.00	1.55	.94
IN.	2.03	6.21	7.42	8.52	9.41	5.63	7.95	7.99	6.79	3.45	1.79	1.05
AC-FT	5,550	16,990	20,290	23,310	25,760	15,410	21,750	21,860	18,590	9,450	4,900	2,870

CAL YR 1964: TOTAL 100,879 MEAN 276 MAX 1,680 MIN 54 CFSM 5.37 IN 73.13 AC-FT 200,100
WAT YR 1965: TOTAL 94,142 MEAN 258 MAX 1,680 MIN 41 CFSM 5.03 IN 68.25 AC-FT 186,700

12-0546. Jefferson Creek near Eldon, Wash.

Location.--Lat 47°35'00", long 123°06'15", in SE¼SE¼ sec.7, T.24 N., R.3 W., on right bank a quarter of a mile upstream from mouth and 4 miles northwest of Eldon.

Drainage area.--21.6 sq mi.

Records available.--October 1957 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 500 ft (from topographic map). Prior to Sept. 27, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--8 years, 145 cfs (105,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,400 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1430	1,820	7.22	Nov. 30, 1961	1530	* 1,710	7.06	Oct. 21, 1963	1500	1,870	7.35
Dec. 12, 1960	1200	1,450	6.68					Oct. 24, 1963	0900	1,430	6.78
Jan. 10, 1961	1200	1,710	7.06	Oct. 12, 1962	0800	2,500	8.13	Nov. 14, 1963	0200	* 2,050	7.58
Jan. 15, 1961	1600	* 2,880	8.60	Nov. 25, 1962	1300	* 3,100	8.88	Jan. 16, 1964	0500	1,400	6.75
Feb. 21, 1961	1700	1,530	6.80	Feb. 4, 1963	1830	1,810	7.28				
								Nov. 30, 1964	0100	* 1,200	a 6.66

a Occurred Nov. 29, 1964 (backwater from logs and trees).

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 1, 5, 6, 1960	9.7	2.78	1964	Oct. 2-12, 1963, Sept.23-30, 1964	14	a 2.79
1962	Oct. 5-9, 1961	10	2.79				
1963	Sept.29,30, 1963	16	2.82	1965	Sept.29, 1965	9.1	2.66

a Occurred Oct. 4, 5, 1963.

1957-65: Maximum discharge, 3,100 cfs Nov. 25, 1962 (gage height, 8.88 ft); minimum, 9.1 cfs Sept. 29, 1965 (gage height, 2.66 ft).

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.7	156	276	84	534	506	216	231	120	72	33	27
2	10	125	250	79	583	316	216	270	122	69	31	25
3	10	107	223	75	348	250	218	236	125	67	29	23
4	10	93	196	77	302	216	194	206	130	63	29	22
5	9.7	86	156	246	382	201	172	189	134	61	29	21
6	12	81	130	310	566	176	156	176	139	61	28	21
7	115	76	113	264	382	160	146	164	139	60	27	20
8	92	69	103	373	344	156	139	176	139	59	27	20
9	60	57	99	808	599	178	132	360	135	57	26	19
10	47	64	96	1,320	500	194	124	340	130	55	26	19
11	42	93	199	718	778	196	119	264	125	53	25	18
12	38	118	1,060	500	562	185	116	223	119	52	25	17
13	34	125	475	475	382	192	110	201	113	51	24	17
14	31	128	320	718	387	864	103	180	106	52	25	16
15	29	116	255	2,200	588	815	96	166	100	52	25	16
16	28	197	218	1,010	387	428	93	156	99	53	25	15
17	26	793	218	712	313	313	95	151	99	53	25	15
18	24	435	688	538	270	292	92	146	102	53	25	14
19	24	560	473	410	296	365	87	146	106	52	23	14
20	23	487	299	336	582	599	86	146	107	49	22	14
21	22	296	273	292	1,220	360	163	146	107	47	22	14
22	22	239	213	261	555	360	185	144	104	47	21	13
23	75	239	194	239	378	634	151	144	100	46	21	13
24	154	404	176	216	410	418	134	142	96	45	21	12
25	102	392	160	198	344	340	125	137	92	42	20	12
26	183	267	151	185	288	328	118	135	88	41	20	12
27	252	203	137	170	261	296	109	139	87	39	19	12
28	282	168	122	158	252	252	110	137	83	38	19	12
29	168	144	110	172	------	233	187	132	79	37	19	12
30	135	149	100	714	------	226	226	128	75	36	19	12
31	139	------	92	511	------	223	------	122	------	34	23	------
TOTAL	2,208.4	6,467	7,575	14,369	12,793	10,272	4,218	5,633	3,300	1,596	753	497
MEAN	71.2	216	244	464	457	331	141	182	110	51.5	24.3	16.6
MAX	282	793	1,060	2,200	1,220	864	226	360	139	72	33	27
MIN	9.7	57	92	75	252	156	86	122	75	34	19	12
CFSM	3.30	9.98	11.3	21.5	21.2	15.3	6.51	8.41	5.09	2.38	1.12	.77
IN.	3.80	11.1	13.0	24.7	22.0	17.7	7.26	9.70	5.68	2.75	1.30	.86
AC-FT	4,380	12,830	15,020	28,500	25,370	20,370	8,370	11,170	6,550	3,170	1,490	986

CAL YR 1960: TOTAL 52,723.5 MEAN 144 MAX 1,670 MIN 9.7 CFSM 6.67 IN 90.78 AC-FT 104,600
WAT YR 1961: TOTAL 69,681.4 MEAN 191 MAX 2,200 MIN 9.7 CFSM 8.84 IN 119.97 AC-FT 138,200

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0546. Jefferson Creek near Eldon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	72	887	195	45	56	138	181	70	57	27	17
2	11	64	414	284	45	53	124	161	96	56	27	16
3	11	58	304	808	45	50	107	239	100	54	28	16
4	11	53	378	382	46	49	100	202	98	53	28	16
5	11	47	338	290	46	114	102	159	94	51	27	16
6	11	44	256	259	50	190	152	132	90	49	29	15
7	10	41	217	253	275	159	174	114	85	46	45	15
8	10	38	190	238	627	136	140	107	80	45	56	15
9	11	44	167	217	455	110	120	132	77	42	42	14
10	12	690	146	204	300	92	107	150	74	41	38	14
11	14	392	124	187	230	77	93	134	72	40	35	14
12	67	222	107	174	204	67	86	122	68	39	32	14
13	64	174	93	159	256	62	85	115	67	38	30	23
14	38	146	82	148	342	57	87	112	65	38	29	38
15	31	122	73	128	282	56	85	105	63	37	28	28
16	29	104	70	115	230	56	78	98	62	36	27	24
17	28	90	68	102	197	60	74	90	62	35	26	22
18	26	81	64	90	170	62	72	86	61	34	25	20
19	25	74	76	80	148	63	72	86	61	32	24	20
20	24	70	393	72	126	63	71	81	61	31	23	19
21	23	66	528	65	108	61	70	76	60	30	23	18
22	22	134	402	55	96	61	68	73	58	30	22	18
23	63	126	500	52	86	66	66	71	57	29	21	18
24	45	98	437	50	76	202	71	78	56	29	20	18
25	54	81	296	52	70	222	77	78	56	29	19	17
26	252	76	222	53	64	152	76	77	57	29	19	17
27	322	473	187	52	60	128	230	76	60	28	19	17
28	159	878	212	51	58	102	225	76	60	28	18	222
29	108	528	324	49	------	89	163	76	60	28	18	253
30	87	1,170	293	48	------	94	138	76	58	27	17	165
31	78	------	222	46	------	120	------	73	------	27	17	------
TOTAL	1,669	6,256	8,070	4,958	4,737	2,929	3,251	3,436	2,088	1,168	839	1,139
MEAN	53.8	209	260	160	169	94.5	108	111	69.6	37.7	27.1	38.0
MAX	322	1,170	887	808	627	222	230	239	100	57	56	253
MIN	10	38	64	46	45	49	66	71	56	27	17	14
CFSM	2.49	9.65	12.1	7.40	7.83	4.37	5.02	5.13	3.22	1.74	1.25	1.76
IN.	2.87	10.8	13.9	8.54	8.16	5.04	5.60	5.92	3.60	2.01	1.44	1.96
AC-FT	3,310	12,410	16,010	9,830	9,400	5,810	6,450	6,820	4,140	2,320	1,660	2,260

CAL YR 1961: TOTAL 69,426 MEAN 190 MAX 2,200 MIN 10 CFSM 8.81 IN 119.53 AC-FT 137,700
WAT YR 1962: TOTAL 40,540 MEAN 111 MAX 1,170 MIN 10 CFSM 5.14 IN 69.80 AC-FT 80,410

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	107	62	239	690	36	116	129	121	78	60	58	22
2	87	58	239	565	65	106	116	144	78	58	53	22
3	78	56	212	470	605	96	150	140	81	56	48	21
4	71	56	200	320	1,040	87	245	132	76	51	43	20
5	56	91	321	263	742	82	302	459	82	48	41	20
6	49	128	410	224	570	76	346	386	82	44	39	20
7	67	105	308	198	510	71	311	257	77	42	38	19
8	219	130	299	182	360	66	430	195	75	43	36	19
9	478	142	266	166	302	63	402	165	72	44	34	19
10	247	227	227	150	260	61	257	147	69	43	33	19
11	308	335	200	137	224	58	224	133	67	42	32	19
12	1,450	342	182	124	202	56	205	122	65	40	31	18
13	1,120	414	186	116	186	53	200	112	65	39	29	18
14	480	352	450	107	170	51	224	101	64	37	28	18
15	338	276	570	96	161	49	266	94	63	36	27	18
16	282	225	458	82	154	49	198	90	62	35	26	20
17	238	195	332	75	147	47	166	86	62	34	25	22
18	212	170	281	67	147	47	156	86	61	34	25	20
19	192	544	254	64	215	51	186	89	61	32	26	19
20	176	620	230	61	212	199	172	91	61	31	24	19
21	159	318	210	58	170	178	150	97	61	39	24	18
22	148	247	195	54	145	133	135	101	63	240	27	18
23	130	209	178	53	127	104	124	104	63	137	28	18
24	117	304	166	51	113	93	118	104	59	108	28	18
25	102	1,350	156	48	110	144	110	101	57	93	27	17
26	94	660	142	44	154	184	101	97	56	82	26	17
27	86	414	129	42	142	212	97	93	57	76	25	17
28	77	326	119	39	127	266	90	87	60	71	24	17
29	71	284	324	37	------	221	94	84	61	67	23	16
30	67	257	860	36	------	168	110	82	61	63	22	16
31	65	------	474	36	------	140	------	81	------	60	22	------
TOTAL	7,371	8,897	8,817	4,655	7,396	3,327	5,814	4,181	1,999	1,885	972	564
MEAN	238	297	284	150	264	107	194	135	66.6	60.8	31.4	18.8
MAX	1,450	1,350	860	690	1,040	266	430	459	82	240	58	22
MIN	49	56	119	36	36	47	90	81	56	31	22	16
CFSM	11.0	13.7	13.2	6.95	12.2	4.97	8.97	6.24	3.08	2.82	1.45	.87
IN.	12.7	15.3	15.2	8.01	12.7	5.73	10.0	7.20	3.44	3.25	1.67	.97
AC-FT	14,620	17,650	17,490	9,230	14,670	6,600	11,530	8,290	3,960	3,740	1,930	1,120

CAL YR 1962: TOTAL 49,630 MEAN 136 MAX 1,450 MIN 14 CFSM 6.30 IN 85.45 AC-FT 98,440
WAT YR 1963: TOTAL 55,878 MEAN 153 MAX 1,450 MIN 16 CFSM 7.09 IN 96.21 AC-FT 110,800

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0546. Jefferson Creek near Eldon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	264	202	758	363	172	150	58	97	78	45	22
2	14	314	184	422	266	129	124	56	100	73	48	22
3	14	269	170	329	205	110	108	54	100	72	54	21
4	14	406	157	320	248	110	100	53	207	71	59	20
5	14	266	149	281	248	121	94	51	188	70	59	20
6	14	269	140	260	188	104	87	51	166	69	57	19
7	14	338	127	230	157	90	87	50	218	66	54	19
8	14	349	135	210	137	82	93	50	269	65	50	18
9	14	317	140	202	121	78	93	51	210	64	47	18
10	14	382	124	184	112	75	97	54	182	64	43	18
11	14	269	112	170	110	149	94	56	170	62	41	17
12	14	342	101	156	104	125	87	58	161	61	39	17
13	54	762	91	260	96	96	81	60	154	60	38	17
14	82	1,140	85	245	90	144	80	61	145	60	36	17
15	73	690	81	224	89	188	81	60	138	63	34	16
16	52	438	82	798	84	147	77	60	152	71	33	16
17	44	349	104	335	87	159	72	65	159	75	31	16
18	40	305	127	245	89	163	67	81	248	75	31	16
19	36	311	293	208	113	132	64	78	198	72	30	16
20	49	284	570	188	108	118	62	89	170	71	29	15
21	983	245	329	166	100	113	61	91	157	69	28	15
22	828	293	398	147	97	108	61	87	140	66	27	15
23	349	887	565	129	101	97	60	84	129	64	26	15
24	834	414	418	138	104	86	60	81	118	61	26	14
25	426	326	478	308	96	78	60	77	110	59	25	14
26	317	410	335	233	86	72	60	73	104	57	24	14
27	266	390	308	313	78	69	60	72	98	54	24	14
28	302	305	329	320	73	66	60	76	91	51	24	14
29	293	260	281	356	80	72	58	78	86	48	23	14
30	248	227	251	281	------	124	58	84	82	46	23	58
31	205	------	326	348	------	154	------	90	------	45	22	------
TOTAL	5,650	11,821	7,192	8,764	3,830	3,531	2,396	2,089	4,547	1,982	1,130	547
MEAN	182	394	232	283	132	114	79.9	67.4	152	63.9	36.5	18.2
MAX	983	1,140	570	798	363	188	150	91	269	78	59	58
MIN	14	227	81	129	73	66	58	50	82	45	22	14
CFSM	8.44	18.2	10.7	13.1	6.11	5.27	3.70	3.12	7.02	2.96	1.69	.84
IN.	9.73	20.4	12.4	15.1	6.59	6.08	4.13	3.60	7.83	3.41	1.95	.94
AC-FT	11,210	23,450	14,270	17,380	7,600	7,000	4,750	4,140	9,020	3,930	2,240	1,080

CAL YR 1963: TOTAL 55,456 MEAN 152 MAX 1,140 MIN 14 CFSM 7.03 IN 95.48 AC-FT 110,000
WAT YR 1964: TOTAL 53,479 MEAN 146 MAX 1,140 MIN 14 CFSM 6.76 IN 92.08 AC-FT 106,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	81	46	663	81	320	180	108	132	72	37	20	16
2	51	44	363	76	257	152	118	122	70	37	20	16
3	34	160	290	71	215	133	106	113	67	37	20	16
4	30	446	248	65	539	129	96	112	67	36	20	15
5	27	176	218	63	812	130	90	100	67	36	20	15
6	25	132	195	62	478	135	86	91	67	36	20	15
7	24	106	192	59	320	144	85	86	67	35	19	14
8	25	89	278	54	284	144	85	80	67	35	19	14
9	29	80	230	51	254	145	85	77	66	35	19	14
10	31	76	208	48	218	161	84	76	67	35	18	13
11	29	72	180	47	190	168	78	76	72	36	18	13
12	26	69	156	46	174	159	75	76	72	36	19	13
13	25	63	133	45	161	144	77	75	70	34	19	12
14	39	59	121	47	156	129	82	73	66	32	19	12
15	42	52	108	110	144	119	84	81	63	31	19	12
16	36	46	94	320	142	112	93	135	62	31	18	12
17	32	43	84	320	172	103	90	113	60	29	18	12
18	30	39	80	296	205	94	85	106	58	29	17	12
19	28	38	80	346	236	87	267	101	57	28	18	11
20	26	37	75	386	227	81	565	98	54	29	19	11
21	25	34	70	332	182	77	525	93	54	29	20	11
22	24	36	86	254	154	73	308	90	52	28	19	11
23	23	177	113	208	135	71	236	86	52	26	19	10
24	22	570	97	251	122	66	198	82	50	25	19	9.8
25	22	266	85	202	116	63	180	78	48	25	19	9.4
26	21	188	142	186	182	61	174	76	45	24	19	9.4
27	20	150	166	458	515	58	168	76	44	23	18	9.5
28	20	125	121	402	269	58	161	76	43	22	18	9.7
29	20	320	103	418	------	71	147	76	41	22	18	9.6
30	19	902	91	580	------	96	138	76	39	21	17	9.5
31	20	------	80	470	------	86	------	73	------	21	17	------
TOTAL	906	4,641	5,150	6,354	7,179	3,429	4,674	2,805	1,779	940	582	366.9
MEAN	29.2	155	166	205	256	111	156	90.5	59.3	30.3	18.8	12.2
MAX	81	902	663	580	812	180	565	135	72	37	20	16
MIN	19	34	70	45	116	58	75	73	39	21	17	9.4
CFSM	1.35	7.16	7.69	9.49	11.9	5.12	7.21	4.19	2.75	1.40	.87	.57
IN.	1.56	7.99	8.87	10.9	12.4	5.90	8.05	4.83	3.06	1.62	1.00	.63
AC-FT	1,800	9,210	10,210	12,600	14,240	6,800	9,270	5,560	3,530	1,860	1,150	728

CAL YR 1964: TOTAL 39,513 MEAN 108 MAX 902 MIN 14 CFSM 5.00 IN 68.03 AC-FT 78,370
WAT YR 1965: TOTAL 38,805.9 MEAN 106 MAX 902 MIN 9.4 CFSM 4.92 IN 66.81 AC-FT 76,970

12-0565. North Fork Skokomish River below Staircase Rapids, near Hoodsport, Wash.

Location.--Lat 47°30'55", long 123°19'45", in NW¼ sec.4, T.23 N., R.5 W., on left bank 1¼ miles upstream from Lake Cushman, 2 miles upstream from Dry Creek, and 11½ miles northwest of Hoodsport.

Drainage area.--57.2 sq mi (revised).

Records available.--July 1924 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 762.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Nov. 1, 1934, water-stage recorder and Nov. 1, 1934, to Nov. 10, 1941, staff gages, on right bank at same datum.

Average discharge.--41 years, 490 cfs (354,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,200 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1330	5,160	6.95	Jan. 3, 1962	0800	* 3,500	5.99	Feb. 4, 1963	1630	7,720	8.11
Dec. 12, 1960	1100	4,670	6.69								
Jan. 10, 1961	1400	4,370	6.52	(a)	-	4,470	6.58	Oct. 21, 1963	1900	* 7,210	7.88
Jan. 15, 1961	1400	* 10,500	9.12	Nov. 19, 1962	2130	8,130	8.25	Nov. 14, 1963	0030	4,830	6.69
Jan. 30, 1961	1000	3,830	6.20	Nov. 25, 1962	1330	* 9,010	8.55	Jan. 1, 1964	0900	3,260	5.76
Feb. 21, 1961	0600	3,860	6.22	Dec. 15, 1962	0230	4,210	6.38				
								Nov. 29, 1964	2200	* 4,070	6.29

a Oct. 12 or 13, 1962.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 4, 5, 6, 1960	55	a 1.48	1964	Oct. 2, 3, 1963	59	1.48
1962	Oct. 4, 5, 1961	51	1.44	1965	Sept.28,29,30, 1965	49	1.37
1963	Sept.30, 1963	60	1.49				

a Occurred Sept. 25-27, 1961.

1924-65: Maximum discharge, 27,000 cfs Nov. 5, 1934 (gage height, 14.4 ft, from high watermark), from rating curve extended above 9,800 cfs on basis of slope-area measurement at gage height 12.2 ft; minimum recorded, 16 cfs Sept. 23, 1930 (gage height, 1.12 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are fair. No regulation or diversion above station. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1932, 1935, 1937(M), 1942(M), 1945(M), 1947(P), 1948(M). WSP 1636: 1940(M). WSP 1736: 1927.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	62	636	830	319	1,710	1,060	668	1,310	963	400	160	410
2	60	488	656	299	1,710	752	770	1,310	1,190	418	160	184
3	58	402	632	283	1,120	626	830	914	1,250	414	160	124
4	57	350	530	372	1,210	540	710	716	1,140	422	160	108
5	55	312	458	838	2,040	505	608	608	1,030	490	150	103
6	238	280	409	900	2,430	468	545	550	1,280	418	140	92
7	904	258	382	794	1,410	432	500	520	935	347	135	87
8	284	245	364	984	1,140	468	490	626	734	331	132	82
9	184	230	351	1,500	1,980	463	481	1,220	710	351	130	80
10	147	516	347	3,510	1,470	476	468	1,140	662	373	128	76
11	128	560	510	2,530	1,670	445	476	837	632	396	124	76
12	123	444	3,040	1,650	1,230	432	476	704	614	422	122	73
13	107	398	1,680	1,200	970	440	445	650	620	418	122	69
14	123	402	1,100	2,600	942	1,770	409	596	710	396	122	67
15	121	410	806	7,800	1,010	1,940	396	620	865	339	126	67
16	110	920	686	2,710	830	1,150	400	746	991	307	120	67
17	99	2,380	668	1,780	722	879	440	872	1,050	283	110	69
18	90	1,400	1,760	1,340	644	752	400	928	998	275	106	67
19	82	1,300	1,450	1,050	818	914	360	1,030	824	275	101	66
20	80	1,080	921	921	1,870	1,260	351	1,060	722	280	99	65
21	101	758	734	837	3,080	900	458	921	632	280	94	62
22	250	620	662	764	1,470	830	450	782	608	270	90	60
23	1,160	590	644	704	1,060	1,190	409	770	638	250	88	60
24	796	734	590	650	956	1,050	396	698	650	240	87	58
25	572	710	535	585	794	900	382	680	662	230	80	58
26	1,040	555	495	540	686	794	373	824	596	220	78	56
27	1,100	472	454	490	626	686	382	776	505	210	78	56
28	850	427	414	472	638	608	500	710	454	200	76	87
29	516	391	396	704	------	575	1,040	716	427	190	78	72
30	480	505	360	2,300	------	590	1,080	716	409	180	82	60
31	665	------	347	1,660	------	596	------	704	------	170	261	------
TOTAL	10,642	18,773	23,211	43,086	36,236	24,491	15,693	25,254	23,501	9,795	3,699	2,661
MEAN	343	626	749	1,390	1,294	790	523	815	783	316	119	88.7
MAX	1,160	2,380	3,040	7,800	3,080	1,940	1,080	1,310	1,280	490	261	410
MIN	55	230	347	283	626	432	351	520	409	170	76	56
CFSM	6.00	10.9	13.1	24.3	22.6	13.8	9.15	14.2	13.7	5.52	2.09	1.55
IN.	6.92	12.2	15.1	28.0	23.6	15.9	10.2	16.4	15.3	6.37	2.40	1.73
AC-FT	21,110	37,240	46,040	85,460	71,870	48,580	31,130	50,090	46,610	19,430	7,340	5,280

CAL YR 1960: TOTAL 189,618 MEAN 518 MAX 6,430 MIN 55 CFSM 9.06 IN 123.28 AC-FT 376,100
WAT YR 1961: TOTAL 237,042 MEAN 649 MAX 7,800 MIN 55 CFSM 11.4 IN 154.12 AC-FT 470,200

12-0565. North Fork Skokomish River below Staircase Rapids, near Hoodsport, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	59	382	1,740	686	418	210	280	560	373	386	170	92
2	56	283	1,020	1,290	590	200	270	510	858	343	168	90
3	54	260	728	2,780	620	190	260	674	555	327	196	87
4	52	218	979	1,320	495	190	260	535	454	360	175	83
5	56	193	776	970	400	250	350	458	409	360	184	82
6	78	187	590	851	574	300	1,000	418	400	331	295	80
7	83	193	500	1,070	1,100	300	1,200	386	458	327	523	80
8	67	196	436	1,020	1,530	280	800	476	570	347	311	78
9	208	626	391	806	1,010	260	500	758	535	351	221	75
10	172	2,060	343	680	746	240	350	668	481	339	193	90
11	124	1,060	319	585	590	220	300	555	450	323	172	87
12	732	620	299	525	560	200	378	505	454	307	168	76
13	440	495	283	472	614	190	445	472	432	279	155	250
14	221	445	264	440	626	180	560	445	472	267	143	275
15	158	364	248	404	555	180	535	436	550	245	137	139
16	135	319	245	378	481	190	440	432	580	237	139	114
17	118	287	252	351	450	200	427	458	515	234	139	103
18	108	267	237	327	418	200	468	440	476	215	143	97
19	103	241	392	299	386	190	510	400	476	205	143	92
20	94	224	782	275	351	190	468	378	495	215	137	90
21	90	241	915	271	327	190	458	396	515	227	130	88
22	99	500	794	260	307	200	450	450	505	234	120	83
23	211	355	1,100	248	283	230	458	468	530	241	116	80
24	137	287	1,070	248	260	300	668	472	535	241	114	78
25	620	252	734	275	245	320	540	486	510	234	112	76
26	803	241	570	287	230	300	458	525	698	224	106	75
27	626	886	486	343	220	270	602	545	580	221	103	83
28	400	1,830	698	299	210	240	560	565	472	215	101	786
29	287	1,420	1,240	303	------	230	481	481	468	202	97	952
30	283	2,050	977	331	------	230	454	418	440	190	95	468
31	291	------	734	373	------	250	------	382	------	184	94	------
TOTAL	6,965	16,982	20,142	18,767	14,596	7,120	14,930	15,152	15,246	8,411	5,100	4,929
MEAN	225	566	650	605	521	230	498	489	508	271	165	164
MAX	803	2,060	1,740	2,780	1,530	320	1,200	758	858	386	523	952
MIN	52	187	237	248	210	180	260	378	373	184	94	75
CFSM	3.93	9.90	11.4	10.6	9.11	4.02	8.70	8.55	8.88	4.74	2.88	2.87
IN.	4.53	11.0	13.1	12.2	9.49	4.63	9.71	9.85	9.91	5.47	3.32	3.20
AC-FT	13,810	33,680	39,950	37,220	28,950	14,120	29,610	30,050	30,240	16,680	10,120	9,780

CAL YR 1961: TOTAL 228,505 MEAN 626 MAX 7,800 MIN 52 CFSM 10.9 IN 148.57 AC-FT 453,200
WAT YR 1962: TOTAL 148,340 MEAN 406 MAX 2,780 MIN 52 CFSM 7.11 IN 96.45 AC-FT 294,200

Note.--No gage-height record Feb. 26 to Apr. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	291	221	585	1,730	155	472	351	440	427	208	143	80
2	250	218	560	1,780	630	432	319	468	396	205	137	75
3	280	199	510	1,440	2,570	391	368	418	360	190	132	73
4	240	427	520	949	4,960	360	486	427	368	199	132	72
5	210	535	1,000	752	2,540	335	602	1,300	386	184	130	70
6	200	458	1,170	644	3,010	315	740	865	364	172	126	69
7	250	430	893	570	1,770	295	662	656	347	190	124	66
8	500	540	949	530	1,140	275	698	550	351	256	118	66
9	800	510	886	481	907	267	668	481	339	211	116	67
10	600	704	830	432	758	252	565	440	339	190	114	75
11	2,000	758	794	382	656	241	505	418	382	175	116	70
12	3,500	782	752	364	580	231	530	409	378	165	116	67
13	3,500	921	956	351	570	218	580	396	335	165	112	160
14	1,200	764	2,330	327	520	218	831	404	339	162	104	112
15	700	626	3,110	315	510	208	858	440	355	150	101	101
16	600	515	1,940	291	505	208	632	432	368	141	97	87
17	550	463	1,250	275	481	199	520	476	364	141	94	80
18	500	409	956	260	490	190	472	632	343	137	94	72
19	500	3,650	818	241	828	267	445	764	307	132	94	67
20	500	2,770	710	234	662	540	404	812	287	130	94	62
21	500	1,200	656	221	530	481	396	851	264	480	88	62
22	450	858	585	211	468	404	391	794	237	780	97	67
23	400	704	472	205	432	327	382	608	224	343	95	78
24	350	958	472	196	396	307	368	525	231	260	122	67
25	303	3,410	436	187	607	505	347	490	231	218	99	65
26	319	1,850	404	178	900	545	351	472	215	196	94	62
27	291	1,130	391	170	602	662	339	463	218	181	87	63
28	267	858	404	162	525	602	339	486	211	168	85	63
29	264	740	959	150	------	515	450	505	199	160	82	63
30	245	660	2,310	150	------	440	472	510	208	150	82	62
31	227	------	1,340	155	------	391	------	463	------	152	80	------
TOTAL	20,787	28,268	29,948	14,333	28,702	11,093	15,071	17,395	9,373	6,591	3,305	2,243
MEAN	671	942	966	462	1,025	358	502	561	312	213	107	74.8
MAX	3,500	3,650	3,110	1,780	4,960	662	858	1,300	427	780	143	160
MIN	200	199	391	150	155	190	319	396	199	130	80	62
CFSM	11.7	16.5	16.9	8.08	17.9	6.26	8.78	9.81	5.46	3.72	1.86	1.31
IN.	13.5	18.4	19.5	9.32	18.7	7.21	9.80	11.3	6.09	4.29	2.15	1.46
AC-FT	41,230	56,070	59,400	28,430	56,930	22,000	29,890	34,500	18,590	13,070	6,560	4,450

CAL YR 1962: TOTAL 183,254 MEAN 502 MAX 3,650 MIN 75 CFSM 8.78 IN 119.15 AC-FT 363,500
WAT YR 1963: TOTAL 187,109 MEAN 513 MAX 4,960 MIN 62 CFSM 8.96 IN 121.65 AC-FT 371,100

12-0565. North Fork Skokomish River below Staircase Rapids, near Hoodsport, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	60	792	604	2,450	788	335	470	266	1,200	622	369	119
2	59	837	553	1,310	640	292	391	248	970	628	414	119
3	59	837	516	998	542	269	339	238	781	558	485	115
4	67	991	526	851	616	295	339	252	1,960	542	437	113
5	103	716	586	754	586	295	323	259	1,340	542	352	111
6	112	692	569	742	506	273	311	255	1,100	521	319	113
7	97	698	500	640	446	259	331	288	1,030	580	307	113
8	85	728	495	586	414	252	360	339	970	604	288	111
9	83	728	451	569	378	242	378	446	1,030	516	269	102
10	82	728	404	531	373	245	422	465	1,120	475	262	98
11	87	644	386	485	348	303	427	427	1,060	542	255	96
12	102	1,390	360	456	331	277	382	409	921	652	252	94
13	944	2,320	348	580	303	245	348	437	851	628	235	93
14	624	3,040	331	511	295	359	356	373	830	670	222	93
15	319	1,630	339	642	295	432	404	352	802	928	206	93
16	215	1,260	365	1,770	280	373	343	391	907	742	200	100
17	172	1,090	451	956	277	418	311	616	767	640	194	121
18	148	893	621	712	292	409	288	748	742	526	197	94
19	132	795	1,020	610	299	356	284	658	676	465	186	94
20	333	670	1,260	553	288	323	303	742	628	470	177	100
21	3,970	604	809	485	288	295	319	670	604	485	175	89
22	2,490	676	1,340	446	292	277	352	553	640	427	175	94
23	1,160	1,390	2,700	400	299	259	319	495	712	391	175	91
24	2,250	991	1,730	471	303	238	323	465	688	396	169	91
25	1,310	1,020	1,430	754	295	225	339	437	652	414	169	89
26	914	2,120	998	604	280	216	323	465	628	414	161	80
27	704	1,420	893	718	266	206	307	598	592	400	156	77
28	734	970	872	730	259	206	295	816	526	404	148	74
29	728	788	718	724	273	245	292	858	506	382	143	93
30	602	676	844	658	------	352	280	963	575	343	138	875
31	515	------	1,480	712	------	437	------	1,110	------	327	129	------
TOTAL	19,260	32,134	24,499	23,408	10,852	9,208	10,259	15,639	25,808	16,234	7,364	3,745
MEAN	621	1,071	790	755	374	297	342	504	860	524	238	125
MAX	3,970	3,040	2,700	2,450	788	437	470	1,110	1,960	928	485	875
MIN	59	604	331	400	259	206	280	238	506	327	129	74
CFSM	10.9	18.7	13.8	13.2	6.54	5.19	5.98	8.82	15.0	9.16	4.15	2.18
IN.	12.5	20.9	15.9	15.2	7.06	5.99	6.67	10.2	16.8	10.6	4.79	2.43
AC-FT	38,200	63,740	48,590	46,430	21,520	18,260	20,350	31,020	51,190	32,200	14,610	7,430

CAL YR 1963: TOTAL 183,999 MEAN 504 MAX 4,960 MIN 59 CFSM 8.81 IN 119.63 AC-FT 365,000
WAT YR 1964: TOTAL 198,410 MEAN 542 MAX 3,970 MIN 59 CFSM 9.48 IN 129.00 AC-FT 393,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	378	366	2,380	206	809	441	311	564	480	327	133	72
2	409	209	1,350	235	634	396	277	490	598	335	131	70
3	266	707	879	222	531	378	252	480	640	327	126	70
4	200	1,130	670	206	1,100	369	252	465	622	319	121	69
5	169	485	542	200	1,930	365	252	418	652	299	117	67
6	148	348	470	186	1,220	373	242	386	658	295	115	66
7	138	288	537	172	830	400	235	373	634	295	113	64
8	186	248	830	164	724	422	228	396	622	262	111	63
9	252	228	640	156	598	451	225	432	598	235	108	63
10	186	225	580	151	511	526	222	537	564	222	106	63
11	151	206	485	148	456	569	216	610	682	212	104	63
12	138	189	446	146	422	542	225	676	537	200	158	63
13	143	175	404	148	461	490	252	628	446	197	188	63
14	350	161	378	228	422	461	252	558	414	209	124	82
15	277	156	335	360	391	432	303	710	391	206	108	75
16	228	153	299	564	409	404	427	1,080	409	197	104	64
17	191	156	284	610	506	365	386	694	480	191	102	60
18	169	148	280	575	548	323	369	569	461	183	100	58
19	153	143	280	658	616	303	1,050	548	414	172	111	56
20	143	136	262	736	604	284	2,280	548	409	169	131	54
21	133	133	248	682	521	269	1,900	526	396	166	106	54
22	126	151	360	542	456	259	1,070	526	373	161	96	54
23	119	724	331	490	409	248	788	531	373	159	98	54
24	115	1,320	280	480	369	235	700	516	356	161	102	53
25	111	598	255	414	352	225	706	553	323	161	96	53
26	106	461	295	427	485	216	781	610	303	161	93	51
27	100	365	284	886	809	203	928	700	284	151	87	51
28	98	307	259	970	548	203	858	712	280	143	82	50
29	98	1,320	248	1,130	------	225	682	640	288	141	77	49
30	117	3,070	238	1,640	------	222	622	537	307	138	75	49
31	159	------	219	1,190	------	231	------	485	------	133	72	------
TOTAL	5,557	14,306	15,348	14,922	17,671	10,830	17,291	17,498	13,994	6,527	3,395	1,823
MEAN	179	477	495	481	631	349	576	564	466	211	110	60.8
MAX	409	3,070	2,380	1,640	1,930	569	2,280	1,080	682	335	188	82
MIN	98	133	219	146	352	203	216	373	280	133	72	49
CFSM	3.13	8.34	8.66	8.42	11.0	6.11	10.1	9.87	8.16	3.68	1.91	1.06
IN.	3.61	9.30	9.98	9.70	11.5	7.04	11.2	11.4	9.10	4.24	2.21	1.19
AC-FT	11,020	28,380	30,440	29,600	35,050	21,480	34,300	34,710	27,760	12,950	6,730	3,620

CAL YR 1964: TOTAL 157,728 MEAN 431 MAX 3,070 MIN 74 CFSM 7.53 IN 102.55 AC-FT 312,800
WAT YR 1965: TOTAL 139,162 MEAN 381 MAX 3,070 MIN 49 CFSM 6.67 IN 90.48 AC-FT 276,000

12-0575. North Fork Skokomish River near Hoodsport, Wash.

Location.--Lat 47°25'20", long 123°13'10", in NW¼SW¼ sec.5, T.22 N., R.4 W., at city of Tacoma dam, 4 miles northwest of Hoodsport.

Drainage area.--93.7 sq mi.

Records available.--August 1910 to September 1911 (fragmentary) and February 1913 to September 1965 (monthly discharge only). October 1911 to January 1913 (monthly discharge only) on file in district office.

Gage.--Discharge determined from record of power output and Lake Cushman elevations, plus spillway discharge when present. Prior to Sept. 23, 1911, staff gage and February 1913 to September 1923 water-stage recorder, at approximately same site. At datum 486.4 ft above mean sea level (levels by city of Tacoma) prior to Sept. 2, 1918, and at datum 5.00 ft higher Sept. 2, 1918, to September 1923. October 1923 to September 1930 water-stage recorder 1 mile downstream at different datum.

Average discharge.--54 years (1911-65), 744 cfs (538,600 acre-ft per year), adjusted for storage.

Extremes.--Not determined since regulation began in Lake Cushman.

Remarks.--Racords fair. No diversion of consequence. Flow regulated in Lake Cushman since October 1925 for power by city of Tacoma.

Cooperation.--Records of power output and elevations of Lake Cushman furnished by city of Tacoma.

Revisions.--WSP 1216: Drainage area.

12-0575. North Fork Skokomish River near Hoodsport, Wash.--Continued

MONTHLY DISCHARGE, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Month	Observed				Change in contents in Lake Cushman (acre-feet)	Adjusted for change in reservoir contents			
	Maximum (cfs)	Minimum (cfs)	Mean (cfs)	Runoff in acre-feet		Mean (cfs)	Per square mile	Runoff in inches	Runoff in acre-feet
October................	1,840	0	902	55,470	-23,710	517	5.52	6.36	31,760
November...............	1,510	454	1,135	67,540	-5,710	1,039	11.1	12.37	61,830
December...............	1,790	93	1,299	79,840	-10,370	1,130	12.1	13.90	69,470
Calendar year 1960...	1,870	0	825	598,900	-36,430	775	8.27	112.55	562,500
January................	3,480	272	1,584	97,390	+38,670	2,213	23.6	27.23	136,100
February...............	3,150	982	2,006	111,400	+9,070	2,170	23.2	24.11	120,500
March..................	2,050	499	1,314	80,780	+3,520	1,371	14.6	16.87	84,300
April..................	1,500	0	729	43,370	+2,540	772	8.24	9.19	45,910
May....................	1,470	384	971	59,730	+5,700	1,064	11.36	13.09	65,430
June...................	1,310	0	827	49,190	+3,400	884	9.43	10.52	52,590
July...................	745	0	347	21,330	+1,010	363	3.87	4.47	22,340
August.................	561	0	157	9,630	+420	163	1.74	2.01	10,050
September..............	1,020	125	732	43,550	-35,740	131	1.40	1.56	7,810
Water year 1961......	3,480	0	994	719,200	-11,200	978	10.4	141.68	708,000
October................	1,710	0	706	43,440	-20,120	379	4.04	4.67	23,320
November...............	2,140	612	1,735	103,300	-49,250	908	9.69	10.82	54,050
December...............	2,120	631	1,301	79,990	-10,500	1,130	12.1	13.91	69,490
Calendar year 1961...	3,480	0	1,026	743,100	-51,280	956	10.2	138.45	691,800
January................	1,800	131	1,150	70,730	-11,410	965	10.3	11.87	59,320
February...............	1,080	0	451	25,040	+22,820	862	9.20	9.58	47,860
March..................	527	0	165	10,180	+21,150	510	5.44	6.27	31,330
April..................	911	0	88.8	5,290	+37,840	725	7.74	8.63	43,130
May....................	849	0	404	24,830	+18,590	706	7.53	8.69	43,420
June...................	665	0	298	17,730	+19,460	625	6.67	7.44	37,190
July...................	424	0	216	13,250	+6,690	324	3.46	3.99	19,940
August.................	1,120	0	234	14,360	-630	223	2.38	2.75	13,730
September..............	1,310	0	483	28,730	-12,870	267	2.85	3.17	15,860
Water year 1962......	2,140	0	603	436,900	+21,770	634	6.77	91.79	458,700
October................	2,380	438	1,312	80,650	-20,570	977	10.4	12.02	60,080
November...............	3,370	373	1,358	80,820	+13,600	1,587	16.9	18.89	94,420
December...............	2,910	512	1,483	91,200	+2,300	1,521	16.2	18.71	93,500
Calendar year 1962...	3,370	0	639	462,800	+96,970	773	8.25	112.01	559,800
January................	3,460	1,200	1,809	111,200	-67,220	715	7.63	8.80	43,980
February...............	1,670	189	963	53,460	+36,920	1,627	17.4	18.09	90,380
March..................	1,860	0	268	16,460	+22,080	627	6.69	7.71	38,540
April..................	1,490	0	511	30,410	+19,860	845	9.02	10.06	50,270
May....................	1,640	0	727	44,680	+3,970	791	8.44	9.74	48,650
June...................	950	0	431	25,650	-1,510	406	4.33	4.83	24,140
July...................	1,660	0	263	16,170	+4,120	330	3.52	4.06	20,290
August.................	1,060	0	176	10,800	-840	162	1.73	1.99	9,960
September..............	794	0	190	11,310	-4,720	111	1.18	1.32	6,590
Water year 1963......	3,460	0	791	572,800	+7,990	802	8.56	116.22	580,800
October................	2,370	0	1,306	80,330	-18,720	1,002	10.7	12.33	61,610
November...............	2,310	810	1,756	104,500	+2,160	1,793	19.1	21.35	106,700
December...............	1,790	608	1,301	79,980	-3,040	1,251	13.4	15.40	76,940
Calendar year 1963...	3,460	0	808	585,000	-6,940	799	8.53	115.68	578,100
January................	2,290	656	1,841	113,200	-27,700	1,391	14.8	17.11	85,500
February...............	2,210	454	1,192	68,570	-32,360	630	6.72	7.25	36,210
March..................	1,670	125	936	57,560	-21,850	581	6.20	7.15	35,710
April..................	879	0	261	15,540	+15,550	522	5.57	6.22	31,090
May....................	102	0	6.5	397	+36,650	603	6.44	7.41	37,050
June...................	710	0	305	18,150	+46,650	1,089	11.6	12.97	64,800
July...................	1,070	0	501	30,780	+7,250	618	6.60	7.61	38,030
August.................	798	0	296	18,230	+800	309	3.30	3.81	19,030
September..............	1,560	0	400	23,800	-13,380	175	1.87	2.09	10,420
Water year 1964......	2,370	0	842	611,000	-7,990	831	8.87	120.70	603,000
October................	1,600	0	551	33,910	-17,210	272	2.90	3.34	16,700
November...............	1,910	0	1,042	62,010	-17,460	749	7.99	8.91	44,550
December...............	1,650	292	960	59,040	-3,800	898	9.58	11.05	55,240
Calendar year 1964...	2,290	0	690	501,200	-26,860	653	6.97	94.92	474,300
January................	1,740	0	944	58,030	-5,700	851	9.08	10.47	52,330
February...............	1,200	101	671	37,240	+24,800	1,117	11.9	12.41	62,040
March..................	1,800	0	990	60,900	-26,700	556	5.93	6.84	34,200
April..................	1,500	0	626	37,240	+14,910	876	9.35	10.44	52,150
May....................	776	0	265	16,300	+27,310	709	7.57	8.73	43,610
June...................	781	0	344	20,470	+12,050	547	5.84	6.51	32,520
July...................	649	0	188	11,580	+4,210	257	2.74	3.16	15,790
August.................	531	0	128	7,840	+800	141	1.50	1.73	8,640
September..............	1,890	0	377	22,440	-16,530	99.3	1.06	1.18	5,910
Water year 1965......	1,910	0	590	427,000	-3,320	585	6.24	84.77	423,700

12-0580. Deer Meadow Creek near Hoodsport, Wash.

Location.--Lat 47°25'00", long 123°13'30", in NW¼NW¼ sec.8, T.22 N., R.4 W., on left bank a quarter of a mile upstream from mouth and 4 miles west of Hoodsport.

Drainage area.--1.83 sq mi (includes 1.35 sq mi in McTaggart Creek basin).

Records available.--August 1950 to August 1951, October 1952 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 688.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (levels by city of Tacoma). Prior to Oct. 1, 1952, at datum 0.48 ft higher.

Average discharge.--13 years, 7.08 cfs (5,130 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Jan. 15, 1961	445	2.85	Oct. 3, 1960	0.30	0.59
1962	Nov. 30, 1961	43	1.44	Oct. 4, 1961	.40	.59
1963	Nov. 25, 1962	76	1.72	Aug. 14, 1963	.20	.57
1964	Nov. 14, 1963	41	1.41	Sept.29, 1964	.20	.58
1965	Nov. 30, 1964	52	1.52	Oct. 24,25,29, 1964	.20	a .57

a Occurred Oct. 24, 1964.

1950-51, 1952-65: Maximum discharge, 445 cfs Jan. 15, 1961 (gage height, 2.85 ft), from rating curve extended above 190 cfs; maximum gage height, 3.28 ft Jan. 15, 1961, caused in part by failure of large beaver dam; minimum discharge, 0.2 cfs Oct. 8-11, 1952, Oct. 2, 4, 6, 7, 1958, Aug. 14, 1963, Sept. 29, Oct. 24, 25, 29, 1964.

Remarks.--Records good except those below 1.0 cfs or those for periods of no gage-height record, which are fair. Since October 1953, records include nearly all of flow of McTaggart Creek, from which water is diverted at city of Tacoma diversion dam in N½ sec.7, T.22 N., R.4 W. The city allows some flow through an 8-inch pipe in dam to continue in McTaggart Creek, not to exceed the natural flow of stream and probably less than 0.5 cfs most of time. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.50	1.6	11	5.0	34	39	14	3.3	2.5	1.8	1.2	1.6
2	.50	1.5	9.0	4.4	42	33	13	3.3	2.5	1.6	1.0	1.4
3	.40	1.4	9.0	4.1	33	28	11	3.5	2.5	1.7	1.0	1.1
4	.50	1.2	9.2	4.4	29	24	9.4	3.5	2.5	1.6	1.0	1.1
5	.60	1.2	7.2	8.1	34	24	8.6	3.5	2.5	1.8	1.0	1.1
6	.80	1.2	6.8	9.9	39	20	8.1	3.5	2.9	1.8	.90	1.1
7	1.0	1.1	6.1	8.6	33	19	7.2	3.3	2.5	1.6	1.0	1.1
8	.80	1.0	5.7	11	32	17	6.8	4.1	2.3	1.5	1.1	1.1
9	.70	1.0	5.0	27	38	17	6.4	5.0	2.3	1.5	1.1	1.1
10	.70	1.7	4.7	49	36	21	6.1	5.0	2.3	1.5	1.1	1.0
11	.70	1.6	8.1	46	36	29	6.1	5.0	2.5	1.5	1.1	1.0
12	.70	1.6	31	33	35	32	6.1	5.0	2.5	1.5	1.1	1.0
13	.70	1.6	22	33	34	31	5.4	4.4	2.3	1.5	1.1	1.0
14	.60	1.7	15	42	34	54	5.0	4.4	2.2	1.5	1.1	.90
15	.60	2.2	13	190	41	58	5.0	4.7	2.2	1.4	1.1	.90
16	.60	2.9	11	84	35	48	5.0	4.4	2.2	1.4	1.1	1.4
17	.50	14	11	56	29	39	5.0	4.4	2.2	1.4	1.1	1.1
18	.50	14	30	44	27	33	4.7	3.8	3.5	1.4	1.1	.90
19	.50	15	31	34	27	31	4.4	3.5	2.9	1.4	1.1	.90
20	.50	19	23	27	34	36	4.4	3.5	1.7	1.4	1.1	.80
21	.70	12	17	23	63	31	3.5	3.1	1.8	1.4	1.1	.90
22	1.0	11	15	19	56	29	3.1	3.3	1.8	1.4	1.1	.90
23	1.6	12	13	16	45	32	3.1	3.3	1.7	1.4	1.1	.80
24	1.4	24	12	13	45	29	3.1	3.3	1.7	1.4	1.1	.80
25	1.4	30	9.9	11	39	26	3.1	3.1	1.8	1.4	1.0	.80
26	1.7	25	9.4	9.0	33	26	2.9	3.3	1.7	1.5	1.0	.70
27	2.2	17	8.1	7.6	29	22	2.9	3.3	1.8	1.4	1.0	.70
28	2.0	14	6.8	7.2	29	20	2.9	3.1	1.6	1.4	1.0	.90
29	1.6	12	6.4	9.4	------	19	3.3	2.9	1.7	1.2	1.0	.80
30	1.5	11	6.1	29	------	16	3.5	2.5	1.7	1.2	1.1	.70
31	1.6	------	5.7	29	------	15	------	2.5	------	1.2	1.6	------
TOTAL	29.10	254.5	378.2	893.7	1,021	898	173.1	114.8	66.3	45.7	33.50	29.60
MEAN	.94	8.48	12.2	28.8	36.5	29.0	5.77	3.70	2.21	1.47	1.08	.99
MAX	2.2	30	31	190	63	58	14	5.0	3.5	1.8	1.6	1.6
MIN	.40	1.0	4.7	4.1	27	15	2.9	2.5	1.6	1.2	.90	.70
AC-FT	58	505	750	1,770	2,030	1,780	343	228	132	91	66	59

CAL YR 1960: TOTAL 2,650.70 MEAN 7.24 MAX 92 MIN .40 AC-FT 5,260
WAT YR 1961: TOTAL 3,937.50 MEAN 10.8 MAX 190 MIN .40 AC-FT 7,810

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0580. Deer Meadow Creek near Hoodsport, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.60	1.1	33	12	2.7	3.0	6.2	6.2	2.2	1.6	1.3	1.2
2	.50	1.1	20	15	2.5	3.0	5.9	5.9	2.7	1.6	1.3	1.2
3	.50	1.1	14	26	2.3	2.7	5.6	7.2	2.3	1.6	1.6	1.1
4	.50	.90	16	21	2.3	4.0	5.3	6.6	2.3	1.6	1.6	1.1
5	.50	.80	14	18	2.3	5.9	5.0	5.9	2.3	1.6	1.6	1.1
6	.60	.70	12	16	2.5	6.9	5.9	5.6	2.0	1.4	1.8	1.1
7	.60	.70	12	14	3.5	6.2	5.0	5.3	2.0	1.6	1.8	1.0
8	.60	.70	9.8	13	4.0	6.2	4.3	5.9	2.0	1.6	1.8	1.0
9	.80	1.1	8.8	11	5.6	5.9	4.3	5.9	2.0	1.6	1.6	1.0
10	.90	3.1	7.6	9.8	5.3	5.9	4.0	5.6	1.7	1.6	1.4	1.2
11	.80	2.9	7.2	8.8	5.0	5.6	3.7	5.3	1.8	1.6	1.4	1.1
12	1.6	2.3	6.6	8.4	4.6	5.0	3.7	5.0	2.0	1.6	1.2	1.0
13	1.2	2.2	6.2	7.6	5.0	5.0	3.5	5.3	1.7	1.6	1.4	1.6
14	1.0	1.8	5.6	7.2	5.9	4.7	3.5	5.0	1.7	1.6	1.4	1.4
15	.80	1.7	5.0	6.6	6.2	4.5	3.2	4.6	1.7	1.6	1.4	1.2
16	.80	1.6	5.6	6.2	5.6	5.0	3.0	4.3	1.7	1.4	1.1	1.1
17	.70	1.7	6.2	5.9	5.3	4.8	3.0	4.0	1.7	1.4	1.3	1.0
18	.60	1.7	5.6	5.0	5.0	4.6	3.0	4.0	1.7	1.4	1.4	1.0
19	.70	1.7	6.6	4.6	4.6	4.4	3.0	4.0	1.7	1.4	1.6	1.1
20	.70	1.6	13	4.3	4.3	4.2	2.7	3.7	2.8	1.4	1.4	1.1
21	.60	2.3	24	4.3	4.0	4.5	2.7	3.5	2.0	1.4	1.4	1.1
22	.70	2.7	26	4.3	4.0	5.0	2.7	3.2	1.6	1.3	1.4	1.0
23	1.4	2.5	32	4.3	4.0	7.0	2.5	3.5	1.6	1.3	1.4	1.0
24	1.0	2.3	28	3.5	3.7	16	2.7	3.5	1.6	1.3	1.3	1.0
25	1.1	2.2	22	3.5	3.5	15	2.7	3.2	1.6	1.3	1.3	1.0
26	1.8	2.5	17	3.5	3.2	12	2.7	2.7	2.0	1.2	1.3	.90
27	2.5	3.5	15	3.5	3.2	11	6.9	2.7	1.8	1.3	1.3	1.0
28	1.8	8.8	15	3.2	3.2	8.8	6.9	2.5	1.8	1.3	1.2	2.6
29	1.6	13	16	3.0	------	8.0	5.9	2.3	1.6	1.3	1.2	2.0
30	1.4	24	15	3.0	------	7.2	5.6	2.3	1.6	1.3	1.2	1.4
31	1.1	------	13	2.7	------	6.6	------	2.2	------	1.3	1.2	------
TOTAL	30.00	94.30	437.8	259.2	113.3	198.6	125.1	136.9	57.2	45.1	43.6	35.60
MEAN	.97	3.14	14.1	8.36	4.05	6.41	4.17	4.42	1.91	1.45	1.41	1.19
MAX	2.5	24	33	26	6.2	16	6.9	7.2	2.8	1.6	1.8	2.6
MIN	.50	.70	5.0	2.7	2.3	2.7	2.5	2.2	1.6	1.2	1.1	.90
AC-FT	60	187	868	514	225	394	248	272	113	89	86	71

CAL YR 1961: TOTAL 3,837.80 MEAN 10.5 MAX 190 MIN .50 AC-FT 7,610
WAT YR 1962: TOTAL 1,576.70 MEAN 4.32 MAX 33 MIN .50 AC-FT 3,130

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.3	2.3	16	25	2.5	5.3	9.3	5.0	2.5	1.7	1.3	1.0
2	1.1	2.3	15	32	5.1	5.0	8.4	6.2	2.7	1.6	1.2	1.2
3	1.3	2.3	14	32	19	4.6	9.8	5.9	2.5	1.6	1.3	1.2
4	1.1	3.5	13	24	31	4.3	12	5.6	2.5	1.6	1.3	1.3
5	1.1	3.5	20	20	36	4.0	13	8.0	2.5	1.6	1.2	1.3
6	1.1	3.2	25	16	24	4.0	16	8.4	2.3	1.6	1.3	1.3
7	1.8	3.5	20	14	19	3.7	18	7.6	2.3	1.7	1.2	1.2
8	2.3	3.5	18	13	16	3.7	22	6.9	2.3	1.8	1.1	1.1
9	3.2	4.0	16	11	13	3.5	27	6.6	2.3	1.7	1.2	1.2
10	2.3	5.3	14	9.3	12	3.5	22	5.9	2.2	1.7	1.0	1.3
11	3.0	6.6	13	8.8	9.8	3.5	17	5.6	2.2	1.7	.90	1.0
12	8.1	7.6	12	8.0	8.8	3.2	15	5.3	2.2	1.6	1.0	.90
13	15	8.8	11	7.6	8.4	3.2	13	5.0	2.2	1.6	.90	1.2
14	9.8	8.8	21	6.9	7.6	3.2	12	5.0	2.2	1.6	.60	1.1
15	6.6	9.3	22	6.2	6.6	3.2	11	4.6	2.0	1.6	.60	1.1
16	5.0	8.0	20	5.6	6.6	3.7	8.8	4.3	2.0	1.4	.80	.90
17	4.6	8.0	17	5.3	6.6	3.2	8.0	4.0	2.0	1.4	.70	1.0
18	4.0	7.2	15	4.6	6.6	3.0	8.0	4.0	1.8	1.4	.50	1.0
19	3.5	30	13	4.3	8.0	3.7	8.0	3.7	2.0	1.4	.90	1.1
20	3.5	38	11	4.0	7.6	3.7	7.2	3.5	2.0	1.4	.80	.90
21	3.5	22	9.8	3.7	6.9	3.7	6.6	3.5	2.0	1.8	1.0	.90
22	3.2	17	8.8	3.7	6.2	3.7	6.2	3.5	2.0	2.0	1.2	1.1
23	3.0	14	8.4	3.5	5.9	3.7	5.9	3.5	2.0	1.6	1.0	1.0
24	3.0	20	7.6	3.5	5.3	3.7	5.6	3.5	2.0	1.6	1.0	1.1
25	2.7	60	7.2	3.2	5.9	3.7	5.3	3.2	2.0	1.6	.80	.90
26	3.0	36	6.9	3.0	6.6	4.0	5.6	3.2	1.8	1.4	1.0	.90
27	2.7	27	6.6	2.7	5.6	4.6	5.0	3.0	1.8	1.4	.90	.80
28	2.7	22	6.6	2.5	5.6	6.6	4.6	2.7	1.8	1.3	1.1	.80
29	2.7	20	9.3	2.5	------	9.8	4.3	2.7	1.7	1.3	1.1	.90
30	2.5	17	23	2.5	------	11	4.6	2.7	1.7	1.3	1.1	1.0
31	2.3	------	22	2.7	------	9.8	------	2.5	------	1.3	1.0	------
TOTAL	111.0	420.7	442.2	291.1	302.2	139.5	319.2	145.1	63.5	48.3	31.00	31.70
MEAN	3.58	14.0	14.3	9.39	10.8	4.50	10.6	4.68	2.12	1.56	1.00	1.06
MAX	15	60	25	32	36	11	27	8.4	2.7	2.0	1.3	1.3
MIN	1.1	2.3	6.6	2.5	2.5	3.0	4.3	2.5	1.7	1.3	.50	.80
AC-FT	220	834	877	577	599	277	633	288	126	96	61	63

CAL YR 1962: TOTAL 1,988.50 MEAN 5.45 MAX 60 MIN .90 AC-FT 3,940
WAT YR 1963: TOTAL 2,345.50 MEAN 6.43 MAX 60 MIN .50 AC-FT 4,650

Note.--No gage-height record Nov. 24 to Dec. 10. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0580. Deer Meadow Creek near Hoodsport, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.80	9.6	14	34	37	7.2	4.5	1.9	.90	1.0	1.2	.70
2	.90	11	12	28	30	6.1	4.2	1.6	.90	.80	1.2	.80
3	.80	11	11	25	26	5.4	3.9	1.3	.90	1.0	1.0	.60
4	.80	12	10	22	23	6.1	3.9	1.2	1.4	1.2	1.0	.70
5	.90	11	9.4	21	21	6.1	3.6	1.3	1.2	1.2	.80	.70
6	.90	11	8.4	20	18	5.8	3.4	1.3	1.2	1.2	.90	.60
7	.90	15	7.2	17	16	5.4	3.4	1.0	1.2	1.2	1.0	.70
8	1.0	17	8.0	16	14	6.1	3.2	1.3	1.2	1.2	.70	.70
9	.90	16	6.8	16	12	6.1	3.2	1.3	1.2	1.2	.80	.60
10	.90	18	6.1	15	11	6.1	3.2	1.2	1.2	1.2	.70	.70
11	1.0	16	5.4	15	10	15	3.2	1.2	1.2	.90	.80	.80
12	1.2	18	5.1	13	9.8	16	3.2	1.3	1.2	1.0	.90	.70
13	1.8	25	5.1	15	8.9	12	2.9	1.3	1.2	1.0	.60	.70
14	1.3	39	4.8	15	8.4	15	2.9	1.3	1.2	1.2	.60	.70
15	1.0	34	4.5	17	8.9	15	2.9	1.3	1.2	1.3	.60	.80
16	.90	27	4.5	36	8.0	13	2.7	1.3	1.3	1.2	.60	.80
17	.80	24	4.8	31	7.6	12	2.5	1.4	1.2	1.2	.70	.90
18	.90	17	5.1	26	7.2	11	2.5	1.3	1.2	1.2	.60	.80
19	.90	23	7.2	25	6.4	10	2.3	1.3	1.2	1.0	.80	.90
20	1.4	20	20	23	6.1	10	2.3	1.3	1.2	1.2	.90	.80
21	4.8	17	16	20	6.1	9.4	2.3	1.3	1.2	1.2	1.0	.80
22	10	20	19	16	5.4	8.4	2.3	1.2	1.2	1.0	1.0	.70
23	4.5	35	32	15	5.1	8.0	2.1	1.0	1.0	1.0	1.0	.70
24	21	31	31	18	5.1	7.2	2.1	1.2	1.0	1.0	.80	.60
25	14	26	26	24	4.8	6.4	2.1	1.2	1.2	1.0	.70	.60
26	8.9	28	23	22	4.5	6.1	1.9	1.0	1.0	1.2	.80	.60
27	6.8	26	20	24	4.2	5.4	1.9	1.0	1.0	.90	.70	.40
28	8.9	22	19	27	4.2	5.1	1.8	.80	.90	1.0	.80	.40
29	8.0	19	16	34	4.8	5.1	1.8	.90	1.0	1.2	.60	.40
30	7.2	16	16	30	------	4.8	1.8	.90	1.2	1.2	.70	1.6
31	6.1	------	16	35	------	4.5	------	1.0	------	1.2	.90	------
TOTAL	120.20	614.6	393.4	695	333.5	259.8	84.0	37.90	34.10	34.30	25.40	21.50
MEAN	3.88	20.5	12.7	22.4	11.5	8.38	2.80	1.22	1.14	1.11	.82	.72
MAX	21	39	32	36	37	16	4.5	1.9	1.4	1.3	1.2	1.6
MIN	.80	9.6	4.5	13	4.2	4.5	1.8	.80	.90	.80	.60	.40
AC-FT	238	1,220	780	1,380	661	515	167	75	68	68	50	43

CAL YR 1963: TOTAL 2,499.80 MEAN 6.85 MAX 39 MIN .50 AC-FT 4,960
WAT YR 1964: TOTAL 2,653.70 MEAN 7.25 MAX 39 MIN .40 AC-FT 5,260

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.0	.70	43	5.8	27	18	3.9	5.1	1.9	1.4	.80	.80
2	.90	.50	26	5.5	20	15	4.2	4.5	1.9	1.2	.90	.60
3	.60	1.4	18	5.2	17	13	3.6	4.5	1.9	1.2	.90	.80
4	.60	2.9	14	5.0	25	12	3.6	4.8	1.9	1.4	.90	.80
5	.60	1.8	11	5.0	45	11	3.4	4.2	1.9	1.4	.90	.80
6	.40	1.4	10	5.0	37	10	3.6	3.9	1.8	1.3	.90	.80
7	.50	1.2	10	4.8	30	9.4	3.4	3.6	1.8	1.3	.90	.80
8	.60	1.2	11	4.5	25	8.9	3.4	3.4	1.4	1.3	.70	.80
9	.70	1.0	9.4	4.2	20	8.0	3.2	3.4	1.8	1.3	1.0	.70
10	.60	1.3	8.9	4.0	17	7.6	2.9	3.2	1.8	1.3	1.0	.80
11	.60	1.2	8.0	3.7	15	7.6	2.9	3.2	2.1	1.6	.70	.70
12	.50	1.2	7.6	3.4	13	7.2	2.9	2.9	1.8	1.4	1.2	.70
13	.40	1.0	6.8	3.2	14	6.4	2.7	2.7	1.8	1.3	1.2	.70
14	.70	1.0	6.4	3.2	13	6.1	2.5	2.5	1.9	1.3	1.0	.80
15	.50	1.0	6.0	3.2	13	6.1	2.7	2.9	1.8	1.3	.90	.80
16	.50	1.0	5.5	3.2	15	5.8	2.9	4.2	1.6	1.3	.80	.80
17	.40	.90	5.0	3.2	16	5.4	2.7	3.4	1.4	1.3	.80	.80
18	.40	.90	4.9	3.2	16	5.1	2.7	2.9	1.6	1.3	.70	.70
19	.40	.90	5.0	3.2	15	4.8	6.4	2.9	1.6	1.2	.70	.60
20	.40	.90	4.8	3.6	14	4.5	15	2.9	1.8	1.3	1.2	.50
21	.40	.90	4.8	4.5	13	4.5	14	2.5	1.4	1.3	.70	.50
22	.40	1.3	6.2	5.5	12	4.2	12	2.7	1.6	1.3	.70	.60
23	.30	2.3	7.0	7.0	11	4.2	9.4	2.5	1.6	1.2	.70	.70
24	.20	5.8	7.0	8.0	10	4.2	8.0	2.5	1.3	.90	.80	.70
25	.30	5.1	6.7	7.5	9.0	3.6	7.2	2.3	1.2	.80	.70	.60
26	.30	4.8	8.0	15	15	3.6	6.4	2.3	1.4	1.0	.90	.60
27	.30	4.2	10	31	28	3.4	5.4	2.1	1.6	1.0	.80	.70
28	.30	3.6	9.0	30	22	3.6	4.8	1.6	1.6	.90	.90	.80
29	.40	8.6	7.5	31	------	5.1	4.5	1.6	1.4	1.2	.90	.70
30	.40	46	6.0	45	------	4.8	4.5	2.3	1.4	1.0	.90	.80
31	.50	------	5.5	35	------	3.9	------	2.1	------	1.0	.80	------
TOTAL	15.10	106.00	299.0	301.6	527.0	217.0	154.8	95.6	50.0	38.00	26.90	21.50
MEAN	.49	3.53	9.65	9.73	18.8	7.00	5.16	3.08	1.67	1.23	.87	.72
MAX	1.0	46	43	45	45	18	15	5.1	2.1	1.6	1.2	.80
MIN	.20	.50	4.8	3.2	9.0	3.4	2.5	1.6	1.2	.80	.70	.50
AC-FT	30	210	593	598	1,050	430	307	190	99	75	53	43

CAL YR 1964: TOTAL 1,945.60 MEAN 5.32 MAX 46 MIN .20 AC-FT 3,860
WAT YR 1965: TOTAL 1,852.50 MEAN 5.08 MAX 46 MIN .20 AC-FT 3,670

Note.--No gage-height record Dec. 15 to Jan. 14, Jan. 21 to Mar. 3.

12-0595. North Fork Skokomish River near Potlatch, Wash.

Location.--Lat 47°19'40", long 123°14'30", in NE¼NW¼ sec.7, T.21 N., R.4 W., on left bank 1 mile upstream from mouth, 6 miles southwest of Potlatch, and 7 miles downstream from city of Tacoma's Cushman Dam No. 2.

Drainage area.--117 sq mi, includes 99 sq mi above Cushman Dam No. 2 which is normally noncontributing.

Records available.--March 1944 to December 1949, February 1950 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 63.49 ft above mean sea level (levels by city of Tacoma). Prior to Nov. 27, 1949 (destroyed by flood of Nov. 27, 1949), and Mar. 18 to May 9, 1950, water-stage recorder at site 200 ft downstream at present datum.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Jan. 15, 1961	4,610	8.32	Oct. 3, 5, 1960	5.4	a 2.16
1962	Dec. 1, 1961	715	4.22	Oct. 5, 1961	7.5	2.18
1963	Dec. 16, 1962	3,570	7.50	Sept. 7, 8, 1963	6.7	b 2.16
1964	Jan. 1, 1964	662	4.13	Sept.11-13, 1964	7.8	2.16
1965	Nov. 30, 1964	1,180	4.95	(c)	6.7	d 2.15

a Occurred Aug. 22-25, 29, 30, 1961.
b Occurred Aug. 30, 1963.
c Sept. 17-20, 21, 30, 1965.
d Occurred Sept. 2-4, 17-20, 21, 30, 1965.

1944-65: Maximum discharge, 7,740 cfs Nov. 4, 1955 (gage height, 10.45 ft); minimum recorded, 1.3 cfs Sept. 5, 14, 16, 1951 (gage height, 2.02 ft).

Remarks.--Records good except those for period of no gage-height record, which are poor. Entire flow of river normally diverted at Cushman Dam No. 2 to supply powerplant which discharges directly into sea (Hood Canal). Main portion of McTaggart Creek is diverted (through Deer Meadow Creek) into Cushman Reservoir No. 2 and may bypass this station. Flow regulated by Lake Cushman and by pondage in Cushman Reservoir No. 2, from which spill and releases are infrequent. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.0	72	129	80	460	435	94	51	30	15	9.8	18
2	7.0	61	115	75	529	295	92	56	30	14	9.3	14
3	7.0	50	115	70	354	223	84	56	29	14	9.3	11
4	7.0	42	100	70	322	184	78	54	28	14	9.3	9.8
5	6.2	40	95	150	390	184	78	50	28	17	9.8	9.3
6	9.0	36	90	200	800	177	72	48	28	17	9.8	9.3
7	17	34	85	200	956	164	66	45	27	17	9.8	9.3
8	15	30	80	250	313	154	62	51	25	14	9.8	8.9
9	13	29	80	400	821	157	59	69	25	14	11	9.3
10	12	55	80	800	1,120	190	59	76	25	13	9.8	9.3
11	9.0	76	500	565	344	336	57	74	25	12	11	9.3
12	9.0	65	450	365	313	445	59	69	24	11	9.8	9.8
13	9.0	65	300	360	340	410	56	62	23	11	11	9.8
14	9.0	78	200	505	322	1,150	52	57	22	11	11	9.3
15	9.0	95	170	2,610	395	735	52	57	21	11	11	9.3
16	12	177	150	2,310	300	1,130	51	54	21	11	11	11
17	10	380	130	1,840	267	1,010	51	51	21	11	9.8	11
18	10	370	300	1,030	231	739	50	48	21	11	9.3	12
19	9.0	329	250	318	287	989	46	45	24	11	8.9	14
20	9.0	388	180	235	414	1,490	46	44	18	11	8.9	15
21	14	265	150	198	1,580	1,010	57	44	17	11	8.9	13
22	25	226	140	164	1,370	1,020	57	42	17	11	8.4	12
23	41	245	130	141	420	943	51	42	17	11	8.4	12
24	50	470	120	130	372	892	46	42	16	11	8.4	11
25	35	505	110	116	304	931	45	38	16	11	8.4	9.8
26	52	365	105	111	251	938	44	36	16	11	8.4	9.8
27	95	245	100	101	247	444	44	37	17	9.8	8.4	9.8
28	108	187	95	94	235	520	44	34	15	9.8	8.4	9.8
29	63	152	90	138	------	154	51	32	16	9.8	8.4	11
30	55	137	85	438	------	127	51	32	16	9.8	9.3	11
31	65	------	80	395	------	101	------	30	------	9.8	17	------
TOTAL	798.2	5,269	4,804	14,459	14,057	17,677	1,754	1,526	658	375.0	301.8	327.9
MEAN	25.7	176	155	466	502	570	58.5	49.2	21.9	12.1	9.74	10.9
MAX	108	505	500	2,610	1,580	1,490	94	76	30	17	17	18
MIN	6.2	29	80	70	231	101	44	30	15	9.8	8.4	8.9
AC-FT	1,580	10,450	9,530	28,680	27,880	35,060	3,480	3,030	1,310	744	599	650

CAL YR 1960: TOTAL 35,482.7 MEAN 96.9 MAX 1,040 MIN 6.2 AC-FT 70,380
WAT YR 1961: TOTAL 62,006.9 MEAN 170 MAX 2,610 MIN 6.2 AC-FT 123,000

Note.--No gage-height record Dec. 4 to Jan. 9. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0595. North Fork Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	28	529	130	48	52	74	104	33	18	11	9.3
2	9.8	24	283	179	45	50	71	116	39	18	12	8.9
3	8.4	27	184	415	44	48	76	147	34	18	15	8.9
4	8.0	24	231	279	46	71	69	132	34	20	14	8.9
5	8.4	22	219	215	54	127	64	118	36	22	15	8.9
6	9.8	21	160	180	56	141	76	108	33	21	21	8.9
7	9.3	18	132	157	90	127	71	104	30	18	25	9.3
8	9.3	18	108	132	92	118	64	96	30	17	21	8.9
9	14	34	94	116	104	108	60	84	29	17	16	9.3
10	16	147	84	104	92	99	57	78	28	17	14	9.8
11	15	124	78	94	82	90	54	71	27	17	13	11
12	46	88	71	90	78	86	52	69	25	17	12	13
13	30	71	71	84	84	82	50	67	27	17	12	22
14	18	59	67	82	101	92	48	62	28	17	11	17
15	14	51	60	76	104	78	48	80	24	17	11	14
16	13	45	62	76	94	71	46	60	23	17	9.8	12
17	12	51	101	72	92	66	44	54	22	16	11	11
18	11	44	94	67	84	62	42	51	22	16	11	9.3
19	11	39	170	64	84	60	41	48	22	15	11	8.9
20	11	37	317	63	74	57	42	48	21	14	11	9.8
21	9.8	48	380	61	84	60	44	48	21	14	11	9.8
22	15	113	435	59	84	78	42	48	21	14	12	12
23	41	88	485	56	71	132	41	45	20	13	14	13
24	29	71	362	54	60	349	39	45	20	13	12	11
25	25	60	255	56	56	275	39	42	20	14	11	9.8
26	50	60	194	57	54	187	42	41	25	12	9.3	9.3
27	86	96	157	60	50	144	118	39	27	11	8.9	11
28	59	253	173	56	54	116	118	38	23	11	9.3	41
29	42	275	201	51	------	111	101	37	21	11	11	42
30	36	386	190	51	------	90	88	36	20	11	12	29
31	29	------	150	51	------	82	------	34	------	11	11	------
TOTAL	706.8	2,422	6,097	3,287	2,061	3,309	1,821	2,150	785	484	398.3	407.0
MEAN	22.8	80.7	197	106	73.6	107	60.7	69.4	26.2	15.6	12.8	13.6
MAX	86	386	529	415	104	349	118	147	39	22	25	42
MIN	8.0	18	60	51	44	48	39	34	20	11	8.9	8.9
AC-FT	1,400	4,800	12,090	6,520	4,090	6,560	3,610	4,260	1,560	960	790	807

CAL YR 1961: TOTAL 60,361.5 MEAN 165 MAX 2,610 MIN 8.0 AC-FT 119,700
WAT YR 1962: TOTAL 23,928.1 MEAN 65.6 MAX 529 MIN 8.0 AC-FT 47,460

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	32	234	563	44	83	165	67	27	19	12	8.9
2	18	32	268	2,080	104	79	139	95	28	18	11	8.4
3	20	36	256	1,310	395	73	139	83	27	18	11	8.4
4	18	51	245	314	426	67	142	86	27	18	10	7.8
5	17	64	289	216	431	63	136	112	28	17	11	7.2
6	16	64	350	169	280	61	175	104	27	17	11	7.8
7	34	59	260	144	216	58	191	95	26	18	10	6.7
8	72	62	205	127	165	56	241	86	26	21	9.4	6.7
9	124	66	175	114	139	54	264	77	25	19	9.4	7.8
10	86	113	150	102	122	49	205	71	24	18	10	8.4
11	82	157	130	92	104	49	156	71	24	17	10	8.4
12	194	167	122	83	97	46	130	61	24	18	10	7.2
13	304	167	120	81	90	44	114	59	24	19	9.4	7.8
14	235	164	260	77	81	44	104	56	24	19	8.9	7.8
15	127	157	1,670	73	79	51	363	52	22	19	8.9	9.4
16	92	130	2,520	69	77	54	114	49	21	19	8.9	11
17	80	132	1,260	63	79	47	83	46	21	19	8.4	8.9
18	67	116	198	61	86	44	86	43	21	17	8.4	8.4
19	59	603	172	58	114	69	83	478	21	16	8.9	7.8
20	52	718	147	56	112	73	77	61	21	15	9.4	7.8
21	48	340	117	54	99	63	71	1,040	22	21	8.9	7.8
22	46	223	99	51	90	59	67	838	21	213	10	8.4
23	45	164	92	49	81	56	63	65	21	30	10	12
24	42	173	86	47	77	56	65	43	21	21	10	9.4
25	39	862	79	46	102	61	63	38	22	17	9.4	9.4
26	39	2,070	75	44	104	67	63	34	20	15	8.9	8.4
27	38	1,180	73	43	95	81	58	32	21	14	8.4	8.4
28	37	328	75	54	90	120	54	31	21	12	7.8	8.4
29	34	260	130	43	------	165	56	30	20	12	7.8	8.4
30	33	249	445	40	------	216	58	28	21	12	7.2	8.4
31	32	------	364	44	------	202	------	27	------	12	8.4	------
TOTAL	2,152	8,939	10,666	6,367	3,979	2,310	3,725	4,058	698	740	292.8	251.6
MEAN	69.4	298	344	205	142	74.5	124	131	23.3	23.9	9.45	8.39
MAX	304	2,070	2,520	2,080	431	216	363	1,040	28	213	12	12
MIN	16	32	73	40	44	44	54	27	20	12	7.2	6.7
AC-FT	4,270	17,730	21,160	12,630	7,890	4,580	7,390	8,050	1,380	1,470	581	499

CAL YR 1962: TOTAL 36,459.3 MEAN 99.9 MAX 2,520 MIN 8.9 AC-FT 72,320
WAT YR 1963: TOTAL 44,178.4 MEAN 121 MAX 2,520 MIN 6.7 AC-FT 87,630

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0595. North Fork Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.4	120	190	530	413	114	56	32	15	13	18	9.4
2	8.4	140	170	368	310	92	54	28	15	13	20	8.9
3	8.9	140	150	284	241	88	52	28	15	13	18	8.9
4	10	140	140	245	212	92	49	28	22	13	17	8.9
5	11	147	150	234	185	95	47	27	21	13	15	8.9
6	12	162	140	226	156	86	47	26	18	13	13	8.9
7	12	237	130	191	139	81	43	26	21	13	12	8.9
8	13	260	120	181	127	86	43	26	22	13	12	8.9
9	13	212	110	191	114	86	46	25	21	13	12	8.9
10	12	256	100	202	109	90	46	24	18	13	11	8.9
11	11	205	90	178	99	276	46	23	18	12	10	8.4
12	13	241	85	159	92	241	44	24	17	12	10	7.8
13	26	346	80	188	86	181	43	24	17	10	11	8.4
14	18	460	75	185	86	230	44	23	17	13	11	8.4
15	17	364	70	205	102	216	43	22	17	17	10	8.4
16	15	272	75	465	97	165	41	22	20	18	10	8.9
17	12	226	85	390	92	142	38	22	21	16	10	8.9
18	12	191	95	364	88	120	40	23	20	13	10	8.9
19	14	264	139	346	83	102	38	22	18	13	10	8.9
20	80	237	395	332	77	104	35	23	18	14	10	8.9
21	500	171	301	264	77	97	35	22	17	16	10	8.9
22	350	237	328	216	73	88	35	21	16	14	10	8.9
23	180	440	495	185	69	81	32	18	15	13	9.4	8.9
24	300	336	400	289	65	77	32	18	15	13	9.4	8.9
25	200	260	336	455	61	73	32	17	15	12	10	8.9
26	120	430	264	323	59	71	31	17	14	12	10	8.9
27	100	350	245	314	58	67	31	16	14	10	10	8.4
28	105	300	241	328	58	65	30	16	13	10	11	8.9
29	110	240	203	460	71	61	28	15	13	10	11	10
30	90	210	178	368	------	58	30	16	13	11	10	43
31	80	------	205	395	------	56	------	15	------	14	10	------
TOTAL	2,461.7	7,594	5,785	9,061	3,499	3,481	1,211	689	516	403	360.8	299.1
MEAN	79.4	253	187	292	121	112	40.4	22.2	17.2	13.0	11.6	9.97
MAX	500	460	495	530	413	276	56	32	22	18	20	43
MIN	8.4	120	70	159	58	56	28	15	13	10	9.4	7.8
AC-FT	4,880	15,060	11,470	17,970	6,940	6,900	2,400	1,370	1,020	799	716	593

CAL YR 1963: TOTAL 38,262.1 MEAN 105 MAX 2,080 MIN 6.7 AC-FT 75,890
WAT YR 1964: TOTAL 35,360.6 MEAN 96.6 MAX 530 MIN 7.8 AC-FT 70,140

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	15	744	104	289	185	58	65	31	15	8.9	7.8
2	18	16	400	99	216	153	56	58	30	15	9.4	7.8
3	15	62	249	81	175	136	51	61	28	15	10	7.8
4	13	142	178	77	332	120	49	63	27	15	10	7.8
5	12	73	139	77	550	109	47	56	26	14	10	7.8
6	11	52	117	79	395	102	49	52	26	14	9.4	8.4
7	10	41	112	73	272	92	51	51	25	14	8.9	7.8
8	13	35	144	71	260	88	46	49	25	14	8.9	8.4
9	17	31	127	69	219	83	44	46	24	14	9.4	8.9
10	17	31	130	67	185	79	43	44	24	15	9.4	8.9
11	15	30	114	65	159	75	41	43	27	16	9.4	8.4
12	13	28	109	61	144	71	40	41	26	15	12	8.4
13	13	27	99	61	153	67	41	40	25	14	13	8.4
14	15	26	99	61	144	65	40	38	26	14	12	8.4
15	16	25	92	67	136	61	38	56	24	13	10	8.9
16	17	24	81	71	169	59	38	90	23	13	9.4	8.4
17	16	23	77	71	185	58	38	65	21	13	9.4	7.2
18	14	23	75	69	178	54	40	58	21	13	8.9	6.7
19	13	22	77	71	172	52	138	56	21	13	10	6.7
20	13	22	73	81	159	51	245	52	20	13	13	7.2
21	11	22	75	104	147	49	212	49	20	13	12	7.2
22	10	26	125	107	133	47	162	46	18	13	10	7.8
23	10	72	130	133	120	46	127	44	18	12	10	7.8
24	10	297	125	178	112	44	109	43	18	11	12	7.8
25	9.4	185	112	147	104	43	92	40	18	11	11	8.4
26	9.4	175	175	178	165	41	81	38	18	10	9.4	7.8
27	9.4	144	188	386	336	40	73	37	17	10	8.9	7.8
28	8.9	117	153	364	237	51	67	35	17	10	8.9	7.8
29	8.9	218	130	364	------	86	63	34	17	9.4	8.9	7.2
30	12	975	117	546	------	67	63	32	16	9.4	8.4	7.2
31	13	------	97	455	------	59	------	32	------	8.9	7.8	------
TOTAL	407.0	2,979	4,663	4,437	5,846	2,333	2,242	1,514	677	399.7	308.7	236.9
MEAN	13.1	99.3	150	143	209	75.3	74.7	48.8	22.6	12.9	9.96	7.90
MAX	24	975	744	546	550	185	245	90	31	16	13	8.9
MIN	8.9	15	73	61	104	40	38	32	16	8.9	7.8	6.7
AC-FT	807	5,910	9,250	8,800	11,600	4,630	4,450	3,000	1,340	793	612	470

CAL YR 1964: TOTAL 27,568.9 MEAN 75.3 MAX 975 MIN 7.8 AC-FT 54,680
WAT YR 1965: TOTAL 26,043.3 MEAN 71.4 MAX 975 MIN 6.7 AC-FT 51,660

12-0598. South Fork Skokomish River near Hoodsport, Wash.

Location.--Lat 47°26'45", long 123°24'55", in NW¼ sec.35, T.23 N., R.6 W., on left bank 100 ft downstream from Pine Creek and 13½ miles west of Hoodsport.

Drainage area.- 26.0 sq mi.

Records available.--October 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 750 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,500 cfs), water years 1964-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 21, 1963	1900	* 4,110	6.28	Nov. 14, 1963	0030	2,560	5.08	Jan. 16, 1964	0400	2,590	5.11
Oct. 24, 1963	0700	2,720	5.22	Dec. 23, 1963	1000	2,530	5.06				
								Nov. 29, 1964	2230	* 4,440	6.50

Annual minimum discharge, water years 1964-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	Oct. 3, 1963	32	1.32	1965	Sept. 28-30, 1965	28	1.19

1963-65: Maximum discharge, 4,440 cfs Nov. 29, 1964 (gage height, 6.50 ft), from rating curve extended above 1,500 cfs; Sept. 28-30, 1965 (gage height, 1.19 ft).

Remarks.--Records excellent except those above 2,000 cfs, which are good. No regulation or diversion above station. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	477	306	1,700	682	228	330	162	465	200	185	70
2	34	550	270	828	500	207	266	153	380	200	246	68
3	34	525	249	646	400	191	228	148	334	185	286	66
4	36	694	246	580	500	214	224	148	948	176	286	62
5	39	480	260	505	455	235	214	148	646	170	232	62
6	52	445	260	520	360	204	200	145	520	170	191	60
7	46	460	228	430	306	185	207	153	455	176	170	60
8	43	515	232	365	266	182	218	164	395	182	156	60
9	41	535	221	346	242	176	235	207	380	167	145	58
10	39	550	200	338	235	182	290	221	410	156	134	56
11	41	445	188	314	228	235	322	210	365	159	126	54
12	52	765	176	282	214	214	278	224	322	170	121	52
13	470	1,350	164	350	200	185	246	224	306	170	116	52
14	310	1,610	159	326	191	350	263	194	298	194	109	50
15	170	940	167	398	185	470	326	179	282	385	106	50
16	124	772	210	1,520	185	342	263	188	310	410	102	54
17	104	700	263	694	194	350	228	363	278	318	99	68
18	92	510	330	480	207	334	200	400	278	256	97	58
19	83	470	634	410	228	278	188	326	246	210	92	60
20	137	385	933	365	210	246	185	375	228	200	88	66
21	2,290	330	525	314	200	224	194	350	214	204	85	58
22	1,640	420	893	270	197	207	232	326	221	182	83	60
23	765	1,190	2,260	242	197	188	210	278	228	167	81	56
24	1,640	712	1,310	335	197	173	200	256	228	159	79	52
25	884	758	1,010	724	188	164	197	235	218	153	79	52
26	592	1,800	634	475	179	156	191	238	210	150	77	50
27	460	972	580	580	167	148	185	282	214	142	81	50
28	475	580	562	562	162	145	173	355	197	137	77	48
29	480	440	440	586	170	162	173	355	185	134	77	58
30	390	355	460	510	------	235	170	395	194	132	77	631
31	330	------	835	610	------	290	------	455	------	142	70	------
TOTAL	11,927	20,735	15,205	16,605	7,645	7,100	6,836	7,857	9,955	5,956	3,953	2,301
MEAN	385	691	490	536	264	229	228	253	332	192	128	76.7
MAX	2,290	1,800	2,260	1,700	682	470	330	455	948	410	286	631
MIN	34	330	159	242	162	145	170	145	185	132	70	48
CFSM	14.8	26.6	18.8	20.6	10.2	8.81	8.77	9.73	12.8	7.38	4.92	2.95
IN	17.06	29.66	21.75	23.75	10.94	10.16	9.78	11.24	14.24	8.52	5.65	3.29
AC-FT	23,660	41,130	30,160	32,940	15,160	14,080	13,560	15,580	19,750	11,810	7,840	4,560

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 116,075 MEAN 317 MAX 2,290 MIN 34 CFSM 12.2 IN 166.04 AC-FT 230,200

12-0598. South Fork Skokomish River near Hoodsport, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	278	204	1,930	170	550	355	196	274	175	92	45	35
2	334	159	1,040	162	415	297	181	252	193	92	45	33
3	232	481	616	148	347	267	164	270	202	92	45	33
4	173	743	450	140	1,180	252	159	301	199	90	43	32
5	142	355	360	136	1,740	249	156	256	199	85	43	32
6	124	256	305	128	926	249	151	231	199	83	42	32
7	111	207	349	121	574	260	148	215	190	79	40	32
8	145	179	634	118	510	267	143	205	184	77	40	32
9	207	159	465	112	425	278	143	222	175	73	40	30
10	164	156	450	112	355	313	140	249	164	70	39	30
11	139	150	355	109	305	330	136	263	181	66	39	30
12	124	139	309	107	274	313	133	274	159	64	50	30
13	119	129	278	107	364	278	146	256	143	62	70	30
14	221	121	256	130	334	260	148	228	136	62	50	33
15	200	114	231	228	294	249	170	330	128	60	43	35
16	176	111	205	382	355	231	238	634	128	60	40	33
17	156	109	190	400	485	212	235	400	133	60	39	32
18	139	104	181	382	450	193	231	317	130	58	37	32
19	126	102	181	425	480	181	822	282	123	57	39	32
20	114	99	170	475	450	170	1,820	270	118	57	48	30
21	106	97	162	450	364	162	1,440	252	116	57	43	30
22	104	106	205	368	313	159	688	242	112	55	39	29
23	97	627	218	321	270	156	475	235	109	53	39	29
24	92	1,030	193	347	245	146	400	222	105	52	42	29
25	88	460	175	301	231	140	378	218	100	52	40	29
26	85	355	222	373	436	136	378	222	96	50	43	29
27	81	274	238	948	765	128	415	238	92	48	40	29
28	77	232	205	835	485	128	378	242	92	48	39	28
29	72	1,290	190	800	------	151	313	222	90	46	37	28
30	102	2,900	175	1,400	------	151	294	196	92	46	36	28
31	100	------	162	922	------	156	------	184	------	45	35	------
TOTAL	4,428	11,448	11,100	11,157	13,922	6,817	10,819	8,202	4,263	1,991	1,310	926
MEAN	143	382	358	360	497	220	361	265	142	64.2	42.3	30.9
MAX	334	2,900	1,930	1,400	1,740	355	1,820	634	202	92	70	35
MIN	72	97	162	107	231	128	133	184	90	45	35	28
CFSM	5.50	14.7	13.8	13.8	19.1	8.46	13.9	10.2	5.46	2.47	1.63	1.19
IN	6.33	16.38	15.88	15.96	19.91	9.75	15.48	11.73	6.10	2.85	1.87	1.32
AC-FT	8,780	22,710	22,020	22,130	27,610	13,520	21,460	16,270	8,460	3,950	2,600	1,840

CAL YR 1964: TOTAL 95,184 MEAN 260 MAX 2,900 MIN 48 CFSM 10.0 IN 136.16 AC-FT 188,800
WAT YR 1965: TOTAL 86,383 MEAN 237 MAX 2,900 MIN 28 CFSM 9.12 IN 123.56 AC-FT 171,300

12-0600. South Fork Skokomish River near Potlatch, Wash.

Location.--Lat 47°23'10", long 123°18'30", in NE¼NW¼ sec.22, T.22 N., R.5 W., on right bank at head of canyon, 1 mile upstream from Rock Creek, 3 miles downstream from Brown Creek, and 7½ miles west of Potlatch.

Drainage area.--63.4 sq mi (revised).

Records available.--October 1923 to September 1932, September 1946 to September 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 456 ft (by barometer).

Average discharge.--27 years, 603 cfs (436,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,500 cfs, revised), water years 1961-64

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1500	5,520	8.57	Dec. 1, 1961	0130	4,520	7.81	Feb. 4, 1963	2000	7,600	10.0
Dec. 12, 1960	1200	6,130	9.01	Jan. 3, 1962	0930	* 5,070	8.24				
Jan. 10, 1961	1430	6,370	9.18					Oct. 21, 1963	2130	* 7,480	9.92
Jan. 15, 1961	-	* 15,800	14.68	Oct. 12, 1962	0930	4,820	8.05	Oct. 24, 1963	1000	4,990	8.08
Jan. 30, 1961	-	5,110	8.27	Nov. 19, 1962	2200	9,210	11.07	Nov. 14, 1963	0300	4,710	7.86
Feb. 21, 1961	1730	7,080	9.65	Nov. 25, 1962	-	* 9,260	11.1	Jan. 16, 1964	0700	4,720	7.97

Annual minimum discharge, water years 1961-64

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 4, 5, 1960	78	0.90	1963	Sept.30, 1963	85	a 1.25
1962	Oct. 4, 5, 1961	77	.98	1964	Oct. 1-3, 1963	84	b 1.05

a Occurred Nov. 3, 4, 1962.
b Occurred Sept. 28, 29, 1964.

1923-32, 1946-64: Maximum discharge, 19,300 cfs Nov. 26, 1949 (gage height, 17.75 ft), from rating curve extended above 5,600 cfs; minimum, 38 cfs Sept. 15, 1926; minimum gage height, 0.51 ft Sept. 2, 3, 1959.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station. Records of water temperatures for the water years 1961-64 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1950(P). WSP 1346: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	82	910	975	382	2,850	2,290	860	1,040	392	177	105	367
2	82	718	920	353	3,100	1,400	926	1,330	442	173	105	221
3	80	591	960	336	1,900	1,150	920	1,020	446	171	104	150
4	80	511	855	503	1,800	992	799	816	420	169	104	130
5	78	446	693	1,260	2,600	914	685	665	381	179	104	118
6	100	406	599	1,350	3,000	821	591	560	416	175	104	110
7	734	370	539	1,050	2,000	755	542	498	374	165	99	105
8	401	339	505	1,210	1,650	766	519	573	313	159	98	99
9	247	314	482	2,370	3,500	848	502	1,150	316	157	97	97
10	189	550	469	4,470	2,200	980	474	1,170	301	155	95	92
11	163	775	723	2,890	1,950	1,040	466	914	285	151	94	91
12	158	654	3,760	1,950	1,780	1,030	470	733	268	148	92	90
13	141	617	2,060	1,500	1,470	1,030	442	645	255	148	92	89
14	218	662	1,480	4,000	1,460	2,690	409	578	258	142	92	86
15	209	670	1,080	13,500	1,830	2,340	381	560	272	139	94	86
16	178	1,310	885	5,000	1,440	1,590	370	573	282	137	92	87
17	160	2,570	875	2,800	1,220	1,290	420	610	290	137	91	85
18	150	1,890	2,150	2,000	1,090	1,140	388	610	285	135	90	84
19	137	2,070	1,920	1,600	1,380	1,260	353	615	258	132	85	84
20	131	1,910	1,220	1,300	2,770	1,840	346	610	232	130	85	83
21	169	1,200	945	1,150	5,570	1,330	591	546	218	127	85	81
22	461	950	810	1,050	2,210	1,210	650	478	210	125	84	80
23	1,380	950	730	950	1,500	1,780	510	470	202	123	84	79
24	1,330	1,430	670	900	1,460	1,530	454	458	202	122	80	79
25	870	1,480	606	840	1,250	1,360	416	416	200	120	81	79
26	1,320	1,140	577	780	1,040	1,220	388	438	198	117	80	79
27	1,610	890	525	720	932	1,050	364	430	193	114	80	80
28	1,430	735	482	700	998	920	398	388	185	114	79	92
29	875	643	449	1,500	------	854	788	367	181	114	79	90
30	693	646	421	3,600	------	826	962	364	183	110	81	84
31	845	------	409	2,500	------	804	------	342	------	108	230	------
TOTAL	14,701	28,347	29,774	64,514	55,950	39,050	16,384	19,967	8,458	4,373	2,965	3,177
MEAN	474	945	960	2,081	1,998	1,260	546	644	282	141	95.6	106
MAX	1,610	2,570	3,760	13,500	5,570	2,690	962	1,330	446	179	230	367
MIN	78	314	409	336	932	755	346	342	181	108	79	79
CFSM	7.48	14.9	15.1	32.8	31.5	19.9	8.61	10.2	4.45	2.22	1.51	1.67
IN.	8.62	16.6	17.5	37.8	32.8	22.9	9.61	11.7	4.96	2.57	1.74	1.86
AC-FT	29,160	56,230	59,060	128,000	111,000	77,450	32,500	39,600	16,780	8,670	5,880	6,300

CAL YR 1960: TOTAL 227,783 MEAN 622 MAX 7,020 MIN 78 CFSM 9.82 IN 133.62 AC-FT 451,800
WAT YR 1961: TOTAL 287,660 MEAN 788 MAX 13,500 MIN 78 CFSM 12.4 IN 168.74 AC-FT 570,600

Note.--No gage-height record Jan. 13 to Feb. 10.

12-0600. South Fork Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	80	395	3,040	1,050	402	262	665	1,050	292	223	110	97
2	79	339	1,550	1,540	426	250	620	882	507	217	112	96
3	78	332	1,110	3,680	434	242	546	1,130	401	204	126	94
4	78	295	1,520	1,780	384	282	532	938	346	201	120	93
5	79	272	1,320	1,350	328	524	555	744	322	204	126	92
6	90	252	980	1,230	374	625	1,180	620	312	201	217	87
7	92	245	821	1,170	1,110	560	1,270	537	301	191	382	90
8	87	238	670	1,080	1,590	514	848	564	315	183	318	88
9	207	460	560	932	1,370	446	645	865	308	176	220	87
10	261	1,990	470	810	1,000	395	528	904	290	174	179	94
11	163	1,420	416	695	788	353	458	744	277	169	158	94
12	874	882	378	610	685	313	423	625	274	165	148	90
13	750	645	356	537	876	295	430	555	262	161	142	165
14	398	514	325	502	1,040	280	494	506	259	154	133	308
15	270	416	301	442	904	285	486	466	262	150	127	193
16	212	353	307	416	744	339	409	434	268	150	124	148
17	179	310	350	384	640	342	367	426	259	146	124	129
18	161	292	332	356	573	342	364	409	250	142	131	117
19	151	268	592	325	510	336	388	388	244	137	146	110
20	141	245	1,440	301	450	319	388	360	235	135	133	108
21	134	280	1,840	280	409	316	450	353	241	131	129	104
22	148	887	1,730	270	381	336	392	356	232	131	124	100
23	519	625	2,220	258	364	416	364	360	226	129	117	97
24	295	458	2,090	252	325	825	552	356	223	127	114	96
25	430	374	1,420	282	301	938	615	346	323	126	110	94
26	1,090	350	1,060	329	285	744	519	342	304	124	108	93
27	1,260	1,140	854	728	272	645	1,180	339	385	120	106	96
28	816	2,220	1,240	532	272	532	1,150	342	277	117	104	739
29	555	1,710	2,030	446	------	478	876	325	247	114	103	1,080
30	430	2,960	1,650	426	------	486	744	310	238	114	100	690
31	381	------	1,220	420	------	582	------	295	------	112	97	------
TOTAL	10,488	21,167	34,192	23,413	17,237	13,602	18,438	16,871	8,680	4,828	4,488	5,569
MEAN	338	706	1,103	755	616	439	615	544	289	156	145	186
MAX	1,260	2,960	3,040	3,680	1,590	938	1,270	1,130	507	223	382	1,080
MIN	78	238	301	252	272	242	364	295	223	112	97	87
CFSM	5.34	11.1	17.4	11.9	9.71	6.92	9.69	8.58	4.56	2.46	2.28	2.93
IN.	6.15	12.4	20.1	13.7	10.1	7.98	10.8	9.90	5.09	2.83	2.63	3.27
AC-FT	20,800	41,980	67,820	46,440	34,190	26,980	36,570	33,460	17,220	9,580	8,900	11,050

CAL YR 1961: TOTAL 280,685 MEAN 769 MAX 13,500 MIN 78 CFSM 12.1 IN 164.65 AC-FT 556,700
WAT YR 1962: TOTAL 178,973 MEAN 490 MAX 3,680 MIN 78 CFSM 7.73 IN 104.98 AC-FT 355,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	413	188	940	2,520	229	586	615	615	244	165	138	98
2	326	181	960	2,600	543	510	546	810	232	150	135	97
3	465	174	900	2,080	3,700	449	655	700	226	142	129	96
4	393	337	900	1,370	4,620	405	998	620	223	140	127	94
5	329	640	1,900	1,060	3,210	371	1,140	1,370	220	138	126	94
6	298	573	2,300	882	2,320	360	1,410	1,180	212	137	122	93
7	490	389	1,400	766	1,880	343	1,260	904	204	137	120	93
8	998	573	1,250	670	1,210	336	1,350	744	206	158	119	92
9	1,500	591	1,100	591	950	318	1,360	630	198	161	117	90
10	1,020	1,020	950	528	782	318	1,070	560	191	150	117	94
11	1,180	1,140	870	483	665	304	914	519	188	148	115	93
12	3,270	1,150	755	453	578	290	854	478	181	140	114	92
13	3,300	1,300	854	433	542	277	838	437	179	135	110	117
14	1,560	1,330	2,110	405	496	284	904	413	174	129	109	126
15	1,030	1,060	2,510	393	474	274	974	417	171	126	109	120
16	760	804	1,980	374	555	287	777	397	171	122	106	109
17	620	690	1,390	360	524	271	665	389	169	120	106	102
18	514	582	1,100	346	615	265	620	417	169	119	104	97
19	441	4,600	950	329	950	463	630	449	167	117	103	94
20	405	3,640	810	318	904	962	582	457	163	115	106	93
21	364	1,630	716	304	685	816	537	433	163	252	104	92
22	329	1,170	625	294	568	640	514	413	161	822	119	92
23	308	876	560	284	488	501	492	364	158	378	110	98
24	284	1,150	496	271	429	433	470	329	154	259	120	93
25	268	4,600	441	265	522	625	441	308	161	204	112	92
26	271	5,000	405	256	1,080	766	429	294	154	183	109	89
27	253	2,400	382	244	821	962	413	277	156	171	104	88
28	232	1,500	421	235	675	1,020	385	271	158	161	102	87
29	217	1,300	1,390	220	------	920	449	265	152	154	102	87
30	206	1,100	3,070	217	------	788	555	262	156	148	100	87
31	196	------	1,880	232	------	700	------	250	------	142	98	------
TOTAL	22,240	41,688	36,315	19,783	31,015	15,844	22,847	15,972	5,461	5,623	3,512	2,889
MEAN	717	1,390	1,171	638	1,108	511	762	515	182	181	113	96.3
MAX	3,300	5,000	3,070	2,600	4,620	1,020	1,410	1,370	244	822	138	126
MIN	196	174	382	217	229	265	385	250	152	115	98	87
CFSM	11.3	21.9	18.5	10.1	17.5	8.06	12.0	8.13	2.87	2.86	1.79	1.52
IN.	13.0	24.5	21.3	11.6	18.2	9.29	13.4	9.37	3.20	3.30	2.06	1.69
AC-FT	44,110	82,690	72,030	39,240	61,520	31,430	45,320	31,680	10,830	11,150	6,970	5,730

CAL YR 1962: TOTAL 213,369 MEAN 585 MAX 5,000 MIN 87 CFSM 9.22 IN 125.16 AC-FT 423,200
WAT YR 1963: TOTAL 223,189 MEAN 611 MAX 5,000 MIN 87 CFSM 9.64 IN 130.92 AC-FT 442,700

Note.--No gage-height record Nov. 25 to Dec. 10.

12-0600. South Fork Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	85	890	775	3,100	1,630	630	715	334	634	283	268	136
2	84	1,300	705	1,860	1,240	586	590	310	554	286	404	134
3	84	1,100	642	1,540	1,000	530	518	296	486	270	449	131
4	87	1,410	618	1,450	1,110	582	506	294	1,110	256	463	125
5	96	1,090	638	1,300	1,080	642	490	294	900	251	376	125
6	106	1,030	630	1,330	890	562	452	283	740	246	316	120
7	100	1,140	582	1,130	780	502	456	296	662	248	276	118
8	98	1,270	610	980	690	502	486	313	606	256	248	118
9	94	1,220	602	974	630	506	506	370	570	246	234	117
10	93	1,340	550	974	614	534	586	397	594	227	222	116
11	94	1,090	506	900	602	805	642	382	554	222	209	111
12	102	1,450	463	815	574	715	590	391	498	239	203	108
13	711	2,320	435	1,050	534	586	546	394	460	236	198	105
14	578	3,160	414	986	518	877	534	349	442	258	190	105
15	315	2,060	421	1,090	518	1,090	642	319	424	490	185	105
16	206	1,660	526	2,810	518	840	554	322	470	614	180	106
17	176	1,500	650	1,480	546	830	482	490	421	463	175	122
18	158	1,160	725	1,140	570	810	435	635	424	388	170	112
19	146	1,190	1,110	1,030	614	690	400	534	385	328	164	114
20	188	1,030	1,970	962	570	630	397	586	355	302	158	126
21	3,700	875	1,320	835	530	590	404	586	337	305	155	117
22	3,390	1,020	1,670	720	518	550	482	566	325	280	151	117
23	1,640	2,560	3,730	638	522	510	435	482	343	258	150	111
24	3,080	1,670	2,510	810	526	460	410	438	334	244	146	108
25	1,800	1,520	2,100	1,590	490	432	400	397	316	234	143	105
26	1,280	2,840	1,500	1,120	452	407	394	391	305	229	144	104
27	968	1,950	1,390	1,260	421	388	373	438	313	220	144	102
28	1,050	1,340	1,380	1,300	400	373	355	538	296	216	146	102
29	1,010	1,040	1,140	1,460	438	410	346	542	276	207	139	111
30	870	870	1,080	1,320	------	590	346	562	280	205	144	900
31	750	------	1,660	1,440	------	666	------	618	------	225	139	------
TOTAL	23,139	44,095	33,052	39,394	19,525	18,825	14,472	13,147	14,414	8,732	6,689	4,231
MEAN	746	1,470	1,066	1,271	673	607	482	424	480	282	216	141
MAX	3,700	3,160	3,730	3,100	1,630	1,090	715	635	1,110	614	463	900
MIN	84	870	414	638	400	373	346	283	276	205	139	102
CFSM	11.8	23.2	16.8	20.0	10.6	9.58	7.61	6.69	7.58	4.44	3.40	2.22
IN.	13.6	25.9	19.4	23.1	11.5	11.0	8.49	7.71	8.46	5.12	3.92	2.48
AC-FT	45,900	87,460	65,560	78,140	38,730	37,340	28,700	26,080	28,590	17,320	13,270	8,390

CAL YR 1963: TOTAL 223,232 MEAN 612 MAX 4,620 MIN 84 CFSM 9.65 IN 130.95 AC-FT 442,800
WAT YR 1964: TOTAL 239,715 MEAN 655 MAX 3,730 MIN 84 CFSM 10.3 IN 140.62 AC-FT 475,500

12-0605. South Fork Skokomish River near Union, Wash.

Location.--Lat 47°20'30", long 123°16'30", in SW$\frac{1}{4}$NE$\frac{1}{4}$ sec.2, T.21 N., R.5 W., on right bank 3$\frac{1}{2}$ miles upstream from confluence with North Fork and Vance Creek and 8 miles west of Union.

Drainage area.--76.3 sq mi (revised).

Records available.--August 1931 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 110 ft (by barometer).

Average discharge.--34 years, 716 cfs (518,400 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (6,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1600	7,680	5.52	Oct. 12, 1962	0930	6,700	5.27	Dec. 23, 1963	1630	6,700	4.93
Dec. 12, 1960	1300	8,260	5.66	Nov. 19, 1962	2200	* 11,400	6.35	Jan. 1, 1964	1200	6,390	4.84
Jan. 10, 1961	1630	8,900	5.77	Nov. 25, 1962	1530	12,200	6.37	Jan. 16, 1964	0630	7,780	5.22
Jan. 15, 1961	1500	* 20,400	7.98	Jan. 1, 1963	1830	6,900	5.00				
Jan. 30, 1961	1300	7,640	5.51	Feb. 4, 1963	2230	10,400	5.80	Nov. 30, 1964	0100	* 11,400	6.06
Feb. 21, 1961	0430	10,400	6.14					Jan. 30, 1965	1700	6,040	4.74
				Oct. 21, 1963	-	* 10,100	5.80				
Dec. 1, 1961	0130	6,970	5.34	Nov. 14, 1963	0400	6,880	4.98				
Jan. 3, 1962	1000	* 7,120	5.38	Nov. 26, 1963	1300	6,110	4.76				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 1-6, 1960	81	1.36	1964	Oct. 3, 1963	90	b 1.21
1962	Oct. 3-5, 1961	80	a 1.71	1965	Sept.29, 30, 1965	70	1.07
1963	Sept.27-30, 1963	93	1.40				

a Occurred Sept. 9, 10, 1962.
b Occurred Sept. 28, 29, 1964.

1931-65: Maximum discharge, 21,600 cfs Jan. 22, 1935, Nov. 26, 1949 (gage height, 11.0 ft), from rating curve extended above 11,000 cfs; minimum, 62 cfs Sept 18, 1938; minimum gage height, 1.07 ft Sept. 29, 30, 1965.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1216: 1950. WSP 1316: 1934(M), 1938(M).

Correction.--In WSP 1736, the monthly mean discharge for August 1954 is listed in error; it should be 148 cfs.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	83	1,000	1,050	440	3,290	3,000	860	1,010	423	199	113	423
2	81	770	976	408	3,800	1,860	913	1,370	471	189	109	304
3	81	610	988	394	2,230	1,460	902	1,000	479	183	109	204
4	81	525	879	484	2,160	1,210	800	840	455	183	109	164
5	81	461	723	1,590	3,100	1,160	700	720	416	209	105	142
6	92	408	626	1,820	3,640	1,070	626	626	431	209	105	132
7	670	375	548	1,320	2,330	1,000	590	581	416	189	101	120
8	388	335	510	1,490	2,000	1,000	555	608	357	178	101	120
9	248	324	475	3,360	3,240	1,070	555	1,100	357	173	101	109
10	192	548	468	6,590	2,590	1,230	529	1,230	350	173	101	105
11	173	848	693	4,210	2,670	1,370	512	946	343	168	94	105
12	166	677	5,140	2,290	2,360	1,400	520	790	317	160	94	98
13	145	643	2,670	1,820	1,920	1,390	512	690	310	155	94	94
14	192	705	1,840	3,840	1,820	3,610	479	653	310	155	94	94
15	208	714	1,330	15,800	2,540	3,610	439	599	324	150	94	94
16	180	1,550	1,060	6,070	1,900	2,130	439	599	337	150	94	94
17	166	3,540	1,010	3,360	1,610	1,500	487	653	343	146	94	94
18	148	2,620	3,070	2,460	1,410	1,270	463	653	343	142	90	94
19	142	2,690	2,840	1,900	1,840	1,340	431	653	310	137	90	94
20	133	2,560	1,660	1,600	4,030	2,220	416	644	284	137	90	90
21	156	1,500	1,240	1,410	8,430	1,480	626	599	266	132	94	90
22	375	1,140	1,000	1,250	3,460	1,300	710	520	249	132	98	87
23	1,460	1,160	879	1,150	2,140	2,060	590	520	249	132	94	87
24	1,510	1,840	780	1,070	2,130	1,690	512	512	243	132	94	85
25	858	1,940	686	976	1,780	1,410	495	463	243	132	94	85
26	1,470	1,390	660	922	1,510	1,270	455	479	231	128	94	85
27	1,900	1,020	585	869	1,370	1,100	439	479	225	124	94	82
28	1,740	829	540	829	1,340	957	479	431	220	124	94	94
29	965	714	510	1,100	------	880	780	423	209	120	94	94
30	742	696	475	4,450	------	860	957	416	209	117	98	85
31	919	------	461	3,070	------	840	------	386	------	109	284	------
TOTAL	15,745	34,132	36,372	78,342	72,640	47,747	17,771	21,193	9,720	4,767	3,214	3,648
MEAN	508	1,138	1,173	2,527	2,594	1,540	592	684	324	154	104	122
MAX	1,900	3,540	5,140	15,800	8,430	3,610	957	1,370	479	209	284	423
MIN	81	324	461	394	1,340	840	416	386	209	109	90	82
CFSM	6.66	14.9	15.4	33.1	34.0	20.2	7.76	8.96	4.25	2.02	1.36	1.59
IN.	7.67	16.6	17.7	38.2	35.4	23.3	8.66	10.3	4.74	2.32	1.57	1.78
AC-FT	31,230	67,700	72,140	155,400	144,100	94,700	35,250	42,040	19,280	9,460	6,370	7,240

CAL YR 1960: TOTAL 271,515 MEAN 742 MAX 9,260 MIN 81 CFSM 9.72 IN 132.34 AC-FT 538,500
WAT YR 1961: TOTAL 345,291 MEAN 946 MAX 15,800 MIN 81 CFSM 12.4 IN 168.30 AC-FT 684,900

12-0605. South Fork Skokomish River near Union, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	85	416	4,640	1,170	480	324	692	1,130	330	237	120	113
2	82	372	2,160	1,850	507	312	660	974	600	220	120	106
3	82	357	1,480	5,200	525	294	580	1,240	500	215	140	106
4	80	330	2,010	2,250	472	358	561	1,040	400	215	136	103
5	82	291	1,680	1,670	432	620	570	813	360	220	140	103
6	98	278	1,240	1,500	432	747	1,150	681	340	220	237	99
7	98	260	1,000	1,390	1,140	660	1,320	590	330	210	379	96
8	94	243	857	1,250	1,700	610	857	600	350	205	351	96
9	182	393	758	1,080	1,570	543	670	857	340	195	254	92
10	330	2,450	660	938	1,130	480	561	950	320	190	205	103
11	209	1,630	580	835	879	432	498	780	310	190	180	106
12	831	935	543	758	791	400	472	660	300	180	165	96
13	780	700	516	692	938	379	464	600	290	175	157	176
14	455	590	480	650	1,150	358	516	552	290	170	152	330
15	330	495	456	590	1,010	358	507	507	290	165	144	220
16	266	431	464	552	857	400	448	464	300	161	144	170
17	220	386	552	516	747	408	408	456	290	161	136	152
18	189	365	525	480	670	400	400	432	270	157	148	136
19	168	350	784	456	590	400	424	408	260	152	157	127
20	160	317	1,680	432	543	386	424	379	250	152	148	123
21	146	357	2,550	408	480	365	464	370	254	148	144	120
22	168	954	2,310	393	456	400	432	370	242	144	136	116
23	546	720	3,100	379	424	498	400	390	237	144	127	113
24	357	555	2,780	372	393	998	543	380	237	144	123	109
25	394	471	1,780	400	365	1,140	650	370	237	140	120	106
26	1,070	439	1,290	464	344	868	552	360	318	136	116	103
27	1,320	1,250	1,040	824	330	758	1,300	360	432	131	116	106
28	850	3,020	1,480	650	330	610	1,340	370	312	127	116	693
29	590	2,170	2,550	552	------	552	998	360	270	123	113	1,060
30	471	4,160	2,010	525	------	552	824	350	254	123	113	736
31	416	------	1,410	516	------	620	------	330	------	120	109	------
TOTAL	11,149	25,685	45,365	29,742	19,685	16,230	19,685	18,123	9,513	5,270	4,946	5,915
MEAN	360	856	1,463	959	703	524	656	585	317	170	160	197
MAX	1,320	4,160	4,640	5,200	1,700	1,140	1,340	1,240	600	237	379	1,060
MIN	80	243	456	372	330	294	400	330	237	120	109	92
CFSM	4.71	11.2	19.2	12.6	9.21	6.86	8.60	7.66	4.16	2.23	2.09	2.58
IN.	5.43	12.5	22.1	14.5	9.59	7.91	9.59	8.83	4.64	2.57	2.41	2.88
AC-FT	22,110	50,950	89,980	58,990	39,040	32,190	39,040	35,950	18,870	10,450	9,810	11,730

CAL YR 1961: TOTAL 341,241 MEAN 935 MAX 15,800 MIN 80 CFSM 12.3 IN 166.33 AC-FT 676,800
WAT YR 1962: TOTAL 211,308 MEAN 579 MAX 5,200 MIN 80 CFSM 7.59 IN 103.00 AC-FT 419,100

Note.--No gage-height record May 21 to June 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	440	226	1,180	4,120	264	762	695	651	269	181	164	112
2	351	215	1,220	4,300	572	662	650	922	258	160	160	108
3	456	205	1,110	3,550	5,480	580	750	786	247	153	153	105
4	424	337	1,110	2,090	6,560	522	1,200	684	247	149	149	105
5	358	736	2,040	1,520	5,700	478	1,400	1,770	252	149	146	102
6	318	692	2,900	1,230	3,680	437	1,800	1,430	242	149	142	102
7	472	516	1,730	1,010	2,970	414	1,500	1,060	237	149	138	102
8	1,050	650	1,590	883	1,860	384	1,600	834	237	177	131	99
9	1,800	692	1,390	798	1,370	363	1,700	684	232	185	131	99
10	1,080	1,100	1,200	706	1,110	350	1,300	610	222	168	128	102
11	1,210	1,280	1,060	610	922	336	1,100	560	217	164	128	102
12	4,140	1,250	935	550	798	323	1,000	522	217	153	124	99
13	4,360	1,420	1,030	522	750	310	1,050	478	207	149	121	124
14	1,940	1,500	2,950	487	684	304	1,100	461	202	142	121	153
15	1,210	1,150	3,570	461	640	293	1,200	452	194	138	121	142
16	890	914	2,760	437	739	330	900	429	189	138	118	135
17	714	835	1,760	406	695	298	700	414	189	135	115	118
18	600	703	1,350	391	834	293	630	429	185	131	115	112
19	516	5,660	1,180	363	1,380	487	640	470	181	128	115	105
20	448	5,920	974	350	1,290	1,100	610	470	177	124	118	102
21	416	2,470	858	336	948	900	550	444	181	209	121	99
22	379	1,620	762	323	774	700	522	429	177	1,030	135	102
23	351	1,240	673	310	673	550	505	384	173	470	121	112
24	330	1,430	610	298	580	450	496	350	164	336	138	105
25	306	5,950	560	293	662	600	470	330	173	269	124	99
26	318	4,210	514	281	1,540	810	452	310	164	237	124	96
27	294	2,510	487	269	1,110	1,110	429	304	168	217	124	96
28	270	1,840	514	264	909	1,260	414	298	173	202	118	93
29	254	1,520	1,660	252	------	1,160	461	287	164	189	115	93
30	242	1,310	5,230	252	------	961	560	287	168	181	115	93
31	237	------	3,240	269	------	822	------	275	------	173	115	------
TOTAL	26,174	50,101	48,147	27,931	45,494	18,349	26,384	17,814	6,106	6,535	3,988	3,216
MEAN	844	1,670	1,553	901	1,625	592	879	575	204	211	129	107
MAX	4,360	5,950	5,230	4,300	6,560	1,260	1,800	1,770	269	1,030	164	153
MIN	237	205	487	252	264	293	414	275	164	124	115	93
CFSM	11.1	21.9	20.4	11.8	21.3	7.76	11.5	7.53	2.67	2.76	1.69	1.40
IN.	12.8	24.4	23.5	13.6	22.2	8.94	12.9	8.68	2.98	3.19	1.94	1.57
AC-FT	51,920	99,370	95,500	55,400	90,240	36,390	52,330	35,330	12,110	12,960	7,910	6,380

CAL YR 1962: TOTAL 253,531 MEAN 695 MAX 5,950 MIN 92 CFSM 9.10 IN 123.58 AC-FT 502,900
WAT YR 1963: TOTAL 280,239 MEAN 768 MAX 6,560 MIN 93 CFSM 10.1 IN 136.59 AC-FT 555,800

12-0605. South Fork Skokomish River near Union, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	93	1,100	950	4,620	2,380	730	750	365	665	299	272	135
2	93	1,450	850	2,460	1,690	656	646	339	586	305	424	132
3	90	1,250	750	1,860	1,330	594	560	333	513	282	467	129
4	93	1,600	700	1,740	1,400	646	513	328	1,210	272	490	126
5	99	1,140	750	1,500	1,380	730	521	328	1,040	267	410	123
6	118	1,150	720	1,560	1,100	637	482	322	800	262	345	123
7	110	1,390	680	1,320	929	560	482	333	711	252	305	123
8	105	1,530	700	1,110	810	560	513	345	637	267	282	123
9	100	1,420	700	1,120	721	560	521	390	586	252	267	120
10	100	1,660	650	1,140	711	594	612	431	603	232	242	118
11	100	1,220	580	1,050	684	1,070	702	403	552	232	232	116
12	120	1,670	520	907	646	952	646	417	490	242	223	113
13	800	3,010	490	1,190	603	730	586	424	453	247	215	113
14	650	5,050	460	1,150	586	1,040	569	384	438	262	202	113
15	400	2,950	455	1,260	603	1,450	702	352	424	466	193	110
16	250	2,200	600	4,530	594	1,070	603	339	446	637	189	113
17	210	1,950	700	2,160	628	964	529	490	417	467	182	129
18	190	1,440	900	1,590	628	952	482	674	424	397	178	118
19	170	1,530	1,500	1,400	693	800	453	552	384	333	175	118
20	250	1,270	2,930	1,320	637	730	438	603	365	322	167	132
21	4,800	1,050	1,760	1,070	603	674	453	628	345	322	160	120
22	4,400	1,260	2,150	896	578	637	505	594	339	293	153	120
23	2,300	3,920	5,900	780	578	569	482	513	345	277	153	116
24	3,900	2,340	3,590	976	578	521	446	467	339	257	147	113
25	2,500	1,940	2,860	2,300	552	482	438	424	333	242	147	113
26	1,700	4,200	1,850	1,500	497	467	431	410	328	237	147	108
27	1,100	2,770	1,620	1,710	474	438	410	460	322	232	147	106
28	1,200	1,720	1,640	1,860	446	417	384	552	316	228	150	100
29	1,100	1,320	1,270	2,120	474	446	377	560	282	219	144	110
30	1,000	1,060	1,150	1,830	------	594	377	578	288	215	144	934
31	900	------	1,880	2,010	------	730	------	646	------	237	141	------
TOTAL	29,041	57,560	42,255	52,039	23,533	22,000	15,613	13,984	14,981	9,054	7,093	4,367
MEAN	937	1,919	1,363	1,679	811	710	520	451	499	292	229	146
MAX	4,800	5,050	5,900	4,620	2,380	1,450	750	674	1,210	637	490	934
MIN	90	1,050	455	780	446	417	377	322	282	215	141	100
CFSM	12.3	25.1	17.9	22.0	10.6	9.30	6.82	5.91	6.54	3.83	3.00	1.91
IN.	14.2	28.1	20.6	25.4	11.5	10.7	7.61	6.82	7.30	4.41	3.46	2.13
AC-FT	57,600	114,200	83,810	103,200	46,680	43,640	30,970	27,740	29,710	17,960	14,070	8,660

CAL YR 1963: TOTAL 284,673 MEAN 780 MAX 6,560 MIN 90 CFSM 10.2 IN 138.75 AC-FT 564,600
WAT YR 1964: TOTAL 291,520 MEAN 797 MAX 5,900 MIN 90 CFSM 10.4 IN 142.09 AC-FT 578,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	552	371	5,720	569	1,720	1,000	536	612	316	167	103	80
2	521	339	3,100	628	1,260	840	513	552	322	164	103	80
3	431	845	1,780	460	1,010	750	467	560	333	160	103	80
4	328	2,120	1,290	431	2,680	710	438	711	322	160	103	80
5	267	940	1,020	417	5,040	690	431	612	316	157	100	78
6	228	637	863	397	2,880	680	417	536	316	153	98	78
7	206	513	841	377	1,720	700	417	482	310	150	98	78
8	237	431	1,500	371	1,580	730	403	460	299	147	98	78
9	390	384	1,220	352	1,340	750	384	453	288	147	98	78
10	345	390	1,180	345	1,070	810	390	482	277	147	96	78
11	288	377	952	345	918	860	365	490	310	147	94	78
12	252	352	830	339	820	760	365	513	282	138	103	76
13	228	339	750	333	988	684	384	482	262	132	126	76
14	378	310	711	352	988	637	390	438	257	129	110	78
15	397	293	646	552	841	594	397	504	237	129	98	80
16	377	282	578	988	1,040	552	482	1,340	232	129	94	78
17	333	277	521	1,070	1,450	497	497	841	237	126	91	76
18	293	267	505	976	1,330	467	482	674	237	126	87	74
19	262	257	521	1,090	1,360	431	1,350	586	223	123	94	74
20	242	252	490	1,230	1,270	410	3,920	560	219	123	106	74
21	219	237	460	1,250	1,050	397	3,570	505	215	123	100	74
22	206	272	603	1,040	910	390	1,780	482	206	123	94	74
23	193	887	665	896	780	384	1,160	460	198	120	94	72
24	182	3,100	594	1,090	680	358	929	431	193	116	98	72
25	178	1,290	529	907	680	352	830	410	189	113	96	72
26	175	1,020	730	918	1,150	345	780	410	185	113	94	72
27	167	780	852	2,740	2,050	328	790	417	178	110	94	72
28	160	628	693	2,460	1,500	352	730	424	175	108	89	72
29	160	2,170	628	2,340	------	497	637	397	171	106	85	70
30	189	8,660	569	3,960	------	482	620	365	167	106	83	70
31	182	------	497	3,080	------	460	------	333	------	103	83	------
TOTAL	8,566	29,020	31,838	32,303	40,105	17,897	24,854	16,522	7,472	4,095	3,013	2,272
MEAN	276	967	1,027	1,042	1,432	577	828	533	249	132	97.2	75.7
MAX	552	8,660	5,720	3,960	5,040	1,000	3,920	1,340	333	167	126	80
MIN	160	237	460	333	680	328	365	333	167	103	83	70
CFSM	3.62	12.7	13.5	13.7	18.8	7.57	10.9	6.99	3.26	1.73	1.27	.99
IN.	4.18	14.1	15.5	15.7	19.5	8.72	12.1	8.05	3.64	2.00	1.47	1.11
AC-FT	16,990	57,560	63,150	64,070	79,550	35,500	49,300	32,770	14,820	8,120	5,980	4,510

CAL YR 1964: TOTAL 232,088 MEAN 634 MAX 8,660 MIN 100 CFSM 8.31 IN 113.12 AC-FT 460,300
WAT YR 1965: TOTAL 217,957 MEAN 597 MAX 8,660 MIN 70 CFSM 7.83 IN 106.24 AC-FT 432,300

12-0615. Skokomish River near Potlatch, Wash.

Location.--Lat 47°18'35", long 123°10'35", in SE¼NW¼ sec.15, T.21 N., R.4 W., on upstream side of right pier of bridge on U.S. Highway 101, 3.4 miles downstream from confluence of North and South Forks, 4.7 miles southwest of Potlatch, and 4.9 miles upstream from mouth.

Drainage area.--227 sq mi (revised).

Records available.--July 1943 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 10 ft (from topographic map). Prior to May 27, 1964, water-stage recorders or staff gage at several sites about 0.6 mile upstream at different datums. Supplementary water-stage recorder on right bank at site 0.6 mile upstream at datum 16.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, used Nov. 16 to Dec. 10, 1964, June 11 to July 7, 1965.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Jan. 15, 1961	26,400	11.95	Sept.27, 1961	173	-0.52
1962	Dec. 1, 1961	9,680	7.84	Sept. 6-9, 1962	a 176	-
1963	Nov. 20, 1962	18,300	10.60	Sept. 9, 10, 1963	172	-.45
1964	Oct. 22, 1963	10,600	8.41	Oct. 1-5, 1963	174	-.44
1965	Nov. 30, 1964	15,600	b 13.32	Sept.30, 1965	150	6.37

a Minimum daily.
b At site on right bank 0.6 mile upstream.

1943-65: Maximum discharge, 27,000 cfs Nov. 3, 1955 (gage height, 12.6 ft, site and datum then in use); minimum, 125 cfs Sept. 14-17, 1944.

Flood in December 1933 reached an elevation of 30.8 ft above mean sea level, datum of 1929, supplementary adjustment of 1947, at site on left bank 150 ft above old highway bridge (discharge, 18,600 cfs).

Remarks.--Records good. Flow partly regulated by Lake Cushman and Cushman Reservoir No. 2. In normal years practically entire flow of North Fork is diverted at Cushman Dam No. 2 and is discharged into Puget Sound through Cushman powerplant No. 2. Records of chemical analyses for the water years 1961-65 and water temperatures for the water years 1961-62, 1964-65, are published in reports of the Geological Survey.

Revisions (water years).--WSP 1716: 1950(M), 1956.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	180	1,650	1,540	906	4,580	4,820	1,640	1,440	643	362	238	476
2	180	1,290	1,540	855	5,200	3,170	1,650	1,900	680	355	235	439
3	180	936	1,540	825	3,290	2,530	1,630	1,610	705	348	232	330
4	180	805	1,490	918	3,150	2,190	1,510	1,320	685	334	232	287
5	190	760	1,280	2,190	4,230	2,070	1,320	1,100	643	358	229	260
6	235	710	1,130	2,920	5,060	1,970	1,100	972	652	372	224	240
7	578	652	1,060	2,220	4,080	1,810	990	902	652	352	221	232
8	572	602	894	2,270	2,980	1,750	936	918	616	327	218	224
9	408	572	825	4,640	4,340	1,820	900	1,580	602	317	215	215
10	334	774	780	8,000	4,560	2,040	870	1,870	602	314	212	210
11	299	1,220	1,070	6,890	3,720	2,420	840	1,540	589	302	210	207
12	281	918	5,930	4,380	3,480	2,580	850	1,290	564	299	207	204
13	272	860	4,130	3,640	3,050	2,460	830	1,080	544	296	204	196
14	284	1,010	3,000	5,600	2,880	5,560	795	1,000	532	293	204	194
15	320	1,170	2,270	21,800	3,720	5,980	780	948	532	290	210	194
16	299	2,410	1,920	12,400	3,040	4,540	755	936	548	290	210	194
17	281	4,320	1,840	6,940	2,640	3,690	785	948	556	287	204	194
18	266	3,780	3,960	4,610	2,350	3,090	770	942	540	278	201	191
19	257	3,710	4,380	3,160	2,810	3,110	730	930	516	275	199	188
20	254	3,860	2,870	2,630	5,010	4,660	710	924	484	272	196	188
21	266	2,660	2,210	2,300	13,200	3,660	936	876	464	269	191	186
22	506	2,190	1,870	2,070	7,200	3,330	1,110	840	446	266	186	183
23	1,700	2,200	1,660	1,900	3,990	4,020	930	820	436	266	183	181
24	2,120	3,230	1,500	1,740	3,770	3,600	855	810	428	263	181	181
25	1,350	3,350	1,370	1,610	3,230	3,340	820	755	414	260	181	178
26	1,910	2,600	1,330	1,510	2,750	3,150	800	750	411	254	181	178
27	2,550	1,950	1,220	1,430	2,530	2,590	775	755	404	252	181	176
28	2,790	1,600	1,140	1,380	2,430	2,330	775	715	390	249	178	186
29	1,700	1,400	1,060	1,580	------	1,980	1,060	680	383	246	178	191
30	1,290	1,290	1,000	5,190	------	1,810	1,360	675	376	243	181	188
31	1,380	------	960	4,300	------	1,700	------	648	------	240	308	------
TOTAL	23,412	54,479	58,769	122,804	113,270	93,770	29,812	32,474	16,037	9,129	6,430	6,691
MEAN	755	1,816	1,896	3,961	4,045	3,025	994	1,048	535	294	207	223
MAX	2,790	4,320	5,930	21,800	13,200	5,980	1,650	1,900	705	372	308	476
MIN	180	572	780	825	2,350	1,700	710	648	376	240	178	176
AC-FT	46,440	108,100	116,600	243,600	224,700	186,000	59,130	64,410	31,810	18,110	12,750	13,270

CAL YR 1960: TOTAL 423,111 MEAN 1,156 MAX 11,600 MIN 180 AC-FT 839,200
WAT YR 1961: TOTAL 567,077 MEAN 1,554 MAX 21,800 MIN 176 AC-FT 1,125,000

12-0615. Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	183	638	7,100	1,820	785	572	1,120	1,800	456	372	201	185
2	181	589	3,620	2,280	775	552	1,070	1,630	673	362	204	185
3	178	580	2,620	6,900	755	528	942	1,950	672	341	226	183
4	178	560	3,120	3,970	755	640	900	1,730	594	330	232	183
5	181	524	2,900	2,760	700	1,040	888	1,370	568	341	235	180
6	188	480	2,200	2,410	715	1,310	1,560	1,160	508	348	408	176
7	188	460	1,850	2,180	1,540	1,210	2,100	1,010	488	334	600	176
8	178	442	1,600	1,920	2,240	1,180	1,380	990	488	320	676	176
9	218	537	1,390	1,660	2,340	1,100	1,120	1,240	488	317	508	176
10	439	3,030	1,220	1,420	1,760	966	948	1,400	468	311	392	187
11	341	2,540	1,110	1,260	1,380	860	870	1,180	446	308	343	185
12	1,090	1,630	1,010	1,130	1,170	795	805	1,030	428	299	310	185
13	1,280	1,160	966	1,040	1,360	740	780	930	422	287	295	270
14	745	894	894	982	1,750	720	795	882	414	281	278	483
15	576	770	855	920	1,640	695	810	870	408	275	259	415
16	488	675	850	865	1,360	730	740	810	408	263	248	344
17	425	625	1,150	930	1,190	735	690	750	408	263	248	284
18	380	598	1,110	775	1,100	725	661	710	390	260	281	257
19	341	580	1,480	740	990	710	661	670	376	254	278	226
20	320	552	3,000	693	888	695	670	643	372	249	273	215
21	296	584	4,040	675	840	690	720	607	372	243	243	199
22	314	1,440	3,860	644	795	785	690	594	369	238	235	196
23	756	1,160	5,010	618	760	1,120	643	594	358	229	227	194
24	643	876	4,690	610	695	2,340	724	580	355	229	215	194
25	580	725	3,160	634	652	2,390	918	556	348	226	206	191
26	1,440	666	2,330	698	620	1,800	865	540	414	226	204	186
27	2,030	1,470	1,880	1,130	584	1,500	1,880	532	576	224	202	188
28	1,380	3,840	2,200	1,010	594	1,240	2,260	524	464	218	194	742
29	918	3,720	3,600	895	------	1,090	1,730	512	414	221	190	1,340
30	760	5,090	3,280	840	------	1,010	1,370	496	394	221	190	1,080
31	652	------	2,320	820	------	1,040	------	472	------	204	187	------
TOTAL	17,867	37,435	76,415	45,229	30,773	31,508	31,310	28,762	13,539	8,594	8,788	9,231
MEAN	576	1,248	2,465	1,459	1,099	1,016	1,044	928	451	277	283	308
MAX	2,030	5,090	7,100	6,900	2,340	2,390	2,260	1,950	673	372	676	1,340
MIN	178	442	850	610	584	528	643	472	348	204	187	176
AC-FT	35,440	74,250	151,600	89,710	61,040	62,500	62,100	57,050	26,850	17,050	17,430	18,310

CAL YR 1961: TOTAL 562,134 MEAN 1,540 MAX 21,800 MIN 176 AC-FT 1,115,000
WAT YR 1962: TOTAL 339,451 MEAN 930 MAX 7,100 MIN 176 AC-FT 673,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	760	456	2,060	5,050	480	1,160	1,360	1,000	484	313	269	188
2	608	439	2,130	7,560	719	1,050	1,200	1,380	476	301	258	183
3	696	428	2,020	6,020	5,850	950	1,290	1,310	470	298	255	183
4	696	1,140	1,990	3,210	6,830	890	1,840	1,140	436	292	245	178
5	580	1,070	2,990	2,410	6,660	830	2,050	2,070	415	283	240	176
6	516	1,100	3,940	1,960	4,080	780	2,540	2,030	409	280	237	176
7	728	845	2,580	1,670	3,500	748	2,380	1,600	397	292	232	174
8	1,540	1,040	2,340	1,470	2,480	720	2,570	1,320	400	319	230	174
9	2,730	1,070	2,090	1,290	1,990	684	2,860	1,160	394	346	227	174
10	1,850	1,700	1,860	1,160	1,650	653	2,240	1,080	382	292	227	178
11	1,710	2,010	1,660	1,020	1,410	631	1,900	1,000	364	283	227	183
12	4,930	2,010	1,460	925	1,230	603	1,690	960	355	268	224	178
13	5,810	2,150	1,440	860	1,150	583	1,550	900	352	255	217	183
14	3,290	2,300	3,170	805	1,080	579	1,520	845	340	248	214	222
15	2,210	1,970	5,100	766	1,010	575	1,720	830	334	248	210	220
16	1,670	1,610	5,240	738	1,070	615	1,510	810	325	248	205	220
17	1,350	1,450	3,490	707	1,050	579	1,240	775	322	248	202	207
18	1,150	1,260	2,120	680	1,230	567	1,130	765	322	245	200	193
19	990	7,360	1,800	644	1,620	770	1,270	890	322	242	202	185
20	855	9,590	1,540	615	1,750	1,490	1,190	1,050	319	237	207	181
21	800	3,570	1,320	595	1,380	1,360	1,130	1,120	322	261	202	178
22	735	2,550	1,160	579	1,170	1,080	1,080	1,650	322	1,260	210	185
23	685	2,050	1,040	559	1,050	910	1,040	909	316	775	212	195
24	643	2,080	945	539	960	810	1,020	648	316	595	217	193
25	598	7,410	870	523	988	920	988	586	322	424	214	185
26	598	7,580	810	494	1,800	1,150	930	546	325	365	210	183
27	568	4,500	780	480	1,540	1,460	880	536	328	337	205	178
28	532	2,850	815	470	1,300	1,730	830	522	337	313	200	176
29	508	2,390	1,900	459	------	1,860	820	508	331	295	197	176
30	488	2,200	5,580	445	------	1,770	900	498	325	283	195	176
31	468	------	4,200	480	------	1,590	------	490	------	283	193	------
TOTAL	41,292	78,178	70,440	45,183	57,027	30,097	44,668	30,928	10,862	10,729	6,783	5,581
MEAN	1,332	2,606	2,272	1,458	2,037	971	1,489	998	362	346	219	186
MAX	5,810	9,590	5,580	7,560	6,830	1,860	2,860	2,070	484	1,260	269	222
MIN	468	428	780	445	480	567	820	490	316	237	193	174
AC-FT	81,900	155,100	139,700	89,620	113,100	59,700	88,600	61,340	21,540	21,280	13,450	11,070

CAL YR 1962: TOTAL 397,644 MEAN 1,089 MAX 9,590 MIN 176 AC-FT 788,700
WAT YR 1963: TOTAL 431,768 MEAN 1,183 MAX 9,590 MIN 174 AC-FT 856,400

12-0615. Skokomish River near Potlatch, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	174	1,520	1,540	6,020	3,850	1,350	1,190	648	824	434	410	242
2	174	2,170	1,320	4,020	2,930	1,190	1,040	607	784	440	659	234
3	174	1,760	1,180	3,020	2,310	1,080	910	591	704	428	680	234
4	174	2,220	1,090	2,890	2,240	1,180	865	575	1,260	416	728	230
5	176	1,790	1,080	2,560	2,240	1,340	850	571	1,280	398	638	226
6	193	1,690	1,080	2,540	1,840	1,160	815	563	1,020	392	561	222
7	197	2,020	965	2,140	1,580	1,020	795	559	912	386	498	218
8	195	2,300	1,040	1,810	1,390	1,010	820	563	856	392	446	218
9	190	2,070	1,030	1,880	1,250	1,060	845	599	776	380	422	214
10	185	2,400	945	1,930	1,170	1,120	925	631	792	368	404	214
11	183	1,980	870	1,760	1,140	2,270	1,110	623	768	356	386	206
12	190	2,260	810	1,520	1,070	2,040	1,050	631	704	362	362	202
13	731	3,420	756	1,790	1,010	1,540	960	640	659	368	350	198
14	870	5,850	720	1,810	965	2,080	920	611	638	380	340	198
15	591	4,110	716	1,890	1,050	2,610	1,110	575	624	540	330	198
16	417	3,210	875	5,510	1,020	1,960	982	563	659	848	320	198
17	346	2,820	1,090	3,670	1,110	1,770	885	648	631	680	310	210
18	304	2,280	1,200	2,900	1,130	1,710	810	890	617	610	300	210
19	280	2,420	1,860	2,560	1,160	1,470	756	756	575	540	290	210
20	307	2,150	3,890	2,400	1,080	1,330	725	800	547	491	285	218
21	4,260	1,810	2,790	1,960	1,010	1,220	720	840	512	484	280	214
22	6,440	1,990	2,840	1,650	955	1,140	795	825	498	470	275	214
23	2,830	4,780	6,840	1,440	935	1,050	761	748	505	434	265	214
24	5,550	3,610	5,060	1,820	925	960	720	689	498	410	260	206
25	3,640	2,880	4,180	3,760	875	900	707	644	484	398	260	202
26	2,510	5,370	2,960	2,700	805	865	694	619	477	386	260	206
27	1,980	4,340	2,630	2,740	766	825	684	631	470	380	265	202
28	1,980	2,830	2,630	3,130	748	795	658	720	477	368	275	198
29	1,940	2,210	2,160	3,450	842	790	640	736	446	350	265	210
30	1,670	1,800	1,850	3,140	------	950	631	736	440	340	260	1,070
31	1,350	------	2,630	3,250	------	1,130	------	800	------	374	250	------
TOTAL	40,201	82,060	60,627	83,660	39,396	40,915	25,373	20,632	20,437	13,603	11,634	7,236
MEAN	1,297	2,735	1,956	2,699	1,358	1,320	846	666	681	439	375	241
MAX	6,440	5,850	6,840	6,020	3,850	2,610	1,190	890	1,280	848	728	1,070
MIN	174	1,520	716	1,440	748	790	631	559	440	340	250	198
AC-FT	79,740	162,800	120,300	165,900	78,140	81,150	50,330	40,920	40,540	26,980	23,080	14,350

CAL YR 1963: TOTAL 424,746 MEAN 1,164 MAX 7,560 MIN 174 AC-FT 842,500
WAT YR 1964: TOTAL 445,774 MEAN 1,218 MAX 6,840 MIN 174 AC-FT 884,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	960	519	9,470	802	2,920	1,830	810	963	556	318	197	166
2	832	547	5,120	794	2,150	1,510	810	909	542	312	193	166
3	752	880	3,010	698	1,760	1,340	762	900	549	301	197	166
4	596	3,150	2,190	666	3,600	1,240	730	1,120	542	296	197	166
5	505	1,490	1,740	626	7,190	1,170	706	1,010	535	291	197	166
6	446	1,060	1,440	634	4,580	1,130	698	900	528	286	193	166
7	404	856	1,300	578	2,830	1,120	698	828	507	281	188	162
8	428	752	2,010	570	2,630	1,120	682	778	500	272	184	162
9	617	666	1,720	549	2,270	1,100	658	746	493	272	184	162
10	603	631	1,720	542	1,860	1,090	650	746	486	272	184	162
11	533	624	1,450	521	1,600	1,100	626	754	495	277	184	162
12	464	603	1,290	528	1,410	1,090	610	754	483	272	193	162
13	434	568	1,190	528	1,610	1,020	602	738	452	260	216	162
14	554	540	1,130	528	1,670	954	610	714	445	255	216	162
15	638	512	1,030	698	1,460	900	610	762	423	250	202	162
16	617	481	936	1,190	1,770	855	682	1,740	413	245	193	162
17	575	463	837	1,410	2,390	810	746	1,320	406	240	184	162
18	533	450	786	1,330	2,170	762	738	1,080	409	240	180	162
19	491	433	802	1,410	2,090	730	1,600	963	400	235	184	162
20	446	420	754	1,640	2,050	698	5,160	900	390	230	202	158
21	428	414	738	1,820	1,700	682	4,750	819	380	230	202	158
22	404	439	963	1,620	1,460	658	2,660	770	368	230	193	158
23	380	975	1,110	1,460	1,300	650	1,820	746	358	226	188	158
24	362	4,490	999	1,740	1,210	626	1,520	722	352	221	188	154
25	345	2,260	891	1,550	1,150	602	1,340	690	346	216	188	150
26	335	1,890	1,230	1,540	1,790	594	1,220	674	338	211	188	150
27	325	1,500	1,510	4,530	3,940	570	1,180	658	329	206	184	150
28	320	1,240	1,190	4,200	2,520	610	1,140	658	326	202	180	150
29	310	2,230	1,030	3,880	------	846	1,010	634	323	202	175	150
30	345	13,400	927	6,130	------	864	954	618	320	202	171	150
31	368	------	786	5,140	------	802	------	586	------	197	171	------
TOTAL	15,350	44,483	51,299	49,852	65,080	29,073	36,782	26,200	12,994	7,748	5,896	4,788
MEAN	495	1,483	1,655	1,608	2,324	938	1,226	845	433	250	190	160
MAX	960	13,400	9,470	6,130	7,190	1,830	5,160	1,740	556	318	216	166
MIN	310	414	738	521	1,150	570	602	586	320	197	171	150
AC-FT	30,450	88,230	101,800	98,880	129,100	57,670	72,960	51,970	25,770	15,370	11,690	9,500

CAL YR 1964: TOTAL 374,018 MEAN 1,022 MAX 13,400 MIN 198 AC-FT 741,900
WAT YR 1965: TOTAL 349,545 MEAN 958 MAX 13,400 MIN 150 AC-FT 693,300

12-0655. Gold Creek near Bremerton, Wash.

Location.--Lat 47°33'20", long 122°48'35", in NE¼SW¼ sec.21, T.24 N., R.1 W., on right bank 1¼ miles upstream from mouth and 8 miles west of Bremerton.

Drainage area.--1.51 sq mi (revised).

Records available.--October 1945 to September 1965.

Gage.--Digital water-stage recorder. Concrete control since June 22, 1962. Datum of gage is 750.9 ft above mean sea level (closed stadia traverse). Prior to Aug. 16, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--20 years, 5.87 cfs (4,250 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (40 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 24, 1960	1230	67	2.28	Dec. 20, 1961	2400	* 55	2.12	Jan. 1, 1964	1600	* 41	3.09
Jan. 15, 1961	1700	* 191	3.02								
Feb. 2, 1961	0330	47	2.04	Nov. 25, 1962	1730	* 85	3.54	Nov. 30, 1964	0900	* 83	3.55
Feb. 21, 1961	1500	53	2.10	Jan. 2, 1963	2100	45	3.14	Jan. 30, 1965	1730	44	3.16
Mar. 15, 1961	0100	51	2.08	Feb. 4, 1963	2230	40	3.08	Feb. 5, 1965	1800	52	3.26

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 1961	0.40	a 1.05	1964	Oct. 3,5,7-12,1963	0.40	e 1.45
1962	Many days	.40	b 1.18	1965	Many days	.40	f 1.45
1963	(c)	.40	d 1.47				

a Occurred Aug. 17-19, 1961.
b Occurred Oct. 5, 22, 1961, May 31, 1962.
c Sept. 1, 10, 11, 14, 15, 29, 1963.
d Occurred Sept. 10, 11, 1963.
e Occurred Oct. 12, 1963.
f Occurred Sept. 25, 26, 1965.

1945-65: Maximum discharge, 203 cfs Feb. 22, 1949, from rating curve extended above 60 cfs; maximum gage height, 3.55 ft Nov. 30, 1964; minimum discharge, 0.1 cfs July 29, Sept. 9, 1958.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1947-49(M), 1950(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.60	3.0	6.6	4.7	30	27	5.7	3.6	2.3	1.0	.60	1.0
2	.60	2.7	5.7	4.4	39	20	5.7	3.6	2.0	1.0	.60	.80
3	.60	2.4	5.7	4.2	22	16	5.4	3.4	2.0	1.0	.60	.80
4	.60	2.3	5.0	5.0	18	13	5.2	4.0	1.7	1.0	.60	.80
5	.60	2.0	4.7	8.2	18	12	5.0	4.4	1.8	1.2	.60	.80
6	.90	2.0	4.4	13	31	11	5.0	4.0	1.9	1.1	.60	.70
7	1.3	2.0	4.4	13	23	10	4.4	4.0	1.9	1.1	.60	.70
8	1.0	1.9	4.4	15	20	11	4.7	5.0	1.9	1.0	.60	.70
9	.90	1.8	4.2	26	22	12	4.4	5.2	1.8	1.0	.60	.60
10	.80	3.8	4.0	31	24	17	3.8	5.2	1.8	1.0	.60	.60
11	.80	3.6	6.2	29	21	31	3.6	5.2	1.9	.90	.60	.60
12	1.0	2.9	16	20	19	37	3.8	5.2	1.9	.90	.60	.60
13	.70	3.6	16	17	31	34	3.6	4.7	1.8	.80	.60	.50
14	.80	5.0	12	22	27	44	3.4	4.4	1.6	.90	.60	.60
15	.80	6.0	9.6	121	27	41	3.4	4.2	1.5	.80	.70	.60
16	.80	9.2	8.2	56	22	24	3.2	3.8	1.5	.70	.70	.60
17	.80	14	7.5	27	21	17	3.2	3.6	1.3	.70	.70	.50
18	.70	15	19	19	18	14	3.0	3.4	1.3	.70	.70	.50
19	.80	11	21	15	17	12	3.0	3.2	1.3	.60	.70	.60
20	.90	20	14	12	21	11	3.2	2.9	1.3	.60	.70	.60
21	1.2	15	11	11	46	9.6	3.6	2.9	1.3	.60	.70	.60
22	2.0	12	8.9	9.2	33	9.2	3.4	3.2	1.2	.60	.80	.60
23	3.6	19	7.8	8.6	20	9.6	3.2	3.8	1.2	.60	.70	.60
24	3.2	50	6.9	7.8	25	8.6	3.2	4.2	1.2	.60	.80	.60
25	1.9	46	6.3	7.2	25	8.2	3.0	2.9	1.2	.60	.80	.60
26	2.9	21	6.9	6.6	19	8.6	2.9	2.9	1.2	.60	.70	.70
27	3.2	13	6.0	6.3	18	7.8	2.9	3.0	1.1	.60	.70	.70
28	3.8	9.6	5.4	6.0	18	7.2	2.9	2.7	1.1	.60	.70	.90
29	2.9	8.2	5.2	8.2	------	6.9	3.4	2.6	1.1	.60	.70	.80
30	2.6	7.2	5.0	23	------	6.6	3.2	2.4	1.1	.60	.80	.90
31	3.0	------	5.0	29	------	6.3	------	2.4	------	.60	1.1	------
TOTAL	46.30	315.2	253.0	585.4	675	502.6	114.4	116.0	46.2	24.60	21.10	20.20
MEAN	1.49	10.5	8.16	18.9	24.1	16.2	3.81	3.74	1.54	.79	.68	.67
MAX	3.8	50	21	121	46	44	5.7	5.2	2.3	1.2	1.1	1.0
MIN	.60	1.8	4.0	4.2	17	6.3	2.9	2.4	1.1	.60	.60	.50
CFSM	.99	6.96	5.40	12.5	16.0	10.7	2.53	2.48	1.02	.53	.45	.45
IN.	1.14	7.76	6.23	14.4	16.6	12.4	2.82	2.86	1.14	.61	.52	.50
AC-FT	92	625	502	1,160	1,340	997	227	230	92	49	42	40

CAL YR 1960: TOTAL 2,241.90 MEAN 6.13 MAX 73 MIN .50 CFSM 4.06 IN 55.22 AC-FT 4,450
WAT YR 1961: TOTAL 2,720.00 MEAN 7.45 MAX 121 MIN .50 CFSM 4.94 IN 66.99 AC-FT 5,400

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0655. Gold Creek near Bremerton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.90	1.4	25	9.2	4.0	3.8	5.4	4.2	1.7	1.0	.50	.50
2	.90	1.3	15	12	3.8	3.8	5.2	3.6	2.3	.90	.50	.50
3	.90	1.5	8.9	24	3.8	3.6	4.7	5.0	2.0	.80	.60	.50
4	.90	1.5	11	20	3.6	4.8	4.4	4.4	1.9	1.0	.60	.50
5	1.0	1.4	10	15	3.6	6.9	4.2	4.2	1.9	1.1	.60	.50
6	1.1	1.4	7.8	13	3.8	9.2	3.8	4.0	1.8	1.2	1.0	.50
7	1.0	1.4	6.6	11	5.7	10	3.6	3.8	1.8	1.1	1.0	.50
8	1.0	1.4	5.4	10	6.0	9.2	3.4	3.8	1.7	.90	1.0	.50
9	1.2	2.4	4.7	8.9	6.6	8.2	3.2	3.8	1.8	.80	.80	.50
10	1.4	6.0	4.3	8.2	6.9	7.2	3.6	3.2	1.7	.80	.70	.60
11	1.5	5.2	4.2	7.8	6.9	6.6	3.2	2.9	1.6	1.0	.60	.60
12	2.7	5.0	3.8	7.2	6.9	6.0	2.9	2.7	1.5	1.0	.60	.60
13	1.6	4.4	4.0	6.9	7.2	5.4	2.6	2.7	1.5	.90	.60	.90
14	1.1	4.0	3.8	6.6	7.8	5.0	2.6	2.6	1.4	.80	.50	.80
15	.90	3.6	3.6	6.3	7.8	4.7	2.7	2.9	1.4	.80	.50	.70
16	1.0	3.6	4.0	6.3	7.5	4.7	2.6	2.7	1.3	.80	.50	.70
17	.90	3.4	9.2	6.3	6.9	4.2	2.6	2.7	1.3	.80	.50	.70
18	.90	3.6	12	5.7	6.6	4.0	2.4	2.4	1.2	.80	.50	.60
19	.90	3.4	16	5.7	6.0	5.0	2.4	2.0	1.2	.70	.50	.60
20	1.0	3.2	31	5.2	5.7	3.8	2.3	2.2	1.1	.70	.50	.60
21	.90	4.0	38	5.2	5.4	3.8	2.3	2.0	1.1	.70	.50	.60
22	1.0	6.0	22	5.2	5.2	5.2	2.3	1.9	1.0	.70	.40	.60
23	1.7	6.0	26	5.0	4.7	6.0	2.3	2.7	.80	.80	.50	.60
24	1.2	5.7	21	5.0	4.4	19	2.4	2.4	.80	.80	.50	.60
25	1.4	4.7	15	5.0	4.2	20	2.3	2.0	.80	.70	.50	.60
26	2.3	4.7	11	5.0	4.0	14	2.4	2.0	1.0	.60	.50	.60
27	2.3	5.7	9.6	5.2	3.8	10	5.4	1.8	1.0	.50	.50	.60
28	1.8	8.2	11	4.7	3.8	8.2	4.0	1.8	1.0	.50	.50	2.3
29	1.9	11	12	4.2	------	6.9	3.6	1.8	.80	.50	.50	2.6
30	1.6	11	12	4.2	------	6.3	3.6	1.7	.80	.50	.50	1.7
31	1.3	------	11	4.0	------	5.7	------	1.7	------	.50	.50	------
TOTAL	40.20	126.1	378.9	248.0	152.6	221.2	98.4	87.6	41.20	24.70	18.00	22.70
MEAN	1.30	4.20	12.2	8.00	5.45	7.14	3.28	2.83	1.37	.80	.58	.76
MAX	2.7	11	38	24	7.8	20	5.4	5.0	2.3	1.2	1.0	2.6
MIN	.90	1.3	3.6	4.0	3.6	3.6	2.3	1.7	.80	.50	.40	.50
CFSM	.86	2.78	8.09	5.30	3.61	4.73	2.17	1.87	.91	.53	.38	.50
IN.	.99	3.11	9.33	6.11	3.76	5.45	2.42	2.16	1.01	.61	.44	.56
AC-FT	80	250	752	492	303	439	195	174	82	49	36	45

CAL YR 1961: TOTAL 2,650.70 MEAN 7.26 MAX 121 MIN .50 CFSM 4.81 IN 65.28 AC-FT 5,260
WAT YR 1962: TOTAL 1,459.60 MEAN 4.00 MAX 38 MIN .40 CFSM 2.65 IN 35.95 AC-FT 2,900

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.5	2.0	15	23	3.2	4.7	16	4.2	1.9	1.4	.90	.50
2	1.2	1.9	17	39	6.8	4.5	12	5.6	2.0	1.2	.80	.60
3	1.1	2.0	16	32	32	4.2	10	4.8	1.9	1.2	.70	.50
4	1.0	3.6	14	18	29	4.0	9.5	4.9	1.9	1.2	.70	.50
5	1.0	3.2	13	12	32	3.8	9.5	8.1	2.2	1.1	.70	.50
6	1.4	2.7	12	9.7	21	3.7	11	8.9	2.6	1.1	.70	.50
7	1.9	2.8	11	8.5	18	3.6	13	8.5	1.3	1.2	.70	.50
8	3.3	3.5	9.5	7.7	13	3.4	15	7.2	1.4	1.2	.70	.50
9	8.1	3.7	8.5	7.0	10	3.2	15	6.0	1.7	1.1	.70	.50
10	7.2	6.5	7.5	6.2	8.3	3.1	12	5.5	1.6	1.0	.70	.50
11	6.2	12	6.7	5.6	7.0	3.0	10	4.8	1.8	1.1	.70	.40
12	7.3	14	6.2	5.5	6.2	2.9	8.5	4.5	2.2	1.0	.70	.50
13	11	13	6.2	5.2	6.0	2.8	9.1	4.1	1.2	1.0	.70	.50
14	9.3	11	9.1	4.9	5.5	2.9	7.3	3.7	1.3	1.1	.70	.40
15	6.8	12	16	4.8	5.2	2.8	7.0	3.4	1.4	1.6	.70	.50
16	5.2	13	15	4.7	4.9	4.5	5.9	3.2	1.4	1.4	.70	.70
17	4.4	12	12	4.4	4.8	3.5	5.6	2.9	1.3	1.1	.60	.70
18	3.7	9.3	9.5	4.0	5.1	3.1	5.5	2.8	1.3	1.0	.60	.60
19	3.2	15	8.9	3.9	6.0	4.1	5.3	3.7	1.3	1.0	.70	.60
20	2.8	23	7.5	3.7	5.6	4.5	4.8	2.6	1.4	.90	.60	.50
21	2.5	16	7.0	3.7	5.3	4.2	4.7	2.2	1.4	1.0	.70	.70
22	2.4	11	6.3	3.5	5.3	4.1	4.5	2.2	1.5	1.5	.70	.50
23	2.3	8.7	5.9	3.4	5.1	3.9	4.2	2.2	1.4	1.2	.70	.50
24	2.2	8.7	5.5	3.4	4.8	3.9	4.1	2.3	1.2	1.1	.70	.50
25	2.2	43	4.9	3.3	5.2	4.2	4.0	2.3	1.2	1.0	.70	.50
26	2.4	45	4.7	3.2	5.7	4.4	3.8	2.2	2.2	1.0	.60	.50
27	2.3	25	4.5	3.1	4.8	5.0	4.0	2.0	2.2	.90	.60	.50
28	2.1	17	4.8	3.0	4.7	10	3.7	2.0	1.5	.90	.60	.50
29	2.1	14	7.2	2.9	------	25	3.6	1.8	1.5	.80	.50	.50
30	1.9	15	21	2.8	------	35	3.6	1.9	1.4	.80	.50	.50
31	2.0	------	22	3.0	------	26	------	1.9	------	.90	.50	------
TOTAL	112.0	369.6	314.4	245.1	270.5	198.0	232.2	122.4	48.6	34.00	20.80	15.70
MEAN	3.61	12.3	10.1	7.91	9.66	6.39	7.74	3.95	1.62	1.10	.67	.52
MAX	11	45	22	39	32	35	16	8.9	2.6	1.6	.90	.70
MIN	1.0	1.9	4.5	2.8	3.2	2.8	3.6	1.8	1.2	.80	.50	.40
CFSM	2.39	8.15	6.72	5.24	6.40	4.23	5.13	2.61	1.07	.73	.44	.35
IN.	2.76	9.10	7.74	6.04	6.66	4.88	5.72	3.01	1.20	.84	.51	.39
AC-FT	222	733	624	486	537	393	461	243	96	67	41	31

CAL YR 1962: TOTAL 1,710.40 MEAN 4.69 MAX 45 MIN .40 CFSM 3.10 IN 42.13 AC-FT 3,390
WAT YR 1963: TOTAL 1,983.30 MEAN 5.43 MAX 45 MIN .40 CFSM 3.60 IN 48.85 AC-FT 3,930

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0655. Gold Creek near Bremerton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.50	6.3	7.8	32	18	6.5	4.2	1.9	1.1	1.2	.90	.70
2	.50	7.8	7.0	26	15	5.9	3.9	1.9	1.0	1.2	1.0	.70
3	.50	7.7	6.2	17	12	5.7	3.5	1.9	1.0	1.1	1.0	.70
4	.50	7.2	5.9	13	11	6.5	3.5	1.8	1.8	1.1	.90	.70
5	.50	6.0	5.7	12	9.1	6.5	3.4	2.3	1.5	1.1	.80	.70
6	.50	8.1	6.2	12	8.3	6.7	3.3	2.0	1.4	1.1	.80	.70
7	.40	13	5.5	10	7.5	6.2	3.1	1.8	1.5	1.0	.70	.70
8	.40	16	7.7	10	7.0	6.3	3.2	1.8	1.7	1.0	.70	.60
9	.40	12	6.5	11	6.5	6.3	3.1	1.8	1.4	.90	.70	.60
10	.40	12	6.2	10	6.2	6.7	2.9	1.7	1.2	.90	.70	.60
11	.40	10	6.0	9.5	5.7	24	2.9	1.6	1.2	.90	.70	.60
12	.50	12	5.9	8.9	5.6	22	3.7	1.8	1.2	.80	.70	.60
13	.90	19	5.5	10	5.3	14	3.0	1.7	1.2	.90	.70	.60
14	.80	29	5.2	10	5.2	16	2.5	1.5	1.1	1.2	.70	.60
15	.70	20	5.2	12	5.6	16	2.6	1.5	1.1	1.8	.70	.60
16	.50	15	5.9	26	5.3	13	2.5	1.4	1.9	1.2	.70	.60
17	.50	11	5.5	36	5.1	11	2.4	1.6	2.8	1.1	.70	.80
18	.50	9.3	5.5	30	4.8	8.9	2.4	1.6	3.8	1.0	.70	.70
19	.50	13	7.5	26	4.6	7.7	2.3	1.6	2.6	1.0	.80	.70
20	.90	12	23	26	4.5	7.5	2.3	1.6	2.5	1.0	.80	.70
21	5.7	11	20	20	4.5	7.8	2.3	1.6	2.2	1.2	.70	.70
22	7.5	16	18	18	4.2	7.8	2.3	1.4	2.1	1.0	.60	.70
23	4.8	30	26	12	4.1	7.0	2.2	1.4	1.9	.90	.60	.70
24	14	22	20	15	4.0	6.2	2.0	1.4	1.8	.90	.60	.70
25	12	15	16	31	3.7	5.7	2.1	1.2	1.6	.90	.60	.60
26	8.1	18	13	21	3.7	4.6	2.2	1.2	1.5	.90	.70	.60
27	5.7	18	12	17	3.7	4.7	2.1	1.2	1.3	.80	.70	.60
28	7.5	14	12	16	3.6	4.6	2.1	1.7	1.2	.80	.80	.60
29	6.8	11	10	18	4.4	4.6	2.0	1.1	1.2	.80	.80	.70
30	5.9	8.9	9.3	17	------	4.5	1.9	1.2	1.2	.80	.70	2.2
31	4.9	------	10	18	------	4.1	------	1.1	------	.80	.70	------
TOTAL	93.70	410.3	306.2	550.4	188.2	265.0	81.9	49.3	49.0	31.30	22.90	21.30
MEAN	3.02	13.7	9.88	17.8	6.49	8.55	2.73	1.59	1.63	1.01	.74	.71
MAX	14	30	26	36	18	24	4.2	2.3	3.8	1.8	1.0	2.2
MIN	.40	6.0	5.2	8.9	3.6	4.1	1.9	1.1	1.0	.80	.60	.60
CFSM	2.00	9.06	6.54	11.8	4.30	5.66	1.81	1.05	1.08	.67	.49	.47
IN.	2.31	10.1	7.54	13.6	4.64	6.53	2.02	1.21	1.21	.77	.56	.52
AC-FT	186	814	607	1,090	373	526	162	98	97	62	45	42

CAL YR 1963: TOTAL 1,997.50 MEAN 5.47 MAX 39 MIN .40 CFSM 3.62 IN 49.20 AC-FT 3,960
WAT YR 1964: TOTAL 2,069.50 MEAN 5.65 MAX 36 MIN .40 CFSM 3.74 IN 50.97 AC-FT 4,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.3	1.2	44	6.6	16	8.5	3.0	3.9	1.8	.80	.40	.50
2	1.1	1.2	18	6.9	12	7.2	2.7	3.5	1.7	.80	.50	.50
3	.80	2.6	12	6.1	10	6.6	2.5	3.4	1.6	.80	.50	.50
4	.80	4.0	8.9	5.4	14	6.0	2.4	3.4	1.5	.80	.50	.50
5	.70	2.7	7.2	5.4	39	5.4	2.4	3.1	1.4	.80	.50	.50
6	.60	2.2	6.1	6.1	30	5.0	2.7	2.7	1.4	.70	.50	.50
7	.60	2.1	6.0	6.0	17	4.8	2.7	2.7	1.4	.70	.50	.50
8	.80	1.9	6.4	5.8	14	4.3	2.5	2.6	1.2	.70	.40	.50
9	1.0	1.9	5.7	5.5	12	4.1	2.6	2.6	1.3	.80	.40	.40
10	.90	1.9	5.7	5.3	10	4.0	2.6	2.5	1.4	1.0	.40	.40
11	.80	1.8	5.2	5.3	9.1	3.8	2.4	2.4	2.2	1.0	.50	.50
12	.80	1.6	5.0	5.0	8.5	3.6	2.3	2.3	1.7	.90	.90	.60
13	.80	1.8	4.6	5.0	8.4	3.5	2.7	2.2	1.7	.80	.70	.50
14	1.0	1.8	4.9	5.4	8.0	3.3	2.6	2.2	1.4	.70	.60	.50
15	.80	1.6	4.8	8.0	7.4	3.2	2.3	3.3	1.4	.70	.50	.60
16	.80	1.6	4.3	10	6.9	3.1	2.3	4.5	1.3	.70	.50	.50
17	.80	1.5	3.8	10	6.6	3.2	2.2	3.1	1.1	.80	.40	.40
18	.80	1.5	3.8	9.5	6.4	3.1	2.3	2.7	1.1	.70	.40	.40
19	.70	1.5	4.1	10	6.3	2.9	6.1	2.8	1.1	.70	.50	.40
20	.70	1.5	4.1	14	6.1	2.8	13	2.7	1.0	.70	.80	.50
21	.70	1.5	4.2	17	5.8	2.6	12	2.6	1.1	.80	.60	.40
22	.70	2.1	8.2	15	5.5	2.6	8.9	2.5	1.0	.70	.50	.50
23	.70	5.8	8.2	13	5.2	2.5	7.2	2.5	1.0	.70	.60	.40
24	.70	27	8.0	16	4.9	2.6	6.3	2.4	1.0	.60	.70	.40
25	.70	17	6.9	14	4.6	2.4	5.3	2.3	1.0	.60	.60	.40
26	.80	14	12	14	6.3	2.5	4.6	2.3	1.0	.60	.60	.50
27	.80	11	16	25	11	2.4	4.2	2.1	1.0	.60	.50	.50
28	.70	8.5	12	25	10	2.8	3.8	2.0	1.0	.60	.50	.40
29	.70	19	9.3	26	------	4.1	3.4	2.0	.90	.50	.50	.40
30	.60	72	7.8	34	------	3.0	3.4	2.0	.90	.50	.50	.40
31	.70	------	6.3	26	------	2.7	------	2.0	------	.50	.50	------
TOTAL	24.40	215.8	263.5	366.3	301.0	118.6	123.4	83.3	38.60	22.30	16.50	14.00
MEAN	.79	7.19	8.50	11.8	10.8	3.83	4.11	2.69	1.29	.72	.53	.47
MAX	1.3	72	44	34	39	8.5	13	4.5	2.2	1.0	.90	.60
MIN	.60	1.2	3.8	5.0	4.6	2.4	2.2	2.0	.90	.50	.40	.40
CFSM	.52	4.76	5.63	7.83	7.12	2.53	2.72	1.78	.85	.48	.35	.31
IN.	.60	5.31	6.49	9.02	7.41	2.92	3.04	2.05	.95	.55	.41	.34
AC-FT	48	428	523	727	597	235	245	165	77	44	33	28

CAL YR 1964: TOTAL 1,763.00 MEAN 4.82 MAX 72 MIN .60 CFSM 3.19 IN 43.42 AC-FT 3,500
WAT YR 1965: TOTAL 1,587.70 MEAN 4.35 MAX 72 MIN .40 CFSM 2.88 IN 39.10 AC-FT 3,150

12-0685. Dewatto River near Dewatto, Wash.
(Formerly published as Dewatto Creek near Dewatto)

Location.--Lat 47°28'10", long 123°01'30", in NE¼SW¼ sec.23, T.23 N., R.3 W., on right bank at county road bridge, 1½ miles upstream from mouth and 2 miles northeast of Dewatto.

Drainage area.--18.4 sq mi (revised).

Records available.--July 1947 to October 1954. Annual maximums, water years 1955-57. May 1958 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 55 ft (from topographic map). July 1, 1947, to Oct. 14, 1954, water-stage recorder; August 1955 to May 1958 crest-stage gage only; May 22, 1958, to Jan. 15, 1961, water-stage recorder; all at sites 500 ft upstream at different datums. Gage washed out Jan. 15, 1961, reestablished Mar. 24, 1961, at present site and datum.

Average discharge.--14 years, 67.9 cfs (49,160 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (450 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 24, 1960	2100	498	4.38	Dec. 1, 1961	0700	* 630	3.35	Jan. 1, 1964	1800	* 498	2.85
Jan. 15, 1961	-	* 2,160	5.88	Dec. 21, 1961	0330	476	2.93				
Feb. 2, 1961	-	-	-					Nov. 30, 1964	1330	* 672	3.38
Feb. 21, 1961	-	-	-	Nov. 25, 1962	2200	* 936	3.99	Feb. 5, 1965	1730	490	2.97
Mar. 14, 1961	-	-	-	Jan. 1, 1963	2030	537	3.02				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept. 13, 14, 1961	13	0.25	1964	(b)	c 11	-
1962	Sept. 26, 27, 1962	9.0	.19	1965	Sept. 8, 9, 1965	c 10	-
1963	Sept. 28, 1963	11	a .22				

a Occurred Aug. 30, Sept. 4, 5, 6, 1963.
b Oct. 8-12, 26-28, 1963, Sept. 8-12, 26-28, 1964.
c Minimum daily.

1947-65: Maximum discharge, 2,160 cfs Jan. 15, 1961 (gage height, 5.88 ft, from floodmarks, present site and datum), result of slope-area measurement.
1947-54, 1958-65: Minimum discharge, 9.0 cfs Sept. 26-27, 1962.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1716: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	31	69	38	400	350	77	61	33	22	17	20
2	15	26	61	36	450	250	75	55	32	21	16	17
3	15	23	57	34	350	200	71	50	31	21	16	16
4	15	21	51	40	250	160	69	55	31	21	16	15
5	16	20	46	70	220	150	66	65	30	25	16	15
6	19	20	41	100	350	130	65	60	32	25	16	15
7	27	19	39	120	250	120	66	60	31	22	16	17
8	20	19	37	140	250	130	63	70	30	22	15	14
9	17	19	35	200	300	140	60	75	29	21	16	14
10	16	28	34	260	300	200	58	80	28	20	16	14
11	16	33	57	240	250	350	57	80	29	20	15	14
12	17	26	252	160	250	450	58	75	28	19	15	13
13	16	28	216	140	350	400	56	70	28	19	15	13
14	16	36	250	190	330	500	53	65	26	19	15	13
15	16	38	94	1,600	300	400	52	60	26	19	17	13
16	16	68	76	500	320	250	52	55	26	19	18	14
17	16	160	76	250	300	200	52	55	25	19	18	14
18	16	170	207	150	210	160	51	50	25	19	17	14
19	16	140	269	120	210	150	48	50	24	19	15	14
20	16	300	150	100	350	130	49	45	24	19	15	14
21	16	245	106	90	500	120	59	40	24	18	15	15
22	21	178	83	80	400	130	57	45	23	18	15	15
23	34	192	70	70	250	110	53	47	22	19	14	14
24	37	385	61	65	300	123	51	44	22	19	14	14
25	25	426	54	60	250	111	51	39	22	19	14	14
26	33	250	57	55	230	112	50	39	22	17	14	13
27	43	153	51	50	220	102	49	43	22	17	15	14
28	47	110	46	50	210	93	50	49	22	18	14	14
29	29	87	43	90	------	88	61	41	22	19	14	14
30	26	74	41	300	------	85	61	36	22	18	14	15
31	29	------	40	350	------	80	------	36	------	17	18	------
TOTAL	676	3,325	2,769	5,748	8,350	5,974	1,740	1,695	791	610	481	435
MEAN	21.8	111	89.3	185	298	193	58.0	54.7	26.4	19.7	15.5	14.5
MAX	47	426	269	1,600	500	500	77	80	33	25	18	20
MIN	15	19	34	34	210	80	48	36	22	17	14	13
CFSM	1.19	6.02	4.85	10.1	16.2	10.5	3.15	2.97	1.43	1.07	.84	.79
IN.	1.37	6.72	5.60	11.6	16.9	12.1	3.52	3.43	1.60	1.23	.97	.88
AC-FT	1,340	6,600	5,490	11,400	16,560	11,850	3,450	3,360	1,570	1,210	954	863

CAL YR 1960: TOTAL 25,542 MEAN 69.8 MAX 827 MIN 15 CFSM 3.79 IN 51.63 AC-FT 50,660
WAT YR 1961: TOTAL 32,594 MEAN 89.3 MAX 1,600 MIN 13 CFSM 4.85 IN 65.88 AC-FT 64,650

Note.--No gage-height record Jan. 4 to Mar. 23. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0685. Dewatto River near Dewatto, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	19	509	83	33	35	52	48	24	18	13	12
2	15	20	236	110	33	34	50	42	26	18	13	13
3	15	21	144	253	32	32	46	62	29	17	15	13
4	15	20	155	207	32	52	45	60	27	17	15	13
5	15	19	155	145	31	97	43	50	28	18	17	13
6	16	17	119	124	35	119	44	44	25	18	22	13
7	16	17	97	110	58	106	41	40	24	18	22	13
8	17	17	83	94	68	92	39	39	22	16	22	13
9	18	30	71	83	80	78	37	45	22	16	20	13
10	20	88	62	76	76	69	36	45	22	17	17	16
11	22	74	57	69	64	66	35	39	22	16	15	16
12	35	58	52	64	58	61	34	35	21	16	14	15
13	30	51	51	60	62	54	33	35	21	16	14	22
14	24	42	52	60	72	50	32	35	21	17	13	21
15	19	35	49	58	70	46	32	33	20	17	13	17
16	18	32	52	54	65	46	31	32	27	16	13	15
17	18	28	99	54	60	42	30	31	27	16	13	15
18	17	28	107	50	54	40	29	30	21	15	14	14
19	16	28	142	46	50	40	29	29	19	15	13	14
20	16	26	272	43	46	39	29	29	19	15	13	13
21	15	32	384	42	42	40	29	29	18	15	13	13
22	19	63	305	42	40	61	28	28	18	15	13	13
23	39	56	340	41	39	77	28	28	18	15	13	11
24	24	52	227	39	37	224	30	32	18	15	13	10
25	22	45	163	39	35	215	29	30	17	15	12	9.5
26	41	42	126	40	33	135	30	29	19	13	13	9.0
27	57	63	103	46	32	101	76	28	21	13	13	11
28	34	130	114	40	34	82	65	27	19	13	13	52
29	24	201	119	37	------	70	46	26	18	13	13	46
30	21	206	112	35	------	63	39	26	18	13	13	27
31	20	------	94	34	------	56	------	26	------	13	13	------
TOTAL	693	1,560	4,651	2,278	1,371	2,322	1,147	1,112	651	485	453	495.5
MEAN	22.4	52.0	150	73.5	49.0	74.9	38.2	35.9	21.7	15.6	14.6	16.5
MAX	57	206	509	253	80	224	76	62	29	18	22	52
MIN	15	17	49	34	31	32	28	26	17	13	12	9.0
CFSM	1.21	2.83	8.15	3.99	2.66	4.07	2.08	1.95	1.18	.85	.79	.90
IN.	1.40	3.15	9.40	4.60	2.77	4.69	2.32	2.25	1.32	.98	.92	1.00
AC-FT	1,370	3,090	9,230	4,520	2,720	4,610	2,280	2,210	1,290	962	899	983

CAL YR 1961: TOTAL 32,728 MEAN 89.7 MAX 1,600 MIN 13 CFSM 4.87 IN 66.15 AC-FT 64,920
WAT YR 1962: TOTAL 17,218.5 MEAN 47.2 MAX 509 MIN 9.0 CFSM 2.56 IN 34.80 AC-FT 34,150

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	20	172	385	44	56	169	55	29	24	18	15
2	15	20	204	432	74	54	125	80	33	22	18	15
3	15	19	185	333	276	50	111	64	35	21	17	15
4	15	43	158	200	278	48	105	59	32	21	16	13
5	14	54	157	147	338	46	100	95	35	21	16	13
6	16	50	158	120	212	46	119	90	33	21	17	13
7	29	45	134	102	162	44	131	77	31	22	16	13
8	48	52	115	90	126	42	165	68	31	23	15	14
9	110	58	101	80	102	43	193	61	30	21	15	15
10	88	116	91	75	91	41	144	57	28	22	15	15
11	74	177	82	68	80	40	115	54	27	21	15	17
12	106	170	79	64	67	39	98	51	27	20	15	15
13	158	158	82	61	67	38	88	49	26	20	15	16
14	117	135	147	58	62	39	82	46	25	21	16	15
15	79	130	185	59	57	39	80	44	24	21	15	17
16	61	116	157	54	56	54	72	41	24	20	15	22
17	50	103	124	52	55	46	70	40	23	20	15	23
18	42	89	105	49	61	41	68	37	23	19	15	18
19	38	195	101	46	77	53	70	35	22	19	15	16
20	34	330	90	46	70	57	64	34	25	19	15	15
21	32	196	81	44	64	51	60	32	26	23	15	14
22	32	132	74	44	60	46	57	32	25	30	19	17
23	28	105	70	42	56	46	54	32	24	22	18	20
24	26	109	67	41	54	45	54	32	24	21	18	18
25	25	467	64	41	59	51	53	31	24	20	16	15
26	27	590	61	40	71	56	50	31	23	20	15	13
27	26	312	60	39	63	69	49	30	24	19	14	12
28	24	196	65	39	60	111	46	30	25	18	14	12
29	22	164	114	37	------	183	47	29	24	18	14	13
30	21	178	318	38	------	274	49	29	24	18	14	13
31	20	------	276	42	------	247	------	29	------	18	14	------
TOTAL	1,410	4,529	3,877	2,968	2,842	2,095	2,688	1,474	806	645	485	462
MEAN	45.5	151	125	95.7	102	67.6	89.6	47.5	26.9	20.8	15.6	15.4
MAX	158	590	318	432	338	274	193	95	35	30	19	23
MIN	14	19	60	37	44	38	46	29	22	18	14	12
CFSM	2.47	8.20	6.80	5.20	5.52	3.67	4.87	2.58	1.46	1.13	.85	.84
IN.	2.85	9.15	7.84	6.00	5.74	4.23	5.43	2.98	1.63	1.30	.98	.93
AC-FT	2,800	8,980	7,690	5,890	5,640	4,160	5,330	2,920	1,600	1,280	962	916

CAL YR 1962: TOTAL 20,130.5 MEAN 55.2 MAX 590 MIN 9.0 CFSM 3.00 IN 40.69 AC-FT 39,930
WAT YR 1963: TOTAL 24,281 MEAN 66.5 MAX 590 MIN 12 CFSM 3.62 IN 49.08 AC-FT 48,160

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0685. Dewatto River near Dewatto, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	86	82	381	241	106	50	33	22	19	15	13
2	14	126	76	310	196	88	49	31	22	18	17	12
3	13	104	70	198	145	76	47	31	22	17	18	12
4	14	108	66	172	125	78	46	31	31	17	17	12
5	15	86	65	157	109	73	46	32	27	17	16	12
6	16	98	69	157	98	67	44	34	25	17	15	12
7	13	144	62	132	91	63	43	31	35	16	14	12
8	11	194	74	119	84	66	42	29	32	16	14	11
9	11	145	77	140	79	68	42	28	27	15	14	11
10	11	160	68	136	77	68	41	28	24	15	14	11
11	11	130	65	116	71	230	41	27	24	15	13	11
12	11	144	60	102	70	236	40	28	24	15	13	11
13	20	228	59	126	68	150	39	27	23	15	14	12
14	18	363	56	140	68	150	38	27	22	20	14	13
15	16	276	56	150	82	142	38	26	22	30	14	13
16	14	200	60	325	72	116	37	26	31	27	13	13
17	14	147	65	336	68	102	37	26	33	21	14	14
18	12	116	65	358	65	90	35	26	49	19	14	13
19	12	164	98	283	61	81	35	24	35	18	14	13
20	26	176	298	278	59	80	35	27	28	18	13	13
21	96	134	237	237	58	84	35	26	27	20	13	12
22	128	153	216	198	56	78	35	25	24	18	13	12
23	84	286	331	165	54	73	34	24	23	17	12	12
24	225	254	263	206	54	70	34	24	22	16	12	13
25	195	171	228	349	51	64	33	24	21	16	12	12
26	116	169	181	241	51	61	33	24	19	16	13	11
27	81	160	165	198	50	58	32	23	19	15	14	11
28	102	130	164	183	50	56	32	23	19	15	14	11
29	102	106	137	234	62	54	31	23	19	15	14	14
30	85	92	118	214	------	53	32	22	19	15	13	44
31	70	------	136	239	------	52	------	22	------	15	13	------
TOTAL	1,570	4,850	3,767	6,580	2,415	2,833	1,156	832	770	543	433	396
MEAN	50.6	162	122	212	83.3	91.4	38.5	26.8	25.7	17.5	14.0	13.2
MAX	225	363	331	381	241	236	50	34	49	30	18	44
MIN	11	86	56	102	50	52	31	22	19	15	12	11
CFSM	2.75	8.79	6.60	11.5	4.53	4.97	2.09	1.46	1.39	.95	.76	.72
IN.	3.17	9.80	7.61	13.3	4.88	5.73	2.34	1.68	1.56	1.10	.88	.80
AC-FT	3,110	9,620	7,470	13,050	4,790	5,620	2,290	1,650	1,530	1,080	859	785

CAL YR 1963: TOTAL 24,638 MEAN 67.5 MAX 432 MIN 11 CFSM 3.67 IN 49.80 AC-FT 48,870
WAT YR 1964: TOTAL 26,145 MEAN 71.4 MAX 381 MIN 11 CFSM 3.88 IN 52.84 AC-FT 51,860

Note.--No gage-height record June 29 to Aug. 3, Aug. 19 to Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	22	479	80	186	94	40	41	24	17	12	12
2	15	21	231	90	136	79	37	37	23	17	12	13
3	13	46	131	80	115	70	38	37	23	17	16	13
4	12	58	91	70	175	63	33	39	22	17	16	12
5	11	29	71	77	424	60	32	35	22	17	16	12
6	11	23	61	90	335	56	34	32	23	17	15	11
7	11	21	57	82	189	53	34	31	21	16	14	11
8	13	19	72	76	163	50	32	30	21	17	13	10
9	17	18	62	70	137	49	31	30	21	17	12	10
10	15	20	60	65	114	46	30	29	21	20	11	11
11	13	19	53	62	97	44	30	28	27	28	15	12
12	12	17	50	59	90	42	29	29	25	20	17	13
13	12	22	46	56	87	40	31	28	22	18	17	11
14	14	19	46	57	86	40	32	27	23	17	15	11
15	13	16	45	66	79	38	30	37	22	17	13	13
16	12	16	39	76	80	38	30	55	22	17	12	12
17	12	16	36	76	77	36	29	37	22	16	11	11
18	12	16	34	71	73	34	29	33	21	16	11	11
19	12	16	37	70	70	34	66	32	20	16	14	11
20	12	16	40	72	65	33	128	31	20	16	19	11
21	12	14	52	102	61	32	107	29	20	17	15	12
22	12	19	116	108	59	32	83	29	20	17	13	13
23	12	56	136	116	56	31	67	29	19	16	13	12
24	12	181	113	183	53	30	58	29	19	15	18	12
25	11	188	93	136	50	30	52	27	19	14	15	12
26	11	112	150	134	71	30	46	26	19	14	15	13
27	11	88	172	325	154	29	43	26	18	15	14	13
28	11	67	124	301	122	34	40	25	18	14	14	12
29	11	110	97	287	------	57	37	25	18	14	13	11
30	12	575	86	350	------	43	38	25	17	13	13	11
31	14	------	72	325	------	38	------	25	------	12	12	------
TOTAL	393	1,860	2,952	3,812	3,404	1,385	1,346	973	632	514	436	352
MEAN	12.7	62.0	95.2	123	122	44.7	44.9	31.4	21.1	16.6	14.1	11.7
MAX	22	575	479	350	424	94	128	55	27	28	19	13
MIN	11	14	34	56	50	29	29	25	17	12	11	10
CFSM	.69	3.37	5.18	6.68	6.61	2.43	2.44	1.71	1.14	.90	.76	.64
IN.	.79	3.76	5.97	7.70	6.88	2.80	2.72	1.97	1.28	1.04	.88	.71
AC-FT	780	3,690	5,860	7,560	6,750	2,750	2,670	1,930	1,250	1,020	865	698

CAL YR 1964: TOTAL 21,163 MEAN 57.8 MAX 575 MIN 11 CFSM 3.14 IN 42.77 AC-FT 41,980
WAT YR 1965: TOTAL 18,059 MEAN 49.5 MAX 575 MIN 10 CFSM 2.69 IN 36.50 AC-FT 35,820

Note.--No gage-height record Aug. 25 to Sept. 30.

12-0700. Dogfish Creek near Poulsbo, Wash.

Location.--Lat 47°45'10", long 122°38'30", in SE¼SW¼ sec.11, T.26 N., R.1 E., on left bank half a mile upstream from mouth and 1 mile north of Poulsbo.

Drainage area.--5.01 sq mi (revised).

Records available.--July 1947 to September 1965.

Gage.--Digital water-stage recorder. Concrete control since Aug. 11, 1964. Altitude of gage is 20 ft (from topographic map). Prior to Nov. 2, 1950, graphic water-stage recorder at site 100 ft downstream at datum 1.75 ft lower. Nov. 2, 1950, to Aug. 11, 1964, graphic water-stage recorder at site 100 ft upstream at present datum. Aug. 12, 1964, to Aug. 16, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--18 years, 8.72 cfs (6,310 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (80 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 30, 1961	1030	80	3.11	Nov. 25, 1962	1430	* 133	4.52	Jan. 17, 1964	0630	86	3.25
Feb. 24, 1961	1400	* 86	3.26	Feb. 4, 1963	1630	88	3.40	Jan. 19, 1964	1630	84	3.19
Mar. 12, 1961	1300	80	3.11					Mar. 11, 1964	0700	87	3.28
				Oct. 21, 1963	1800	* 98	3.54				
Dec. 20, 1961	1700	* 72	3.07	Dec. 20, 1963	0030	83	3.18	Feb. 5, 1965	1600	* 78	2.68
								Apr. 19, 1965	1930	78	2.68

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 2,13,22,23,28	2.2	a 0.96	1964	Aug. 24, 1964	2.2	0.78
1962	July 23, 24, 28	2.0	b 1.05	1965	July 6, Aug. 17	1.5	.77
1963	June 15, 1963	2.3	1.05				

a Occurred June 28, Aug. 2, 1961.
b Occurred Oct. 1-5, 1961.

1947-65: Maximum discharge, 333 cfs Feb. 22, 1949 (gage height, 8.07 ft, present datum, from high watermark on gage house), from rating curve extended above 50 cfs on basis of contracted-opening measurement of peak flow; minimum, 0.7 cfs Aug. 6, 1959.

Remarks.--Records good. Small diversions for irrigation. Slight regulation at times from unknown sources.

Revisions (water years).--WSP 1122: 1947(M). WSP 1346: 1948-50(P), 1953(M). WSP 1396: 1950(P). WSP 1636: 1951-54, 1955(M), 1956-57, 1958(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.5	5.6	9.0	7.2	30	16	9.8	13	7.1	5.0	3.2	3.9
2	4.9	5.3	7.7	7.0	30	14	9.8	11	11	5.0	2.9	3.4
3	4.9	5.1	7.9	6.8	19	12	11	9.5	7.1	5.0	2.9	3.4
4	4.7	4.9	7.7	7.4	16	11	9.5	18	7.1	5.0	3.4	3.2
5	4.7	5.1	7.2	14	15	21	9.2	16	6.9	8.2	3.8	3.9
6	8.3	5.1	7.0	14	31	20	8.7	11	6.9	6.9	3.4	3.9
7	9.4	5.1	6.8	14	18	14	8.4	9.5	6.9	5.9	3.2	3.6
8	6.4	5.1	6.8	30	19	16	8.7	11	6.9	5.4	3.2	3.6
9	5.7	5.1	6.8	32	27	16	8.4	13	6.9	5.0	3.0	3.8
10	5.3	7.7	6.8	38	20	18	8.2	13	6.9	5.0	3.0	3.8
11	5.3	6.8	19	30	35	28	7.9	11	7.1	4.5	2.7	3.8
12	5.6	5.7	27	21	30	44	8.4	9.2	6.6	4.3	3.2	3.6
13	5.3	7.0	14	24	45	34	8.7	8.9	6.6	4.1	2.9	3.4
14	5.1	7.0	11	25	35	66	8.2	8.4	6.1	4.1	2.7	3.4
15	5.1	6.6	8.3	54	44	40	8.2	7.9	5.9	4.1	2.9	3.6
16	5.1	8.1	7.4	29	29	24	8.4	7.6	5.4	4.5	3.2	3.9
17	5.1	14	8.5	26	26	19	8.3	7.4	5.4	4.5	3.2	3.9
18	5.1	8.3	40	18	20	16	9.2	7.1	5.4	4.1	2.9	3.9
19	5.3	17	20	15	18	16	12	6.6	5.4	3.9	2.7	3.9
20	5.3	45	13	13	16	16	11	6.6	5.9	3.9	2.7	3.9
21	5.6	14	11	12	16	13	14	6.9	5.7	4.1	2.7	3.9
22	5.7	13	9.2	12	14	14	11	6.9	5.4	4.1	2.7	3.8
23	8.8	19	8.8	11	12	15	10	10	5.2	4.1	2.5	3.8
24	7.9	48	8.5	11	58	12	9.5	7.6	5.0	4.3	2.7	3.9
25	6.2	35	8.3	10	31	12	9.2	7.1	5.2	3.9	2.9	3.9
26	6.6	14	11	9.7	20	14	8.9	9.6	5.7	3.8	3.0	3.9
27	6.0	10	8.5	9.2	18	12	8.2	13	5.7	3.9	3.0	3.9
28	6.6	8.8	8.1	9.0	16	11	8.7	8.9	5.4	3.9	2.9	3.6
29	5.6	8.1	7.7	15	------	11	11	7.9	5.4	4.8	2.7	3.6
30	6.0	8.1	7.4	42	------	10	9.5	7.6	5.2	3.4	3.0	3.6
31	5.7	------	7.4	25	------	10	------	7.4	------	3.9	3.9	------
TOTAL	181.8	357.6	337.8	591.3	708	595	282.0	298.6	187.4	142.6	93.1	111.7
MEAN	5.86	11.9	10.9	19.1	25.3	19.2	9.40	9.63	6.25	4.60	3.00	3.72
MAX	9.4	48	40	54	58	66	14	18	11	8.2	3.9	3.9
MIN	4.5	4.9	6.8	6.8	12	10	7.9	6.6	5.0	3.4	2.5	3.2
CFSM	1.17	2.38	2.18	3.81	5.05	3.83	1.88	1.92	1.25	.92	.60	.74
IN.	1.35	2.65	2.51	4.39	5.26	4.42	2.09	2.22	1.39	1.06	.69	.83
AC-FT	361	709	670	1,170	1,400	1,180	559	592	372	283	185	222

CAL YR 1960: TOTAL 3,350.2 MEAN 9.15 MAX 121 MIN 3.0 CFSM 1.83 IN 24.87 AC-FT 6,650
WAT YR 1961: TOTAL 3,886.9 MEAN 10.6 MAX 66 MIN 2.5 CFSM 2.13 IN 28.85 AC-FT 7,710

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0700. Dogfish Creek near Poulsbo, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.4	4.5	16	7.7	6.1	7.0	6.1	5.4	4.8	3.7	2.6	3.2
2	3.4	4.3	12	8.6	5.9	7.0	6.1	5.2	5.9	3.7	2.6	3.4
3	3.4	4.5	11	13	5.9	6.7	5.9	7.2	6.1	3.4	3.4	3.2
4	3.4	4.1	12	9.2	5.9	16	6.1	6.1	5.4	4.1	3.4	3.2
5	3.6	4.1	11	8.4	5.6	24	6.1	5.4	5.4	4.1	3.2	3.2
6	4.1	4.1	11	12	7.6	17	5.9	5.4	5.0	3.9	3.2	3.2
7	4.1	4.1	11	9.4	11	13	5.6	5.2	4.5	3.4	3.4	3.4
8	4.1	4.1	10	8.6	11	12	5.6	5.6	4.8	3.0	3.7	3.2
9	4.5	6.5	9.8	8.4	11	11	5.4	6.1	5.0	3.0	3.0	3.2
10	4.8	19	9.5	7.7	11	9.2	5.2	5.4	5.0	3.2	2.8	4.5
11	4.5	9.8	9.5	7.4	8.9	8.6	5.2	5.2	4.8	3.0	2.8	4.5
12	7.1	6.9	9.2	7.4	8.4	7.9	5.2	5.0	4.5	3.2	2.8	4.1
13	5.0	6.4	11	7.2	10	7.7	5.4	5.0	5.0	3.2	3.0	5.4
14	4.5	6.1	12	7.4	11	7.4	5.2	4.8	4.5	3.2	2.8	4.8
15	4.5	5.9	11	7.2	9.7	7.2	5.4	4.8	4.5	3.2	2.6	4.3
16	5.9	5.7	16	7.0	8.9	7.4	5.2	4.5	4.3	3.2	2.8	4.1
17	5.4	5.4	39	8.6	8.2	7.2	5.0	4.5	4.5	3.0	3.0	3.7
18	4.8	6.1	18	7.4	7.7	6.7	4.8	4.5	4.5	3.0	3.2	3.4
19	5.2	5.9	19	6.5	7.2	7.0	4.5	4.5	4.3	3.0	3.2	3.7
20	5.2	5.7	36	5.9	7.0	7.4	4.5	4.5	4.1	2.6	3.4	4.3
21	4.8	8.7	23	5.6	6.7	8.9	4.5	4.5	4.1	2.5	3.9	3.9
22	5.0	12	16	5.9	7.2	11	4.5	4.5	3.9	2.5	3.7	3.9
23	5.9	7.1	13	5.9	7.0	9.4	4.5	6.3	3.9	2.5	3.4	3.9
24	5.4	6.4	13	6.3	6.7	26	5.0	7.4	3.7	2.3	3.2	3.9
25	6.4	5.9	11	6.7	6.5	14	5.0	6.5	3.4	2.5	3.2	3.7
26	11	6.4	9.4	7.0	6.3	11	5.2	5.9	3.7	2.5	3.4	3.7
27	9.4	14	8.9	7.0	6.1	8.6	20	5.2	3.4	2.5	3.4	3.9
28	5.2	20	11	6.5	6.5	8.1	7.4	5.2	3.4	2.5	3.7	7.4
29	4.8	13	9.2	6.3	------	7.2	6.1	6.3	3.2	2.5	3.4	5.9
30	4.5	22	8.4	6.1	------	6.5	5.4	6.3	3.4	2.5	3.2	5.2
31	4.3	------	7.9	6.1	------	6.3	------	5.2	------	2.6	3.0	------
TOTAL	157.6	238.7	424.8	234.4	221.0	314.4	176.0	167.6	133.0	93.5	98.4	121.4
MEAN	5.08	7.96	13.7	7.56	7.89	10.1	5.87	5.41	4.43	3.02	3.17	4.05
MAX	11	22	39	13	11	26	20	7.4	6.1	4.1	3.9	7.4
MIN	3.4	4.1	7.9	5.6	5.6	6.3	4.5	4.5	3.2	2.3	2.6	3.2
CFSM	1.01	1.59	2.74	1.51	1.58	2.02	1.17	1.08	.88	.60	.63	.81
IN.	1.17	1.77	3.15	1.74	1.64	2.33	1.31	1.24	.99	.69	.73	.90
AC-FT	313	473	843	465	438	624	349	332	264	185	195	241

CAL YR 1961: TOTAL 3,830.8 MEAN 10.5 MAX 66 MIN 2.5 CFSM 2.09 IN 28.44 AC-FT 7,600
WAT YR 1962: TOTAL 2,380.8 MEAN 6.52 MAX 39 MIN 2.3 CFSM 1.30 IN 17.67 AC-FT 4,720

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.3	4.3	20	21	6.7	7.4	24	7.1	4.1	3.9	4.3	4.3
2	4.3	4.3	18	23	20	8.2	16	8.9	5.2	3.9	3.9	4.8
3	4.3	4.5	12	20	29	6.5	14	6.3	4.8	3.7	3.7	4.3
4	4.1	8.0	11	12	59	5.9	13	6.5	5.0	3.7	3.7	4.1
5	4.1	7.0	9.2	9.4	45	5.6	13	22	5.4	3.4	3.9	4.1
6	4.8	5.6	8.2	8.4	35	5.6	16	13	5.0	3.9	4.3	3.9
7	8.3	5.6	7.4	7.7	24	5.4	17	8.4	4.8	3.7	3.9	3.7
8	8.0	6.7	7.0	7.4	17	5.4	20	7.2	5.0	4.8	3.7	3.9
9	15	6.5	6.7	7.4	13	5.4	15	6.5	4.8	4.3	3.7	3.9
10	7.0	9.2	6.1	6.3	11	5.4	11	5.9	4.2	4.5	3.9	4.1
11	8.4	12	5.9	5.2	8.9	5.4	9.2	5.4	3.7	4.3	4.5	4.3
12	11	13	6.1	5.0	8.2	5.4	9.2	5.2	3.9	3.9	4.8	4.1
13	14	14	8.4	5.6	8.4	5.4	8.6	5.0	3.7	3.7	4.8	4.3
14	6.7	9.4	15	6.3	7.9	6.1	11	5.0	3.0	4.8	4.3	5.0
15	5.9	11	29	7.0	7.9	6.3	12	4.5	2.8	5.0	4.1	4.3
16	5.6	8.2	13	7.2	7.9	9.4	11	4.5	3.0	4.1	3.7	4.1
17	5.4	7.9	10	7.2	7.4	7.2	9.2	4.5	3.2	3.7	3.7	3.9
18	5.2	7.0	8.4	6.7	7.4	6.3	8.9	4.3	3.4	3.7	3.9	3.7
19	5.0	7.7	8.4	6.3	9.7	6.1	8.4	3.9	3.4	3.7	4.3	3.7
20	5.0	7.7	7.2	6.1	8.6	6.1	7.7	3.9	3.4	3.4	5.0	3.7
21	4.5	7.7	7.7	6.1	7.2	6.1	7.4	3.7	4.5	3.7	4.8	3.7
22	4.5	6.5	7.2	6.1	7.0	6.1	7.0	3.7	4.5	4.5	4.5	3.9
23	4.3	6.3	6.7	6.1	6.7	5.9	6.7	3.7	4.1	3.9	5.0	4.3
24	4.3	11	6.3	6.1	6.7	6.1	6.5	3.7	4.1	3.9	5.2	4.3
25	4.3	76	6.1	6.1	7.9	7.0	6.3	3.7	4.3	3.9	4.3	4.1
26	5.2	35	5.6	5.6	7.4	7.0	6.3	3.9	5.0	3.7	4.5	3.9
27	4.8	17	5.6	5.4	6.5	16	6.5	3.7	5.2	3.7	4.3	3.7
28	4.5	11	6.1	4.3	6.5	38	5.9	3.4	4.8	3.7	4.1	3.7
29	4.3	15	9.8	4.8	------	58	5.9	3.4	4.5	3.7	3.9	4.1
30	4.3	28	16	4.5	------	45	5.9	3.7	4.1	3.7	4.1	3.9
31	4.3	------	11	5.4	------	26	------	3.4	------	4.3	4.3	------
TOTAL	185.7	373.1	305.1	245.7	397.9	345.7	318.6	178.0	126.9	122.8	131.1	121.8
MEAN	5.99	12.4	9.84	7.93	14.2	11.2	10.6	5.74	4.23	3.96	4.23	4.06
MAX	15	76	29	23	59	58	24	22	5.4	5.0	5.2	5.0
MIN	4.1	4.3	5.6	4.3	6.5	5.4	5.9	3.4	2.8	3.4	3.7	3.7
CFSM	1.20	2.48	1.96	1.58	2.84	2.23	2.12	1.15	.84	.79	.84	.81
IN.	1.38	2.77	2.26	1.82	2.95	2.57	2.37	1.32	.94	.91	.97	.90
AC-FT	368	740	605	487	789	686	632	353	252	244	260	242

CAL YR 1962: TOTAL 2,423.6 MEAN 6.64 MAX 76 MIN 2.3 CFSM 1.33 IN 17.99 AC-FT 4,810
WAT YR 1963: TOTAL 2,852.4 MEAN 7.81 MAX 76 MIN 2.8 CFSM 1.56 IN 21.17 AC-FT 5,660

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0700. Dogfish Creek near Poulsbo, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.8	21	9.2	50	16	13	7.4	5.2	5.2	3.9	4.5	4.1
2	3.8	15	8.9	24	13	9.5	7.1	5.4	5.0	4.1	4.3	3.9
3	3.9	12	8.7	17	12	7.9	6.6	5.2	4.8	4.3	4.1	3.9
4	4.1	13	8.4	14	11	8.7	7.4	5.4	8.7	4.3	4.1	3.8
5	4.3	11	11	13	9.2	8.4	8.2	8.4	6.4	4.3	3.9	3.8
6	4.3	24	15	14	8.7	10	7.1	5.9	5.4	4.1	3.6	3.8
7	4.1	26	10	12	8.4	11	6.6	5.4	5.4	3.9	3.6	3.9
8	4.1	17	14	11	8.2	10	6.4	5.2	7.6	4.1	3.8	4.1
9	3.9	14	14	15	7.9	8.9	6.4	5.4	6.1	3.9	4.1	3.8
10	3.9	16	10	11	7.9	13	6.1	6.1	5.0	3.6	3.8	3.6
11	3.8	12	8.9	10	7.6	65	6.1	5.4	5.9	3.4	3.4	3.4
12	3.8	23	8.4	9.5	7.4	22	6.1	5.2	5.9	3.2	3.8	3.4
13	4.5	36	7.9	22	7.6	14	6.1	5.2	5.7	3.4	4.3	3.6
14	5.0	48	7.9	17	7.9	16	6.1	5.2	5.7	4.5	4.3	3.8
15	4.3	21	8.2	15	11	12	7.1	5.0	5.2	5.0	4.1	3.8
16	4.1	13	10	34	11	11	7.4	4.8	12	4.3	4.1	3.9
17	5.2	11	9.2	52	8.4	13	6.4	4.8	12	4.1	3.4	11
18	7.1	9.8	9.5	28	7.9	11	6.1	4.8	9.8	3.9	8.5	5.2
19	6.6	42	20	46	7.1	9.8	5.9	4.5	6.9	4.1	7.4	4.8
20	9.2	19	45	32	6.9	9.8	5.9	5.4	5.9	4.1	5.7	4.5
21	54	13	18	24	6.4	11	5.9	5.4	5.2	4.3	4.8	4.3
22	25	19	18	20	6.1	11	5.9	5.4	4.8	3.9	4.1	4.3
23	11	52	19	14	6.1	9.2	5.7	5.2	4.5	3.6	3.8	4.3
24	29	21	16	25	6.1	8.7	5.4	5.4	4.5	3.4	3.0	4.1
25	12	15	17	23	5.7	8.7	5.4	5.2	4.3	3.4	3.4	4.1
26	11	16	16	16	5.7	8.7	5.7	4.8	4.3	3.2	3.8	3.9
27	9.8	13	15	16	5.7	9.5	5.4	4.8	4.5	3.2	3.9	3.9
28	19	11	15	13	5.9	8.4	5.4	4.8	4.5	3.2	5.4	3.9
29	15	10	12	23	7.1	7.6	5.7	4.8	4.3	3.4	5.2	4.3
30	12	9.8	10	16	------	7.4	5.7	4.8	4.1	3.6	5.4	6.9
31	10	------	13	21	------	7.4	------	4.5	------	3.6	4.3	------
TOTAL	301.6	583.6	413.2	657.5	239.9	381.6	188.7	163.0	179.6	119.3	135.9	130.1
MEAN	9.73	19.5	13.3	21.2	8.27	12.3	6.29	5.26	5.99	3.85	4.38	4.34
MAX	54	52	45	52	16	65	8.2	8.4	12	5.0	8.5	11
MIN	3.8	9.8	7.9	9.5	5.7	7.4	5.4	4.5	4.1	3.2	3.0	3.4
CFSM	1.94	3.88	2.66	4.23	1.65	2.46	1.26	1.05	1.19	.77	.88	.87
IN.	2.24	4.33	3.07	4.88	1.78	2.83	1.40	1.21	1.33	.89	1.01	.97
AC-FT	598	1,160	820	1,300	476	757	374	323	356	237	270	258

CAL YR 1963: TOTAL 3,286.9 MEAN 9.01 MAX 59 MIN 2.8 CFSM 1.80 IN 24.40 AC-FT 6,520
WAT YR 1964: TOTAL 3,494.0 MEAN 9.55 MAX 65 MIN 3.0 CFSM 1.91 IN 25.94 AC-FT 6,930

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.0	10	18	11	13	9.4	10	5.8	4.1	2.8	2.2	3.6
2	4.5	6.4	13	13	11	9.1	7.8	5.8	3.9	2.6	2.8	3.9
3	4.3	17	11	11	10	8.4	6.6	5.8	3.5	2.4	3.5	3.8
4	4.1	17	7.9	10	15	8.1	6.3	7.0	3.2	2.4	3.3	3.6
5	3.8	5.7	7.1	11	52	7.3	7.3	8.4	3.2	2.4	3.0	3.5
6	3.8	5.4	6.6	13	29	6.8	7.8	6.3	3.2	2.2	2.7	3.3
7	3.8	5.2	6.6	12	17	6.8	7.0	5.8	3.0	2.4	2.6	3.3
8	4.8	5.0	7.6	11	15	6.6	6.8	5.6	3.2	3.3	2.4	3.6
9	5.9	5.0	7.4	10	11	6.6	8.8	5.3	3.3	3.5	2.6	3.8
10	5.2	5.2	7.9	9.5	11	6.3	7.6	4.9	3.5	3.3	2.4	4.1
11	4.8	5.2	7.1	9.0	11	6.0	6.6	4.7	6.0	3.2	2.6	4.5
12	4.5	5.0	6.4	8.5	11	5.8	6.3	5.1	4.5	2.8	3.5	4.6
13	4.5	5.2	6.1	8.0	12	5.8	8.1	5.1	3.9	2.8	3.2	4.6
14	4.3	5.7	7.9	8.5	12	5.8	7.0	4.9	3.9	2.7	2.8	4.8
15	4.3	5.7	7.4	9.5	11	5.8	6.3	6.0	3.9	2.8	2.4	5.5
16	4.5	5.2	5.2	11	10	5.8	6.0	8.1	3.7	2.7	2.6	4.6
17	4.5	5.0	5.0	11	9.4	5.6	5.6	5.6	3.2	2.8	2.4	4.5
18	4.5	4.8	5.2	10	9.4	5.3	5.6	5.1	3.2	2.7	2.4	4.7
19	4.3	4.8	5.9	10	9.4	5.3	31	5.3	3.2	2.7	4.3	4.8
20	4.3	4.8	7.4	11	9.1	5.6	18	5.3	3.2	3.7	6.8	4.8
21	4.3	4.8	10	12	9.4	5.8	12	4.9	3.3	4.5	3.7	5.2
22	4.5	6.9	31	14	10	6.8	9.1	4.9	3.2	3.3	3.3	5.4
23	5.7	14	17	15	9.1	5.8	7.8	5.1	3.2	2.8	4.0	4.4
24	6.4	39	14	17	8.1	5.6	7.8	4.9	3.2	2.6	4.5	4.3
25	5.7	14	12	15	7.6	5.8	7.0	4.7	3.3	2.4	4.1	4.4
26	4.5	12	53	22	17	5.8	6.6	4.7	3.3	2.2	3.6	4.7
27	4.3	10	25	23	20	5.8	6.0	4.5	3.2	2.8	3.7	4.7
28	4.1	8.9	17	19	9.7	5.8	5.8	4.7	3.0	2.8	3.8	4.5
29	4.3	19	14	28	------	7.3	6.0	4.7	3.0	2.4	3.7	4.5
30	5.0	30	12	26	------	6.3	5.6	4.9	2.8	2.2	3.6	4.5
31	5.2	------	10	17	------	6.0	------	4.5	------	2.1	3.4	------
TOTAL	143.7	291.9	371.7	416.0	379.2	199.0	250.2	168.4	104.3	86.3	101.9	130.5
MEAN	4.64	9.73	12.0	13.4	13.5	6.42	8.34	5.43	3.48	2.78	3.29	4.35
MAX	6.4	39	53	28	52	9.4	31	8.4	6.0	4.5	6.8	5.5
MIN	3.8	4.8	5.0	8.0	7.6	5.3	5.6	4.5	2.8	2.1	2.2	3.3
CFSM	.93	1.94	2.39	2.68	2.70	1.28	1.66	1.08	.69	.56	.66	.87
IN.	1.07	2.17	2.76	3.09	2.81	1.48	1.86	1.25	.77	.64	.76	.97
AC-FT	285	579	737	825	752	395	496	334	207	171	202	259

CAL YR 1964: TOTAL 3,002.9 MEAN 8.20 MAX 65 MIN 3.0 CFSM 1.64 IN 22.29 AC-FT 5,960
WAT YR 1965: TOTAL 2,643.1 MEAN 7.24 MAX 53 MIN 2.1 CFSM 1.45 IN 19.62 AC-FT 5,240

12-0720. Chico Creek near Bremerton, Wash.

Location.--Lat 47°35'30", long 122°42'30", in NE¼NW¼ sec.8, T.24 N., R.1 E., on left bank at highway crossing, half a mile downstream from Dickerson Creek and 2½ miles northwest of Bremerton.

Drainage area.--15.3 sq mi.

Records available.--July 1947 to September 1950, March 1961 to September 1965.

Gage.--Water-stage recorder. Concrete control since July 24, 1961. Altitude of gage is 50 ft (from topographic map).

Average discharge.--7 years, 32.6 cfs (23,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (150 cfs), March 1961 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
May 21, 1961	0930	85	1.58	Feb. 4, 1963	2100	210	2.63	Mar. 11, 1964	1000	232	2.81
				Mar. 29, 1963	2300	228	2.79				
Dec. 20, 1961	2130	* 258	2.91					Nov. 24, 1964	1100	158	2.45
Mar. 24, 1962	1100	185	2.62	Nov. 23, 1963	1030	182	2.57	Nov. 30, 1964	0900	* 358	3.38
				Jan. 1, 1964	1230	217	2.74	Jan. 30, 1965	1500	186	2.60
Nov. 25, 1962	1600	* 454	3.82	Jan. 17, 1964	0900	* 267	2.97	Feb. 5, 1965	1630	259	2.93
Jan. 2, 1963	2200	230	2.80	Jan. 25, 1964	0700	186	2.59				

Annual minimum discharge, March 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 1961	0.80	0.96	1964	Sept.16, 1964	0.90	0.97
1962	Sept. 8, 1962	.70	a .97	1965	Aug. 5,7,11,17	.70	.93
1963	Sept. 9, 1963	1.6	1.04				

a Occurred Sept. 5, 6, 1962.

1947-50, 1961-65: Maximum discharge, 1,640 cfs Feb. 22, 1949 (gage height, 5.40 ft), from rating curve extended above 170 cfs; no flow Aug. 31 to Sept. 6, 1947.

Remarks.--Records good except those for Dec. 5, 1962, to Mar. 13, 1963, and Mar. 29 to Apr. 15, 1963, which are poor. Several small diversions for irrigation and domestic use. Flow regulated by 5-foot high dam at Kitsap Lake 1 mile upstream. Records of chemical analyses for the water year 1965 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1182: 1948-49. WSP 1316: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, MARCH TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1						-	45	31	13	2.6	2.4	2.8
2						-	42	33	12	2.5	2.2	1.8
3						-	41	31	11	2.5	2.2	1.6
4						-	38	32	9.8	5.5	2.2	1.6
5						-	36	35	9.1	9.1	2.2	1.6
6						-	34	32	8.8	6.1	2.0	1.5
7						-	32	31	8.1	4.8	1.8	1.4
8						-	32	33	7.5	4.8	1.7	1.2
9						-	32	40	6.9	4.6	2.4	1.2
10						-	30	40	6.3	4.6	2.4	1.2
11						-	30	38	6.9	4.1	1.7	1.0
12						-	31	37	6.6	3.7	1.6	.90
13						-	29	31	6.1	3.3	1.8	.90
14						-	27	28	5.6	3.1	1.6	.90
15						-	27	26	5.3	3.1	1.6	1.0
16						-	27	24	4.6	2.9	1.7	1.2
17						-	26	22	4.1	2.7	1.6	1.2
18						-	25	20	3.9	2.9	2.0	1.0
19						-	24	19	3.8	2.9	1.7	1.2
20						-	26	17	3.7	2.8	1.6	1.2
21						-	32	23	3.6	2.8	1.6	1.3
22						-	31	17	3.5	2.7	1.4	1.2
23						-	28	21	3.4	2.7	1.3	1.2
24						-	27	19	3.3	2.6	1.3	1.2
25						-	25	18	3.2	2.6	1.3	1.2
26						-	24	21	3.1	2.4	1.3	1.2
27						-	22	25	3.0	2.4	1.3	1.2
28						60	22	19	2.9	2.6	1.3	1.5
29					------	57	25	17	2.8	2.8	1.2	1.6
30					------	53	25	15	2.7	2.6	1.3	1.5
31		------			------	49	------	14	------	2.4	2.2	------
TOTAL						-	895	809	174.6	107.2	53.9	39.50
MEAN						-	29.8	26.1	5.82	3.46	1.74	1.32
MAX						-	45	40	13	9.1	2.4	2.8
MIN						-	22	14	2.7	2.4	1.2	.90
CFSM						-	1.95	1.71	.38	.23	.11	.09
IN.						-	2.18	1.97	.42	.26	.13	.10
AC-FT						-	1,780	1,600	346	213	107	78

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0720. Chico Creek near Bremerton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.4	5.5	104	55	15	17	32	24	9.4	4.1	1.3	1.2
2	1.3	5.5	55	62	15	16	30	21	11	3.9	1.2	1.3
3	1.3	6.1	42	113	14	16	28	29	11	3.6	3.6	1.2
4	1.4	5.5	45	96	14	26	26	26	11	3.9	3.0	1.0
5	1.5	5.2	40	80	14	49	24	24	11	3.9	2.4	.90
6	1.7	4.6	34	71	15	55	24	21	10	4.4	3.4	1.0
7	1.6	4.6	29	62	24	53	23	20	10	4.1	3.6	1.2
8	1.5	4.4	25	54	31	53	22	20	9.4	3.9	3.6	.80
9	1.8	6.1	24	49	36	48	21	21	9.0	3.6	3.0	.80
10	2.2	24	21	42	36	42	19	20	9.0	3.6	2.6	1.3
11	2.0	17	20	38	32	40	19	17	8.7	3.6	2.4	1.3
12	7.6	13	17	36	30	34	18	16	8.4	3.4	2.2	1.0
13	5.2	12	18	32	34	32	17	15	8.0	3.4	2.2	1.7
14	4.1	10	18	32	40	30	17	14	7.6	3.4	2.0	1.7
15	3.6	9.0	19	29	38	27	15	14	7.3	3.4	1.8	1.4
16	3.6	8.7	22	28	34	26	14	13	7.0	3.4	1.7	1.3
17	3.4	8.4	76	27	32	24	14	13	6.7	3.2	1.6	1.2
18	3.4	9.4	61	25	29	23	13	13	6.4	3.2	1.6	1.0
19	3.4	9.8	80	23	27	22	12	12	6.1	3.0	1.7	1.0
20	3.2	9.0	134	21	24	21	12	12	5.8	2.8	1.8	1.0
21	3.0	13	155	20	22	22	12	11	5.5	2.8	1.7	1.2
22	3.0	20	145	20	21	32	11	11	5.2	2.6	1.7	1.0
23	5.5	18	153	18	20	40	11	12	4.6	2.4	1.5	1.0
24	4.1	16	133	17	18	132	12	12	5.2	2.2	1.4	1.0
25	4.4	14	104	17	17	116	12	12	5.2	2.0	1.5	.90
26	7.3	13	86	17	16	85	12	12	4.6	1.8	1.5	1.2
27	9.4	18	71	19	15	68	34	12	5.2	1.7	1.4	1.2
28	7.3	37	78	17	16	55	27	12	4.6	1.5	1.4	6.9
29	6.7	47	80	17	------	48	23	12	4.4	1.4	1.4	9.4
30	6.4	60	72	16	------	42	20	11	4.1	1.4	1.3	7.0
31	5.8	------	62	16	------	36	------	10	------	1.3	1.3	------
TOTAL	118.1	433.8	2,023	1,169	679	1,330	574	492	221.4	92.9	62.8	54.10
MEAN	3.81	14.5	65.3	37.7	24.3	42.9	19.1	15.9	7.38	3.00	2.03	1.80
MAX	9.4	60	155	113	40	132	34	29	11	4.4	3.6	9.4
MIN	1.3	4.4	17	16	14	16	11	10	4.1	1.3	1.2	.80
CFSM	.25	.95	4.27	2.46	1.58	2.80	1.25	1.04	.48	.20	.13	.12
IN.	.29	1.05	4.92	2.84	1.65	3.23	1.40	1.20	.54	.23	.15	.13
AC-FT	234	860	4,010	2,320	1,350	2,640	1,140	976	439	184	125	107

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 7,250.10 MEAN 19.9 MAX 155 MIN .80 CFSM 1.30 IN 17.62 AC-FT 14,380

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.5	6.7	120	124	12	31	113	24	9.8	7.3	3.9	2.4
2	4.6	6.7	124	190	25	30	86	34	10	7.0	3.6	2.2
3	4.4	6.4	113	175	145	27	72	30	11	6.4	3.4	2.2
4	4.1	11	104	129	145	25	65	29	10	6.1	3.4	2.0
5	3.9	13	96	108	172	24	60	48	10	5.8	3.4	1.8
6	5.2	12	88	89	143	24	68	52	10	5.8	3.4	1.8
7	7.6	12	77	78	133	23	74	46	9.4	5.8	3.2	1.7
8	13	13	71	65	108	21	89	40	9.4	5.8	3.2	1.7
9	36	14	64	55	88	21	89	36	9.0	5.8	3.2	1.8
10	24	36	58	51	74	21	76	32	8.7	5.8	3.0	1.8
11	23	64	53	44	61	19	65	29	8.4	5.5	3.0	1.8
12	27	62	49	39	52	18	57	27	8.4	5.5	3.0	1.7
13	38	62	48	36	47	17	54	25	8.0	5.2	3.0	1.8
14	30	57	68	32	40	17	54	23	7.6	5.2	2.8	1.8
15	22	61	99	28	36	17	52	21	7.3	5.2	2.6	2.4
16	18	58	88	24	32	23	45	20	6.7	4.9	2.6	2.8
17	16	55	76	22	30	21	40	18	6.4	4.6	2.6	3.0
18	14	46	62	21	29	20	38	17	6.1	4.6	2.8	2.6
19	13	74	57	19	34	24	38	16	5.8	4.4	3.0	2.2
20	12	104	54	17	38	26	34	14	6.1	4.4	2.4	1.8
21	11	80	54	16	36	24	32	14	7.0	4.6	2.4	2.0
22	11	64	51	16	34	23	29	13	7.3	6.4	2.4	2.2
23	10	53	46	15	34	21	27	13	7.0	4.6	2.6	2.6
24	9.4	60	42	14	29	21	26	12	6.7	4.4	2.4	2.2
25	9.0	268	38	13	30	21	24	12	6.7	4.4	2.4	2.2
26	9.0	275	38	12	34	23	24	12	8.0	4.1	2.8	2.0
27	8.0	206	36	12	32	29	24	12	9.0	3.9	2.4	1.8
28	8.0	135	36	11	32	71	22	11	8.7	3.6	2.4	1.7
29	7.3	120	57	9.8	------	143	23	10	8.4	3.6	2.4	1.7
30	7.3	124	114	9.4	------	198	23	10	8.0	3.4	2.4	1.7
31	7.0	------	113	11	------	153	------	10	------	4.1	2.2	------
TOTAL	418.3	2,158.8	2,194	1,484.2	1,705	1,176	1,523	710	244.9	158.2	88.3	61.4
MEAN	13.5	72.0	70.8	47.9	60.9	37.9	50.8	22.9	8.16	5.10	2.85	2.05
MAX	38	275	124	190	172	198	113	52	11	7.3	3.9	3.0
MIN	3.9	6.4	36	9.4	12	17	22	10	5.8	3.4	2.2	1.7
CFSM	.88	4.70	4.63	3.13	3.98	2.48	3.32	1.50	.53	.33	.19	.13
IN.	1.02	5.25	5.33	3.61	4.14	2.86	3.70	1.73	.60	.38	.21	.15
AC-FT	830	4,280	4,350	2,940	3,380	2,330	3,020	1,410	486	314	175	122

CAL YR 1962: TOTAL 9,446.30 MEAN 25.9 MAX 275 MIN .80 CFSM 1.69 IN 22.96 AC-FT 18,740
WAT YR 1963: TOTAL 11,922.1 MEAN 32.7 MAX 275 MIN 1.7 CFSM 2.13 IN 28.98 AC-FT 23,650

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0720. Chico Creek near Bremerton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	21	49	169	117	53	29	12	7.1	6.7	3.6	2.4
2	1.7	24	41	151	101	49	28	11	6.7	6.4	3.4	2.4
3	1.7	21	34	114	89	44	26	11	6.7	6.4	3.6	2.4
4	1.7	21	30	97	80	49	26	11	11	6.1	3.6	2.2
5	2.0	16	29	92	70	48	25	13	10	5.8	3.2	2.2
6	2.0	23	31	90	63	44	23	12	10	5.8	3.0	2.4
7	2.0	40	26	77	57	41	23	11	12	5.2	2.8	2.8
8	2.0	53	29	70	52	40	23	11	12	5.2	2.8	2.7
9	2.0	44	30	77	48	38	21	11	12	4.9	2.6	2.6
10	2.0	44	26	69	45	46	20	11	9.8	4.6	2.8	2.8
11	1.8	38	23	60	42	182	18	10	9.4	4.4	2.6	1.3
12	1.8	40	21	53	41	140	17	10	8.6	3.6	2.4	1.1
13	3.9	57	19	59	38	103	17	10	8.2	3.4	2.6	1.3
14	3.6	142	16	68	37	114	17	9.8	7.8	3.9	2.6	1.2
15	3.0	134	16	77	43	103	17	9.4	7.4	5.8	2.2	1.2
16	2.8	99	18	131	38	87	16	9.0	12	5.2	2.1	1.3
17	2.6	80	17	222	36	80	16	9.0	20	4.6	2.1	1.8
18	2.6	60	17	219	33	72	16	9.0	30	4.4	2.4	1.5
19	2.4	75	27	200	31	60	15	8.6	23	4.1	2.4	1.5
20	3.9	80	103	204	30	57	15	9.0	20	4.1	2.4	1.7
21	25	72	89	186	28	62	15	9.4	16	4.6	2.2	1.5
22	29	89	84	154	28	56	15	9.4	14	4.1	2.1	1.8
23	19	154	114	124	26	49	14	9.0	12	3.9	1.9	1.7
24	42	134	101	136	26	43	14	9.0	11	3.6	1.9	1.5
25	34	105	94	174	24	43	14	9.0	10	3.4	1.9	1.4
26	28	115	80	136	23	42	13	8.2	9.0	3.4	1.9	1.4
27	21	106	72	119	23	40	12	8.2	8.2	3.4	2.8	1.3
28	28	85	70	106	23	36	12	7.4	8.2	3.2	2.4	1.3
29	25	68	62	119	34	34	12	7.4	7.4	3.0	2.2	1.9
30	21	56	55	110	------	32	12	7.1	7.1	3.0	2.1	8.0
31	19	------	59	121	------	30	------	6.7	------	3.0	2.2	------
TOTAL	338.2	2,096	1,482	3,784	1,326	1,917	541	298.6	346.6	135.2	78.8	60.6
MEAN	10.9	69.9	47.8	122	45.7	61.8	18.0	9.63	11.6	4.49	2.54	2.02
MAX	42	154	114	222	117	182	29	13	30	6.7	3.6	8.0
MIN	1.7	16	16	53	23	30	12	6.7	6.7	3.0	1.9	1.1
CFSM	.71	4.57	3.12	7.98	2.99	4.04	1.18	.63	.76	.29	.17	.13
IN.	.82	5.09	3.60	9.20	3.22	4.66	1.32	.73	.84	.34	.19	.15
AC-FT	671	4,160	2,940	7,510	2,630	3,800	1,070	592	687	276	156	120

CAL YR 1963: TOTAL 11,067.2 MEAN 30.3 MAX 198 MIN 1.7 CFSM 1.98 IN 26.90 AC-FT 21,950
WAT YR 1964: TOTAL 12,408.0 MEAN 33.9 MAX 222 MIN 1.1 CFSM 2.22 IN 30.16 AC-FT 24,610

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.4	5.8	238	54	103	60	24	22	9.0	3.2	1.2	2.2
2	3.6	4.9	138	56	80	50	23	20	8.6	3.0	1.3	2.6
3	3.4	12	101	50	66	45	20	20	7.8	3.0	2.2	2.1
4	3.2	23	74	46	80	40	19	21	7.8	2.8	1.4	1.9
5	2.6	14	60	45	196	35	18	19	7.1	2.6	1.2	2.1
6	2.6	11	49	50	168	33	19	17	6.7	2.6	1.3	1.8
7	2.7	9.8	44	49	123	31	20	16	6.4	2.6	1.0	1.7
8	3.4	8.6	45	47	106	29	18	16	6.1	2.6	.90	1.5
9	4.4	7.9	40	45	85	26	20	16	5.8	2.6	.90	1.4
10	4.1	7.8	37	44	70	26	20	16	5.8	3.4	1.2	1.5
11	3.6	6.7	33	43	60	25	19	14	8.6	4.1	1.0	1.5
12	3.6	6.7	30	41	55	23	17	14	7.4	3.2	1.4	1.3
13	3.4	7.1	28	41	55	22	19	13	6.4	3.2	1.2	1.2
14	3.9	6.7	29	45	52	21	19	12	6.4	2.8	1.0	1.4
15	3.6	6.4	28	60	50	20	17	16	6.1	2.6	.90	1.9
16	3.4	6.1	23	65	48	20	17	26	5.8	2.4	.80	1.7
17	3.2	6.0	21	70	45	19	16	18	5.8	2.6	.90	1.3
18	3.0	5.5	20	65	42	17	16	17	5.5	2.2	2.0	1.4
19	2.8	5.5	23	72	40	17	44	16	5.2	2.2	4.9	1.2
20	2.8	5.2	25	85	40	17	82	15	5.2	2.4	7.8	1.1
21	2.8	4.9	28	105	38	16	69	14	4.9	2.6	6.2	1.2
22	2.6	6.5	66	95	36	16	56	13	4.6	2.4	7.1	1.0
23	2.6	27	65	85	35	14	45	13	4.6	2.2	6.3	1.0
24	2.6	124	62	100	32	15	38	12	4.4	2.1	5.5	.90
25	2.4	72	55	80	30	14	33	12	4.4	1.9	4.4	1.0
26	2.4	65	75	95	40	14	29	12	4.4	1.8	3.2	.90
27	2.4	51	100	124	75	14	26	11	4.1	2.1	2.6	.80
28	2.2	38	90	117	70	19	23	10	3.9	1.7	2.4	.80
29	2.2	89	75	119	------	31	22	10	3.6	1.5	1.5	.90
30	2.2	307	60	152	------	25	21	10	3.6	1.4	1.8	.90
31	2.6	------	50	136	------	23	------	9.8	------	1.4	2.1	------
TOTAL	94.7	952.0	1,812	2,281	1,920	777	829	470.8	176.0	77.2	77.60	42.20
MEAN	3.05	31.7	58.5	73.6	68.6	25.1	27.6	15.2	5.87	2.49	2.50	1.41
MAX	4.4	307	238	152	196	60	82	26	9.0	4.1	7.8	2.6
MIN	2.2	4.9	20	41	30	14	16	9.8	3.6	1.4	.80	.80
CFSM	.20	2.07	3.82	4.81	4.48	1.64	1.81	.99	.38	.16	.16	.09
IN.	.23	2.31	4.40	5.54	4.67	1.89	2.02	1.14	.43	.19	.19	.10
AC-FT	188	1,890	3,590	4,520	3,810	1,540	1,640	934	349	153	154	84

CAL YR 1964: TOTAL 11,350.5 MEAN 31.0 MAX 307 MIN 1.1 CFSM 2.03 IN 27.59 AC-FT 22,510
WAT YR 1965: TOTAL 9,509.50 MEAN 26.1 MAX 307 MIN .80 CFSM 1.70 IN 23.11 AC-FT 18,860

Note.--No gage-height record Dec. 23 to Jan. 26.

12-0728. Purdy Creek at Purdy, Wash.

Location.--Lat 47°23'18", long 122°37'30", on north line NW¼ sec.24, T.22 N., R.1 E., on left bank at upstream entrance to culvert, 650 ft upstream from mouth at Purdy and 2 miles south of Burley.

Drainage area.--3.44 sq mi.

Records available.--November 1959 to September 1962 (discontinued). Results of discharge measurements and monthly discharge only October 1960 to February 1961.

Gage.--Staff gage usually read once daily. Datum of gage is about 10 ft above mean sea level (from reconnaissance). Prior to Mar. 16, 1961, at site 250 ft downstream at different datum.

Extremes.--Maximum and minimum discharges for the water years 1961-62 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Mar. 12, 1961	a 26	-	Aug. 3, 1961	b 1.5	-
1962	Dec. 19, 1961	23	1.04	July 27, Aug. 2	c 1.3	0.38

a Maximum daily.
b Minimum daily.
c Minimum observed.

1959-62: Maximum discharge, 113 cfs Dec. 15, 1959 (gage height, 1.6 ft, from graph based on gage readings); minimum observed, 1.3 cfs July 27, Aug. 2, 1962 (gage height, 0.38 ft).

Remarks.--Records poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1						15	8.0	13	3.1	3.6	2.1	3.7
2						14	8.8	10	2.8	3.4	2.1	3.0
3	† 2.4					13	6.4	15	3.1	2.6	1.5	2.1
4						12	6.8	9.6	3.1	2.6	1.9	2.1
5						16	7.2	8.0	3.1	6.8	2.6	2.1
6					† 44.2	21	6.4	7.5	5.2	4.5	2.6	2.1
7		† 3.2				13	5.6	7.0	3.7	3.1	2.6	2.1
8						15	6.0	9.2	3.4	3.0	2.6	2.1
9						13	6.8	9.2	3.7	3.0	2.6	2.1
10						14	6.4	8.0	3.7	2.8	2.1	2.1
11						21	6.0	6.8	3.7	2.1	1.6	2.1
12						26	9.2	5.6	3.1	2.1	1.6	2.1
13						22	6.0	6.0	3.1	2.3	1.6	1.6
14						20	6.0	6.0	2.8	2.6	2.1	2.1
15				† 66.7		20	6.0	4.4	2.6	2.6	2.1	2.1
16						18	6.0	4.8	2.8	2.3	2.1	2.1
17						15	6.0	4.4	2.8	2.1	2.1	2.1
18						13	6.0	4.0	2.8	2.1	2.1	2.1
19						13	6.0	3.7	2.6	2.1	2.1	2.1
20						15	6.0	3.8	2.8	2.1	2.1	2.1
21						11	7.6	4.0	2.6	2.1	2.1	2.6
22						13	7.0	4.4	2.6	2.4	1.6	2.3
23						13	6.8	5.6	2.6	2.6	1.6	2.3
24						12	7.6	4.8	2.6	2.6	2.1	2.3
25						10	6.8	3.7	3.5	2.6	2.1	2.3
26						9.5	6.8	3.7	4.8	2.1	1.9	2.3
27			† 5.8			9.2	6.0	4.5	3.1	2.1	1.7	2.3
28						9.2	5.2	4.8	3.7	2.6	1.6	2.3
29					------	8.8	7.0	3.7	4.0	2.6	1.6	2.3
30					------	8.4	8.4	3.3	3.8	2.4	1.6	2.3
31		------			------	8.4	------	3.1	------	2.1	3.4	------
TOTAL	124.0	270.0	186.0	589	728	441.5	200.8	191.6	97.3	84.0	63.5	67.3
MEAN	4.00	9.00	6.00	19.0	26.0	14.2	6.69	6.18	3.24	2.71	2.05	2.24
MAX	-	-	-	-	-	26	9.2	15	5.2	6.8	3.4	3.7
MIN	-	-	-	-	-	8.4	5.2	3.1	2.6	2.1	1.5	1.6
CFSM	1.16	2.62	1.74	5.52	7.56	4.14	1.95	1.80	.94	.79	.60	.65
IN.	1.34	2.92	2.01	6.37	7.87	4.77	2.17	2.07	1.05	.91	.69	.73
AC-FT	246	536	369	1,170	1,440	876	398	380	193	167	126	133

CAL YR 1960: TOTAL 2,482.1 MEAN 6.78 MAX - MIN - CFSM 1.97 IN 26.83 AC-FT 4,920
WAT YR 1961: TOTAL 3,043.0 MEAN 8.34 MAX - MIN - CFSM 2.42 IN 32.90 AC-FT 6,040

† Result of discharge measurement.

Note.--No gage-height record Oct. 1 to Feb. 28. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0728. Purdy Creek at Purdy, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	1.9	10	10	4.0	3.5	4.4	6.8	2.6	1.9	1.6	1.7
2	2.3	2.2	9.0	14	4.0	5.2	4.4	4.4	2.6	1.9	1.3	1.7
3	2.3	2.8	10	17	4.0	7.0	4.4	7.0	3.1	1.9	2.2	1.7
4	2.3	2.0	13	7.6	4.0	13	4.4	4.4	3.1	1.7	2.3	1.7
5	2.8	1.9	5.6	12	4.0	12	4.0	4.4	2.9	2.2	2.7	1.7
6	3.1	2.2	4.4	10	5.2	11	7.6	4.5	2.4	2.2	3.1	1.7
7	3.1	1.9	4.4	8.4	5.2	7.6	6.0	5.2	2.2	2.0	3.4	1.7
8	3.1	2.1	3.7	7.6	7.6	6.8	5.0	5.6	2.2	1.9	2.2	2.1
9	3.1	17	3.6	6.8	5.2	5.6	4.0	5.2	2.2	1.7	1.9	2.8
10	4.4	10	3.2	5.2	5.2	4.8	4.0	4.0	2.2	1.6	1.9	3.4
11	4.0	7.0	2.8	5.2	4.7	4.5	3.7	3.9	2.2	1.6	1.9	2.1
12	8.8	6.0	2.8	5.2	5.2	4.4	3.4	3.8	2.2	1.9	1.9	1.7
13	5.6	5.6	4.4	5.8	7.6	4.4	3.4	3.8	2.4	1.9	1.9	2.4
14	3.5	5.2	4.4	6.2	8.8	4.4	3.2	3.7	2.2	1.6	1.6	2.4
15	2.0	5.2	5.2	5.2	7.6	4.4	3.1	3.7	2.2	1.7	1.6	2.1
16	2.2	4.4	6.2	4.4	6.0	4.4	3.1	3.1	2.2	1.9	1.6	1.8
17	2.1	4.4	6.8	4.4	5.4	4.0	3.1	3.1	2.2	1.9	1.6	1.7
18	1.8	4.7	13	4.0	4.9	4.0	3.1	3.1	2.2	1.9	1.6	1.7
19	1.9	5.2	22	3.7	4.4	4.0	3.1	3.1	2.2	1.9	1.8	1.9
20	1.9	6.4	21	3.5	3.7	4.4	2.9	3.1	2.2	1.8	1.9	2.1
21	2.0	19	13	3.5	3.7	4.4	2.9	3.1	1.9	1.6	1.9	2.1
22	2.5	13	14	3.4	3.7	7.2	2.9	3.1	1.9	1.6	1.9	2.1
23	5.6	7.2	16	3.4	3.5	4.4	2.9	4.4	1.8	1.6	1.7	2.1
24	2.6	6.0	14	4.0	3.3	7.5	3.7	4.4	1.7	1.6	1.6	2.1
25	3.4	5.8	11	6.0	3.2	12	3.1	4.4	1.7	1.6	1.6	2.1
26	11	5.8	10	6.0	3.1	6.8	3.7	4.1	1.9	1.6	2.0	2.1
27	5.6	6.0	9.6	5.0	3.1	5.6	13	3.9	1.9	1.3	2.2	3.5
28	3.0	13	18	4.6	3.1	5.2	9.0	3.7	2.1	1.4	2.2	5.6
29	2.3	11	17	4.4	------	4.8	5.5	3.3	1.9	1.5	1.7	4.0
30	2.1	11	13	4.1	------	4.4	4.4	3.1	1.7	1.6	1.7	3.0
31	1.9	------	11	4.0	------	4.4	------	2.6	------	1.6	1.7	------
TOTAL	104.6	195.9	302.1	194.6	133.4	186.1	131.4	126.0	66.2	54.1	60.2	68.8
MEAN	3.37	6.53	9.75	6.28	4.76	6.00	4.38	4.06	2.21	1.75	1.94	2.29
MAX	11	19	22	17	8.8	13	13	7.0	3.1	2.2	3.4	5.6
MIN	1.8	1.9	2.8	3.4	3.1	3.5	2.9	2.6	1.7	1.3	1.3	1.7
CFSM	.98	1.90	2.83	1.82	1.38	1.75	1.27	1.18	.64	.51	.56	.67
IN.	1.13	2.12	3.27	2.10	1.44	2.01	1.42	1.36	.72	.58	.65	.74
AC-FT	207	389	599	386	265	369	261	250	131	107	119	136

CAL YR 1961: TOTAL 3,065.6 MEAN 8.40 MAX - MIN - CFSM 2.44 IN 33.14 AC-FT 6,080
WAT YR 1962: TOTAL 1,623.4 MEAN 4.45 MAX 22 MIN 1.3 CFSM 1.29 IN 17.55 AC-FT 3,220

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0730. Burley Creek at Burley, Wash.

Location.--Lat 47°24'55", long 122°37'50", in NE¼NE¼ sec.11, T.22 N., R.1 E., on left bank at county road bridge, 0.1 mile west of Burley and 0.3 mile upstream from mouth.

Drainage area.--10.7 sq mi (revised).

Records available.--July 1947 to September 1950, November 1959 to September 1965 (discontinued).

Gage.--Staff gage usually read once daily. Crest-stage gage beginning Feb. 28, 1964. Altitude of gage is 10 ft (from topographic map). July 1947 to September 1950 water-stage recorder at same site at different datum.

Average discharge.--8 years (1947-50, 1960-65), 27.7 cfs (20,050 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum daily		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	233	3.80	Aug. 12, 13, 1961	15	-
1962	Dec. 19, 1961	97	2.20	Several days	10	-
1963	Nov. 26, 1962	a 100	-	Aug. 16,Sept.3-8	13	-
1964	Jan. 1, 1964	b 233	3.91	Several days	14	-
1965	Dec. 1, 1964	223	3.79	do.	12	-

a Maximum daily.
b Maximum observed, from high watermark.

1947-50, 1959-65: Maximum discharge, 291 cfs Mar. 3, 1950 (gage height, 4.53 ft, datum then in use); minimum daily, 10 cfs July 27, 28, Aug. 14, 15, 25, 1962.

Remarks.--Records fair. Several small diversions for domestic use above station. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	40	30	27	93	73	41	54	26	22	19	26
2	18	31	28	26	67	54	42	48	24	22	18	22
3	18	24	33	27	59	49	39	58	26	22	17	20
4	19	22	30	28	59	47	38	46	27	22	18	20
5	17	21	27	95	59	55	37	40	24	37	18	20
6	29	20	28	47	94	63	36	36	36	30	18	19
7	31	20	27	39	54	49	35	35	27	22	18	20
8	22	20	26	57	62	52	35	45	25	22	18	19
9	19	20	26	49	87	48	37	43	27	22	18	19
10	19	44	26	58	70	55	36	40	27	22	17	19
11	20	28	44	46	55	75	35	36	27	19	16	19
12	22	24	55	41	46	111	42	34	26	19	15	18
13	20	35	40	73	75	67	35	34	25	19	15	17
14	20	35	34	79	54	89	35	34	24	20	17	19
15	19	38	30	141	93	86	35	28	22	20	19	19
16	19	44	28	81	60	62	36	30	22	20	19	20
17	19	44	29	89	57	55	34	29	22	20	19	20
18	20	39	92	54	55	49	34	27	23	20	18	20
19	20	77	40	43	60	48	34	27	22	20	17	20
20	20	118	34	38	87	57	34	27	22	20	18	20
21	20	53	31	35	193	48	41	27	22	20	18	20
22	28	55	30	33	145	54	40	28	22	20	17	20
23	95	66	28	32	57	51	38	32	22	20	17	20
24	37	137	26	34	159	48	38	29	22	20	19	20
25	26	95	28	32	124	46	35	27	22	20	18	20
26	43	41	40	30	59	44	35	28	22	19	18	20
27	34	35	30	30	67	43	34	28	22	19	18	20
28	31	31	28	30	55	42	34	28	22	20	18	20
29	29	30	28	50	------	41	40	27	22	20	18	20
30	26	29	27	105	------	41	45	26	22	19	19	20
31	26	------	28	79	------	40	------	26	------	19	24	------
TOTAL	804	1,316	1,031	1,628	2,205	1,742	1,110	1,056	724	656	556	596
MEAN	25.9	43.9	33.3	52.5	78.8	56.2	37.0	34.1	24.1	21.2	17.9	19.9
MAX	95	137	92	141	193	111	45	58	36	37	24	26
MIN	17	20	26	26	46	40	34	26	22	19	15	17
CFSM	2.42	4.10	3.11	4.91	7.36	5.25	3.46	3.18	2.26	1.98	1.68	1.86
IN.	2.79	4.57	3.58	5.66	7.66	6.05	3.86	3.67	2.52	2.28	1.93	2.07
AC-FT	1,590	2,610	2,040	3,230	4,370	3,460	2,200	2,090	1,440	1,300	1,100	1,180

CAL YR 1960: TOTAL 10,986 MEAN 30.0 MAX 137 MIN 12 CFSM 2.81 IN 38.18 AC-FT 21,790
WAT YR 1961: TOTAL 13,424 MEAN 36.8 MAX 193 MIN 15 CFSM 3.44 IN 46.66 AC-FT 26,630

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0730. Burley Creek at Burley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	24	34	35	23	22	23	32	17	12	12	12
2	20	25	36	50	23	26	23	24	17	13	12	12
3	20	25	35	63	23	32	25	32	19	12	17	12
4	19	22	51	36	23	40	26	24	19	13	19	12
5	20	21	26	47	23	50	24	24	19	16	20	12
6	20	24	23	40	29	44	34	24	17	16	22	13
7	22	22	23	35	32	32	40	28	16	15	20	13
8	23	22	22	30	36	30	34	33	15	13	16	15
9	22	63	21	29	31	26	30	28	15	13	14	19
10	30	53	20	26	27	25	27	23	15	13	13	24
11	24	40	18	26	27	24	25	23	16	13	13	15
12	59	30	19	26	27	24	24	23	17	13	13	16
13	30	24	27	29	35	24	22	23	18	15	12	21
14	25	24	27	27	39	23	21	23	17	13	10	17
15	21	22	29	26	35	23	20	22	16	12	10	15
16	29	22	35	26	28	24	20	20	14	13	12	14
17	27	22	50	25	25	24	20	19	14	12	12	13
18	23	22	63	24	25	24	19	19	13	12	12	13
19	20	23	91	23	24	24	19	19	13	12	12	14
20	20	24	82	22	23	25	19	19	12	12	12	15
21	24	72	52	21	23	28	19	19	12	12	12	15
22	28	41	48	20	23	36	19	20	12	12	12	14
23	32	28	53	22	22	30	19	28	12	12	12	14
24	23	26	60	24	22	35	24	24	12	11	11	13
25	31	26	40	30	22	45	20	23	12	11	10	15
26	45	26	31	30	22	31	26	21	17	11	12	15
27	30	29	30	28	20	29	56	19	16	10	15	20
28	27	58	60	26	20	36	40	18	13	10	15	36
29	24	32	54	25	------	25	30	18	13	11	12	25
30	22	42	45	24	------	24	23	18	12	12	12	20
31	22	------	40	24	------	23	------	17	------	12	12	------
TOTAL	802	938	1,245	919	733	908	771	707	450	387	418	484
MEAN	25.9	31.3	40.2	29.6	26.2	29.3	25.7	22.8	15.0	12.5	13.5	16.1
MAX	59	72	91	63	39	50	56	33	19	16	22	36
MIN	19	21	18	20	20	22	19	17	12	10	10	12
CFSM	2.42	2.92	3.75	2.77	2.45	2.74	2.40	2.13	1.40	1.17	1.26	1.51
IN.	2.79	3.26	4.33	3.19	2.55	3.16	2.68	2.46	1.56	1.35	1.45	1.68
AC-FT	1,590	1,860	2,470	1,820	1,450	1,800	1,530	1,400	893	768	829	960

CAL YR 1961: TOTAL 13,258 MEAN 36.3 MAX 193 MIN 15 CFSM 3.39 IN 46.08 AC-FT 26,300
WAT YR 1962: TOTAL 8,762 MEAN 24.0 MAX 91 MIN 10 CFSM 2.24 IN 30.45 AC-FT 17,380

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	17	40	90	40	24	29	23	16	17	16	14
2	14	18	35	55	52	24	24	27	17	20	16	14
3	18	18	33	44	80	23	29	22	18	18	15	13
4	16	24	35	40	91	22	25	22	20	17	15	13
5	16	23	34	35	53	22	38	30	23	15	16	13
6	25	21	32	30	38	22	45	26	19	16	16	13
7	40	17	26	27	34	22	55	23	19	17	16	13
8	61	18	25	26	32	21	44	20	18	17	15	13
9	78	20	24	27	30	21	31	20	18	17	14	15
10	24	25	23	22	27	21	25	20	17	16	14	14
11	25	30	23	21	24	21	24	20	16	16	14	14
12	27	32	22	22	24	20	26	20	16	16	15	15
13	23	30	27	23	27	20	30	20	15	16	15	15
14	19	23	57	25	26	22	28	20	15	16	15	16
15	18	31	45	25	25	21	26	20	15	16	15	18
16	17	20	35	26	26	20	23	18	15	16	13	21
17	16	18	31	24	27	20	22	17	15	16	14	16
18	16	18	27	23	28	21	22	16	16	16	14	15
19	16	28	33	22	35	29	22	16	16	16	15	15
20	16	42	30	21	28	26	22	16	16	16	15	14
21	16	29	26	21	26	25	21	16	17	17	15	14
22	16	25	25	22	25	24	21	16	17	19	15	15
23	16	22	24	21	23	24	20	16	17	16	15	16
24	16	25	23	21	28	23	20	16	17	16	15	16
25	16	50	22	21	32	23	20	16	17	15	15	16
26	17	100	22	21	31	24	20	16	17	15	15	16
27	17	53	24	21	30	27	20	16	17	16	14	16
28	17	35	25	21	28	60	21	16	17	15	14	15
29	17	28	30	20	------	64	21	16	16	16	14	15
30	17	35	45	20	------	55	22	16	16	17	14	16
31	17	------	39	34	------	40	------	16	------	19	14	------
TOTAL	681	875	942	871	970	831	796	592	508	511	458	449
MEAN	22.0	29.2	30.4	28.1	34.6	26.8	26.5	19.1	16.9	16.5	14.8	15.0
MAX	78	100	57	90	91	64	55	30	23	20	16	21
MIN	14	17	22	20	23	20	20	16	15	15	13	13
CFSM	2.05	2.73	2.84	2.63	3.24	2.51	2.48	1.78	1.58	1.54	1.38	1.40
IN.	2.37	3.04	3.27	3.03	3.37	2.89	2.77	2.06	1.77	1.78	1.59	1.56
AC-FT	1,350	1,740	1,870	1,730	1,920	1,650	1,580	1,170	1,010	1,010	908	891

CAL YR 1962: TOTAL 8,275 MEAN 22.7 MAX 100 MIN 10 CFSM 2.12 IN 28.76 AC-FT 16,410
WAT YR 1963: TOTAL 8,484 MEAN 23.2 MAX 100 MIN 13 CFSM 2.17 IN 29.49 AC-FT 16,830

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0730. Burley Creek at Burley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	44	24	140	55	36	24	21	19	15	16	15
2	16	31	23	45	40	32	24	21	18	15	17	15
3	15	27	22	40	35	37	24	21	17	15	17	16
4	15	27	22	38	34	48	24	21	28	15	17	15
5	15	24	32	39	32	30	24	21	22	16	16	15
6	16	45	38	41	30	29	24	21	20	16	16	15
7	16	62	30	30	28	28	24	21	20	16	15	16
8	16	34	28	28	27	28	23	21	21	16	16	17
9	16	31	29	30	28	28	23	21	22	16	15	15
10	15	35	26	31	29	32	24	21	20	15	15	16
11	15	30	22	24	30	76	23	21	19	14	15	17
12	15	64	22	21	32	44	23	21	18	14	14	16
13	16	65	21	52	28	30	23	20	18	16	14	15
14	20	112	21	34	28	32	24	20	19	18	14	16
15	18	60	22	22	31	30	24	20	20	17	14	16
16	16	40	24	84	35	28	25	19	29	17	15	16
17	15	30	24	108	32	31	22	19	29	16	15	17
18	16	27	24	65	30	33	22	18	30	16	14	18
19	16	88	54	95	28	28	21	18	25	16	14	17
20	25	48	86	75	27	28	21	26	23	17	14	16
21	120	27	50	63	26	29	21	18	20	16	14	16
22	37	48	38	59	25	31	22	19	18	16	14	16
23	24	120	38	50	24	26	22	19	16	15	15	16
24	60	60	41	65	24	26	21	19	16	15	15	16
25	31	35	44	85	24	26	21	18	16	15	15	16
26	25	33	47	55	24	26	21	17	16	15	15	16
27	23	31	36	47	26	27	21	17	16	15	15	17
28	38	28	32	38	26	26	21	17	15	14	16	17
29	27	26	28	64	45	26	21	17	15	14	17	17
30	24	25	25	60	------	26	21	18	15	15	16	30
31	22	------	31	76	------	26	------	18	------	15	15	------
TOTAL	759	1,357	1,004	1,704	883	983	678	609	599	481	471	496
MEAN	24.5	45.2	32.4	55.0	30.4	31.7	22.6	19.6	20.0	15.5	15.2	16.5
MAX	120	120	86	140	55	76	25	26	30	18	17	30
MIN	15	24	21	21	24	26	21	17	15	14	14	15
CFSM	2.29	4.23	3.03	5.14	2.85	2.96	2.11	1.84	1.87	1.45	1.42	1.55
IN.	2.64	4.72	3.49	5.92	3.07	3.42	2.36	2.12	2.08	1.67	1.64	1.72
AC-FT	1,510	2,690	1,990	3,380	1,750	1,950	1,340	1,210	1,190	954	934	984

CAL YR 1963: TOTAL 9,106 MEAN 24.9 MAX 120 MIN 13 CFSM 2.33 IN 31.65 AC-FT 18,060
WAT YR 1964: TOTAL 10,024 MEAN 27.4 MAX 140 MIN 14 CFSM 2.56 IN 34.84 AC-FT 19,880

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	25	198	29	29	30	23	20	17	14	12	13
2	17	57	125	90	29	29	23	19	17	15	12	13
3	17	58	75	76	30	27	22	20	16	15	13	13
4	16	58	50	44	33	27	22	20	16	15	13	13
5	15	32	40	48	114	27	22	20	16	15	13	13
6	15	24	36	61	100	26	22	20	16	15	13	13
7	15	20	39	49	80	25	23	20	16	14	13	13
8	16	19	32	37	100	24	22	19	15	14	13	13
9	20	20	35	32	38	24	22	18	15	14	13	13
10	20	22	31	28	33	24	22	18	15	15	13	13
11	18	22	35	25	32	22	22	18	25	18	13	13
12	17	25	30	24	32	22	22	18	22	17	19	13
13	17	29	30	24	39	22	22	18	20	16	20	13
14	21	25	34	23	32	22	22	19	18	15	15	13
15	22	20	26	23	29	23	22	23	18	15	15	14
16	22	18	20	23	28	22	21	35	18	14	12	14
17	22	18	18	23	28	22	21	18	17	15	12	14
18	22	17	18	23	28	22	20	18	17	15	12	14
19	23	17	20	21	27	22	94	18	17	15	15	14
20	22	18	25	22	30	22	75	18	17	15	23	15
21	22	20	45	21	27	22	40	18	16	16	17	15
22	20	40	129	22	30	22	38	18	16	15	15	15
23	19	78	88	30	27	21	32	18	16	14	20	14
24	18	105	57	40	26	22	30	18	16	14	20	14
25	17	45	90	35	27	22	25	18	16	14	15	14
26	16	50	130	62	59	22	20	18	16	13	15	14
27	16	34	70	97	114	23	20	18	16	14	15	14
28	17	35	42	80	55	23	20	18	15	13	14	14
29	18	85	39	101	------	23	20	18	14	13	14	15
30	22	171	40	90	------	22	20	17	15	12	12	14
31	22	------	35	60	------	22	------	17	------	12	12	------
TOTAL	582	1,207	1,682	1,363	1,256	728	829	593	504	451	453	410
MEAN	18.8	40.2	54.3	44.0	44.9	23.5	27.6	19.1	16.8	14.5	14.6	13.7
MAX	23	171	198	101	114	30	94	35	25	18	23	15
MIN	15	17	18	21	26	21	20	17	14	12	12	13
CFSM	1.75	3.76	5.07	4.11	4.19	2.19	2.58	1.79	1.57	1.36	1.37	1.28
IN.	2.02	4.20	5.85	4.74	4.37	2.53	2.88	2.06	1.75	1.57	1.57	1.43
AC-FT	1,150	2,390	3,340	2,700	2,490	1,440	1,640	1,180	1,000	895	899	813

CAL YR 1964: TOTAL 10,375 MEAN 28.3 MAX 198 MIN 14 CFSM 2.65 IN 36.06 AC-FT 20,580
WAT YR 1965: TOTAL 10,058 MEAN 27.6 MAX 198 MIN 12 CFSM 2.58 IN 34.96 AC-FT 19,950

12-0735. Huge Creek near Wauna, Wash.

Location.--Lat 47°23'20", long 122°41'50", in NE¼NE¼ sec.20, T.22 N., R.1 E., on right bank at downstream side of bridge, an eighth of a mile upstream from mouth and 2½ miles west of Wauna.

Drainage area.--6.47 sq mi (revised).

Records available.--July 1947 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map). Prior to June 26, 1951, at same site at datum 0.86 ft higher.

Average discharge.--18 years, 11.5 cfs (8,330 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (70 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2300	* 323	2.88	Feb. 24, 1961	1700	122	2.12	Nov. 26, 1962	0400	* 88	1.92
Jan. 30, 1961	-	-	-	Mar. 12, 1961	-	85	1.90				
Feb. 1, 1961	2400	77	1.91	Mar. 15, 1961	0430	97	1.98	Jan. 19, 1964	2000	78	1.75
Feb. 6, 1961	0900	86	1.98					Jan. 25, 1964	0700	* 81	1.84
Feb. 21, 1961	1500	251	2.67	(a)	-	* 42	1.51	Dec. 1, 1964	0430	* 86	1.91

a Dec. 19 or 20, 1961.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 4-6, 1960	4.6	a 0.58	1964	Oct. 11, 12, 1963	3.9	c 0.56
1962	July 28, 1962	4.0	.52	1965	Sept. 6-8, 1965	3.4	d .55
1963	Sept. 7,8,27-29	3.9	b .55				

a Occurred Sept. 23-27, 1961.
b Occurred Sept. 7, 8, 1963.
c Occurred Oct. 1, 1963.
d Occurred Aug. 30, 31, Sept. 6-8, 1965.

1947-65: Maximum discharge, 391 cfs Feb. 9, 1951 (gage height, 4.50 ft, present datum); minimum, 3.2 cfs Sept. 1, 1950; minimum gage height, 0.49 ft May 18, 20, 21, 1956.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1636: 1953-54, 1956, 1957(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.8	12	11	7.4	53	41	16	15	9.0	7.7	6.9	6.9
2	4.8	10	11	7.4	60	31	16	16	9.0	7.7	6.5	5.8
3	4.9	9.0	9.6	7.1	40	28	15	15	9.0	7.5	6.3	5.6
4	4.9	8.0	9.0	8.2	38	24	14	13	8.8	7.5	6.1	5.6
5	4.6	7.5	8.3	20	38	28	14	12	8.8	8.8	6.2	5.6
6	5.6	7.0	8.0	21	76	28	14	12	9.7	8.4	6.1	5.6
7	5.8	5.3	7.7	20	48	24	13	11	9.2	7.9	6.0	5.4
8	5.3	5.3	7.7	23	40	23	13	12	9.0	7.5	5.9	5.4
9	5.1	5.3	7.7	32	42	23	13	13	9.0	7.3	6.0	5.4
10	5.1	8.3	7.4	30	37	30	13	13	8.8	7.3	5.8	5.6
11	5.3	7.4	11	28	33	50	13	12	9.0	7.3	5.8	5.6
12	5.6	6.0	18	24	28	75	14	12	8.8	7.3	5.6	5.4
13	5.3	7.1	13	25	45	60	13	11	8.4	7.1	5.6	5.3
14	5.3	9.3	11	39	38	82	13	11	8.2	7.1	5.6	5.4
15	5.3	9.0	9.6	150	60	85	12	11	8.2	7.1	6.0	5.6
16	5.3	11	9.0	176	47	51	12	11	7.9	7.1	6.0	5.6
17	5.3	12	9.3	109	40	37	12	10	7.9	7.1	6.3	5.6
18	5.3	13	19	69	32	30	12	10	7.9	7.1	6.3	5.6
19	5.3	10	20	43	34	28	12	9.7	8.2	7.1	6.1	5.6
20	5.3	20	16	33	60	30	12	9.7	8.2	7.1	6.0	5.6
21	5.3	15	13	28	195	24	13	9.7	8.2	7.1	6.0	5.6
22	8.0	13	11	24	99	23	13	9.7	7.9	7.1	6.0	5.6
23	12	20	11	22	49	23	12	10	7.9	7.1	6.0	5.4
24	14	41	9.6	20	91	22	12	11	7.7	7.1	6.0	5.3
25	10	54	9.0	19	80	20	12	9.5	7.9	7.1	6.0	5.3
26	11	32	11	18	47	20	12	10	7.9	6.9	6.1	5.3
27	13	20	9.3	17	44	19	11	10	7.7	7.1	6.1	5.3
28	15	15	8.6	17	36	17	12	9.5	7.7	7.1	6.1	5.4
29	11	13	8.3	29	------	17	13	9.2	7.7	7.1	6.1	5.6
30	10	12	8.0	58	------	17	13	9.2	7.7	6.9	6.1	5.6
31	11	------	8.0	52	------	17	------	9.2	------	6.9	6.5	------
TOTAL	224.5	417.5	330.1	1,176.1	1,530	1,027	389	346.4	251.3	226.5	188.1	166.6
MEAN	7.24	13.9	10.6	37.9	54.6	33.1	13.0	11.2	8.38	7.31	6.07	5.55
MAX	15	54	20	176	195	85	16	16	9.7	8.8	6.9	6.9
MIN	4.6	5.3	7.4	7.1	28	17	11	9.2	7.7	6.9	5.6	5.3
CFSM	1.12	2.15	1.65	5.86	8.45	5.12	2.00	1.73	1.29	1.13	.94	.86
IN.	1.29	2.40	1.90	6.76	8.79	5.90	2.24	1.99	1.44	1.30	1.08	.96
AC-FT	445	828	655	2,330	3,030	2,040	772	687	498	449	373	330

CAL YR 1960: TOTAL 4,355.4 MEAN 11.9 MAX 152 MIN 4.6 CFSM 1.84 IN 25.04 AC-FT 8,640
WAT YR 1961: TOTAL 6,273.1 MEAN 17.2 MAX 195 MIN 4.6 CFSM 2.66 IN 36.06 AC-FT 12,440

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0735. Huge Creek near Wauna, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.6	6.3	9.7	12	7.5	7.1	8.2	8.6	5.3	5.0	4.4	4.3
2	5.6	6.3	7.7	15	7.3	7.1	7.9	7.5	5.8	5.0	4.4	4.4
3	5.6	6.5	7.5	32	7.3	6.9	7.7	9.5	5.6	5.0	4.9	4.4
4	5.6	6.1	9.5	24	7.3	9.7	7.5	7.9	5.8	5.0	5.4	4.3
5	5.8	6.3	8.2	21	7.1	14	7.5	7.1	5.6	5.0	5.3	4.3
6	6.0	6.3	8.0	25	7.5	13	8.8	6.9	5.3	5.0	6.0	4.3
7	5.8	6.1	7.5	18	8.6	13	7.9	6.9	5.0	5.0	6.1	4.4
8	5.6	6.3	7.5	15	8.8	13	7.7	7.3	5.0	5.0	5.6	4.3
9	6.0	9.0	7.0	13	9.5	12	7.3	7.9	5.0	5.0	5.1	4.3
10	6.5	12	7.0	12	8.6	10	7.1	7.1	5.0	5.0	4.9	5.1
11	6.9	7.7	6.5	12	8.8	9.2	7.1	6.7	5.0	5.0	4.9	4.9
12	11	6.9	6.5	11	8.2	8.8	6.9	6.5	5.0	5.0	4.8	4.8
13	7.9	6.5	6.5	10	9.5	8.4	6.9	6.7	5.0	4.9	4.8	5.3
14	6.3	6.5	6.5	11	12	7.9	6.9	6.3	5.0	4.8	4.6	4.9
15	6.0	6.3	6.5	9.7	9.7	7.7	6.7	6.3	5.0	4.8	4.6	4.6
16	6.1	6.3	8.0	9.0	9.0	7.7	6.7	6.0	5.0	4.6	4.8	4.4
17	6.0	6.3	11	9.0	8.6	7.3	6.5	6.0	5.0	4.6	4.8	4.4
18	5.8	6.5	16	8.8	8.4	7.1	6.5	5.8	5.0	4.6	4.8	4.4
19	5.8	6.7	35	8.6	7.9	7.3	6.3	5.8	5.0	4.6	4.8	4.6
20	5.8	6.5	30	8.2	7.7	7.1	6.3	6.0	5.0	4.4	4.6	4.6
21	5.8	8.2	20	7.9	7.5	7.7	6.3	5.8	5.0	4.4	4.4	4.6
22	6.0	9.7	18	7.7	7.5	9.5	6.3	6.0	5.0	4.4	4.4	4.6
23	8.8	7.3	25	7.7	7.5	8.8	6.3	6.5	5.0	4.4	4.4	4.6
24	6.3	6.7	23	7.9	7.1	15	6.7	6.7	5.0	4.4	4.4	4.8
25	6.5	6.5	20	8.2	7.1	19	6.7	6.5	5.0	4.4	4.4	4.9
26	8.2	6.5	17	8.4	6.9	16	6.9	6.3	5.0	4.3	4.9	4.9
27	7.7	6.9	12	9.2	6.7	13	13	6.0	5.0	4.3	4.9	5.1
28	6.5	9.5	13	8.2	6.9	11	8.8	5.8	5.0	4.3	4.6	6.5
29	6.3	8.6	16	7.9	------	9.7	7.7	5.6	5.0	4.3	4.4	5.6
30	6.3	9.2	19	7.5	------	8.8	7.3	5.6	5.0	4.3	4.3	5.3
31	6.1	------	15	7.5	------	8.4	------	5.4	------	4.3	4.3	------
TOTAL	200.2	216.5	410.1	372.4	226.5	311.2	220.4	205.0	153.4	145.1	149.0	141.9
MEAN	6.46	7.22	13.2	12.0	8.09	10.0	7.35	6.61	5.11	4.68	4.81	4.73
MAX	11	12	35	32	12	19	13	9.5	5.8	5.0	6.1	6.5
MIN	5.6	6.1	6.5	7.5	6.7	6.9	6.3	5.4	5.0	4.3	4.3	4.3
CFSM	1.00	1.12	2.04	1.86	1.25	1.55	1.14	1.02	.79	.72	.74	.73
IN.	1.15	1.24	2.36	2.14	1.30	1.79	1.27	1.18	.88	.83	.86	.82
AC-FT	397	429	813	739	449	617	437	407	304	288	296	281

CAL YR 1961: TOTAL 6,127.8 MEAN 16.8 MAX 195 MIN 5.3 CFSM 2.59 IN 35.22 AC-FT 12,150
WAT YR 1962: TOTAL 2,751.7 MEAN 7.54 MAX 35 MIN 4.3 CFSM 1.17 IN 15.82 AC-FT 5,460

Note.--No gage-height record Dec. 6 to Jan. 3, June 7 to July 12. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attricuted to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.3	4.8	32	40	8.6	9.7	14	8.1	5.5	5.1	4.9	4.5
2	5.4	4.8	33	60	16	9.1	12	9.1	6.0	5.1	4.7	4.4
3	5.6	4.8	28	54	40	8.6	12	7.6	6.0	4.9	4.7	4.2
4	5.4	6.0	24	31	42	8.4	12	7.6	6.2	4.7	4.7	4.2
5	5.3	6.1	24	23	51	8.1	12	11	7.3	4.7	4.7	4.2
6	6.1	5.8	24	19	35	8.1	17	8.4	6.2	5.1	4.7	4.2
7	8.1	5.4	20	16	28	7.8	20	7.6	6.0	5.3	4.7	4.1
8	9.0	5.6	17	15	21	7.8	22	7.3	6.0	5.5	4.5	4.1
9	13	5.8	15	14	18	7.6	20	7.1	5.8	4.9	4.5	4.2
10	7.1	9.5	13	12	16	7.3	16	7.1	5.5	4.9	4.5	4.5
11	6.9	9.2	12	11	14	7.3	14	6.8	5.5	4.9	4.7	4.4
12	7.3	7.5	11	9.7	12	7.3	13	6.6	5.5	4.9	4.5	4.2
13	9.2	8.8	12	9.1	12	7.1	11	6.6	5.3	4.9	4.7	4.2
14	6.9	8.4	23	9.1	12	7.1	13	6.4	5.1	4.9	4.5	4.1
15	6.1	9.0	30	8.9	11	6.8	13	6.4	5.1	5.1	4.5	4.4
16	6.0	7.5	27	8.9	11	8.4	11	6.2	5.1	4.9	4.5	4.9
17	5.8	7.7	21	8.6	10	7.3	9.7	6.4	4.9	4.9	4.5	4.4
18	5.6	7.1	18	8.4	11	6.8	9.4	6.2	5.1	4.9	4.5	4.1
19	5.6	23	18	7.8	15	7.8	9.7	6.2	5.1	4.9	4.7	4.1
20	5.3	24	16	7.8	13	7.6	8.9	6.0	5.3	4.9	4.5	4.2
21	4.9	19	13	7.6	12	7.1	8.4	6.0	5.5	4.9	4.5	4.2
22	4.8	13	12	7.3	11	6.8	8.1	6.0	5.3	6.0	4.7	4.4
23	4.8	11	11	7.3	9.7	6.8	7.8	6.0	5.5	4.9	4.7	4.4
24	4.8	13	10	7.3	9.1	6.8	7.6	6.0	5.5	5.1	4.5	4.4
25	4.8	50	9.4	7.1	11	7.3	7.3	6.0	5.3	4.9	4.5	4.7
26	5.1	78	8.9	6.8	13	7.6	7.3	5.8	5.3	4.7	4.4	4.4
27	4.8	66	9.1	6.8	11	8.6	7.3	5.8	5.8	4.5	4.4	4.1
28	4.6	38	9.4	6.8	11	13	7.1	5.8	5.8	4.7	4.2	4.2
29	4.6	30	14	6.6	------	17	7.3	5.5	5.5	4.5	4.1	4.1
30	4.6	36	30	6.6	------	18	7.3	5.8	5.3	4.7	4.2	4.1
31	4.6	------	28	8.1	------	19	------	5.5	------	4.9	4.4	------
TOTAL	187.4	524.8	572.8	451.6	484.4	274.0	345.2	208.9	167.3	153.2	140.8	128.6
MEAN	6.05	17.5	18.5	14.6	17.3	8.84	11.5	6.74	5.58	4.94	4.54	4.29
MAX	13	78	33	60	51	19	22	11	7.3	6.0	4.9	4.9
MIN	4.6	4.8	8.9	6.6	8.6	6.8	7.1	5.5	4.9	4.5	4.1	4.1
CFSM	.93	2.70	2.86	2.25	2.67	1.37	1.78	1.04	.86	.76	.70	.66
IN.	1.08	3.02	3.29	2.60	2.78	1.57	1.98	1.20	.96	.88	.81	.74
AC-FT	372	1,040	1,140	896	961	543	685	414	332	304	279	255

CAL YR 1962: TOTAL 3,209.9 MEAN 8.79 MAX 78 MIN 4.3 CFSM 1.36 IN 18.45 AC-FT 6,370
WAT YR 1963: TOTAL 3,639.0 MEAN 9.97 MAX 78 MIN 4.1 CFSM 1.54 IN 20.92 AC-FT 7,220

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0735. Huge Creek near Wauna, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.1	7.3	11	54	43	16	9.1	6.8	6.2	5.5	5.5	5.3
2	4.2	8.4	9.4	49	32	13	8.9	6.8	6.4	5.8	5.5	5.3
3	4.4	6.2	8.9	32	26	13	8.6	6.8	6.2	5.8	5.3	5.1
4	4.5	6.2	8.6	26	23	15	8.9	6.8	8.1	5.5	5.6	4.7
5	4.7	5.5	9.4	24	20	14	8.6	7.3	7.6	5.5	5.3	4.7
6	4.5	7.1	11	28	19	13	8.6	6.6	7.1	5.5	5.1	4.7
7	4.4	10	9.4	23	17	12	8.1	6.6	8.9	5.3	5.1	4.7
8	4.4	8.9	10	20	16	12	8.1	6.6	8.6	5.5	5.1	4.9
9	4.4	7.3	10	29	16	12	9.4	6.8	7.1	5.3	5.1	4.9
10	4.2	8.1	8.6	28	15	13	8.6	6.5	6.4	5.1	5.1	4.7
11	4.1	6.6	8.1	23	14	17	8.6	6.4	6.6	4.9	5.1	4.5
12	3.9	11	7.3	20	14	17	8.9	6.8	6.2	4.9	5.1	4.5
13	5.5	15	6.8	25	13	16	8.1	6.6	6.0	4.9	5.3	4.5
14	4.5	24	6.6	27	13	17	7.8	6.4	5.8	6.0	5.3	4.6
15	4.2	22	7.1	29	15	16	7.6	6.2	5.8	6.6	4.9	4.7
16	4.2	20	8.6	40	15	14	7.1	6.2	7.8	6.0	4.9	4.7
17	4.2	23	8.4	52	14	16	7.1	6.4	7.8	5.5	4.9	5.1
18	4.2	18	7.6	56	13	14	6.8	6.2	9.4	5.3	4.9	4.9
19	4.4	31	11	57	12	13	6.8	6.2	6.8	5.1	4.9	4.9
20	4.9	25	22	70	12	13	6.8	6.8	6.2	5.5	4.9	5.1
21	8.9	18	19	53	12	15	6.8	6.6	5.8	5.8	4.9	4.9
22	9.4	19	18	43	11	13	6.8	6.6	5.8	5.3	4.9	4.9
23	6.4	28	20	35	12	13	6.8	6.6	5.5	4.9	4.7	4.9
24	8.9	24	16	47	11	12	6.8	6.6	5.5	4.7	4.7	5.1
25	7.8	19	17	72	10	11	6.8	6.8	5.3	4.7	5.1	4.9
26	6.6	20	16	47	10	11	6.8	6.2	5.3	4.7	5.3	4.7
27	5.5	20	18	38	10	10	6.8	6.2	5.5	4.7	5.5	4.5
28	9.7	16	18	32	9.7	10	6.8	6.6	5.5	4.7	5.8	4.5
29	6.6	13	14	44	12	9.7	6.6	6.4	5.8	4.7	5.5	4.9
30	6.0	12	11	38	------	9.4	6.6	6.2	5.8	4.9	5.3	8.1
31	5.3	------	12	46	------	9.4	------	6.0	------	5.3	5.3	------
TOTAL	169.0	459.6	368.8	1,207	459.7	409.5	229.1	202.7	196.8	163.9	159.9	147.9
MEAN	5.45	15.3	11.9	38.9	15.9	13.2	7.64	6.54	6.56	5.29	5.16	4.93
MAX	9.7	31	22	72	43	17	9.1	7.3	9.4	6.6	5.8	8.1
MIN	3.9	5.5	6.6	20	9.7	9.4	6.6	6.0	5.3	4.7	4.7	4.5
CFSM	.84	2.37	1.84	6.02	2.45	2.04	1.18	1.01	1.01	.82	.80	.76
IN.	.97	2.64	2.12	6.94	2.64	2.35	1.32	1.17	1.13	.94	.92	.85
AC-FT	335	912	732	2,390	912	812	454	402	390	325	317	293

CAL YR 1963: TOTAL 3,351.4 MEAN 9.18 MAX 60 MIN 3.9 CFSM 1.42 IN 19.26 AC-FT 6,650
WAT YR 1964: TOTAL 4,173.9 MEAN 11.4 MAX 72 MIN 3.9 CFSM 1.76 IN 23.99 AC-FT 8,280

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.3	5.8	73	17	24	14	8.4	7.1	5.4	4.2	4.2	3.7
2	4.9	5.5	43	41	20	13	8.0	6.8	5.3	4.2	4.1	3.7
3	4.7	7.8	26	38	16	12	8.2	7.1	5.1	4.2	4.1	3.7
4	4.7	9.1	19	27	22	11	7.3	7.3	5.1	4.2	4.1	3.7
5	4.5	5.8	15	25	42	10	6.8	6.6	5.1	4.2	4.1	3.6
6	4.4	5.1	13	27	40	9.4	7.1	6.4	5.1	4.2	4.1	3.4
7	4.7	4.9	12	23	27	9.4	7.1	6.4	4.9	4.2	4.1	3.4
8	5.3	4.9	13	21	26	9.1	6.8	6.2	4.9	4.2	4.4	3.6
9	5.8	4.9	12	19	21	8.9	6.5	6.2	4.9	4.4	4.1	3.6
10	5.5	5.1	12	16	17	8.6	6.2	6.2	4.9	4.4	4.1	3.6
11	5.3	5.1	10	15	15	8.6	6.1	6.2	6.2	4.5	3.9	3.7
12	5.3	4.9	9.7	13	14	8.1	6.0	6.2	4.9	4.4	4.9	3.7
13	5.3	6.0	9.1	12	16	7.8	6.2	6.2	4.7	4.4	4.7	3.7
14	5.5	5.3	11	12	15	7.8	6.3	6.2	4.7	4.4	4.2	3.9
15	6.2	4.7	10	11	13	7.6	6.2	7.8	4.7	4.4	4.2	4.1
16	5.5	4.7	8.4	11	13	7.6	6.2	10	4.5	4.5	3.9	4.1
17	5.3	4.7	7.8	10	12	7.6	6.0	7.3	4.5	4.5	3.9	3.9
18	5.1	4.7	7.6	9.7	12	7.3	6.0	6.8	4.5	4.5	3.7	3.9
19	5.1	4.8	7.8	9.4	11	7.1	9.0	6.8	4.4	4.5	4.4	3.9
20	5.1	4.9	8.4	9.1	11	7.1	12	6.8	4.9	4.7	5.1	3.9
21	5.1	5.1	12	11	11	7.1	12	6.4	4.9	4.5	4.4	3.9
22	5.1	6.0	28	10	11	6.9	11	6.2	4.5	4.5	4.2	4.1
23	5.1	12	30	13	9.7	6.6	9.4	6.2	4.5	4.4	4.4	3.9
24	4.9	20	25	18	9.4	6.4	9.1	6.0	4.5	4.2	4.7	3.9
25	4.7	10	20	16	9.4	6.4	8.6	6.0	4.5	4.2	4.2	3.9
26	4.7	12	35	21	15	6.3	8.4	5.8	4.9	4.2	4.1	3.9
27	4.7	9.4	40	38	23	6.3	7.8	5.8	4.7	4.2	3.9	3.9
28	4.7	8.1	28	29	18	7.5	7.3	5.5	4.7	4.2	3.9	3.9
29	4.7	14	22	26	------	9.0	7.3	5.5	4.4	4.1	3.7	3.9
30	4.7	44	19	36	------	8.5	6.8	5.5	4.4	4.1	3.7	3.7
31	4.7	------	16	33	------	8.2	------	5.5	------	3.9	3.7	------
TOTAL	156.6	249.3	602.8	617.2	493.5	261.2	230.1	201.0	144.7	133.7	125.2	113.8
MEAN	5.05	8.31	19.4	19.9	17.6	8.43	7.67	6.48	4.82	4.31	4.17	3.79
MAX	6.2	44	73	41	42	14	12	10	6.2	4.7	5.1	4.1
MIN	4.4	4.7	7.6	9.1	9.4	6.3	6.0	5.5	4.4	3.9	3.7	3.4
CFSM	.78	1.28	3.01	3.08	2.72	1.30	1.19	1.00	.75	.67	.64	.59
IN.	.90	1.43	3.46	3.55	2.84	1.50	1.32	1.16	.83	.77	.74	.65
AC-FT	311	494	1,200	1,220	979	518	456	399	287	265	256	226

CAL YR 1964: TOTAL 4,185.2 MEAN 11.4 MAX 73 MIN 4.4 CFSM 1.77 IN 24.06 AC-FT 8,300
WAT YR 1965: TOTAL 3,333.1 MEAN 9.13 MAX 73 MIN 3.4 CFSM 1.41 IN 19.16 AC-FT 6,610

12-0745. Mason Lake near Union, Wash.

Location.--Lat 47°19'15", long 122°57'15", in SE¼ sec.8, T.21 N., R.2 W., on right shore 7½ miles southeast of Union.

Drainage area.--20.2 sq mi.

Records available.--July 1951 to January 1962 (fragmentary), February 1962 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 190 ft (from topographic map). Prior to Oct. 5, 1960, staff gage at same site and datum.

Extremes.--Maximum and minimum gage heights, in feet, for August 1961 to September 1965 are contained in the following table:

Water year	Maximum		Minimum	
	Date	Gage height	Date	Gage height
1961	Sept. 1, 1961	0.77	Sept.30, 1961	0.60
1962	Dec. 21, 1961	2.45	Oct. 1-5, 7-9, 1961	.62
1963	Nov. 27, 1962	2.86	Sept.30, 1963	.79
1964	Jan. 26, 1964	3.17	Sept.14, 15, 16, 1964	.59
1965	Feb. 7, 1965	2.69	Sept.28, 29, 30, 1965	.40

1951-65: Maximum gage height observed, 5.02 ft Feb. 2, 1953; minimum recorded, 0.40 ft Sept. 28, 29, 30, 1965.

High water during period Mar. 25 to Apr. 1, 1951, reached a stage of 7.5 ft, from high watermarks.

Remarks.--No diversion above station. Beaver dams at outlet cause some change in lake elevation.

DAILY MEAN GAGE HEIGHT, IN FEET, AUGUST TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	0.75
2											-	.75
3											-	.75
4	a 0.72										-	.74
5											-	.73
6											-	.72
7											-	.72
8											0.73	.72
9											.72	.71
10											.72	.70
11											.72	.70
12											.72	.70
13											.72	.69
14											.71	.67
15											.71	.67
16											.70	.68
17											.70	.68
18											.70	.67
19											.70	.67
20											.70	.66
21											.69	.66
22											.69	.66
23											.68	.66
24											.66	.65
25											.66	.65
26											.66	.64
27											.66	.64
28											.66	.63
29					------						.66	.62
30					------						.66	.62
31		------			------		------		------		.71	------
MAX											-	.75
MIN											-	.62

a Staff-gage reading.

12-0745. Mason Lake near Union, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.62	1.01	1.29	-	1.25	1.16	1.42	1.33	0.98	0.77	0.76	0.73
2	.62	1.00		-	1.24	1.16	1.39	1.31	1.00	.76	.76	.72
3	.62	-		-	1.23	1.15	1.37	1.35	.99	.75	.82	.71
4	.62	-		2.17	1.21	1.20	1.35	1.33	.98	.76	.84	.70
5	.63	-		-	1.20	1.27	1.34	1.31	.98	.77	.86	.69
6	.63	-		-	1.20	1.29	1.36	1.29	.99	.76	.94	.68
7	.62	-		-	1.23	1.30	1.36	1.28	.99	.76	1.03	.66
8	.62	-		-	1.25	1.29	1.34	1.28	.97	.75	1.11	.65
9	.66	-		2.00	1.26	1.29	1.32	1.30	.95	.74	1.12	.65
10	.71	-		1.93	1.26	1.28	1.29	1.30	.94	.74	1.12	.67
11	.76	-		1.88	1.25	1.27	1.27	1.27	.93	.73	1.12	.68
12	.95	-		1.82	1.24	1.26	1.24	1.24	.93	.73	1.10	.68
13	1.04	-		1.76	1.26	1.24	1.23	1.22	.92	.72	1.08	.73
14	1.04	-		1.71	1.28	1.22	1.21	1.21	.91	.72	1.05	.75
15	1.02	-		1.68	1.29	1.21	1.20	1.19	.89	.72	1.03	.75
16	1.02	-		1.63	1.28	1.21	1.18	1.17	.87	.72	1.00	.75
17	1.02	-		1.60	1.27	1.19	1.17	1.16	.86	.73	.98	.75
18	1.00	-		1.55	1.26	1.18	1.15	1.14	.85	.73	.97	.75
19	.98	-		1.50	1.24	1.17	1.13	1.12	.84	.74	.94	.75
20	.95	-		1.45	1.22	1.15	1.12	1.11	.83	.74	.92	.75
21	.93	-		1.42	1.20	1.16	1.10	1.09	.83	.76	.90	.75
22	.94	-		1.41	1.19	1.21	1.09	1.09	.82	.76	.89	.75
23	1.04	-		1.39	1.18	1.26	1.08	1.09	.81	.77	.87	.75
24	1.02	-		1.33	1.16	1.41	1.09	1.11	.80	.77	.86	.76
25	1.03	-		1.33	1.14	1.50	1.09	1.11	.77	.77	.84	.76
26	1.05	-		1.33	1.12	1.52	1.09	1.09	.80	.78	.82	.76
27	1.08	-		1.35	1.10	1.52	1.23	1.08	.82	.79	.80	.77
28	1.07	-		1.33	1.12	1.50	1.30	1.04	.82	.79	.78	.87
29	1.05	1.17		1.31	------	1.49	1.31	1.01	.80	.78	.77	.91
30	1.03	1.21		1.29	------	1.46	1.30	.99	.79	.78	.75	.92
31	1.01	------		1.26	------	1.44	------	.99	------	.77	.74	------
MAX	1.08	-		-	1.29	1.52	1.42	1.35	1.00	.79	1.12	.92
MIN	.62	-		-	1.10	1.15	1.08	.99	.77	.72	.74	.65

Note.--No gage-height record Dec. 2 to Jan. 3.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.92	1.06	2.63	2.12	1.44	1.68	1.86	1.48	1.11	0.93	0.88	1.04
2	.92	1.05	2.66	2.50	1.49	1.67	1.85	1.52	1.11	.92	.88	1.05
3	.93	1.03	2.63	2.77	1.73	1.65	1.85	1.50	1.12	.92	.88	1.06
4	.93	1.06	2.58	2.83	1.82	1.62	1.86	1.49	1.12	.92	.87	1.06
5	.95	1.10	2.55	2.76	1.97	1.59	1.87	1.54	1.14	.93	.87	1.05
6	.96	1.11	2.51	2.66	2.02	1.57	1.93	1.54	1.14	.93	.87	1.02
7	1.03	1.10	2.45	2.54	2.05	1.54	1.97	1.53	1.13	.94	.88	1.00
8	1.15	1.12	2.38	2.43	2.02	1.52	2.01	1.50	1.13	.96	.88	.99
9	1.31	1.13	2.29	2.33	1.99	1.49	2.01	1.48	1.12	.96	.89	.97
10	1.35	1.23	2.21	2.23	1.94	1.47	1.99	1.46	1.11	.96	.90	.97
11	1.37	1.33	2.13	2.13	1.90	1.46	1.95	1.44	1.10	.95	.91	.96
12	1.41	1.37	2.06	2.05	1.86	1.44	1.93	1.43	1.08	.95	.92	.95
13	1.43	1.43	2.01	1.97	1.84	1.43	1.90	1.41	1.07	.95	.92	.94
14	1.40	1.47	2.09	1.91	1.83	1.40	1.88	1.39	1.06	.94	.92	.92
15	1.37	1.49	2.14	1.86	1.80	1.39	1.85	1.36	1.05	.93	.92	.92
16	1.35	1.49	2.14	1.82	1.76	1.40	1.83	1.35	1.05	.92	.93	.92
17	1.33	1.50	2.11	1.77	1.73	1.40	1.80	1.33	1.03	.91	.93	.92
18	1.30	1.49	2.07	1.73	1.75	1.38	1.75	1.32	1.01	.90	.93	.90
19	-	1.69	2.05	1.68	1.77	1.42	1.74	1.30	.99	.89	.94	.88
20	-	2.04	1.99	1.65	1.77	1.45	1.70	1.28	.99	.88	.95	.87
21	-	2.18	1.94	1.62	1.74	1.43	1.67	1.27	.98	.89	.97	.85
22	-	2.20	1.90	1.58	1.72	1.42	1.64	1.25	.97	.93	.98	.86
23	-	2.16	1.85	1.55	1.68	1.40	1.60	1.23	.96	.93	.99	.87
24	-	2.14	1.79	1.52	1.65	1.39	1.58	1.21	.95	.94	1.00	.85
25	-	2.35	1.74	1.50	1.66	1.41	1.56	1.19	.95	.93	1.00	.85
26	-	2.67	1.69	1.47	1.72	1.42	1.55	1.17	.93	.93	1.01	.84
27	-	2.85	1.65	1.45	1.70	1.44	1.50	1.16	.93	.92	1.02	.83
28	-	2.83	1.66	1.43	1.69	1.55	1.48	1.15	.94	.90	1.03	.82
29	-	2.76	1.70	1.40	------	1.67	1.47	1.14	.93	.89	1.03	.80
30	-	2.74	1.87	1.37	------	1.79	1.47	1.13	.93	.87	1.04	.79
31	1.07	------	1.95	1.42	------	1.85	------	1.12	------	.87	1.04	------
MAX	-	2.85	2.66	2.83	2.05	1.85	2.01	1.54	1.14	.96	1.04	1.06
MIN	-	1.03	1.65	1.37	1.44	1.38	1.47	1.12	.93	.87	.87	.79

12-0745. Mason Lake near Union, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.78	1.36	2.07	2.27	2.95	1.72	1.59	1.25	1.07	0.94	0.83	0.65
2	.77	1.41	1.99	2.43	2.87	1.72	1.57	1.25	1.07	.92	.87	.64
3	.76	1.40	1.92	2.47	2.75	1.72	1.54	1.25	1.07	.91	.87	.64
4	.74	1.40	1.87	2.44	2.65	1.73	1.53	1.23	1.11	.91	.86	.64
5	.75	1.38	1.84	2.41	2.57	1.73	1.50	1.22	1.13	.90	.85	.63
6	.75	1.41	1.82	2.39	2.48	1.71	1.48	1.22	1.13	.89	.84	.63
7	.74	1.46	1.76	2.33	2.39	1.68	1.47	1.20	1.14	.89	.82	.62
8	.74	1.51	1.75	2.26	2.31	1.68	1.45	1.20	1.16	.87	.80	.62
9	.73	1.52	1.73	2.28	2.24	1.68	1.45	1.19	1.14	.87	.79	.62
10	.72	1.54	1.68	2.27	2.18	1.71	1.45	1.19	1.13	.86	.78	.62
11	.72	1.53	1.64	2.23	2.13	1.83	1.43	1.19	1.10	.86	.78	.61
12	.74	1.58	1.60	2.17	2.08	1.90	1.45	1.19	1.10	.85	.75	.61
13	.78	1.69	1.56	2.17	2.04	1.92	1.42	1.19	1.09	.84	.75	.60
14	.78	1.81	1.52	2.17	1.99	1.98	1.42	1.18	1.07	.86	.74	.60
15	.79	1.87	1.51	2.18	1.98	1.98	1.41	1.16	1.06	.92	.73	.60
16	.79	1.91	1.51	2.26	1.96	1.97	1.40	1.16	1.09	.92	.73	.60
17	.77	1.95	1.52	2.43	1.93	1.97	1.38	1.15	1.11	.92	.72	.62
18	.76	1.96	1.50	2.60	1.90	1.95	1.37	1.14	1.11	.90	.71	.61
19	.76	2.09	1.55	2.75	1.87	1.92	1.36	1.13	1.10	.89	.70	.62
20	.79	2.14	1.68	2.90	1.83	1.90	1.34	1.15	1.09	.90	.69	.63
21	.92	2.13	1.73	2.97	1.79	1.88	1.34	1.16	1.08	.90	.69	.62
22	1.07	2.16	1.79	2.95	1.75	1.86	1.34	1.15	1.07	.90	.68	.62
23	1.12	2.24	1.89	2.87	1.73	1.82	1.32	1.14	1.05	.89	.68	.62
24	1.22	2.27	1.94	2.88	1.69	1.79	1.31	1.13	1.04	.88	.68	.62
25	1.28	2.26	1.97	3.10	1.67	1.75	1.29	1.13	1.02	.87	.66	.62
26	1.30	2.29	1.99	3.16	1.65	1.73	1.28	1.12	1.00	.86	.65	.61
27	1.30	2.32	2.03	3.11	1.62	1.69	1.27	1.11	.97	.85	.65	.61
28	1.36	2.27	2.04	3.03	1.60	1.67	1.26	1.09	.97	.83	.66	.60
29	1.37	2.20	2.01	3.05	1.63	1.65	1.24	1.08	.96	.82	.65	.61
30	1.36	2.13	1.98	3.01	------	1.62	1.23	1.08	.95	.80	.65	.72
31	1.34	------	2.00	2.98	------	1.60	------	1.07	------	.80	.65	------
MAX	1.37	2.32	2.07	3.16	2.95	1.98	1.59	1.25	1.16	.94	.87	.72
MIN	.72	1.36	1.50	2.17	1.60	1.60	1.23	1.07	.95	.80	.65	.60

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.75	0.69	2.33	1.90	2.50	1.76	1.20	1.25	0.98	0.70	0.54	0.50
2	.75	.71	2.57	1.99	2.46	1.72	1.20	1.24	.97	.69	.52	.49
3	.75	.78	2.56	1.99	2.40	1.69	1.18	1.23	.95	.68	.51	.48
4	.73	.90	2.47	1.96	2.40	1.67	1.17	1.23	.94	.68	.50	.48
5	.71	.89	2.36	1.94	2.53	1.63	1.15	1.21	.93	.67	.50	.47
6	.70	.88	2.23	1.94	2.66	1.61	1.15	1.19	.91	.67	.50	.47
7	.70	.87	2.12	1.90	2.68	1.57	1.15	1.17	.90	.65	.49	.46
8	.72	.86	2.06	1.88	2.66	1.54	1.14	1.15	.88	.63	.49	.45
9	.73	.85	1.97	1.84	2.59	1.52	1.14	1.13	.86	.62	.49	.44
10	.73	.85	1.90	1.79	2.49	1.49	1.12	1.12	.86	.63	.49	.44
11	.72	.85	1.80	1.74	2.40	1.46	1.11	1.10	.88	.67	.49	.43
12	.72	.84	1.74	1.70	2.32	1.44	1.10	1.08	.88	.67	.53	.43
13	.71	.83	1.68	1.65	2.27	1.41	1.11	1.06	.87	.67	.55	.43
14	.73	.82	1.65	1.62	2.20	1.39	1.11	1.05	.87	.66	.55	.44
15	.73	.81	1.60	1.59	2.12	1.37	1.10	1.08	.86	.65	.55	.45
16	.73	.79	1.54	1.55	2.08	1.35	1.10	1.18	.85	.65	.54	.43
17	.73	.79	1.47	1.53	2.03	1.33	1.09	1.18	.84	.64	.54	.42
18	.72	.78	1.43	1.50	1.97	1.30	1.09	1.17	.83	.63	.53	.42
19	.70	.76	1.43	1.48	1.91	1.28	1.20	1.16	.82	.62	.54	.42
20	.70	.76	1.43	1.46	1.87	1.26	1.38	1.16	.81	.61	.58	.42
21	.69	.75	1.47	1.48	1.81	1.25	1.42	1.16	.80	.61	.57	.42
22	.68	.77	1.59	1.48	1.79	1.23	1.42	1.15	.79	.61	.57	.42
23	.68	.88	1.68	1.54	1.74	1.22	1.40	1.14	.77	.60	.57	.42
24	.67	1.07	1.73	1.60	1.69	1.20	1.39	1.12	.76	.60	.58	.42
25	.67	1.11	1.73	1.61	1.65	1.18	1.38	1.10	.75	.60	.57	.42
26	.66	1.16	1.81	1.66	1.68	1.18	1.36	1.08	.73	.58	.56	.42
27	.65	1.17	1.90	1.88	1.77	1.17	1.33	1.07	.72	.56	.55	.41
28	.65	1.16	1.94	2.01	1.78	1.17	1.30	1.04	.72	.56	.54	.41
29	.64	1.21	1.94	2.15	------	1.22	1.28	1.02	.72	.55	.53	.40
30	.65	1.71	1.93	2.33	------	1.21	1.26	1.00	.71	.55	.52	.40
31	.65	------	1.89	2.47	------	1.20	------	.99	------	.55	.51	------
MAX	.75	1.71	2.57	2.47	2.68	1.76	1.42	1.25	.98	.70	.58	.50
MIN	.64	.69	1.43	1.46	1.65	1.17	1.09	.99	.71	.55	.49	.40

12-0765. Goldsborough Creek near Shelton, Wash.

Location.--Lat 47°12'50", long 123°10'50", in NW¼NW¼ sec.22, T.20 N., R.4 W., on right bank 3½ miles west of Shelton and 5½ miles upstream from mouth.

Drainage area.--39.3 sq mi (revised).

Records available.--June 1951 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 205 ft (from topographic map).

Average discharge.--14 years, 116 cfs (83,980 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (480 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 25, 1960	0630	482	4.78	(a)	-	* 528	5.07	Jan. 2, 1964	0100	616	5.25
Jan. 16, 1961	0200	978	6.86					Jan. 20, 1964	0700	621	5.37
Feb. 6, 1961	1700	622	5.39	Nov. 20, 1962	0630	* 1,160	7.19	Jan. 25, 1964	1300	* 972	6.72
Feb. 21, 1961	1700	* 1,420	8.23	Nov. 26, 1962	0500	633	5.22				
Mar. 15, 1961	0430	780	6.02	Jan. 3, 1963	0500	614	5.14	Dec. 1, 1964	0200	* 832	5.74
								Jan. 30, 1965	2230	773	5.51

a About Dec. 23 or 24, 1961.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13,14,17,18	a 20	-	1964	Sept.28, 1964	20	1.94
1962	Sept. 5, 6, 1962	20	b 2.06	1965	Sept.28,29,30,1965	19	c 1.88
1963	Aug. 13,Sept.5-10,28	23	2.09				

a Minimum daily.
b Occurred Oct. 5, 1961.
c Occurred Sept. 29, 30, 1965.

1951-65: Maximum discharge, 1,420 cfs Feb. 21, 1961; maximum gage height, 8.51 ft Dec. 10, 1956, backwater from bridge construction; minimum discharge, 16 cfs Sept. 23, 1951, Sept. 22-25, 1952, Aug. 25, 27, Sept. 8, 9, 12-14, 1958.

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	75	107	93	325	492	183	103	58	38	27	42
2	22	64	97	86	446	474	188	104	57	37	26	34
3	22	56	94	83	422	409	174	103	56	35	26	30
4	22	48	89	92	440	360	163	103	56	35	25	28
5	22	44	82	235	516	331	155	94	55	39	26	28
6	25	42	76	303	608	374	148	93	56	45	26	27
7	34	40	74	255	547	355	139	91	58	42	25	26
8	33	39	72	249	458	327	137	97	55	41	24	26
9	29	39	69	292	433	327	136	128	54	39	24	24
10	26	84	68	296	437	362	130	125	55	36	24	22
11	26	122	110	277	395	470	126	113	55	34	24	22
12	27	86	294	226	364	590	139	101	53	32	23	22
13	26	78	257	214	351	638	134	96	50	31	24	20
14	25	107	174	325	349	690	122	97	49	31	24	20
15	24	124	132	628	433	728	116	96	47	30	24	22
16	24	190	119	820	428	571	113	87	47	30	26	22
17	24	213	124	526	409	465	113	82	45	31	25	20
18	24	304	249	400	368	389	112	81	42	30	24	20
19	24	274	362	301	428	345	108	81	42	30	24	21
20	24	305	290	235	578	357	107	78	42	30	24	21
21	27	331	192	192	1,230	333	118	78	42	30	23	21
22	34	271	147	166	1,030	303	131	76	42	32	24	21
23	50	271	130	152	675	296	119	79	40	28	23	21
24	64	398	120	144	665	282	108	78	40	28	22	21
25	47	464	114	131	668	260	103	73	39	28	22	21
26	68	349	125	125	559	248	100	72	39	28	22	21
27	90	233	114	118	502	242	96	76	38	28	23	21
28	89	156	103	114	460	222	97	70	38	28	23	21
29	58	130	98	163	------	207	113	65	38	28	23	22
30	52	114	94	257	------	198	97	62	39	28	23	23
31	66	------	97	311	------	186	------	62	------	27	34	------
TOTAL	1,151	5,051	4,273	7,808	14,524	11,831	3,825	2,744	1,427	1,009	757	710
MEAN	37.1	168	138	252	519	382	128	88.5	47.6	32.5	24.4	23.7
MAX	90	464	362	820	1,230	728	188	128	58	45	34	42
MIN	22	39	68	83	325	186	96	62	38	27	22	20
CFSM	.94	4.28	3.51	6.41	13.2	9.71	3.24	2.25	1.21	.83	.62	.60
IN.	1.09	4.78	4.04	7.39	13.7	11.2	3.62	2.60	1.35	.95	.72	.67
AC-FT	2,280	10,020	8,480	15,490	28,810	23,470	7,590	5,440	2,830	2,000	1,500	1,410

CAL YR 1960 : TOTAL 45,422 MEAN 124 MAX 867 MIN 22 CFSM 3.16 IN 42.98 AC-FT 90,090
WAT YR 1961: TOTAL 55,110 MEAN 151 MAX 1,230 MIN 20 CFSM 3.84 IN 52.15 AC-FT 109,300

12-0765. Goldsborough Creek near Shelton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	42	200	130	84	71	95	142	48	33	22	21
2	23	42	140	160	81	72	90	119	58	33	23	21
3	23	41	110	340	81	71	84	145	58	32	31	20
4	23	41	110	270	85	92	82	122	53	33	33	20
5	23	38	190	220	78	163	80	104	59	37	32	20
6	24	36	150	200	80	172	128	95	52	37	42	20
7	24	35	120	190	104	154	150	90	48	34	47	20
8	24	34	110	170	104	163	110	92	46	33	52	20
9	25	51	94	150	119	162	101	110	44	35	38	20
10	39	186	81	140	114	133	90	101	43	32	32	22
11	36	193	71	130	110	119	85	88	43	31	30	25
12	71	150	65	120	107	108	81	81	42	29	28	23
13	126	107	66	110	108	99	80	77	42	29	27	27
14	57	86	80	105	125	94	77	75	42	27	26	28
15	42	73	85	100	115	90	77	71	40	27	25	25
16	37	70	160	95	106	94	73	70	40	27	25	23
17	33	65	309	93	103	88	71	66	38	27	27	23
18	31	60	170	89	102	82	68	64	38	27	27	22
19	30	55	150	84	93	81	65	62	37	25	27	22
20	29	55	150	80	88	78	65	61	36	25	26	21
21	28	70	160	76	82	81	75	60	35	25	26	21
22	28	320	250	75	80	118	68	60	34	24	26	21
23	79	200	500	75	81	146	64	62	34	24	24	21
24	71	120	300	78	76	262	64	61	33	23	23	22
25	46	90	200	97	72	329	68	58	33	23	23	21
26	58	70	160	103	70	251	67	56	38	23	23	21
27	93	80	130	112	67	182	185	55	43	22	21	22
28	85	150	150	103	67	145	247	54	39	22	20	41
29	54	180	160	94	------	124	198	52	36	21	21	42
30	46	170	170	90	------	111	140	49	35	22	20	35
31	42	------	150	86	------	102	------	49	------	22	21	------
TOTAL	1,374	2,910	4,941	3,965	2,582	4,037	2,928	2,451	1,267	864	868	710
MEAN	44.3	97.0	159	128	92.2	130	97.6	79.1	42.2	27.9	28.0	23.7
MAX	126	320	500	340	125	329	247	145	59	37	52	42
MIN	23	34	65	75	67	71	64	49	33	21	20	20
CFSM	1.13	2.47	4.06	3.25	2.35	3.31	2.48	2.01	1.07	.71	.71	.60
IN.	1.30	2.75	4.68	3.75	2.44	3.82	2.77	2.32	1.20	.82	.82	.67
AC-FT	2,730	5,770	9,800	7,860	5,120	8,010	5,810	4,860	2,510	1,710	1,720	1,410

CAL YR 1961: TOTAL 53,860 MEAN 148 MAX 1,230 MIN 20 CFSM 3.75 IN 50.97 AC-FT 106,800
WAT YR 1962: TOTAL 28,897 MEAN 79.2 MAX 500 MIN 20 CFSM 2.01 IN 27.35 AC-FT 57,320

Note.--No gage-height record Dec. 18 to Jan. 16. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	35	316	392	105	178	208	95	48	41	36	26
2	23	35	300	566	128	150	165	141	48	37	31	26
3	37	34	288	573	318	138	166	117	47	35	29	25
4	34	50	250	427	331	127	191	103	48	34	28	24
5	29	75	250	316	393	119	180	154	51	34	28	24
6	28	67	272	246	309	112	250	136	47	33	28	23
7	48	59	226	208	244	107	288	120	46	35	28	23
8	103	70	185	187	187	102	280	108	46	48	28	23
9	157	70	163	174	163	97	246	100	46	44	28	23
10	110	143	145	159	147	94	198	92	46	39	27	26
11	80	187	132	145	134	92	180	87	44	36	27	28
12	97	164	124	136	126	87	161	84	41	35	27	25
13	128	146	129	134	124	86	152	80	40	34	25	27
14	104	133	233	131	122	87	139	76	39	33	26	27
15	78	128	286	126	114	86	134	74	38	32	25	28
16	66	118	250	122	110	92	126	70	37	32	25	29
17	59	118	198	117	108	87	117	68	36	31	25	28
18	53	108	172	114	134	82	114	65	36	30	25	27
19	50	436	174	105	159	124	122	62	36	30	26	25
20	47	1,040	156	102	152	119	112	61	37	29	30	25
21	44	602	141	98	129	97	103	58	36	32	30	26
22	43	363	134	97	122	90	97	57	35	47	33	28
23	42	230	126	94	115	86	94	56	35	39	30	29
24	40	181	117	92	108	84	95	56	36	35	36	28
25	39	387	110	90	126	97	103	54	37	35	33	26
26	42	593	105	87	222	105	110	53	36	33	31	26
27	45	474	114	86	166	112	97	53	37	32	28	24
28	40	352	141	84	161	182	89	52	39	30	28	24
29	38	270	170	80	------	266	89	50	37	29	27	24
30	37	312	393	78	------	326	90	50	39	29	26	24
31	35	------	427	94	------	288	------	48	------	29	26	------
TOTAL	1,811	6,980	6,227	5,460	4,757	3,899	4,496	2,480	1,224	1,072	880	771
MEAN	58.4	233	201	176	170	126	150	80.0	40.8	34.6	28.4	25.7
MAX	157	1,040	427	573	393	326	288	154	51	48	36	29
MIN	23	34	105	78	105	82	89	48	35	29	25	23
CFSM	1.49	5.92	5.11	4.48	4.32	3.20	3.81	2.04	1.04	.88	.72	.65
IN.	1.71	6.61	5.89	5.17	4.50	3.69	4.25	2.35	1.16	1.01	.83	.73
AC-FT	3,590	13,840	12,350	10,830	9,440	7,730	8,920	4,920	2,430	2,130	1,750	1,530

CAL YR 1962: TOTAL 34,690 MEAN 95.0 MAX 1,040 MIN 20 CFSM 2.42 IN 32.83 AC-FT 68,810
WAT YR 1963: TOTAL 40,057 MEAN 110 MAX 1,040 MIN 23 CFSM 2.79 IN 37.91 AC-FT 79,450

12-0765. Goldsborough Creek near Shelton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	97	139	479	450	238	114	75	40	34	38	23
2	23	218	124	542	395	170	111	72	41	34	48	23
3	24	166	112	374	347	163	107	74	41	34	45	23
4	24	141	105	264	308	198	105	68	61	34	37	23
5	25	115	120	208	282	220	101	66	62	33	33	22
6	25	143	129	264	253	183	98	64	56	32	30	22
7	25	216	1 7	204	231	165	93	62	59	32	28	23
8	24	296	129	178	218	165	91	61	53	32	28	25
9	24	210	141	236	205	176	96	59	52	32	28	23
10	24	240	117	296	196	209	103	59	46	31	28	23
11	23	130	107	246	196	322	100	56	46	30	27	22
12	27	219	102	202	176	363	107	58	45	29	27	21
13	35	332	97	222	167	322	96	58	44	28	27	21
14	30	394	94	242	159	313	93	56	42	32	27	21
15	41	346	98	230	174	322	105	54	41	43	27	21
16	28	306	120	392	170	269	94	53	56	45	26	23
17	27	330	132	494	172	251	86	52	69	38	25	25
18	26	278	119	556	167	227	83	52	66	35	26	23
19	26	333	143	532	159	198	91	49	53	33	24	22
20	28	438	302	599	144	196	78	56	49	34	24	24
21	61	318	282	506	140	200	78	64	48	40	24	22
22	139	288	280	407	134	174	96	75	44	34	28	23
23	95	374	416	376	130	161	81	56	42	32	26	23
24	177	350	357	375	128	150	75	50	41	30	24	22
25	198	298	310	878	122	148	74	48	40	29	24	21
26	128	324	264	678	118	157	72	45	38	28	25	21
27	105	383	292	496	116	138	75	44	38	28	24	21
28	174	294	280	455	116	130	75	42	40	27	25	20
29	154	214	224	506	132	124	70	41	37	27	25	21
30	124	165	197	496	------	118	69	41	35	27	26	49
31	92	------	21	469	------	116	------	40	------	31	25	------
TOTAL	1,976	8,056	5,639	12,353	5,705	6,286	2,717	1,750	1,425	1,008	879	696
MEAN	63.7	269	182	398	197	203	90.6	56.5	47.5	32.5	28.4	23.2
MAX	198	438	416	878	450	363	114	75	69	45	48	49
MIN	23	97	94	178	116	116	69	40	35	27	24	20
CFSM	1.62	6.83	4.63	10.1	5.01	5.16	2.30	1.44	1.21	.83	.72	.59
IN.	1.87	7.62	5.34	11.7	5.41	5.95	2.57	1.66	1.35	.95	.83	.66
AC-FT	3,920	15,980	11,180	24,500	11,320	12,470	5,390	3,470	2,830	2,000	1,740	1,380

CAL YR 1963: TOTAL 40,721 MEAN 112 MAX 573 MIN 23 CFSM 2.84 IN 38.52 AC-FT 80,750
WAT YR 1964: TOTAL 48,490 MEAN 132 MAX 878 MIN 20 CFSM 3.37 IN 45.89 AC-FT 96,180

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	52	31	770	136	425	235	76	100	52	32	23	22
2	40	40	502	214	313	206	72	85	49	31	23	22
3	34	79	338	196	241	189	68	82	48	31	24	22
4	28	176	207	163	258	174	68	104	47	32	24	22
5	26	94	155	155	398	162	65	88	46	31	23	22
6	24	70	130	163	455	152	68	82	45	30	25	22
7	24	58	118	148	371	144	74	76	44	29	22	21
8	33	52	152	155	349	136	69	72	42	29	22	20
9	36	46	128	150	324	130	65	71	42	28	24	20
10	33	49	138	134	272	126	61	68	41	28	24	21
11	29	55	130	130	237	120	61	65	52	29	23	21
12	27	49	124	122	225	115	58	64	48	28	26	22
13	26	45	126	119	246	111	61	62	45	27	32	22
14	28	42	124	120	222	109	62	59	44	27	27	26
15	35	38	130	136	199	104	58	78	44	27	25	27
16	40	38	107	148	235	98	57	214	41	27	24	24
17	35	37	95	144	276	97	57	154	40	26	23	22
18	31	36	95	138	244	93	60	115	40	26	22	22
19	29	36	100	130	222	90	120	102	39	26	24	22
20	28	35	100	132	214	88	338	98	38	26	32	22
21	28	45	130	174	193	87	265	97	37	27	26	22
22	28	43	209	195	199	83	191	81	36	26	25	22
23	27	108	260	192	176	83	146	76	35	26	24	22
24	26	205	222	293	166	83	138	71	35	26	24	21
25	26	275	183	273	156	79	120	68	36	26	24	20
26	25	236	233	280	188	79	106	65	35	25	25	20
27	25	178	293	595	322	76	97	62	34	26	23	21
28	25	150	236	628	298	80	88	58	33	25	22	20
29	25	135	185	580	------	91	80	56	32	24	22	19
30	27	544	161	689	------	82	85	54	33	24	22	19
31	28	------	136	628	------	76	------	53	------	24	22	------
TOTAL	930	3,186	6,017	7,459	7,432	3,578	2,933	2,568	1,233	848	751	650
MEAN	30.0	106	194	241	265	115	97.8	82.8	41.1	27.4	24.2	21.7
MAX	52	544	770	688	455	235	338	214	52	32	32	27
MIN	24	31	95	118	158	76	57	53	32	24	22	19
CFSM	.76	2.70	4.94	6.12	6.75	2.94	2.49	2.11	1.05	.70	.62	.55
IN.	.88	3.01	5.69	7.06	7.03	3.39	2.78	2.43	1.17	.80	.71	.62
AC-FT	1,840	6,320	11,930	14,790	14,740	7,100	5,820	5,090	2,450	1,680	1,490	1,290

CAL YR 1964: TOTAL 42,951 MEAN 117 MAX 878 MIN 20 CFSM 2.99 IN 40.64 AC-FT 85,190
WAT YR 1965: TOTAL 37,584 MEAN 103 MAX 770 MIN 19 CFSM 2.62 IN 35.57 AC-FT 74,550

12-0784. Kennedy Creek near Kamilche, Wash.

Location.--Lat 47°04'40", long 123°07'35", in SW¼NE¼ sec.1, T.18 N., R.4 W., on left bank 100 ft upstream from Kennedy Falls, 2 miles upstream from mouth at Oyster Bay, and 4 miles south of Kamilche.

Drainage area.--17.4 sq mi (revised).

Records available.--February 1960 to September 1965.

Gage.--Water-stage recorder. Concrete control since July 13, 1961. Altitude of gage is 110 ft (from topographic map).

Average discharge.--5 years, 60.9 cfs (44,090 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (400 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 24, 1960	1530	413	3.09	Nov. 20, 1962	0100	* 1,110	4.19	Jan. 17, 1964	1030	498	3.31
Jan. 16, 1961	0030	662	3.52	Nov. 25, 1962	1900	640	3.47	Jan. 25, 1964	0930	* 1,100	4.79
Feb. 21, 1961	1230	* 1,090	4.16	Jan. 1, 1963	1900	409	2.96	Mar. 11, 1964	1900	580	4.02
Mar. 15, 1961	0400	473	3.17								
				Nov. 19, 1963	1700	414	3.06	Dec. 1, 1964	1400	595	3.45
Dec. 23, 1961	-	* 466	3.18	Jan. 1, 1964	1500	410	3.11	Jan. 27, 1965	0500	* 707	5.04
								Jan. 30, 1965	1800	625	4.67

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 13, 1961	1.9	a 0.49	1964	Sept.14, 1964	2.5	0.85
1962	Sept. 9, 1962	2.3	b .83	1965	Sept. 7,8,9,26-30	2.4	.77
1963	Aug. 17, 18, 1963	2.4	.83				

a Occurred July 13, 1961.
b Probably occurred Oct. 5, 1961, July 30, Sept. 9, 1962.

1960-65: Maximum discharge, 1,110 cfs Nov. 20, 1962, from rating curve extended above 400 cfs on basis of slope-area measurement at gage height 4.16 ft; maximum gage height, 5.04 ft Jan. 27, 1965 (backwater from log); minimum discharge, 1.9 cfs Aug. 13, 1961; minimum gage height, 0.49 ft July 13, 1961.

Remarks.--Records good. Slight regulation from fishway at Summit Lake. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.0	15	74	48	130	280	50	62	15	5.6	3.6	6.0
2	3.0	13	65	44	148	253	50	77	14	5.6	3.4	5.5
3	3.1	12	62	42	134	215	44	81	13	5.2	3.4	4.1
4	3.3	11	57	42	139	172	40	77	13	4.9	3.6	3.8
5	3.3	9.8	50	112	172	168	38	69	12	5.9	3.6	3.4
6	3.9	9.3	47	162	247	215	37	61	12	8.6	3.4	3.1
7	4.6	8.8	43	152	212	223	36	55	15	8.2	3.4	2.8
8	6.3	8.6	41	195	180	220	36	57	13	7.0	3.1	2.8
9	5.4	8.4	38	226	165	232	33	66	13	6.1	3.1	2.6
10	4.8	20	36	180	148	259	30	64	13	5.4	3.1	2.6
11	4.6	31	42	143	158	340	28	60	12	5.1	3.1	2.6
12	4.5	21	75	128	162	354	33	64	12	4.5	3.4	2.6
13	4.5	19	61	143	241	329	30	58	11	3.8	2.6	2.6
14	4.4	36	54	190	223	382	28	55	11	3.6	2.8	2.4
15	4.2	47	49	359	250	405	26	50	9.6	3.8	3.4	2.6
16	4.2	102	46	411	192	294	26	46	8.8	3.8	3.4	2.6
17	4.2	126	47	332	192	223	26	40	8.2	3.8	3.1	2.4
18	4.2	158	125	271	155	178	26	37	7.6	3.8	2.8	2.4
19	4.2	110	232	208	232	158	26	33	7.4	3.6	2.6	2.4
20	4.2	202	175	165	343	202	26	30	7.2	3.6	2.4	2.4
21	4.5	198	126	134	893	162	41	26	6.8	3.6	2.6	2.4
22	5.4	175	99	112	510	141	60	23	6.4	3.8	2.4	2.6
23	7.8	247	82	96	326	134	65	26	6.3	3.6	2.4	2.6
24	12	354	71	85	360	120	57	23	5.8	3.6	2.4	2.6
25	8.6	329	64	74	354	101	50	21	5.6	3.6	2.6	2.8
26	9.3	238	68	65	298	104	43	21	5.6	3.4	2.6	2.8
27	15	172	59	59	274	93	39	21	5.4	3.6	2.6	2.8
28	17	128	53	55	223	82	38	19	5.2	3.6	2.6	2.8
29	13	101	50	70	------	75	50	17	5.4	3.6	2.4	4.0
30	12	85	47	123	------	66	62	17	5.6	3.6	2.4	3.0
31	13	------	52	141	------	62	------	16	------	3.6	4.1	------
TOTAL	201.5	2,994.9	2,190	4,567	7,061	6,242	1,174	1,372	285.9	141.5	92.4	90.1
MEAN	6.50	99.8	70.6	147	252	201	39.1	44.3	9.53	4.56	2.98	3.00
MAX	17	354	232	411	893	405	65	81	15	8.6	4.1	6.0
MIN	3.0	8.4	36	42	130	62	26	16	5.2	3.4	2.4	2.4
AC-FT	400	5,940	4,340	9,060	14,010	12,380	2,330	2,720	567	281	183	179

CAL YR 1960: TOTAL MEAN MAX MIN AC-FT
WAT YR 1961: TOTAL 26,412.3 MEAN 72.4 MAX 893 MIN 2.4 AC-FT 52,390

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0784. Kennedy Creek near Kamilche, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.0	11	142	120	45	44	47	127	15	5.7	3.2	2.5
2	3.0	10	108	170	43	40	42	103	22	5.7	3.4	2.5
3	3.0	11	87	250	43	39	38	106	19	5.4	5.7	2.5
4	3.0	11	108	212	45	77	36	88	17	5.7	6.0	2.5
5	3.0	9.3	104	182	40	129	33	75	17	6.6	6.3	2.7
6	4.0	8.6	87	185	40	154	83	67	16	7.3	7.0	2.7
7	4.0	7.9	78	200	49	152	93	58	14	6.0	8.5	2.7
8	4.4	8.2	68	150	49	152	87	58	14	5.7	13	2.7
9	5.2	12	65	120	50	131	104	63	13	5.4	8.5	2.7
10	7.9	44	60	100	53	109	90	56	13	5.4	7.0	3.7
11	6.3	56	60	90	53	90	81	49	12	5.4	6.3	5.4
12	12	42	58	85	50	65	71	46	11	5.1	5.7	4.8
13	14	30	57	80	58	58	63	43	12	4.8	5.7	6.0
14	8.2	25	62	72	92	52	56	39	12	4.5	5.7	6.0
15	6.0	20	60	68	96	46	53	36	11	4.5	5.4	5.1
16	5.2	18	70	64	86	45	47	34	19	4.5	5.4	4.5
17	4.6	16	170	60	86	40	43	31	20	4.2	5.4	4.2
18	4.4	17	150	57	80	37	39	29	18	4.2	5.4	4.0
19	4.4	17	170	55	68	35	35	26	9.3	4.2	5.1	3.7
20	4.4	16	200	52	62	34	34	25	8.1	4.0	5.1	3.7
21	4.4	29	200	50	55	39	37	23	7.3	3.7	4.8	3.7
22	4.9	168	250	48	56	58	34	22	7.0	3.7	4.2	3.7
23	16	103	350	45	72	81	30	22	6.6	3.4	4.2	3.7
24	12	72	300	44	56	223	31	22	6.3	3.2	3.7	3.7
25	9.7	51	200	50	52	195	32	21	6.3	3.2	3.4	3.7
26	20	42	160	56	47	139	32	20	7.0	3.0	3.2	3.7
27	34	41	150	70	44	107	186	19	7.3	3.0	3.0	4.0
28	22	57	140	90	45	87	268	18	6.6	3.0	2.7	11
29	15	70	180	65	------	72	210	17	6.3	3.0	2.7	9.7
30	12	108	150	52	------	62	152	16	5.7	3.0	2.7	6.6
31	11	------	130	48	------	53	------	15	------	3.2	2.7	------
TOTAL	271.0	1,131.0	4,174	2,990	1,615	2,645	2,187	1,374	358.8	139.7	161.1	128.1
MEAN	8.74	37.7	135	96.5	57.7	85.3	72.9	44.3	12.0	4.51	5.20	4.27
MAX	34	168	350	250	96	223	268	127	22	7.3	13	11
MIN	3.0	7.9	57	44	40	34	30	15	5.7	3.0	2.7	2.5
AC-FT	538	2,240	8,280	5,930	3,200	5,250	4,340	2,730	712	277	320	254

CAL YR 1961: TOTAL 26,601.9 MEAN 72.9 MAX 893 MIN 2.4 AC-FT 52,760
WAT YR 1962: TOTAL 17,174.7 MEAN 47.1 MAX 350 MIN 2.5 AC-FT 34,070

Note.--No gage-height record Dec. 9 to Jan. 3. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.4	11	281	242	44	98	125	47	11	8.2	4.2	3.9
2	5.1	11	269	314	77	91	101	66	12	6.9	4.2	3.9
3	5.7	11	247	250	210	80	96	55	11	6.2	3.9	3.6
4	6.0	12	216	186	202	73	96	50	12	6.2	3.6	3.4
5	5.4	16	205	151	197	66	112	86	13	5.9	3.6	3.4
6	5.4	19	208	123	160	60	206	76	11	5.9	3.9	3.4
7	13	18	174	106	140	54	227	77	10	6.9	3.6	3.4
8	35	22	146	92	116	49	192	67	9.6	9.6	3.6	3.4
9	86	23	121	82	100	46	153	60	10	8.7	3.6	3.4
10	44	117	104	73	85	42	121	54	9.6	7.2	3.4	4.2
11	32	152	91	63	75	39	110	48	8.7	6.2	3.4	4.4
12	40	114	78	56	65	36	103	45	8.2	5.9	3.2	4.2
13	65	98	74	53	60	34	99	41	7.8	5.6	3.2	4.2
14	44	86	136	49	55	35	92	38	7.5	5.2	3.2	4.9
15	31	77	182	48	50	34	92	37	7.2	4.6	3.2	5.2
16	25	63	155	46	50	38	87	34	6.9	4.6	2.9	6.2
17	21	55	131	44	49	33	80	32	6.6	4.6	2.9	5.6
18	20	48	108	41	59	31	77	29	6.6	4.6	2.9	4.6
19	17	389	104	37	77	47	82	26	6.6	4.6	3.9	3.9
20	16	754	89	35	74	45	71	20	6.6	4.4	5.6	3.9
21	15	390	80	33	67	40	66	18	6.6	4.6	4.9	3.6
22	15	250	71	32	61	37	56	16	6.2	7.2	4.6	4.2
23	14	184	64	29	58	34	54	16	6.2	6.2	4.4	4.9
24	14	179	59	28	53	29	50	15	6.2	5.9	6.6	4.4
25	13	406	54	27	74	31	48	15	6.2	5.9	5.6	4.2
26	13	519	49	25	121	36	46	14	6.2	5.2	5.6	3.6
27	13	402	49	24	103	41	42	13	6.6	4.6	4.6	3.6
28	13	307	61	24	98	154	39	13	7.8	4.2	4.2	3.6
29	12	247	73	22	------	238	39	12	8.2	4.2	3.9	3.4
30	12	304	123	21	------	205	40	12	8.7	3.9	3.6	3.4
31	12	------	146	31	------	167	------	11	------	4.2	3.6	------
TOTAL	668.0	5,284	3,948	2,387	2,580	2,043	2,802	1,143	250.8	178.1	123.6	122.0
MEAN	21.5	176	127	77.0	92.1	65.9	93.4	36.9	8.36	5.75	3.99	4.07
MAX	86	754	281	314	210	238	227	86	13	9.6	6.6	6.2
MIN	5.1	11	49	21	44	29	39	11	6.2	3.9	2.9	3.4
AC-FT	1,320	10,480	7,830	4,730	5,120	4,050	5,560	2,270	497	353	245	242

CAL YR 1962: TOTAL 21,498.7 MEAN 58.9 MAX 754 MIN 2.5 AC-FT 42,640
WAT YR 1963: TOTAL 21,529.5 MEAN 59.0 MAX 754 MIN 2.9 AC-FT 42,700

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0784. Kennedy Creek near Kamilche, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.7	33	109	307	366	129	34	31	10	11	7.0	4.2
2	3.7	67	92	259	287	101	36	27	10	11	8.9	4.0
3	3.4	53	80	182	232	93	32	26	10	11	7.0	4.0
4	4.0	54	70	152	200	129	33	22	15	10	6.3	4.0
5	4.2	58	74	127	168	161	32	20	15	10	5.7	3.7
6	4.2	78	77	172	141	137	29	19	14	9.7	5.1	3.7
7	4.2	109	65	135	122	114	27	18	16	8.5	4.8	4.2
8	4.0	125	82	115	109	120	25	17	15	7.3	4.8	6.3
9	3.7	106	92	149	98	123	27	17	14	7.3	4.5	4.8
10	3.7	109	80	202	93	178	29	17	13	6.6	4.5	4.2
11	3.7	96	74	168	82	382	31	16	13	6.0	4.5	3.7
12	3.7	111	67	137	74	366	38	16	12	5.7	4.2	3.4
13	4.8	180	62	147	70	250	36	16	12	5.7	4.5	3.4
14	5.7	208	58	135	63	218	35	15	11	7.3	4.5	3.0
15	5.1	182	55	139	67	198	53	14	10	12	4.5	3.2
16	4.8	154	58	241	64	165	52	14	16	9.3	4.5	3.4
17	4.2	218	64	382	65	149	42	13	20	8.1	4.2	5.4
18	4.0	195	58	362	68	129	38	13	20	7.0	4.2	4.5
19	4.0	332	63	340	64	111	34	12	16	6.6	4.0	4.2
20	4.2	287	143	315	60	103	30	14	16	6.6	4.0	4.8
21	12	218	137	256	56	92	31	16	14	7.3	4.0	4.2
22	46	185	137	200	50	81	48	22	13	6.6	3.7	4.0
23	27	208	129	158	48	72	36	16	11	6.3	3.7	4.0
24	46	200	109	268	46	65	31	14	11	5.7	3.4	3.7
25	46	168	122	844	43	63	29	14	10	5.1	3.4	3.7
26	42	192	116	516	40	67	29	13	14	5.1	3.7	3.7
27	31	223	147	374	37	58	30	12	13	5.1	4.0	3.7
28	62	200	141	304	37	52	29	12	14	5.1	4.0	3.4
29	53	161	122	366	49	48	27	11	13	5.1	4.2	3.7
30	40	131	104	308	------	36	26	11	12	5.1	4.8	12
31	30	------	104	322	------	34	------	10	------	5.4	4.5	------
TOTAL	518.0	4,641	2,891	8,083	2,899	4,024	1,009	508	403	228.6	145.1	128.2
MEAN	16.7	155	93.3	261	100	130	33.6	16.4	13.4	7.37	4.68	4.27
MAX	62	332	147	844	366	382	53	31	20	12	8.9	12
MIN	3.4	33	55	116	37	34	25	10	10	5.1	3.4	3.0
AC-FT	1,030	9,210	5,730	16,030	5,750	7,980	2,000	1,010	799	453	288	254

CAL YR 1963: TOTAL 19,679.5 MEAN 53.9 MAX 332 MIN 2.9 AC-FT 39,030
WAT YR 1964: TOTAL 25,477.9 MEAN 69.6 MAX 844 MIN 3.0 AC-FT 50,530

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	11	540	130	252	132	21	36	13	5.3	2.8	2.8
2	9.3	12	378	190	193	113	18	31	12	5.7	3.0	2.8
3	7.7	30	235	170	160	99	16	32	11	5.7	3.2	2.8
4	6.6	54	170	150	165	92	16	43	10	5.3	3.0	2.8
5	5.7	31	131	140	214	82	15	39	16	5.0	3.0	3.0
6	5.4	24	106	129	200	77	15	35	14	5.0	2.8	2.8
7	5.4	20	90	114	168	70	16	31	13	4.4	2.8	2.4
8	7.7	14	88	118	209	64	15	28	12	4.7	2.8	2.4
9	10	16	74	113	179	61	15	24	11	4.7	3.0	2.4
10	9.7	16	74	103	154	56	14	23	11	5.3	3.0	2.6
11	7.7	21	68	96	134	51	14	21	15	5.3	3.2	2.6
12	6.6	18	68	87	124	40	14	20	14	5.3	4.2	2.6
13	6.6	17	72	82	132	38	14	19	13	5.3	4.7	2.6
14	7.7	16	77	82	118	35	14	16	14	4.4	4.7	3.9
15	9.7	15	86	96	107	33	14	22	13	4.2	4.2	6.0
16	14	14	74	107	118	31	14	53	12	4.2	3.7	4.4
17	13	13	64	106	125	30	14	54	12	3.9	3.4	3.7
18	10	13	58	99	116	28	14	44	11	3.9	3.4	3.2
19	9.7	12	56	98	112	26	80	40	10	3.9	4.4	3.0
20	8.5	12	55	116	103	25	139	39	9.5	4.2	4.7	3.0
21	8.5	11	120	152	98	24	100	34	8.8	4.2	4.2	3.0
22	8.1	12	270	154	92	23	77	31	8.3	3.9	3.4	3.0
23	7.7	29	230	156	81	22	62	29	7.5	3.7	3.2	3.0
24	7.7	195	200	218	75	21	58	35	7.1	3.4	3.4	2.6
25	7.3	146	170	190	70	20	52	28	7.1	3.2	3.9	2.6
26	7.0	226	230	253	82	21	46	22	7.1	3.0	4.2	2.6
27	6.6	156	300	587	190	20	40	19	6.7	2.8	3.7	2.6
28	6.6	113	200	477	163	22	36	16	6.7	3.4	3.2	2.4
29	6.6	196	150	501	------	23	32	16	6.7	3.7	3.0	2.4
30	7.3	457	120	516	------	21	34	15	6.4	3.2	3.0	2.4
31	8.1	------	100	396	------	20	------	14	------	2.8	2.8	------
TOTAL	256.5	1,920	4,654	5,926	3,934	1,420	1,029	909	318.9	133.0	108.0	88.4
MEAN	8.27	64.0	150	191	141	45.8	34.3	29.3	10.6	4.29	3.48	2.95
MAX	14	457	540	587	252	132	139	54	16	5.7	4.7	6.0
MIN	5.4	11	55	82	70	20	14	14	6.4	2.8	2.8	2.4
AC-FT	509	3,810	9,230	11,750	7,800	2,820	2,040	1,800	633	264	214	175

CAL YR 1964: TOTAL 24,258.4 MEAN 66.3 MAX 844 MIN 3.0 AC-FT 48,120
WAT YR 1965: TOTAL 20,696.8 MEAN 56.7 MAX 587 MIN 2.4 AC-FT 41,050

12-0790. Deschutes River near Rainier, Wash.

Location.--Lat 46°51'10", long 122°40'00", in SE¼SW¼ sec.22, T.16 N., R.1 E., on right bank 75 ft upstream from county road crossing, half a mile downstream from outlet of Reichel Lake, and 2½ miles southeast of Rainier.

Drainage area.--89.8 sq mi.

Records available.--June 1949 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 350 ft (from topographic map). Prior to Aug. 26, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--16 years, 267 cfs (193,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	2030	3,610	10.51	Nov. 20, 1962	0830	2,780	9.30	Nov. 24, 1964	1830	2,720	9.20
Nov. 25, 1960	0030	* 4,070	11.16	Nov. 26, 1962	0100	* 4,340	11.50	Dec. 1, 1964	2300	2,400	8.67
Jan. 16, 1961	0600	2,040	8.06	Feb. 3, 1963	1500	4,180	11.30	Dec. 23, 1964	0030	* 4,610	11.84
Feb. 21, 1961	1930	2,740	9.24					Jan. 27, 1965	0930	3,000	9.64
				Jan. 19, 1964	2330	2,260	8.43				
Dec. 21, 1961	0430	* 2,360	8.60	Jan. 25, 1964	1500	* 5,160	12.50				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 30,	28	2.74	1963	Sept. 7, 1963	16	2.60
	Sept.23-27, 1961			1964	Oct. 10, 11, 1963	31	2.77
1962	Sept. 5,6,7,9, 1962	28	2.75	1965	Sept.29,30, 1965	a 26	-

a Minimum daily.

1949-65: Maximum discharge, 5,620 cfs Dec. 12, 1955 (gage height, 13.06 ft); minimum, 16 cfs Sept. 7, 1963 (gage height, 2.60 ft).

Remarks.--Records excellent. Probably some small diversion for irrigation and domestic use. No regulation.

Revisions.--WSP 1246: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	190	299	185	900	1,090	308	317	111	59	40	80
2	34	205	268	170	948	988	347	439	105	59	40	64
3	34	211	262	158	748	720	368	523	102	58	40	46
4	34	170	270	152	596	565	338	506	100	58	40	40
5	33	139	240	513	506	498	299	450	97	66	40	36
6	38	116	216	1,100	780	593	270	380	100	77	41	35
7	62	104	200	764	916	530	243	326	104	65	40	35
8	82	92	188	1,110	668	484	229	299	95	59	39	35
9	62	84	175	1,180	648	509	218	353	93	56	36	34
10	52	95	161	776	940	484	208	374	92	54	35	34
11	47	343	161	558	828	608	200	444	90	52	34	34
12	45	259	299	530	804	792	229	296	88	51	32	33
13	44	302	285	530	1,080	960	234	259	84	50	32	32
14	42	586	248	593	996	1,390	224	240	80	50	32	31
15	41	460	218	823	1,300	1,170	216	229	77	49	33	31
16	40	891	198	1,700	988	836	205	213	76	49	33	31
17	39	931	192	1,070	744	648	211	198	74	47	33	33
18	39	1,340	346	828	572	526	211	188	72	47	33	32
19	39	848	1,140	604	612	470	211	172	71	46	32	32
20	38	2,270	756	464	872	640	208	165	70	45	31	31
21	39	1,800	481	383	1,980	586	262	156	68	45	31	31
22	42	992	365	329	1,660	502	350	147	66	45	31	30
23	69	1,150	296	288	908	506	534	158	65	45	30	29
24	383	2,590	251	268	999	562	436	147	62	45	29	28
25	205	2,590	224	243	1,240	530	356	136	60	44	30	28
26	259	1,070	237	224	980	516	305	139	60	44	31	28
27	450	676	232	208	792	498	268	152	60	42	32	29
28	436	498	213	203	708	425	243	136	60	41	31	34
29	276	398	200	221	------	377	273	126	60	41	29	54
30	195	341	188	700	------	344	314	124	62	41	28	38
31	154	------	188	1,350	------	320	------	120	------	41	46	------
TOTAL	3,387	21,741	8,997	18,225	25,713	19,667	8,318	7,912	2,404	1,571	1,064	1,088
MEAN	109	725	290	588	918	634	277	255	80.1	50.7	34.3	36.3
MAX	450	2,590	1,140	1,700	1,980	1,390	534	523	111	77	46	80
MIN	33	84	161	152	506	320	200	120	60	41	28	28
CFSM	1.22	8.07	3.23	6.55	10.2	7.06	3.09	2.84	.89	.56	.38	.40
IN.	1.40	9.00	3.73	7.55	10.6	8.14	3.44	3.28	1.00	.65	.44	.45
AC-FT	6,720	43,120	17,850	36,150	51,000	39,010	16,500	15,690	4,770	3,120	2,110	2,160

CAL YR 1960: TOTAL 100,764 MEAN 275 MAX 2,590 MIN 33 CFSM 3.07 IN 41.73 AC-FT 199,900
WAT YR 1961: TOTAL 120,087 MEAN 329 MAX 2,590 MIN 28 CFSM 3.66 IN 49.73 AC-FT 238,200

12-0790. Deschutes River near Rainier, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	88	474	330	130	117	196	300	113	54	36	31
2	34	82	353	265	123	112	191	321	123	54	35	32
3	33	77	276	901	119	106	177	324	146	50	39	32
4	32	76	279	879	113	128	172	324	130	50	51	31
5	31	71	478	556	108	257	201	268	128	51	49	30
6	33	66	347	461	104	342	386	232	121	58	48	29
7	41	62	270	433	112	291	680	211	113	56	48	29
8	40	59	224	369	115	260	496	196	108	50	51	29
9	35	59	190	318	123	246	440	213	103	49	48	29
10	49	118	165	268	128	221	342	211	97	49	43	32
11	65	359	141	237	123	203	274	193	93	48	42	45
12	87	237	128	219	119	181	232	189	88	47	41	40
13	107	163	132	198	123	168	208	201	89	45	44	37
14	82	126	128	186	454	155	198	193	86	44	42	39
15	62	104	118	177	492	149	191	175	82	44	39	39
16	55	92	128	166	321	149	175	155	79	45	38	37
17	50	84	910	166	249	149	155	140	74	50	37	34
18	46	82	506	146	219	149	146	132	73	44	37	32
19	44	77	500	134	196	149	138	128	68	42	37	32
20	42	71	1,060	123	177	153	130	117	66	42	36	32
21	41	97	1,740	103	157	155	123	113	66	41	36	32
22	41	1,130	812	104	155	186	115	110	63	39	36	32
23	99	526	732	112	155	216	112	126	62	40	35	32
24	118	299	1,220	113	138	423	115	164	60	39	34	32
25	88	213	955	130	128	720	119	226	60	37	32	32
26	163	170	616	155	117	517	110	226	63	37	32	32
27	320	195	450	172	112	384	418	193	64	36	32	32
28	234	368	447	175	121	309	600	166	60	36	34	82
29	145	439	520	161	------	257	447	146	55	35	35	153
30	111	422	520	151	------	221	342	132	54	38	34	96
31	95	------	402	140	------	203	------	119	------	36	32	------
TOTAL	2,457	6,012	15,221	8,048	4,731	7,276	7,629	5,944	2,587	1,386	1,213	1,226
MEAN	79.3	200	491	260	169	235	254	192	86.2	44.7	39.1	40.9
MAX	320	1,130	1,740	901	492	720	680	324	146	58	51	153
MIN	31	59	118	103	104	106	110	110	54	35	32	29
CFSM	.88	2.23	5.47	2.89	1.88	2.61	2.83	2.14	.96	.50	.44	.46
IN.	1.02	2.49	6.30	3.33	1.96	3.01	3.16	2.46	1.07	.57	.50	.51
AC-FT	4,870	11,920	30,190	15,960	9,380	14,430	15,130	11,790	5,130	2,750	2,410	2,430

CAL YR 1961: TOTAL 109,652 MEAN 300 MAX 1,980 MIN 28 CFSM 3.35 IN 45.41 AC-FT 217,500
WAT YR 1962: TOTAL 63,730 MEAN 175 MAX 1,740 MIN 29 CFSM 1.94 IN 26.39 AC-FT 126,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	67	50	910	588	211	229	562	198	80	65	49	36
2	55	50	796	892	360	232	407	293	80	59	45	36
3	58	50	692	668	3,040	216	350	311	87	58	42	34
4	58	50	528	503	1,440	203	374	270	84	54	42	34
5	51	60	458	384	1,220	182	450	350	85	51	42	33
6	49	80	696	324	768	172	812	450	77	52	41	32
7	54	80	576	282	568	161	780	404	74	62	40	30
8	134	80	436	249	460	152	576	338	74	102	39	32
9	450	90	363	229	386	141	509	290	76	87	40	34
10	312	120	312	206	335	134	464	254	74	87	40	36
11	193	200	265	179	296	132	419	226	70	88	38	36
12	196	250	232	164	259	134	371	205	68	79	38	34
13	291	280	221	157	243	128	350	190	66	66	36	36
14	232	220	321	157	221	128	374	170	62	59	35	59
15	164	190	694	153	208	130	464	161	59	56	35	51
16	126	179	760	149	198	132	401	149	58	54	34	97
17	97	164	506	140	188	135	362	136	55	51	33	87
18	93	161	378	138	190	130	335	130	56	46	33	68
19	85	462	321	128	200	136	323	124	55	46	35	54
20	79	2,240	274	121	221	143	302	118	56	45	41	50
21	73	1,090	237	117	203	145	288	113	64	44	40	46
22	68	596	219	115	188	152	265	109	74	64	42	44
23	66	396	203	112	172	149	245	107	70	64	45	42
24	62	339	186	108	163	147	237	105	62	60	80	44
25	59	1,930	172	106	163	143	221	102	62	74	59	40
26	59	2,790	164	103	240	143	213	100	59	62	50	39
27	59	1,240	159	99	243	154	200	95	58	55	46	39
28	55	736	157	97	221	357	185	92	60	52	42	39
29	54	531	166	91	------	1,050	180	90	60	50	39	35
30	51	665	527	88	------	1,100	185	84	71	47	40	34
31	51	------	600	103	------	852	------	82	------	49	39	------
TOTAL	3,501	15,369	12,529	6,950	12,605	7,543	11,204	5,846	2,036	1,888	1,300	1,311
MEAN	113	512	404	224	450	243	373	189	67.9	60.9	41.9	43.7
MAX	450	2,790	910	892	3,040	1,100	812	450	87	102	80	97
MIN	49	50	157	88	163	128	180	82	55	44	33	30
CFSM	1.26	5.70	4.50	2.50	5.01	2.71	4.16	2.10	.76	.68	.47	.49
IN.	1.45	6.36	5.19	2.88	5.22	3.12	4.64	2.42	.84	.78	.54	.54
AC-FT	6,940	30,480	24,850	13,790	25,000	14,960	22,220	11,600	4,040	3,740	2,580	2,600

CAL YR 1962: TOTAL 71,439 MEAN 196 MAX 2,790 MIN 29 CFSM 2.18 IN 29.59 AC-FT 141,700
WAT YR 1963: TOTAL 82,082 MEAN 225 MAX 3,040 MIN 30 CFSM 2.50 IN 33.99 AC-FT 162,800

12-0790. Deschutes River near Rainier, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	136	262	745	1,220	299	299	192	152	80	66	40
2	34	302	229	940	872	276	273	182	143	80	74	40
3	34	262	205	554	668	245	237	170	124	77	72	41
4	34	308	185	450	548	311	218	161	130	74	82	40
5	35	320	192	386	495	520	216	154	163	72	77	36
6	35	320	314	652	428	404	205	143	141	70	68	35
7	35	460	290	558	389	344	188	132	141	66	64	36
8	34	780	262	416	359	308	188	130	141	65	60	45
9	33	464	248	456	329	323	190	130	139	64	56	47
10	32	386	221	512	314	344	200	141	126	60	54	42
11	33	344	200	446	314	836	211	145	120	59	51	40
12	34	276	182	377	288	880	232	147	115	58	49	38
13	35	276	165	368	273	562	251	152	107	55	50	36
14	42	548	156	450	256	498	237	143	104	58	49	36
15	38	593	149	401	268	632	320	132	98	92	49	36
16	34	554	154	970	270	520	359	128	124	87	46	36
17	33	992	170	1,450	314	460	299	136	149	72	45	51
18	32	812	168	1,300	314	428	256	145	268	66	46	54
19	32	748	211	1,200	302	380	226	149	213	64	45	44
20	33	748	693	1,520	285	347	203	165	175	62	42	41
21	36	526	632	844	262	314	195	232	161	64	41	41
22	280	467	428	608	245	279	221	237	136	64	40	39
23	243	816	374	474	232	270	205	208	126	60	39	39
24	229	800	320	577	226	245	190	178	113	56	38	38
25	362	534	481	3,930	216	226	180	158	107	55	38	36
26	254	436	439	1,850	205	226	198	141	102	54	41	35
27	178	616	371	1,170	195	216	205	134	97	52	41	34
28	168	495	323	1,060	190	203	203	141	97	50	41	34
29	192	383	282	1,180	188	195	200	143	88	50	41	34
30	175	320	245	1,060	------	216	192	136	84	50	41	58
31	152	------	243	1,050	------	268	------	141	------	58	42	------
TOTAL	2,955	15,022	8,794	27,954	10,465	11,575	6,797	4,826	3,984	1,994	1,588	1,202
MEAN	95.3	501	284	902	361	373	227	156	133	64.3	51.2	40.1
MAX	362	992	693	3,930	1,220	880	359	237	268	92	82	58
MIN	32	136	149	368	188	195	180	128	84	50	38	34
CFSM	1.06	5.58	3.16	10.0	4.02	4.16	2.52	1.73	1.48	.72	.57	.45
IN.	1.22	6.22	3.64	11.6	4.33	4.79	2.81	2.00	1.65	.83	.66	.50
AC-FT	5,860	29,800	17,440	55,450	20,760	22,960	13,480	9,570	7,900	3,960	3,150	2,380

CAL YR 1963: TOTAL 77,454 MEAN 212 MAX 3,040 MIN 30 CFSM 2.36 IN 32.08 AC-FT 153,600
WAT YR 1964: TOTAL 97,156 MEAN 265 MAX 3,930 MIN 32 CFSM 2.96 IN 40.24 AC-FT 192,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	116	49	2,000	353	916	630	115	154	80	47	38	30
2	79	64	1,740	871	672	470	116	143	79	47	38	30
3	66	70	920	680	540	400	109	134	74	47	38	30
4	58	414	575	453	474	320	105	143	71	46	38	29
5	52	323	419	398	565	280	102	154	70	45	38	29
6	49	200	344	562	860	250	98	141	68	44	38	29
7	46	145	288	464	586	232	98	130	66	42	46	28
8	46	116	285	374	572	221	97	126	65	42	50	28
9	60	107	314	323	544	211	104	118	65	42	42	28
10	77	97	305	317	456	203	107	113	64	44	39	28
11	56	120	302	329	395	192	100	109	64	46	41	28
12	51	122	273	311	374	185	95	107	64	46	44	29
13	46	132	270	290	467	175	95	102	62	45	58	29
14	47	116	285	335	498	168	97	98	62	41	51	30
15	72	102	314	530	425	158	95	98	64	40	42	38
16	104	92	250	704	380	149	100	126	60	39	39	41
17	92	87	210	640	362	145	105	126	59	40	38	38
18	77	85	200	548	350	136	100	115	58	40	36	33
19	68	80	195	530	344	132	212	113	55	40	41	31
20	60	79	192	516	320	128	804	145	54	39	55	30
21	56	79	289	548	293	126	600	145	52	41	46	29
22	51	80	2,380	509	288	128	422	132	52	41	41	29
23	49	137	2,990	585	254	126	320	124	51	40	39	29
24	47	1,800	1,360	1,090	234	118	262	115	51	39	39	28
25	47	1,240	944	728	221	116	234	105	51	38	38	28
26	45	996	1,330	600	224	118	208	104	50	35	41	27
27	42	600	1,290	2,070	1,080	116	182	95	49	38	39	27
28	41	395	792	1,400	820	113	165	88	47	39	34	27
29	41	425	569	1,620	------	118	152	88	46	39	33	26
30	42	1,080	460	1,800	------	111	154	87	47	38	32	26
31	45	------	380	1,500	------	107	------	84	------	38	31	------
TOTAL	1,828	9,432	22,465	21,978	13,514	6,082	5,553	3,662	1,800	1,287	1,263	692
MEAN	59.0	314	725	709	483	196	185	118	60.0	41.5	40.7	29.7
MAX	116	1,800	2,990	2,070	1,080	630	804	154	80	47	58	41
MIN	41	49	192	290	221	107	95	84	46	35	31	26
CFSM	.66	3.50	8.07	7.89	5.37	2.18	2.06	1.32	.67	.46	.45	.33
IN.	.76	3.91	9.30	9.10	5.60	2.52	2.30	1.52	.75	.53	.52	.37
AC-FT	3,630	18,710	44,560	43,590	26,800	12,060	11,010	7,260	3,570	2,550	2,510	1,770

CAL YR 1964: TOTAL 104,110 MEAN 284 MAX 3,930 MIN 34 CFSM 3.17 IN 43.12 AC-FT 206,500
WAT YR 1965: TOTAL 89,756 MEAN 246 MAX 2,990 MIN 26 CFSM 2.74 IN 37.17 AC-FT 178,000

12-0800. Deschutes River near Olympia, Wash.

Location.--Lat 47°00'05", long 122°53'40", in NW¼SE¼ sec.35, T.18 N., R.2 W., on left bank 1½ miles upstream from mouth and 2½ miles south of Olympia.

Drainage area.--160 sq mi.

Records available.--April 1945 to November 1954. Annual maximums, water years 1955-57. June 1957 to June 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 95 ft (from topographic map). Prior to Oct. 14, 1947, water-stage recorder on right bank at same datum. November 1954 to June 1957 crest-stage gage only at same site and datum.

Average discharge.--15 years, 405 cfs (293,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), October 1960 to June 1964

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 21, 1960	0930	3,420	7.37	Feb. 25, 1961	0530	1,990	6.03	Nov. 26, 1962	1500	* 5,000	8.10
Nov. 25, 1960	1500	* 4,920	8.07					Feb. 4, 1963	0400	4,340	7.82
Jan. 16, 1961	1830	2,140	6.06	Dec. 21, 1961	1500	* 1,940	5.98				
Feb. 22, 1961	0630	3,270	7.26					Jan. 20, 1964	1200	2,370	6.19
				Nov. 20, 1962	2000	2,720	6.76	Jan. 26, 1964	0700	* 6,650	8.50

Annual minimum discharge, October 1960 to June 1964

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 20, 1960	100	1.96	1963	Aug. 13, 1963	101	1.48
1962	Sept. 7, 8, 9, 1962	84	1.80	1964	Oct. 3, 1963	103	1.49

1945-64: Maximum discharge, 6,650 cfs Jan. 26, 1964 (gage height, 8.50 ft).
1945-54: 1957-64: Minimum discharge, 66 cfs Oct. 11, 1945.

Remarks.--Records good. Small diversions above station for irrigation. No regulation. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1716: 1946-47, 1949(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	105	252	556	328	1,210	1,360	565	520	264	165	126	150
2	105	283	505	312	1,160	1,590	585	601	250	162	126	170
3	104	289	477	296	1,020	1,230	597	705	248	158	126	139
4	103	261	485	286	870	1,010	577	717	245	158	126	128
5	102	229	449	433	781	902	534	673	237	170	126	122
6	105	208	418	1,290	980	970	503	601	245	185	124	118
7	111	190	385	1,040	1,270	916	475	538	245	172	124	116
8	135	177	363	1,150	1,000	834	454	503	234	168	122	114
9	133	166	346	1,480	866	848	440	528	231	160	120	112
10	120	175	332	1,130	1,190	834	426	557	229	158	120	112
11	116	327	335	825	1,110	898	408	542	223	155	118	110
12	111	385	426	760	1,080	1,050	436	492	218	152	116	108
13	111	356	485	736	1,260	1,320	440	458	213	148	116	108
14	109	628	400	795	1,420	1,630	430	436	210	148	118	108
15	109	633	346	976	1,540	1,710	416	419	205	146	120	108
16	104	900	318	1,780	1,430	1,270	402	398	198	143	118	110
17	105	976	309	1,520	1,120	1,030	402	377	192	143	118	112
18	104	1,550	335	1,180	920	884	402	364	192	143	116	108
19	102	1,120	1,140	916	920	808	402	349	190	141	114	106
20	102	1,640	1,050	753	1,170	916	398	334	188	139	112	106
21	104	2,790	692	661	2,070	920	426	322	185	139	112	106
22	105	1,480	530	593	2,850	830	520	316	182	139	112	106
23	127	1,320	453	538	1,630	803	685	319	180	137	112	104
24	324	2,230	403	496	1,410	852	657	316	178	135	110	104
25	302	3,660	370	468	1,980	839	569	298	175	132	110	106
26	243	1,990	366	436	1,650	790	514	295	172	132	112	103
27	441	1,150	370	408	1,340	785	472	307	170	128	112	106
28	497	872	346	398	1,200	725	447	298	168	130	110	108
29	381	714	332	426	------	665	468	283	170	128	106	114
30	289	628	322	615	------	621	524	275	170	128	108	122
31	255	------	322	1,530	------	581	------	272	------	126	122	------
TOTAL	5,264	27,579	13,966	24,555	36,447	30,421	14,574	13,413	6,207	4,568	3,632	3,444
MEAN	170	919	451	792	1,302	981	486	433	207	147	117	115
MAX	497	3,660	1,140	1,780	2,850	1,710	685	717	264	185	126	170
MIN	102	166	309	286	781	581	398	272	168	126	106	103
CFSM	1.06	5.75	2.82	4.95	8.14	6.13	3.04	2.70	1.29	.92	.73	.72
IN.	1.22	6.41	3.25	5.71	8.47	7.07	3.39	3.12	1.44	1.06	.84	.80
AC-FT	10,440	54,700	27,700	48,700	72,290	60,340	28,910	26,600	12,310	9,060	7,200	6,830

CAL YR 1960: TOTAL 154,146 MEAN 421 MAX 3,660 MIN 102 CFSM 2.63 IN 35.83 AC-FT 305,700
WAT YR 1961: TOTAL 184,070 MEAN 504 MAX 3,660 MIN 102 CFSM 3.15 IN 42.78 AC-FT 365,100

12-0800. Deschutes River near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	114	187	592	532	274	251	348	444	210	132	97	88
2	110	179	490	486	259	245	339	440	212	130	98	88
3	110	172	402	746	251	239	324	440	239	128	106	88
4	104	167	360	1,130	245	265	315	454	228	128	110	86
5	104	161	544	816	239	374	321	412	220	128	118	86
6	108	158	482	688	237	504	381	367	215	128	118	86
7	110	154	395	648	239	482	732	345	210	130	122	84
8	110	152	342	576	242	440	660	321	202	126	126	86
9	108	170	300	500	254	420	612	330	197	122	118	86
10	112	192	274	462	256	384	532	336	189	122	110	95
11	128	399	248	437	256	367	458	315	187	120	106	98
12	150	398	234	409	254	342	406	306	184	120	104	106
13	177	286	231	381	251	324	370	312	184	118	104	102
14	177	226	228	360	378	306	345	303	184	118	102	98
15	156	199	220	351	672	291	336	291	179	120	100	98
16	145	182	226	330	500	280	310	280	172	120	98	98
17	139	170	740	330	434	280	290	268	170	122	98	97
18	137	163	732	312	384	277	270	254	165	120	100	91
19	135	158	552	294	354	277	260	248	161	118	98	91
20	132	154	920	280	327	274	250	242	156	114	97	89
21	132	161	1,720	254	309	280	230	234	154	112	97	89
22	135	847	1,160	248	294	291	225	226	152	110	95	89
23	154	780	925	245	294	327	220	231	150	108	93	89
24	218	458	1,140	242	280	427	226	262	147	104	93	89
25	192	342	1,260	262	268	812	235	300	145	104	91	88
26	220	286	906	288	254	712	218	339	145	102	89	88
27	357	262	700	300	239	560	326	303	145	98	89	89
28	370	398	636	315	248	479	767	271	141	98	91	102
29	274	544	692	306	------	426	616	251	137	97	91	197
30	223	486	708	294	------	388	544	234	135	98	89	179
31	199	------	612	286	------	360	------	220	------	98	89	------
TOTAL	5,040	8,581	18,971	13,108	8,492	11,684	11,466	9,579	5,315	3,593	3,137	2,940
MEAN	163	286	612	423	303	377	382	309	177	116	101	98.0
MAX	370	847	1,720	1,130	672	812	767	454	239	132	126	197
MIN	104	152	220	242	237	239	218	220	135	97	89	84
CFSM	1.02	1.79	3.82	2.64	1.90	2.36	2.39	1.93	1.11	.72	.63	.61
IN.	1.17	1.99	4.41	3.05	1.97	2.72	2.67	2.23	1.24	.84	.73	.68
AC-FT	10,000	17,020	37,630	26,000	16,840	23,170	22,740	19,000	10,540	7,130	6,220	5,830

CAL YR 1961: TOTAL 169,853 MEAN 465 MAX 2,850 MIN 103 CFSM 2.91 IN 39.48 AC-FT 336,900
WAT YR 1962: TOTAL 101,906 MEAN 279 MAX 1,720 MIN 84 CFSM 1.75 IN 23.69 AC-FT 202,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	147	137	1,320	847	396	417	914	347	198	172	131	120
2	132	135	1,200	1,260	516	417	712	406	198	162	129	116
3	128	135	1,160	1,050	1,950	406	604	476	202	155	124	112
4	132	137	991	874	2,850	382	588	442	205	148	122	112
5	130	147	878	721	1,760	361	654	459	202	148	122	112
6	130	175	1,000	628	1,300	340	964	662	205	145	122	114
7	139	172	1,000	568	1,020	325	1,170	616	202	152	120	116
8	186	167	856	520	842	310	978	540	198	175	118	116
9	403	189	757	480	726	301	856	473	198	190	120	118
10	496	237	685	459	636	289	775	431	195	175	120	124
11	330	357	616	428	576	283	730	389	188	180	116	124
12	286	406	568	400	524	283	658	358	182	172	109	116
13	315	434	540	400	488	274	604	340	178	162	105	120
14	351	374	644	392	459	271	584	319	175	150	107	122
15	265	318	942	378	434	271	680	304	170	145	112	136
16	218	312	1,170	364	420	271	721	292	162	140	107	158
17	192	283	919	350	410	274	608	277	160	138	105	178
18	177	277	757	347	406	268	572	274	168	136	107	162
19	167	442	690	344	424	277	556	262	170	136	118	148
20	158	2,060	616	331	442	271	548	253	160	134	127	134
21	150	1,660	572	322	420	280	520	247	175	127	129	127
22	145	920	512	316	392	283	488	235	188	131	124	124
23	139	660	484	310	378	283	431	229	182	150	131	124
24	139	560	470	301	358	280	417	226	165	138	143	124
25	141	1,280	456	298	358	277	400	220	168	138	160	122
26	141	3,700	424	295	424	277	382	218	178	138	145	118
27	139	2,180	414	289	452	292	361	210	178	127	138	116
28	137	1,360	420	280	424	414	344	212	175	120	134	109
29	139	1,040	428	274	------	1,080	334	208	172	120	129	107
30	139	1,020	629	265	------	1,480	334	202	172	120	122	107
31	139	------	937	313	------	1,300	------	198	------	124	122	------
TOTAL	6,030	21,274	23,045	14,404	19,785	12,537	18,487	10,325	5,469	4,548	3,818	3,736
MEAN	195	709	743	465	707	404	616	333	182	147	123	125
MAX	496	3,700	1,320	1,260	2,850	1,480	1,170	662	205	190	160	178
MIN	128	135	414	265	358	268	334	198	160	120	105	107
CFSM	1.22	4.43	4.65	2.90	4.42	2.53	3.85	2.08	1.14	.92	.77	.78
IN.	1.40	4.94	5.36	3.35	4.60	2.91	4.30	2.40	1.27	1.06	.89	.87
AC-FT	11,960	42,200	45,710	28,570	39,240	24,870	36,670	20,480	10,850	9,020	7,570	7,410

CAL YR 1962: TOTAL 119,663 MEAN 328 MAX 3,700 MIN 84 CFSM 2.05 IN 27.81 AC-FT 237,300
WAT YR 1963: TOTAL 143,458 MEAN 393 MAX 3,700 MIN 105 CFSM 2.46 IN 33.35 AC-FT 284,500

12-0800. Deschutes River near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1963 TO JUNE 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	107	241	428	686	1,750	568	433	330	244			
2	107	328	382	1,310	1,480	584	429	326	250			
3	105	406	347	883	1,250	556	410	314	236			
4	109	354	322	739	1,060	560	388	301	233			
5	109	428	322	628	924	744	377	288	256			
6	109	406	417	829	834	644	370	276	253			
7	112	492	434	865	780	572	356	270	244			
8	109	802	400	716	748	560	350	261	241			
9	107	628	389	708	734	563	350	258	239			
10	107	504	368	788	721	608	353	258	228			
11	105	476	344	748	708	838	360	261	222			
12	109	420	328	654	680	1,240	370	264	217			
13	114	434	313	620	654	875	402	264	212			
14	116	619	286	708	632	672	399	264	207			
15	116	838	289	698	620	790	421	256	202			
16	107	748	292	951	620	726	452	250	214			
17	103	1,010	322	1,550	640	614	448	244	239			
18	103	1,120	319	1,730	654	580	414	256	298			
19	109	955	337	1,520	632	524	392	258	320			
20	116	1,050	632	1,940	612	505	377	267	279			
21	120	770	860	1,540	592	497	363	304	258			
22	210	644	662	1,240	568	486	377	353	241			
23	403	802	596	1,050	552	467	377	336	222			
24	292	1,040	536	1,040	540	444	356	295	210		† 114	
25	420	780	596	2,740	524	425	330	273	202			
26	403	628	644	4,930	508	414	330	258	194			
27	322	752	568	2,040	500	406	360	244	194	† 136		
28	280	752	500	1,750	488	392	356	239	192			
29	307	608	448	1,660	492	381	339	244	185			
30	289	480	414	1,690	------	377	333	239	178			
31	268	------	417	1,490	------	406	------	236	------			------
TOTAL	5,493	19,515	13,512	40,441	21,497	18,023	11,372	8,487	6,910			
MEAN	177	651	436	1,305	741	581	379	274	230			
MAX	420	1,120	860	4,930	1,750	1,240	452	353	320			
MIN	103	241	286	620	488	377	330	236	178			
CFSM	1.11	4.07	2.72	8.15	4.63	3.63	2.37	1.71	1.44			
IN.	1.28	4.54	3.14	9.40	5.00	4.19	2.64	1.97	1.61			
AC-FT	10,900	38,710	26,800	80,210	42,640	35,750	22,560	16,830	13,710			

CAL YR 1963: TOTAL 131,629 MEAN 361 MAX 2,850 MIN 103 CFSM 2.25 IN 30.60 AC-FT 261,100
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

† Result of discharge measurement.

12-0810. Woodland Creek near Olympia, Wash.

Location.--Lat 47°04'20", long 122°49'00", in SE¼SW¼ sec.4, T.18 N., R.1 W., on left bank 1½ miles upstream from mouth and 4.4 miles northeast of Olympia.

Drainage area.--24.6 sq.mi (revised).

Records available.--June 1949 to April 1959, May to October 1959 (monthly discharge only), November 1959 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 25 ft (from topographic map). June 29, 1949, to Apr. 28, 1959, at site 15 ft upstream at datum 0.75 ft higher.

Average discharge.--16 years, 27.6 cfs (19,980 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	130	3.76	Oct. 21, 1960	13	1.25
1962	Dec. 17, 1961	42	2.23	Sept. 8, 1962	9.7	1.18
1963	Feb. 3, 1963	71	a 2.80	Oct. 30, Nov.3, 1962	9.6	b 1.23
1964	Jan. 25, 1964	121	3.63	(c)	11	d 1.24
1965	Jan. 27, 1965	86	3.12	Aug. 6, 1965	9.8	1.19

a Occurred Jan. 1, 1963.
b Occurred Sept. 26, 1963.
c Oct. 16, 1963, Sept. 25-29, 1964.
d Occurred Sept. 25, 28, 1964.

1949-65: Maximum discharge, 204 cfs Feb. 9, 1951 (gage height, 4.46 ft, datum then in use); minimum recorded, 8.0 cfs Dec. 17-21, 1952, Sept. 29, Oct. 4, 5, 1958.

Remarks.--Records good. Considerable regulation in upstream lakes. Some diversion for irrigation and domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	17	37	28	43	99	63	54	35	25	21	19
2	14	16	35	28	44	93	64	57	35	24	20	18
3	14	16	36	27	43	87	62	56	33	24	20	18
4	15	16	35	28	44	83	60	56	32	24	20	18
5	15	16	33	37	51	84	58	54	32	27	20	17
6	15	16	33	38	68	86	57	51	34	26	20	17
7	15	15	32	35	55	81	56	50	32	25	20	17
8	15	15	32	39	52	76	56	52	32	25	20	17
9	15	15	32	38	54	76	54	52	32	25	20	17
10	16	19	31	35	51	78	54	50	32	23	20	16
11	16	18	34	35	52	83	54	50	32	23	20	16
12	16	16	37	35	50	85	56	48	31	23	20	17
13	15	16	28	36	54	84	54	47	31	23	19	16
14	15	19	27	39	54	95	52	47	30	22	19	16
15	15	19	26	50	62	94	52	46	30	22	19	16
16	15	22	27	56	55	89	52	45	29	22	19	16
17	15	23	27	58	56	86	52	44	29	22	19	16
18	15	26	33	54	53	80	50	43	28	22	19	17
19	14	23	41	47	63	79	52	41	28	22	19	16
20	14	40	34	44	70	85	50	41	28	22	18	15
21	14	38	32	43	111	79	50	40	26	22	18	15
22	14	34	31	41	85	76	52	39	26	22	18	16
23	19	41	31	41	75	76	52	41	26	22	18	16
24	17	66	34	38	98	74	50	40	26	22	18	16
25	15	58	30	37	106	72	48	40	25	22	18	17
26	17	48	32	36	98	72	48	40	24	21	18	17
27	17	43	30	35	95	70	47	41	24	20	18	17
28	17	40	29	35	89	68	47	39	25	21	18	17
29	16	39	29	39	------	66	54	38	26	21	18	17
30	16	37	30	45	------	64	54	37	25	20	17	15
31	17	------	28	45	------	62	------	36	------	20	19	------
TOTAL	478	827	986	1,222	1,831	2,482	1,610	1,415	878	704	590	498
MEAN	15.4	27.6	31.8	39.4	65.4	80.1	53.7	45.6	29.3	22.7	19.0	16.6
MAX	19	66	41	58	111	99	64	57	35	27	21	19
MIN	14	15	26	27	43	62	47	36	24	20	17	15
AC-FT	948	1,640	1,960	2,420	3,630	4,920	3,190	2,810	1,740	1,400	1,170	988

CAL YR 1960: TOTAL 10,092 MEAN 27.6 MAX 66 MIN 14 CFSM 1.12 IN 15.26 AC-FT 20,020
WAT YR 1961: TOTAL 13,521 MEAN 37.0 MAX 111 MIN 14 CFSM 1.51 IN 20.44 AC-FT 26,820

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0810. Woodland Creek near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	18	24	29	26	24	27	22	19	13	11	11
2	15	18	23	30	25	24	27	22	18	13	11	11
3	15	18	23	35	25	24	26	22	18	13	11	11
4	15	17	25	32	25	29	27	21	18	13	11	11
5	15	17	24	31	24	32	27	21	17	13	11	11
6	17	17	23	31	24	31	30	22	17	14	12	11
7	17	17	23	33	24	28	28	20	17	13	13	12
8	16	18	23	31	24	27	28	22	17	13	13	12
9	17	19	22	30	24	26	27	21	16	13	14	11
10	16	22	22	30	25	26	27	22	16	13	13	12
11	16	21	22	29	25	26	26	20	16	13	12	11
12	17	20	22	28	24	26	26	21	16	13	12	11
13	17	20	23	29	25	25	25	22	18	13	12	12
14	16	20	23	29	27	25	24	21	16	13	12	11
15	16	20	23	29	26	25	25	20	16	13	12	11
16	16	20	25	28	26	25	23	20	15	12	12	11
17	17	19	36	28	26	25	23	20	15	12	13	11
18	16	19	28	27	26	25	22	20	15	12	12	11
19	15	19	29	27	26	24	21	19	15	13	12	12
20	15	19	32	27	25	24	21	20	14	14	11	11
21	15	20	34	27	25	24	21	19	14	12	12	11
22	16	26	31	27	25	25	21	20	15	12	12	11
23	19	21	35	26	25	25	20	20	14	12	11	12
24	17	20	35	26	24	32	20	20	14	12	12	12
25	17	20	33	25	24	31	20	20	14	11	12	11
26	18	20	32	26	24	28	20	19	13	11	11	12
27	19	21	30	29	23	27	26	19	14	11	11	12
28	19	25	31	29	24	26	28	19	13	11	12	13
29	16	25	32	28	------	26	24	19	13	11	12	13
30	18	23	30	27	------	26	22	18	13	11	11	12
31	18	------	30	26	------	26	------	19	------	11	11	------
TOTAL	511	599	848	889	696	817	732	630	466	384	367	344
MEAN	16.5	20.0	27.4	28.7	24.9	26.4	24.4	20.3	15.5	12.4	11.8	11.5
MAX	19	26	36	35	27	32	30	22	19	14	14	13
MIN	15	17	22	25	23	24	20	18	13	11	11	11
AC-FT	1,010	1,190	1,680	1,760	1,380	1,620	1,450	1,250	924	762	728	682

CAL YR 1961: TOTAL 13,188 MEAN 36.1 MAX 111 MIN 15 CFSM 1.47 IN 19.94 AC-FT 26,160
WAT YR 1962: TOTAL 7,283 MEAN 20.0 MAX 36 MIN 11 CFSM .81 IN 11.01 AC-FT 14,450

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	10	37	45	40	38	41	33	20	16	15	14
2	12	10	34	50	50	37	40	35	23	15	16	14
3	12	9.7	38	39	65	36	40	33	25	16	16	14
4	12	10	35	35	60	35	39	33	25	18	16	14
5	12	11	35	34	51	35	41	37	30	19	15	14
6	12	11	33	33	46	35	47	36	29	19	15	14
7	13	11	32	32	43	35	50	35	28	22	15	13
8	17	11	31	32	42	34	47	33	27	20	14	13
9	19	11	30	32	41	34	44	34	26	20	14	13
10	14	16	29	30	40	33	43	33	25	19	14	14
11	13	18	29	29	39	34	41	34	24	18	14	13
12	14	17	29	28	39	33	40	32	23	17	14	13
13	14	16	29	29	39	33	40	32	22	16	14	14
14	12	14	36	29	38	32	41	31	22	16	14	14
15	12	14	39	29	37	32	41	31	22	16	14	14
16	11	13	35	29	37	33	40	30	22	16	13	14
17	11	13	33	29	37	32	38	30	21	17	13	13
18	11	12	32	29	39	32	38	29	21	18	14	13
19	11	32	32	28	41	32	38	28	20	18	14	12
20	11	43	31	28	39	32	37	27	20	17	14	13
21	11	28	30	28	38	33	36	26	19	16	13	13
22	11	23	30	28	37	32	35	25	18	17	13	13
23	11	21	29	28	37	32	35	24	19	18	15	12
24	11	24	29	28	36	32	35	24	20	17	17	14
25	11	46	28	27	38	32	34	23	20	17	18	13
26	11	56	28	27	40	32	33	22	19	17	17	12
27	11	54	28	27	39	33	33	22	19	15	15	12
28	10	39	28	27	38	42	33	21	18	15	15	13
29	10	35	29	27	------	56	33	20	17	16	14	12
30	9.7	41	32	26	------	48	33	19	16	16	14	14
31	10	------	31	30	------	45	------	19	------	14	14	------
TOTAL	371.7	669.7	981	952	1,166	1,094	1,166	891	660	531	453	398
MEAN	12.0	22.3	31.6	30.7	41.6	35.3	38.9	28.7	22.0	17.1	14.6	13.3
MAX	19	56	39	50	65	56	50	37	30	22	18	14
MIN	9.7	9.7	28	26	36	32	33	19	16	14	13	12
AC-FT	737	1,330	1,950	1,890	2,310	2,170	2,310	1,770	1,310	1,050	899	789

CAL YR 1962: TOTAL 7,347.4 MEAN 20.1 MAX 56 MIN 9.7 CFSM .82 IN 11.11 AC-FT 14,570
WAT YR 1963: TOTAL 9,333.4 MEAN 25.6 MAX 65 MIN 9.7 CFSM 1.04 IN 14.11 AC-FT 18,510

Note.--No gage-height record Jan. 11 to Feb. 4. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0810. Woodland Creek near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	17	26	53	82	55	39	33	23	19	18	13
2	14	18	26	47	75	49	39	33	23	18	18	13
3	13	16	25	41	74	47	38	33	23	18	18	13
4	14	17	25	41	72	52	38	32	25	18	18	13
5	14	17	27	40	66	51	37	32	26	18	17	14
6	14	17	28	42	64	49	37	31	27	18	16	14
7	15	18	25	38	62	48	36	31	28	18	16	13
8	15	17	26	38	61	48	36	31	26	18	16	13
9	13	16	26	43	59	47	38	31	24	18	16	13
10	12	18	24	43	59	49	37	30	24	18	16	13
11	12	19	25	40	58	54	38	29	23	18	16	12
12	13	22	24	39	58	56	37	29	23	18	16	12
13	14	28	24	40	56	52	37	29	23	18	16	12
14	14	36	24	41	56	54	37	29	23	19	15	12
15	13	37	26	43	56	54	39	30	23	19	15	12
16	12	28	26	49	56	52	37	29	26	18	16	13
17	13	28	28	54	55	51	37	28	27	18	16	14
18	12	25	26	64	54	48	35	28	26	18	15	13
19	12	39	28	68	53	46	35	27	24	18	14	13
20	12	36	35	69	52	47	35	27	23	19	14	12
21	14	28	31	63	51	47	35	27	22	19	14	12
22	19	29	31	59	50	47	35	27	22	18	14	12
23	16	29	31	55	61	45	34	26	21	18	13	12
24	15	27	29	66	50	44	34	26	21	18	13	12
25	16	27	31	107	47	43	33	25	21	18	14	12
26	17	28	31	83	46	44	33	25	20	17	13	12
27	16	28	34	76	46	43	32	24	20	17	13	12
28	19	28	33	72	47	42	32	24	21	17	13	12
29	17	27	31	79	48	41	31	24	20	17	13	12
30	15	28	31	76	------	40	32	24	20	17	13	15
31	13	------	33	78	------	39	------	23	------	17	13	------
TOTAL	443	748	870	1,747	1,674	1,484	1,073	877	698	557	466	380
MEAN	14.3	24.9	28.1	56.4	57.7	47.9	35.8	28.3	23.3	18.0	15.1	12.7
MAX	19	39	35	107	82	56	39	33	28	19	18	15
MIN	12	16	24	38	46	39	31	23	20	17	13	12
AC-FT	879	1,480	1,730	3,470	3,320	2,940	2,130	1,740	1,380	1,100	928	754

CAL YR 1963: TOTAL 9,372 MEAN 25.7 MAX 65 MIN 12 CFSM 1.04 IN 14.17 AC-FT 18,590
WAT YR 1964: TOTAL 11,019 MEAN 30.1 MAX 107 MIN 12 CFSM 1.22 IN 16.66 AC-FT 21,860

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	12	31	36	56	43	32	30	24	14	10	13
2	12	12	24	36	52	41	31	29	23	13	10	13
3	12	14	21	37	49	41	30	29	22	13	10	12
4	12	15	19	37	52	41	30	29	22	13	10	12
5	12	12	18	38	57	41	30	29	22	14	10	12
6	13	12	18	40	52	41	30	28	21	13	10	13
7	14	11	18	37	49	39	30	27	20	14	10	13
8	14	12	18	36	52	39	29	27	20	15	10	13
9	14	12	18	35	49	39	29	27	20	13	10	12
10	13	12	19	34	47	39	29	26	20	13	10	13
11	14	12	20	33	46	38	30	26	21	13	10	12
12	14	12	21	32	46	37	29	26	20	12	12	12
13	14	12	22	32	47	37	29	25	20	12	13	11
14	13	12	26	31	46	36	29	25	20	12	12	11
15	13	11	26	31	45	36	28	27	18	12	11	11
16	14	12	23	30	44	35	28	31	18	12	11	11
17	14	12	22	30	44	35	28	28	18	12	11	12
18	13	12	21	30	43	34	26	26	18	12	11	11
19	13	12	21	29	43	34	41	26	18	11	16	11
20	12	12	25	29	43	33	42	26	17	12	18	11
21	12	12	45	31	43	33	37	26	17	12	11	11
22	12	12	65	33	42	33	34	25	17	12	11	12
23	13	15	50	40	41	32	33	26	16	11	11	12
24	13	27	40	44	41	32	33	25	16	11	12	12
25	12	17	37	39	40	32	32	24	16	11	12	11
26	13	20	36	41	45	33	31	24	16	11	12	11
27	11	18	36	64	54	32	30	24	16	11	12	11
28	12	16	36	52	47	32	30	24	15	11	12	11
29	11	21	36	58	------	32	31	24	15	11	12	11
30	11	31	36	70	------	31	30	24	14	11	13	11
31	11	------	36	64	------	31	------	23	------	10	13	------
TOTAL	395	432	884	1,209	1,315	1,112	931	816	560	377	356	352
MEAN	12.7	14.4	28.5	39.0	47.0	35.9	31.0	26.3	18.7	12.2	11.5	11.7
MAX	14	31	65	70	57	43	42	31	24	15	18	13
MIN	11	11	18	29	40	31	26	23	14	10	10	11
AC-FT	783	857	1,750	2,400	2,610	2,210	1,850	1,620	1,110	748	706	698

CAL YR 1964: TOTAL 10,669 MEAN 29.2 MAX 107 MIN 11 CFSM 1.19 IN 16.13 AC-FT 21,160
WAT YR 1965: TOTAL 8,739 MEAN 23.9 MAX 70 MIN 10 CFSM .97 IN 13.21 AC-FT 17,330

12-0815. McAllister Springs near Olympia, Wash.

Location.--Lat 47°01'45", long 122°43'25", SE$\frac{1}{4}$ sec.19, T.18 N., R.1 E., on right side of stilling pool just above city of Olympia control gates, 8 miles east of Olympia.

Records available.--March 1951 to September 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is about mean sea level. Auxiliary water-stage recorder 50 ft downstream from base gage.

Average discharge.--13 years, 23.5 cfs (17,010 acre-ft per year), unadjusted.

Extremes.--Maximum and minimum discharges for the water years 1961-64 are contained in the following table:

Water year	Maximum daily			Minimum daily		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Mar. 14,15,17, 1961	36	-	Aug. 4, Sept.3,	19	-
1962	Feb. 8, 1962	25	-	July 24, 1962	15	-
1963	Apr. 14, May 5,13	25	-	Aug. 16, 1963	15	-
1964	Mar. 2, 16, 1964	29	-	July 28,Aug.21, 1964	16	-

1951-64: Maximum daily discharge, 46 cfs Jan. 26, 1956; minimum daily, 12 cfs Aug. 9, 1960.

Remarks.--Records good. City of Olympia diverted 1.7 to 10.8 cfs daily, an average of 4.7 cfs per day, just above station. Gage pool regulated by low dam and flashboards. Backwater from tides occurred at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	23	25	26	30	32	33	33	30	28	23	26
2	23	22	26	26	30	32	33	32	29	27	22	25
3	23	23	25	25	30	32	34	32	30	24	21	19
4	23	24	25	25	30	32	33	32	30	26	19	24
5	23	23	25	26	29	34	33	33	29	29	23	24
6	24	23	24	27	30	34	32	32	30	27	23	24
7	24	22	25	27	28	32	32	32	30	27	20	22
8	23	23	24	26	29	33	33	31	30	27	21	24
9	24	21	24	26	29	33	33	30	31	26	21	24
10	24	22	25	26	30	34	33	32	31	24	20	24
11	22	22	25	26	30	34	33	32	30	22	21	24
12	22	24	25	26	31	34	34	32	30	22	22	23
13	22	22	25	26	30	35	34	32	30	21	22	23
14	23	22	25	26	31	36	33	31	27	23	22	24
15	22	22	25	29	31	36	34	31	26	25	24	23
16	22	23	24	29	30	35	34	32	24	26	23	24
17	21	23	26	29	31	36	32	31	26	24	22	25
18	22	24	29	28	28	35	32	30	26	22	21	23
19	22	24	28	29	28	35	32	30	26	22	22	22
20	22	26	27	27	30	35	32	31	25	22	22	24
21	23	26	27	28	30	34	32	31	25	23	20	23
22	23	24	26	27	30	34	32	31	24	26	21	24
23	24	26	28	27	29	33	32	30	23	27	22	24
24	23	27	26	26	30	33	32	30	24	27	22	24
25	22	27	26	26	30	33	30	30	24	22	23	24
26	23	25	26	27	30	34	32	31	26	23	25	22
27	22	24	25	28	30	33	32	31	24	24	24	24
28	23	23	25	28	30	34	32	31	27	25	23	23
29	22	24	25	30	------	33	33	31	29	25	23	23
30	23	25	25	29	------	34	33	31	29	24	23	23
31	23	------	26	30	------	34	------	30	------	23	25	------
TOTAL	705	709	792	841	834	1,048	979	968	825	763	685	705
MEAN	22.7	23.6	25.5	27.1	29.8	33.8	32.6	31.2	27.5	24.6	22.1	23.5
MAX	24	27	29	30	31	36	34	33	31	29	25	26
MIN	21	21	24	25	28	32	30	30	23	21	19	19
AC-FT	1,400	1,410	1,570	1,670	1,650	2,080	1,940	1,920	1,640	1,510	1,360	1,400
MEAN†	26.5	27.1	28.9	30.6	33.4	37.5	36.5	35.2	33.5	31.3	29.3	27.7

CAL YR 1960: TOTAL 8,052 MEAN 22.0 MAX 29 MIN 12 AC-FT 15,970 MEAN † 26.3
WAT YR 1961: TOTAL 9,854 MEAN 27.0 MAX 36 MIN 19 AC-FT 19,550 MEAN † 31.5

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† Adjusted for diversions by city of Olympia.

12-0815. McAllister Springs near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	21	22	22	21	20	21	21	20	20	18	18
2	22	20	21	22	23	22	21	20	21	19	19	19
3	21	21	22	22	23	21	21	20	21	19	19	19
4	22	21	22	22	23	22	22	20	21	20	20	18
5	21	21	22	22	22	23	21	21	21	20	20	18
6	21	21	22	22	23	24	22	20	20	20	20	18
7	23	21	23	22	24	23	21	21	20	19	20	18
8	23	21	22	22	25	21	22	20	20	19	19	19
9	23	22	23	23	23	24	20	21	21	19	19	18
10	22	24	22	22	23	22	20	20	20	19	20	19
11	23	22	22	22	22	21	20	20	20	18	20	19
12	23	22	22	23	22	20	20	20	20	18	19	19
13	24	21	23	23	22	20	20	21	20	18	20	20
14	23	22	22	23	22	20	20	20	20	19	19	19
15	23	21	22	22	22	20	21	20	20	19	19	19
16	23	21	22	22	22	20	21	20	20	18	19	20
17	22	21	23	22	22	21	20	20	19	18	20	19
18	22	22	22	22	21	20	20	21	19	19	20	18
19	23	22	22	22	21	21	20	21	18	18	19	19
20	24	21	23	22	22	21	19	20	19	18	19	19
21	23	21	22	22	21	22	21	20	19	17	19	18
22	23	22	22	22	21	23	21	20	18	17	19	18
23	22	22	22	21	21	21	20	20	19	17	19	20
24	23	22	23	21	21	21	21	20	18	15	19	19
25	23	22	23	22	22	22	21	20	19	16	19	19
26	24	21	22	23	21	21	20	21	20	16	19	19
27	22	21	22	22	19	21	20	21	20	16	19	19
28	22	22	22	22	20	20	20	21	19	16	19	19
29	22	22	22	22	------	21	21	20	19	17	18	19
30	21	21	22	21	------	21	21	21	19	17	18	19
31	21	------	22	21	------	22	------	21	------	18	18	------
TOTAL	698	644	689	683	614	661	618	632	590	559	594	564
MEAN	22.5	21.5	22.2	22.0	21.9	21.3	20.6	20.4	19.7	18.0	19.2	18.8
MAX	24	24	23	23	25	24	22	21	21	20	20	20
MIN	21	20	21	21	19	20	19	20	18	15	18	18
AC-FT	1,380	1,280	1,360	1,350	1,220	1,310	1,230	1,250	1,170	1,110	1,180	1,120
MEAN †	26.4	25.3	26.1	26.1	25.9	25.4	25.0	24.6	25.2	25.1	24.0	23.4

CAL YR 1961: TOTAL 9,678 MEAN 26.5 MAX 36 MIN 19 AC-FT 19,200 MEAN † 31.0
WAT YR 1962: TOTAL 7,545 MEAN 20.7 MAX 25 MIN 15 AC-FT 14,970 MEAN † 20.6

† Adjusted for diversion by city of Olympia.

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	18	20	23	22	22	22	22	22	22	18	20
2	18	17	20	22	22	22	23	23	22	21	16	20
3	18	18	20	22	23	23	22	23	22	21	18	19
4	17	18	19	21	22	22	22	24	22	21	20	18
5	16	18	20	21	23	21	22	25	22	21	18	19
6	18	18	20	22	22	23	22	24	22	21	17	18
7	19	18	20	22	22	22	23	23	22	20	18	17
8	18	17	20	20	23	22	23	24	22	20	16	20
9	18	17	21	22	23	23	22	24	22	20	16	19
10	18	19	21	22	23	22	22	24	20	20	18	19
11	18	20	21	22	22	22	22	24	21	20	20	20
12	20	19	20	22	21	22	23	24	18	20	17	18
13	21	19	22	21	22	22	23	25	18	20	18	19
14	21	19	22	20	22	22	25	23	18	20	18	20
15	20	18	22	21	22	23	23	22	19	20	18	20
16	19	18	23	21	22	22	21	23	19	19	15	21
17	18	18	21	22	22	22	22	24	17	19	18	20
18	18	18	21	21	21	22	22	23	17	19	19	19
19	18	19	21	21	22	22	22	23	19	19	19	19
20	18	18	21	21	22	23	22	22	20	19	20	19
21	18	19	20	21	22	22	24	19	21	20	20	20
22	19	19	21	21	23	21	23	20	22	22	20	21
23	16	19	22	22	22	22	23	21	21	20	19	19
24	17	19	21	22	24	24	23	20	22	21	20	19
25	17	20	21	21	22	23	24	21	21	20	21	19
26	18	20	21	22	22	23	23	21	21	19	20	19
27	18	20	21	22	22	23	23	19	21	18	19	18
28	18	19	22	22	22	24	23	19	22	20	18	18
29	18	19	22	22	------	23	22	19	22	19	19	19
30	18	20	23	22	------	23	23	21	22	18	18	18
31	18	------	22	22	------	23	------	22	------	18	19	------
TOTAL	564	558	651	668	622	695	679	691	619	617	570	574
MEAN	18.2	18.6	21.0	21.5	22.2	22.4	22.6	22.3	20.6	19.9	18.4	19.1
MAX	21	20	23	23	24	24	25	25	22	22	21	21
MIN	16	17	19	20	21	21	21	19	17	18	15	17
AC-FT	1,120	1,110	1,290	1,320	1,230	1,380	1,350	1,370	1,230	1,220	1,130	1,140
MEAN†	22.0	22.2	24.8	25.8	26.1	26.5	26.8	27.7	26.6	25.0	24.5	23.8

CAL YR 1962: TOTAL 7,288 MEAN 20.0 MAX 25 MIN 15 AC-FT 14,460 MEAN † 24.4
WAT YR 1963: TOTAL 7,508 MEAN 20.6 MAX 25 MIN 15 AC-FT 14,890 MEAN † 25.2

† Adjusted for diversion by city of Olympia.

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0815. McAllister Springs near Olympia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	20	20	23	25	28	26	25	23	19	20	19
2	19	20	19	22	25	29	26	26	25	20	20	18
3	19	21	21	21	25	28	26	26	22	20	22	18
4	20	20	19	22	25	28	26	25	22	22	20	18
5	20	20	20	21	25	27	27	26	22	22	20	18
6	20	20	20	22	25	27	26	26	22	21	19	20
7	19	19	20	21	25	26	25	26	21	19	19	21
8	18	19	21	19	25	27	25	26	21	21	20	20
9	18	20	20	20	26	28	25	26	21	21	20	18
10	19	20	20	20	27	27	25	26	20	20	20	19
11	18	20	20	20	26	26	26	26	20	20	17	19
12	19	19	20	21	26	29	27	25	20	20	18	18
13	21	18	20	21	26	27	28	25	19	18	20	19
14	18	19	19	20	26	29	28	25	19	23	18	19
15	18	19	20	20	27	28	25	25	19	22	19	19
16	19	18	21	21	27	29	26	25	20	21	21	18
17	19	19	20	21	28	28	26	25	22	22	18	19
18	18	19	19	21	27	27	26	23	22	22	18	18
19	19	19	20	23	26	27	27	22	22	22	19	19
20	19	19	20	21	27	27	26	23	21	22	17	20
21	18	18	20	22	27	26	25	24	21	22	16	18
22	19	19	21	22	28	26	24	25	21	21	17	18
23	19	20	22	22	28	26	25	24	21	20	18	18
24	18	20	20	23	29	28	27	25	22	19	17	18
25	19	20	20	23	28	26	26	25	20	18	17	18
26	19	18	20	25	28	26	27	23	21	19	20	19
27	20	19	21	25	27	26	27	21	23	17	20	20
28	19	20	20	24	27	26	26	21	23	16	20	19
29	19	19	22	23	28	26	26	22	23	17	19	19
30	19	19	21	25	------	26	25	22	21	19	22	20
31	19	------	21	25	------	24	------	23	------	20	21	------
TOTAL	588	580	627	679	768	836	780	757	639	625	592	564
MEAN	19.0	19.3	20.2	21.9	26.5	27.0	26.0	24.4	21.3	20.2	19.1	18.8
MAX	21	21	22	25	28	29	28	26	25	23	22	21
MIN	18	18	19	19	25	24	24	21	19	16	16	18
AC-FT	1,170	1,150	1,240	1,350	1,520	1,660	1,550	1,500	1,270	1,240	1,170	1,120
MEAN†	23.4	23.4	24.4	26.3	31.1	31.3	30.6	29.9	26.5	26.8	25.2	23.9

CAL YR 1963: TOTAL 7,530 MEAN 20.6 MAX 25 MIN 15 AC-FT 14,940 MEAN † 25.4
WAT YR 1964: TOTAL 8,035 MEAN 22.0 MAX 29 MIN 16 AC-FT 15,940 MEAN † 26.9

† Adjusted for diversion by city of Olympia.

12-0825. Nisqually River near National, Wash.

Location.--Lat 46°45'10", long 122°05'00", in SW¼SW¼ sec.29, T.15 N., R.6 E., on right bank 100 ft downstream from railroad bridge, 1 mile west of National, 2½ miles west of Ashford, and 3 miles upstream from Mineral Creek.

Drainage area.--133 sq mi.

Records available.--May 1942 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,450 ft (from river-profile map).

Average discharge.--23 years, 778 cfs (563,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,600 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	2030	3,380	6.82	Jan. 7, 1962	0700	* 4,350	8.30	June 5, 1964	0030	2,840	6.78
Nov. 20, 1960	1730	3,380	6.82	Apr. 6, 1962	2200	4,100	8.20				
Nov. 24, 1960	1730	4,070	7.28					Nov. 24, 1964	-	-	-
Jan. 16, 1961	0230	3,430	7.00	Nov. 20, 1962	0400	* 10,400	11.24	Dec. 1, 1964	-	-	-
Feb. 6, 1961	1400	2,670	6.46	Nov. 25, 1962	2130	3,770	7.05	Dec. 23, 1964	-	7,370	9.48
Feb. 21, 1961	1600	* 4,350	7.60	Feb. 3, 1963	0800	7,620	9.59	Jan. 29, 1965	0700	* 11,000	11.15
Dec. 24, 1961	1100	4,000	7.60	Jan. 1, 1964	1600	2,900	6.43				
Jan. 3, 1962	1630	3,480	7.25	Jan. 25, 1964	1000	* 3,560	6.90				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.24, 1961	192	a 3.41	1964	Oct. 7, 1963	235	3.42
1962	Oct. 9, 1961	208	3.61	1965	Sept.29, 1965	181	2.56
1963	Jan. 29, 1963	269	3.54				

a Occurred Oct. 14, 15, 1960.

1942-65: Maximum discharge, 11,000 cfs Jan. 29, 1965; maximum gage height, 11.77 ft Nov. 23, 1959; minimum discharge, 108 cfs Dec. 1, 3, 1952 (gage height, 2.76 ft).

Remarks.--Records good. Small diversion for domestic use. Slight regulation at low water by powerplant of Mount Rainier National Park on Paradise River. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1947(P), 1950(M). WSP 1716: 1943(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	415	1,030	715	530	1,290	1,320	782	1,530	1,330	630	595	658
2	415	925	734	496	1,440	1,100	1,340	1,620	1,740	664	620	439
3	380	815	748	475	1,220	968	1,840	1,420	1,820	680	605	309
4	326	696	696	475	1,130	849	1,610	1,250	1,720	740	686	294
5	340	602	626	857	1,700	788	1,260	1,130	1,590	933	710	298
6	470	552	584	1,380	2,450	752	1,050	982	1,560	814	610	270
7	546	513	557	1,530	1,980	686	926	912	1,420	652	585	249
8	430	465	524	1,410	1,540	669	898	877	1,150	620	555	249
9	348	420	502	1,310	1,630	647	870	926	1,060	680	545	256
10	312	888	475	1,140	1,860	615	782	982	919	758	550	288
11	317	1,250	502	1,070	1,710	625	746	919	988	877	555	294
12	308	858	895	1,060	1,460	669	821	870	863	975	570	291
13	278	774	822	1,020	1,380	821	835	828	884	1,040	595	288
14	258	728	843	1,170	1,150	1,440	764	821	1,030	982	595	288
15	266	787	760	1,940	1,370	1,620	734	835	1,290	877	610	294
16	290	1,840	682	2,800	1,190	1,380	734	926	1,580	764	565	294
17	308	2,270	682	1,860	1,070	1,150	814	1,070	1,860	652	540	298
18	322	2,680	1,090	1,360	954	996	807	1,230	1,810	630	540	309
19	330	1,840	1,550	1,080	1,070	975	758	1,460	1,460	630	535	302
20	312	2,620	1,220	933	1,370	1,010	698	1,610	1,130	698	585	325
21	335	2,160	1,020	842	3,450	912	674	1,520	975	770	590	263
22	420	1,450	902	770	2,740	863	686	1,300	905	752	620	229
23	579	1,330	850	716	1,780	863	692	1,310	906	716	605	208
24	734	2,700	836	680	1,770	842	686	1,150	989	647	495	200
25	502	2,420	774	630	1,430	794	680	1,140	1,040	620	416	217
26	638	1,580	808	580	1,150	788	680	1,330	1,000	636	408	232
27	774	1,180	754	540	1,040	722	674	1,180	821	642	373	235
28	1,080	992	663	535	954	664	698	1,060	734	590	416	266
29	918	850	626	652	------	652	1,150	1,060	728	565	452	263
30	794	748	584	1,210	------	647	1,520	1,070	647	570	457	229
31	970	------	568	1,510	------	669	------	1,030	------	580	710	------
TOTAL	14,715	37,963	23,592	32,561	43,318	27,496	27,209	35,348	35,949	22,384	17,293	8,635
MEAN	475	1,265	761	1,050	1,547	887	907	1,140	1,198	722	558	288
MAX	1,080	2,700	1,550	2,800	3,450	1,620	1,840	1,620	1,860	1,040	710	658
MIN	258	420	475	475	954	615	674	821	647	565	373	200
CFSM	3.57	9.51	5.72	7.90	11.6	6.67	6.82	8.57	9.01	5.43	4.19	2.16
IN.	4.11	10.6	6.60	9.10	12.1	7.69	7.61	9.88	10.1	6.26	4.84	2.41
AC-FT	29,190	75,300	46,790	64,580	85,920	54,540	53,970	70,110	71,300	44,400	34,300	17,130

CAL YR 1960: TOTAL 283,409 MEAN 774 MAX 2,700 MIN 258 CFSM 5.82 IN 79.25 AC-FT 562,100
WAT YR 1961: TOTAL 326,463 MEAN 894 MAX 3,450 MIN 200 CFSM 6.73 IN 91.29 AC-FT 647,500

12-0825. Nisqually River near National, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	229	439	788	1,690	562	304	543	790	667	790	628	470
2	226	444	722	1,690	681	296	588	910	829	660	556	470
3	226	466	669	3,070	853	292	569	1,050	919	608	660	464
4	235	444	716	2,710	813	324	647	1,010	853	614	674	459
5	263	412	794	2,400	716	400	837	869	837	582	760	470
6	294	390	710	2,730	634	400	2,090	790	821	640	576	459
7	280	377	680	3,890	614	380	2,820	709	821	588	524	454
8	232	373	615	2,920	595	370	1,770	716	944	667	470	405
9	235	381	565	2,070	569	360	1,380	813	1,030	702	437	410
10	525	457	520	1,490	562	338	1,080	821	953	688	420	512
11	369	550	495	1,150	530	329	902	760	829	709	432	410
12	577	490	495	944	506	312	837	716	829	709	470	304
13	740	457	462	821	494	308	877	688	798	647	506	334
14	560	480	452	723	608	308	1,030	647	752	588	470	375
15	515	457	452	660	536	316	1,200	640	829	582	488	312
16	466	430	466	582	494	338	1,030	608	953	582	550	292
17	421	408	590	550	470	342	944	608	962	556	524	296
18	385	394	500	500	464	342	988	628	928	488	476	342
19	373	373	655	454	437	342	1,070	595	910	500	470	380
20	353	349	1,280	432	415	352	988	550	953	556	518	395
21	337	357	1,590	425	385	347	877	524	970	667	543	405
22	325	851	1,340	420	390	370	821	550	962	752	448	400
23	341	728	1,660	420	365	360	861	621	1,030	790	420	375
24	353	625	3,400	420	334	530	962	667	1,160	829	470	375
25	353	560	2,600	437	324	654	853	730	1,150	869	506	400
26	377	520	1,810	470	300	608	752	768	988	821	432	410
27	408	555	1,460	476	308	588	1,060	805	760	782	365	365
28	385	669	1,470	464	308	512	970	894	681	782	432	488
29	353	782	1,770	454	------	482	821	869	798	745	395	500
30	349	776	1,980	470	------	470	730	745	861	738	380	400
31	369	------	1,810	518	------	488	------	695	------	716	426	------
TOTAL	11,454	14,994	33,516	36,450	14,267	12,162	30,897	22,786	26,777	20,947	15,426	12,131
MEAN	369	500	1,081	1,176	510	392	1,030	735	893	676	498	404
MAX	740	851	3,400	3,890	853	654	2,820	1,050	1,160	869	760	512
MIN	226	349	452	420	300	292	543	524	667	488	365	292
CFSM	2.78	3.76	8.13	8.84	3.83	2.95	7.74	5.53	6.71	5.08	3.74	3.04
IN.	3.20	4.19	9.37	10.2	3.99	3.40	8.64	6.37	7.49	5.86	4.31	3.39
AC-FT	22,720	29,740	66,480	72,300	28,300	24,120	61,280	45,200	53,110	41,550	30,600	24,060

CAL YR 1961: TOTAL 310,157 MEAN 850 MAX 3,450 MIN 200 CFSM 6.39 IN 86.73 AC-FT 615,200
WAT YR 1962: TOTAL 251,807 MEAN 690 MAX 3,890 MIN 226 CFSM 5.19 IN 70.41 AC-FT 499,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	385	365	1,050	1,000	436	695	576	596	688	505	444	542
2	395	365	1,040	1,080	785	628	520	616	718	537	457	444
3	488	370	903	1,350	5,640	576	515	564	609	542	505	423
4	400	390	840	1,100	3,390	532	658	532	559	590	548	486
5	347	494	1,160	930	2,970	505	752	695	650	554	548	505
6	320	420	2,030	804	2,030	481	1,500	921	583	515	537	466
7	329	370	1,580	702	1,570	462	1,420	921	559	515	532	490
8	464	464	1,470	672	1,310	440	1,160	849	642	570	559	548
9	845	432	1,390	635	1,120	427	957	786	695	542	583	500
10	768	454	1,350	564	948	427	849	702	609	559	520	526
11	716	550	1,280	537	822	436	786	642	710	559	635	466
12	752	588	1,160	520	718	415	761	602	795	542	695	423
13	861	576	1,170	500	658	400	761	564	744	590	688	440
14	716	506	1,600	480	602	396	1,100	559	778	665	537	382
15	615	476	2,200	460	570	382	1,450	596	849	609	457	350
16	524	448	1,770	440	548	378	1,130	609	975	548	471	354
17	470	420	1,320	420	526	364	966	665	912	570	481	320
18	476	405	1,040	404	609	360	849	849	876	564	453	311
19	494	3,050	921	393	770	374	752	1,110	770	570	436	324
20	464	6,520	786	374	831	378	688	1,260	642	564	419	350
21	494	3,180	786	364	710	393	622	1,360	602	532	382	382
22	506	1,960	718	354	635	427	642	1,290	520	602	374	396
23	470	1,340	628	347	576	453	628	1,050	462	486	412	412
24	442	1,070	570	343	537	453	583	822	466	526	419	357
25	432	2,160	548	330	532	457	559	718	505	486	382	360
26	437	2,990	542	324	840	453	542	688	471	453	374	393
27	420	1,950	540	320	688	495	520	628	449	486	360	457
28	410	1,410	540	311	665	680	505	688	457	532	368	542
29	426	1,110	600	283	------	761	559	786	510	505	423	559
30	410	1,170	957	277	------	770	596	804	505	490	476	427
31	380	------	939	357	------	672	------	778	------	481	548	------
TOTAL	15,056	36,003	33,428	16,975	32,036	15,070	23,906	24,250	19,310	16,789	15,023	12,935
MEAN	505	1,200	1,078	548	1,144	486	797	782	644	542	485	431
MAX	861	6,520	2,200	1,350	5,640	770	1,500	1,360	975	665	695	559
MIN	320	365	540	277	436	360	505	532	449	453	360	311
CFSM	3.80	9.02	8.11	4.12	8.60	3.66	5.99	5.88	4.84	4.07	3.64	3.24
IN.	4.38	10.1	9.35	4.75	8.96	4.21	6.68	6.78	5.40	4.69	4.20	3.62
AC-FT	31,050	71,410	66,300	33,670	63,540	29,890	47,420	48,100	38,300	33,300	29,800	25,660

CAL YR 1962: TOTAL 276,930 MEAN 759 MAX 6,520 MIN 292 CFSM 5.70 IN 77.44 AC-FT 549,300
WAT YR 1963: TOTAL 261,381 MEAN 716 MAX 6,520 MIN 277 CFSM 5.38 IN 73.09 AC-FT 518,400

12-0825. Nisqually River near National, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	396	364	672	2,140	1,220	476	930	658	2,650	1,370	858	415
2	404	427	602	1,960	1,030	440	822	602	2,250	1,420	801	430
3	368	404	564	1,380	912	432	702	554	1,760	1,280	922	425
4	308	462	554	1,060	858	526	672	537	2,300	1,250	930	420
5	272	457	672	894	813	537	628	542	2,490	1,280	801	410
6	254	476	1,210	894	736	481	583	510	2,140	1,240	787	405
7	244	537	957	710	665	444	590	515	2,010	1,460	808	425
8	244	849	847	622	622	436	622	548	1,930	1,740	801	440
9	249	727	710	622	590	427	718	710	2,000	1,370	794	375
10	254	672	688	559	609	423	840	1,030	2,110	1,190	759	360
11	260	570	590	515	583	554	840	1,070	1,940	1,370	780	360
12	254	559	526	481	548	500	778	1,120	1,760	1,760	829	375
13	308	554	490	490	537	440	710	1,070	1,680	1,760	780	395
14	340	1,020	466	490	510	476	702	939	1,650	1,750	703	415
15	357	1,020	449	481	510	596	1,030	885	1,750	1,900	668	395
16	317	885	481	786	495	537	912	957	2,240	1,340	654	445
17	334	1,030	564	849	510	570	778	1,210	2,020	1,110	661	598
18	295	858	570	710	628	583	702	1,280	2,230	1,000	689	445
19	260	966	635	688	609	526	688	1,620	1,760	866	538	435
20	277	831	894	695	564	500	688	2,040	1,460	898	502	538
21	334	672	786	576	537	490	650	2,240	1,260	962	556	415
22	596	622	736	537	526	466	688	1,790	1,210	874	661	544
23	466	672	761	486	515	444	609	1,360	1,500	773	731	544
24	510	650	680	642	510	419	576	1,160	1,630	822	717	574
25	635	822	885	2,760	486	415	590	1,010	1,550	954	724	550
26	505	1,340	727	1,900	471	412	680	1,000	1,500	1,040	710	466
27	427	1,740	702	1,510	453	400	565	1,230	1,300	1,050	647	460
28	427	1,260	744	1,250	449	396	658	1,560	1,100	1,120	717	460
29	408	975	672	1,460	444	423	727	1,530	1,040	1,130	562	460
30	389	804	642	1,190	------	548	680	1,820	1,190	1,040	520	600
31	364	------	761	1,250	------	752	------	2,210	------	906	450	------
TOTAL	11,056	23,225	21,239	30,587	17,940	15,069	21,458	35,307	53,410	38,025	22,060	13,579
MEAN	357	774	685	987	619	486	715	1,139	1,780	1,227	712	453
MAX	635	1,740	1,210	2,760	1,220	752	1,030	2,240	2,650	1,900	930	600
MIN	244	364	449	481	444	396	576	510	1,040	773	450	360
CFSM	2.68	5.82	5.15	7.42	4.65	3.65	5.38	8.56	13.4	9.22	5.35	3.40
IN.	3.09	6.49	5.94	8.55	5.02	4.21	6.00	9.87	14.9	10.6	6.17	3.60
AC-FT	21,930	46,070	42,130	60,670	35,580	29,890	42,560	70,030	105,900	75,420	43,760	26,930

CAL YR 1963: TOTAL 231,814 MEAN 635 MAX 5,640 MIN 244 CFSM 4.78 IN 64.82 AC-FT 459,800
WAT YR 1964: TOTAL 302,955 MEAN 828 MAX 2,760 MIN 244 CFSM 6.22 IN 84.71 AC-FT 600,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	580	352	5,900	717	2,460	908	440	957	776	880	726	410
2	833	340	3,700	794	1,710	789	415	822	967	943	708	415
3	724	370	2,150	668	1,330	720	380	744	1,050	950	592	360
4	598	508	1,150	574	1,200	690	385	720	1,070	936	548	324
5	556	450	1,020	550	1,250	666	400	636	1,110	922	570	298
6	562	395	829	520	1,170	660	380	580	1,150	922	575	263
7	592	380	703	472	1,080	666	365	548	1,140	936	608	284
8	696	356	866	435	1,020	672	356	542	1,130	854	660	324
9	675	360	1,030	410	943	684	380	564	1,130	648	666	320
10	590	352	970	455	848	714	375	648	1,110	592	672	306
11	508	344	843	420	782	750	360	770	1,170	564	642	275
12	514	332	738	390	738	763	370	915	1,020	548	654	263
13	496	320	661	385	789	732	425	992	770	602	630	255
14	460	300	628	478	815	696	445	936	676	714	470	616
15	508	288	562	717	789	678	536	880	648	782	492	770
16	484	280	400	1,080	770	648	714	999	636	750	531	460
17	460	280	350	1,190	978	580	672	880	750	726	542	320
18	435	276	360	1,180	1,200	536	619	776	756	630	624	263
19	430	268	380	1,250	1,230	458	1,260	789	750	580	690	251
20	425	268	400	1,320	1,190	476	2,310	880	808	553	654	259
21	425	266	520	1,270	1,140	460	1,760	828	828	504	548	286
22	410	280	3,050	1,050	1,060	475	1,330	796	815	430	509	333
23	410	375	6,100	1,010	908	440	1,090	763	834	487	467	334
24	385	1,900	3,750	962	802	405	1,050	726	828	564	470	356
25	356	1,850	2,600	815	726	405	1,110	702	726	696	430	360
26	332	1,200	1,850	857	696	400	1,220	782	630	789	370	320
27	316	858	1,450	1,550	1,190	365	1,390	964	558	776	347	247
28	312	710	1,220	4,000	1,050	356	1,470	1,190	575	630	293	207
29	320	950	1,010	9,200	------	338	1,330	1,200	614	654	255	207
30	340	3,350	874	6,940	------	329	1,170	1,060	750	684	259	227
31	328	------	759	4,190	------	342	------	880	------	696	301	------
TOTAL	15,050	18,558	46,823	45,849	29,864	17,842	24,507	25,463	25,695	22,062	16,523	9,920
MEAN	485	619	1,510	1,479	1,067	576	817	822	857	712	533	331
MAX	833	3,350	6,100	9,200	2,460	908	2,310	1,200	1,170	950	726	770
MIN	312	266	350	385	696	329	355	542	558	430	255	207
CFSM	3.65	4.65	11.4	11.1	8.02	4.33	6.14	6.18	6.44	5.35	4.01	2.49
IN.	4.21	5.19	13.1	12.8	8.35	4.99	6.85	7.12	7.18	6.17	4.62	2.77
AC-FT	29,850	36,810	92,870	90,940	59,230	35,390	48,610	50,520	50,970	43,760	32,770	19,680

CAL YR 1964: TOTAL 327,866 MEAN 896 MAX 6,100 MIN 266 CFSM 6.74 IN 91.68 AC-FT 650,300
WAT YR 1965: TOTAL 298,162 MEAN 817 MAX 9,200 MIN 207 CFSM 6.14 IN 83.37 AC-FT 591,400

12-0830. Mineral Creek near Mineral, Wash.

Location.--Lat 46°44'20", long 122°08'40", in NE¼SW¼ sec.35, T.15 N., R.5 E., on right bank three-eighths of a mile downstream from railroad bridge, 1 mile upstream from mouth, and 2½ miles northeast of Mineral.

Drainage area.--75.2 sq mi (revised).

Records available.--June 1942 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,340 ft (from topographic map).

Average discharge.--23 years, 380 cfs (275,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1700	5,350	7.75	Nov. 20, 1962	0530	3,640	6.90	Dec. 1, 1964	1230	5,160	7.70
Nov. 24, 1960	1800	* 5,720	7.96	Nov. 26, 1962	-	2,780	6.35	Dec. 22, 1964	1900	* 8,310	9.00
Jan. 16, 1961	0300	3,670	6.92	Feb. 3, 1963	-	* 8,040	8.90	Jan. 30, 1965	1700	4,100	7.60
Feb. 21, 1961	1500	5,460	7.84	Jan. 25, 1964	0800	* 6,270	8.20				
Dec. 24, 1961	1130	* 3,030	6.52	Nov. 24, 1964	1430	4,910	7.58				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 30, 1961	24	2.11	1964	Oct. 19, 1963	38	2.64
1962	Oct. 5, 1961	28	2.17	1965	Aug. 8, 1965	24	2.00
1963	Sept. 7, 8, 11-13	37	2.63				

1942-65: Maximum discharge, 8,310 cfs Dec. 22, 1964 (gage height, 9.00 ft), from rating curve extended above 4,300 cfs; maximum gage height, 9.02 ft Dec. 9, 1953; minimum discharge, 19.5 cfs Sept. 22, 23, Oct. 6-10, 13, 14, 1952; minimum gage height, 1.40 ft Sept. 22, 23, 1950.

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	37	420	500	330	956	1,500	525	748	206	62	34	89
2	37	420	505	303	1,200	1,160	767	844	205	60	33	61
3	34	400	535	288	980	908	932	802	209	57	32	45
4	34	360	525	296	865	760	802	706	189	55	32	38
5	34	318	458	928	802	688	652	628	169	77	32	38
6	59	295	417	1,360	1,190	658	545	540	180	73	32	35
7	142	266	390	1,090	1,120	575	476	545	177	61	30	33
8	169	243	354	1,040	964	545	458	471	143	57	30	33
9	114	218	326	1,210	1,220	535	435	510	145	53	30	31
10	92	310	306	932	1,490	510	408	515	133	49	30	31
11	84	523	341	802	1,260	530	382	476	128	48	29	31
12	84	427	676	809	1,080	673	435	444	118	48	28	30
13	71	427	550	809	1,170	1,030	453	422	106	46	27	28
14	65	447	505	1,150	1,020	1,920	426	404	103	45	27	27
15	62	541	440	1,860	1,200	1,590	394	394	101	44	29	29
16	59	1,990	404	2,880	988	1,280	394	399	99	44	30	31
17	59	1,850	404	1,780	816	996	435	412	96	44	29	30
18	53	2,490	915	1,180	682	844	426	422	89	43	29	31
19	50	1,800	1,740	900	950	823	399	426	84	41	27	31
20	50	3,820	1,100	742	1,500	900	370	422	80	38	26	31
21	50	2,660	774	640	3,960	760	386	386	74	38	26	30
22	78	1,400	628	570	2,670	706	417	338	71	38	26	29
23	156	1,230	555	525	1,540	736	426	346	70	38	26	28
24	342	3,740	510	490	1,600	718	430	295	66	38	26	27
25	254	3,220	462	462	1,330	670	495	266	65	38	26	29
26	433	1,580	505	435	1,030	658	490	270	65	37	26	27
27	732	1,040	462	417	893	580	453	273	64	37	27	26
28	804	774	422	394	781	525	435	242	62	36	26	35
29	523	628	399	495	------	480	634	238	69	37	24	41
30	427	540	370	872	------	476	760	228	74	36	24	33
31	400	------	358	1,070	------	480	------	206	------	35	57	------
TOTAL	5,588	34,377	16,836	27,059	35,257	25,214	15,040	13,618	3,444	1,453	910	1,038
MEAN	180	1,146	543	873	1,259	813	501	439	115	46.9	29.4	34.6
MAX	804	3,820	1,740	2,880	3,960	1,920	932	844	209	77	57	89
MIN	34	218	306	288	682	476	370	206	62	35	24	26
CFSM	2.40	15.2	7.22	11.6	16.7	10.8	6.67	5.84	1.53	.62	.39	.46
IN.	2.76	17.0	8.33	13.4	17.4	12.5	7.44	6.73	1.70	.72	.45	.51
AC-FT	11,080	68,190	33,390	53,670	69,930	50,010	29,830	27,010	6,830	2,880	1,800	2,060

CAL YR 1960: TOTAL 145,605 MEAN 398 MAX 3,820 MIN 24 CFSM 5.29 IN 72.01 AC-FT 288,800
WAT YR 1961: TOTAL 179,834 MEAN 493 MAX 3,960 MIN 24 CFSM 6.55 IN 88.94 AC-FT 356,700

12-0830. Mineral Creek near Mineral, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	177	570	700	299	183	453	670	245	85	39	36
2	32	166	476	700	306	177	448	788	317	84	40	36
3	30	183	422	1,490	326	172	426	879	325	78	51	35
4	31	158	655	1,220	318	216	453	809	313	78	74	34
5	29	136	802	964	292	384	575	688	338	82	90	33
6	37	126	580	886	273	404	1,320	610	385	94	72	32
7	57	114	485	972	273	354	1,690	520	356	84	61	32
8	45	106	404	924	273	342	1,050	500	330	74	68	31
9	42	103	350	767	273	306	816	574	300	71	60	30
10	135	168	299	640	288	273	676	550	270	69	54	40
11	153	374	262	540	273	248	568	495	241	68	48	74
12	206	242	238	480	262	235	515	485	215	65	49	51
13	186	200	225	422	270	222	515	475	218	65	54	51
14	122	189	206	382	462	225	568	425	203	64	49	55
15	94	169	200	338	399	228	586	400	182	62	46	48
16	78	150	209	306	346	256	510	366	180	61	45	43
17	69	136	511	292	318	270	455	348	169	60	44	39
18	62	128	354	262	299	273	435	343	156	60	44	37
19	57	122	873	238	277	273	430	321	148	59	43	36
20	54	110	1,950	209	259	273	405	284	136	57	42	36
21	53	151	1,840	192	245	270	361	270	130	54	42	36
22	55	1,100	1,190	194	245	299	334	266	123	50	41	36
23	217	640	1,420	206	232	306	325	343	114	49	39	36
24	161	444	2,640	209	209	748	356	410	112	48	39	35
25	136	338	1,630	259	200	940	325	480	108	47	38	34
26	238	288	1,020	310	183	700	304	465	110	46	38	34
27	412	431	754	378	177	580	660	415	104	45	40	34
28	280	670	948	350	183	476	640	390	96	43	42	39
29	206	682	1,150	310	------	430	568	356	90	43	47	212
30	174	565	1,120	299	------	412	515	317	87	41	40	166
31	164	------	858	303	------	422	------	273	------	40	38	------
TOTAL	3,648	8,566	24,641	15,742	7,760	10,897	17,282	14,515	6,101	1,926	1,517	1,471
MEAN	118	286	795	508	277	352	576	468	203	62.1	48.9	49.0
MAX	412	1,100	2,640	1,490	462	940	1,690	879	385	94	90	212
MIN	29	103	200	192	177	172	304	266	87	40	38	30
CFSM	1.56	3.80	10.6	6.75	3.69	4.67	7.66	6.23	2.70	.83	.65	.65
IN.	1.80	4.24	12.2	7.79	3.84	5.39	8.55	7.18	3.02	.95	.75	.73
AC-FT	7,240	16,990	48,870	31,220	15,390	21,610	34,280	28,790	12,100	3,820	3,010	2,920

CAL YR 1961: TOTAL 159,888 MEAN 438 MAX 3,960 MIN 24 CFSM 5.83 IN 79.07 AC-FT 317,100
WAT YR 1962: TOTAL 114,066 MEAN 313 MAX 2,640 MIN 29 CFSM 4.16 IN 56.41 AC-FT 226,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	90	84	1,200	1,080	228	350	480	369	129	88	74	44
2	77	78	1,000	1,270	613	318	400	464	145	78	69	43
3	121	77	879	1,190	6,000	292	394	420	151	74	64	41
4	110	110	724	956	2,500	271	536	379	142	69	61	40
5	89	200	781	730	1,500	251	761	552	142	64	59	39
6	84	177	1,550	586	1,000	229	1,520	866	129	68	58	39
7	102	172	1,160	470	800	218	1,330	803	117	78	56	39
8	296	222	956	400	600	207	1,010	677	117	112	55	39
9	706	235	844	356	500	197	789	600	114	112	55	39
10	526	343	736	300	450	184	684	528	108	145	55	38
11	455	450	652	259	350	184	642	458	98	171	52	39
12	470	450	556	235	305	190	600	415	94	137	52	37
13	425	435	495	238	280	177	614	369	92	119	51	52
14	352	361	694	222	250	174	768	336	88	108	49	58
15	277	334	968	215	239	165	930	336	84	101	48	110
16	232	300	844	197	229	160	775	318	78	94	45	112
17	206	266	682	198	220	151	635	296	73	88	44	98
18	182	259	544	180	260	154	570	292	71	82	44	74
19	172	500	480	163	310	174	540	292	71	76	48	61
20	148	2,750	410	158	350	187	486	279	71	74	51	55
21	134	2,000	366	153	300	197	442	259	88	73	51	53
22	123	1,200	325	153	260	214	425	247	88	129	48	53
23	110	700	296	148	236	229	405	218	80	96	55	61
24	104	500	277	146	218	229	369	204	80	114	80	58
25	100	1,400	255	139	207	232	360	181	90	119	61	52
26	102	2,500	241	136	394	236	341	171	76	96	56	49
27	98	2,000	232	134	360	305	323	162	71	86	51	45
28	92	1,000	252	132	327	528	301	148	74	80	46	44
29	87	800	531	119	------	775	323	142	94	78	45	44
30	87	950	1,410	119	------	768	341	142	105	76	44	43
31	85	------	1,020	153	------	621	------	137	------	76	43	------
TOTAL	6,242	20,853	21,360	10,925	19,286	8,567	18,094	11,060	2,960	2,961	1,670	1,599
MEAN	201	695	689	352	689	276	603	357	98.7	95.5	53.9	53.3
MAX	706	2,750	1,550	1,270	6,000	775	1,520	866	151	171	80	112
MIN	77	77	232	119	207	151	301	137	71	64	43	37
CFSM	2.68	9.24	9.16	4.69	9.16	3.67	8.02	4.74	1.31	1.27	.72	.71
IN.	3.09	10.3	10.6	5.40	9.54	4.24	8.95	5.47	1.46	1.46	.83	.79
AC-FT	12,380	41,360	42,370	21,670	38,250	16,990	35,890	21,940	5,870	5,870	3,310	3,170

CAL YR 1962: TOTAL 125,666 MEAN 344 MAX 2,750 MIN 30 CFSM 4.58 IN 62.15 AC-FT 249,300
WAT YR 1963: TOTAL 125,577 MEAN 344 MAX 6,000 MIN 37 CFSM 4.58 IN 62.10 AC-FT 249,100

Note.--No gage-height record Feb. 3-11.

12-0830. Mineral Creek near Mineral, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	44	251	492	1,690	1,340	307	792	455	854	190	98	60
2	41	420	415	1,460	1,050	262	640	422	712	187	127	71
3	40	341	360	954	836	251	528	376	568	178	153	72
4	43	430	318	712	744	479	490	352	664	159	159	63
5	44	436	369	588	664	542	455	352	688	153	134	60
6	46	469	522	775	535	438	422	333	597	142	116	58
7	44	772	442	594	472	361	443	347	720	137	105	60
8	43	1,090	415	469	427	347	490	390	640	142	99	75
9	41	810	374	480	385	347	542	502	548	137	96	72
10	40	684	327	400	395	352	618	633	509	120	90	64
11	40	558	296	341	390	496	648	664	467	111	83	59
12	41	474	275	305	352	472	597	712	422	107	73	58
13	46	436	251	305	324	390	548	680	380	105	82	56
14	53	712	236	292	311	547	509	568	352	118	74	56
15	44	834	229	305	329	776	672	542	356	156	72	56
16	41	1,000	259	806	324	611	575	575	478	129	68	56
17	40	1,670	287	882	366	561	509	728	472	111	66	92
18	41	1,120	283	698	380	542	455	752	522	105	68	72
19	39	1,080	374	683	376	467	443	890	461	99	69	63
20	59	922	747	747	342	427	443	998	406	94	64	71
21	110	747	635	558	320	395	411	1,110	361	105	62	67
22	400	733	628	464	302	371	496	908	333	98	60	67
23	327	922	635	369	290	342	438	704	329	90	59	64
24	384	906	546	789	286	311	411	611	307	85	58	60
25	540	850	834	4,280	274	298	438	535	286	78	58	58
26	369	1,070	712	1,970	254	290	528	561	266	75	64	58
27	283	1,310	691	1,450	240	274	502	640	251	72	64	54
28	301	986	642	1,220	236	278	490	736	236	71	72	53
29	296	761	546	1,460	236	342	535	704	207	68	68	56
30	279	594	474	1,230	------	528	490	768	194	71	72	191
31	243	------	480	1,260	------	720	------	800	------	88	66	------
TOTAL	4,402	23,388	14,094	28,536	12,780	13,124	15,558	19,348	13,586	3,581	2,604	2,022
MEAN	142	780	455	921	441	423	519	624	453	116	84.0	67.4
MAX	540	1,670	834	4,280	1,340	776	792	1,110	854	190	159	191
MIN	39	251	229	292	236	251	411	333	194	68	58	53
CFSM	1.89	10.4	6.05	12.2	5.86	5.63	6.90	8.30	6.02	1.54	1.12	.90
IN.	2.18	11.6	6.97	14.1	6.32	6.49	7.69	9.57	6.72	1.77	1.29	1.00
AC-FT	8,730	46,390	27,950	56,600	25,350	26,030	30,860	38,380	26,950	7,100	5,160	4,010

CAL YR 1963: TOTAL 119,006 MEAN 326 MAX 6,000 MIN 37 CFSM 4.34 IN 58.85 AC-FT 236,000
WAT YR 1964: TOTAL 153,023 MEAN 418 MAX 4,280 MIN 39 CFSM 5.56 IN 75.68 AC-FT 303,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	225	94	4,650	450	1,440	610	228	388	163	50	25	29
2	165	107	3,040	554	1,070	530	212	331	156	48	26	29
3	137	158	1,720	445	844	472	196	304	156	46	27	29
4	120	316	1,020	386	760	440	196	328	150	45	27	28
5	109	262	704	366	844	412	202	317	141	44	27	28
6	99	207	502	346	750	400	194	294	135	43	26	30
7	92	181	406	306	648	388	189	285	129	43	26	28
8	99	156	590	282	711	380	179	269	127	42	25	27
9	107	156	672	263	610	380	209	263	120	42	27	26
10	109	162	696	296	525	384	207	279	113	45	52	26
11	94	175	568	275	456	384	202	285	114	52	48	26
12	85	165	467	254	468	396	204	291	109	46	48	26
13	83	162	395	248	636	364	226	288	101	42	69	26
14	94	145	342	303	600	342	234	269	102	40	50	34
15	159	132	290	525	530	324	257	260	111	38	41	57
16	194	127	218	759	507	308	342	317	97	37	36	72
17	187	122	184	724	575	285	324	282	89	36	35	46
18	156	120	181	680	620	257	304	248	86	35	33	38
19	137	118	156	710	636	234	772	248	82	35	42	34
20	127	116	140	731	610	223	1,270	342	79	38	68	33
21	116	114	366	773	552	218	1,010	301	77	41	48	31
22	109	137	4,980	638	502	228	760	279	73	43	43	31
23	105	347	3,660	722	440	209	620	263	69	40	43	30
24	101	3,360	1,780	843	392	194	585	260	68	36	42	29
25	98	2,210	1,280	650	364	189	585	234	68	33	38	28
26	92	1,540	1,380	745	497	184	575	228	68	32	37	28
27	88	989	1,140	2,210	1,070	174	566	226	65	31	36	28
28	90	720	866	2,290	770	172	538	228	60	31	35	28
29	85	994	692	3,080	------	170	472	220	55	31	33	28
30	90	2,440	590	3,210	------	168	424	204	54	29	32	28
31	88	------	485	2,320	------	174	------	184	------	27	31	------
TOTAL	3,640	16,032	34,160	26,384	18,427	9,593	12,282	8,515	3,017	1,221	1,176	961
MEAN	117	534	1,102	851	658	309	409	275	101	39.4	37.9	32.0
MAX	225	3,360	4,980	3,210	1,440	610	1,270	388	163	52	69	72
MIN	83	94	140	248	364	168	179	184	54	27	25	26
CFSM	1.56	7.11	14.7	11.3	8.75	4.12	5.44	3.65	1.34	.52	.50	.43
IN.	1.80	7.93	16.9	13.0	9.11	4.74	6.07	4.21	1.49	.60	.58	.48
AC-FT	7,220	31,800	67,760	52,330	36,550	19,030	24,360	16,890	5,980	2,420	2,330	1,910

CAL YR 1964: TOTAL 164,971 MEAN 451 MAX 4,980 MIN 53 CFSM 5.99 IN 81.59 AC-FT 327,200
WAT YR 1965: TOTAL 135,408 MEAN 371 MAX 4,980 MIN 25 CFSM 4.93 IN 66.97 AC-FT 268,600

12-0850. Alder Reservoir at Alder, Wash.

Location.--Lat 46°48'05", long 122°18'30", in SE¼NW¼ sec.9, T.15 N., R.4 E., near left end of Alder Dam on Nisqually River, 1 mile west of Alder and 4½ miles upstream from Mashel River.

Drainage area.--286 sq mi.

Records available.--November 1944 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 7.61 ft below mean sea level, datum of 1929 (levels by city of Tacoma). Prior to July 8, 1946, staff gage at same site and datum.

Extremes.--Maximums and minimums (contents in acre-feet, gage height in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Gage height	Date	Contents	Gage height
1961	(a)	232,700	1,207.31	Oct. 23, 1960	150,400	1,176.60
1962	(b)	231,700	c 1,207.03	Feb. 27, 1962	112,300	1,158.22
1963	Sept. 1, 1963	232,400	1,207.21	Feb. 2, 1963	146,900	1,175.10
1964	Aug. 3, 26, Sept.1	232,400	d 1,207.25	Apr. 20, 1964	95,600	1,148.65
1965	July 30,31,Aug.1,22	231,700	e 1,206.96	Apr. 12, 13, 1965	119,600	f 1,161.95

a Part of each day July 17-19, 22-24, Aug. 31, 1961.
b Part of each day July 25, 26, 31, Aug. 1, Sept. 3-13, 1962.
c Occurred Aug. 1, 1962.
d Occurred Aug. 3, 1964.
e Occurred July 30, Aug. 22, 1965.
f Occurred Apr. 12, 1965.

1944-65: Maximum contents, 232,700 acre-ft part of each day Aug. 1, 2, 1960, July 17-19, 22-24, Aug. 31, 1961; maximum gage height, 1,207.31 ft July 22, 1961; minimum contents observed since reservoir first filled, 93,990 acre-ft Feb. 16, 1949 (gage height, 1,147.61 ft).

Remarks.--Reservoir is formed by concrete-arch dam; storage began Nov. 7, 1944; dam completed in 1945. Capacity, 99,170 acre-ft between gage heights 1,114 (lower limit of operating range) and 1,177 ft (gage height of spillway). Water can be controlled by spillway gates to gage height 1,207 ft, usable capacity, 179,600 acre-ft. Dead storage, 52,100 acre-ft. Figures given herein represent total contents. Water is used by city of Tacoma for power production.

Capacity table, water years 1961-65 (gage height, in feet, and contents, in acre-feet)

1,145	90,000	1,180	158,300
1,160	115,700	1,207	231,700

CONTENTS,IN ACRE-FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	189,200	159,000	216,900	200,700	218,400	221,100	217,800	210,800	200,100	229,600	231,700	232,000
2	187,900	159,200	217,500	198,900	222,000	222,300	221,400	213,200	200,100	229,900	231,100	231,700
3	185,600	158,700	219,300	196,600	223,800	222,900	224,400	215,200	201,600	230,200	230,800	231,100
4	183,000	158,300	220,800	194,400	225,000	222,900	226,200	216,100	203,600	230,500	230,500	231,100
5	180,500	158,300	219,900	195,500	225,600	222,600	227,100	216,600	203,900	231,100	230,500	230,500
6	178,700	158,000	217,800	199,800	224,700	222,300	226,800	216,100	203,600	231,400	230,200	229,600
7	177,100	156,600	216,100	203,000	223,500	221,100	226,500	214,900	203,900	231,100	230,200	228,600
8	176,400	155,200	213,700	206,500	222,600	220,200	226,200	213,700	203,300	230,800	229,900	227,700
9	174,600	153,100	211,400	210,300	224,400	219,000	225,900	212,900	202,400	231,700	229,600	226,500
10	172,000	152,700	208,800	211,700	223,500	217,800	225,000	212,600	203,000	231,700	229,300	225,900
11	170,200	155,000	207,100	212,300	223,500	217,200	223,800	211,700	203,900	232,000	229,300	225,000
12	168,700	155,900	207,600	212,900	226,200	217,200	223,200	210,600	203,900	232,400	229,300	223,800
13	167,500	156,800	207,600	213,700	228,600	219,000	222,600	209,100	204,400	232,400	229,600	220,800
14	165,700	157,300	207,100	216,100	225,600	224,400	222,000	208,500	205,600	232,400	229,600	218,100
15	163,500	157,800	205,900	220,500	223,500	225,300	220,800	207,100	208,200	232,400	229,900	215,800
16	161,800	164,500	204,400	224,700	223,200	223,800	220,200	206,500	210,800	232,400	229,900	213,200
17	159,000	172,500	203,600	224,400	223,800	222,600	219,300	205,900	214,300	232,400	229,900	210,800
18	157,800	182,000	206,200	224,400	224,100	223,800	218,100	206,200	217,200	232,400	230,200	208,500
19	156,600	187,900	211,700	225,300	225,300	225,000	216,600	207,100	219,600	232,000	230,500	205,300
20	155,900	201,000	213,700	225,300	227,700	225,600	214,900	208,800	221,100	232,000	231,100	201,800
21	153,400	203,900	214,300	204,400	228,000	223,500	213,400	210,000	222,000	232,400	231,400	198,400
22	151,300	207,900	213,400	223,200	225,900	223,800	212,300	210,000	223,200	232,400	231,400	194,700
23	150,600	211,700	212,600	222,000	225,000	224,400	211,400	209,700	224,100	232,400	231,400	192,900
24	151,000	221,100	211,700	220,200	225,000	223,800	210,300	208,800	225,000	232,000	231,100	191,000
25	150,800	220,500	210,800	218,100	222,900	220,200	209,400	207,600	226,200	231,700	231,100	187,600
26	152,000	217,500	210,600	216,100	218,700	220,200	208,200	207,100	226,800	231,700	231,100	184,500
27	154,500	219,300	209,400	213,400	216,600	219,900	207,100	205,900	227,400	231,700	231,100	183,300
28	156,800	219,600	207,600	211,100	217,200	219,000	206,200	205,000	228,300	231,700	231,100	182,000
29	157,600	219,000	206,200	209,700	------	218,400	207,100	203,900	228,600	231,700	231,400	180,200
30	157,800	218,100	204,200	212,300	------	217,500	209,400	202,400	229,300	231,700	231,400	178,700
31	157,800	------	202,400	216,100	------	216,900	------	200,700	------	232,000	232,400	------
MAX	189,200	221,100	220,800	225,300	228,600	225,600	227,100	216,600	229,300	232,400	232,400	232,000
MIN	150,600	152,700	202,400	194,400	216,600	216,900	206,200	200,700	200,100	229,600	229,300	178,700
(†)	1,179.82	1,202.49	1,197.09	1,201.81	1,202.21	1,202.09	1,199.47	1,196.52	1,206.21	1,207.06	1,207.24	1,188.21
(‡)	-33,500	+60,300	-15,700	+13,700	+1,100	-300	-7,500	-8,700	+28,600	+2,700	+400	-53,700

CAL YR 1960.................... ‡ -600
WAT YR 1961.................... ‡ -12,600

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

12-0850. Alder Reservoir at Alder, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	177,600	169,500	137,000	168,500	144,900	112,900	143,100	176,400	191,000	213,700	231,100	231,100
2	176,600	168,000	136,400	168,500	143,100	112,900	144,600	178,700	192,100	214,600	230,800	231,400
3	176,400	166,700	135,800	174,100	141,500	113,000	145,300	181,500	193,400	215,500	230,200	231,100
4	176,100	166,000	135,400	177,900	140,700	113,800	146,200	183,000	194,200	216,100	230,200	231,400
5	176,100	165,500	135,400	179,700	138,900	115,300	148,100	184,300	195,000	216,600	230,800	231,400
6	175,600	163,500	134,800	181,700	136,800	116,700	153,800	185,300	196,000	217,500	230,200	231,400
7	175,600	161,800	133,300	187,900	135,000	117,400	161,100	185,100	196,600	218,400	230,500	231,100
8	175,600	160,400	132,700	192,900	132,700	118,000	164,200	184,800	197,500	219,300	230,500	231,400
9	175,100	159,000	131,500	195,500	130,200	118,400	166,500	184,800	199,200	219,900	229,600	231,400
10	175,600	157,600	130,000	196,000	128,400	118,600	167,200	185,100	200,700	220,800	229,000	231,400
11	175,400	157,300	127,800	195,800	126,400	118,800	167,700	185,100	201,000	221,700	228,600	231,400
12	175,600	157,600	125,600	195,200	124,000	118,800	167,700	185,100	201,300	222,600	229,000	231,400
13	175,400	156,200	123,600	193,600	123,000	119,400	167,700	185,800	201,800	223,200	228,600	231,100
14	174,800	154,800	121,200	192,100	122,400	120,000	168,500	185,100	201,800	224,100	229,600	229,900
15	174,100	152,900	120,200	190,200	122,000	120,400	171,000	184,300	202,100	224,700	229,900	229,000
16	173,300	151,000	119,800	187,900	122,200	120,800	171,000	183,800	203,000	225,300	230,200	228,000
17	172,800	148,800	121,200	185,600	121,600	121,600	171,300	182,500	203,900	225,600	230,500	226,500
18	173,000	147,200	121,200	183,000	119,200	122,200	171,300	182,000	204,400	226,200	230,800	225,300
19	173,000	146,200	123,200	180,200	116,500	122,400	171,300	182,500	205,000	226,500	230,800	223,800
20	173,000	143,700	129,600	177,100	115,700	123,200	170,200	182,800	205,600	227,100	230,800	222,900
21	172,800	141,800	136,200	174,100	114,700	123,800	169,200	182,500	206,200	227,700	231,100	222,900
22	173,000	144,400	138,300	170,500	114,900	124,600	170,000	182,500	206,800	229,000	230,800	222,600
23	173,600	144,400	142,000	167,500	114,400	125,600	169,000	183,000	207,400	229,900	230,500	223,200
24	173,300	142,600	153,100	164,200	113,800	129,000	169,000	183,300	209,100	231,100	230,800	222,900
25	172,800	140,700	159,200	161,600	113,400	133,500	169,000	184,300	210,300	231,700	230,800	223,200
26	173,600	138,300	161,600	159,000	112,700	136,400	169,200	185,800	210,800	231,400	230,800	223,200
27	173,000	137,000	162,000	157,100	112,500	137,900	171,000	187,100	211,100	230,800	230,500	223,200
28	172,800	138,300	163,300	155,000	112,700	138,700	172,500	188,100	211,400	230,500	230,800	224,400
29	172,300	138,300	165,500	152,200	------	139,200	173,800	189,200	211,700	231,100	230,800	224,700
30	171,000	137,700	167,700	149,700	------	139,800	174,800	190,000	212,600	231,100	230,800	224,400
31	171,000	------	168,500	147,200	------	141,300	------	190,500	------	231,700	231,100	------
MAX	177,600	169,500	168,500	196,000	144,900	141,300	174,800	190,500	212,600	231,700	231,100	231,400
MIN	171,000	137,000	119,800	147,200	112,500	112,900	143,100	176,400	191,000	213,700	228,600	222,600
(†)	1,185.18	1,170.90	1,184.20	1,175.24	1,158.38	1,172.56	1,186.67	1,192.82	1,200.64	1,206.97	1,206.76	1,204.63
(‡)	-7,700	-33,300	+30,800	-21,300	-34,500	+28,600	+33,500	+15,700	+22,100	+19,100	-600	-6,700

CAL YR 1961....................‡ -33,900
WAT YR 1962....................‡ +45,700

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

CONTENTS, IN ACRE-FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	223,200	185,100	219,600	216,100	148,100	161,100	169,700	224,100	227,400	225,600	231,400	232,000
2	221,400	183,000	221,100	219,600	148,100	159,900	169,200	224,400	227,700	225,300	231,100	231,100
3	219,600	180,500	221,400	222,300	171,800	158,700	168,500	224,700	226,800	225,000	231,100	230,800
4	217,200	178,200	220,800	223,200	180,200	156,600	169,200	223,800	226,500	225,600	231,400	230,500
5	214,900	176,100	221,700	222,900	186,600	154,800	171,500	226,500	226,800	225,900	231,100	229,900
6	212,300	173,600	223,200	222,000	189,700	152,900	177,600	229,300	226,500	226,500	231,100	229,900
7	211,400	170,800	222,000	220,800	191,000	152,400	183,300	231,700	225,900	226,800	231,100	229,900
8	210,000	168,500	222,900	219,000	191,500	152,000	187,100	229,600	226,500	227,700	231,400	229,900
9	211,700	166,200	223,500	217,200	191,500	152,200	190,500	229,300	227,100	228,300	231,400	230,200
10	211,100	164,500	223,500	214,900	190,500	152,700	193,100	228,600	227,400	229,300	231,100	229,900
11	210,000	163,500	223,500	212,300	189,200	152,700	196,000	228,300	228,300	229,900	231,100	228,600
12	209,100	162,500	222,600	209,700	187,400	152,900	198,600	229,000	228,600	230,500	231,100	227,400
13	211,100	161,100	222,000	207,100	186,600	153,100	201,300	227,700	229,300	231,100	231,400	226,200
14	212,600	159,200	223,200	204,400	185,600	153,100	205,300	226,500	229,600	231,700	231,100	225,000
15	212,300	157,300	223,200	201,600	184,000	153,400	210,000	225,300	230,500	232,000	231,100	224,700
16	212,000	155,400	221,700	198,600	182,000	153,100	213,700	224,700	231,700	231,400	230,800	223,800
17	211,400	155,700	223,200	195,800	180,000	153,400	216,400	225,000	230,800	231,400	230,800	221,100
18	210,800	155,900	222,900	192,900	178,400	153,400	218,700	225,600	230,500	231,100	231,100	218,100
19	210,300	161,300	222,000	190,000	177,400	153,100	221,400	227,700	230,800	231,100	231,100	214,900
20	208,200	180,500	220,800	186,800	176,100	153,600	223,500	229,900	230,500	231,100	231,100	212,000
21	206,200	187,100	219,300	184,000	174,100	154,000	225,300	231,100	230,500	231,400	231,100	209,400
22	204,400	189,400	217,800	180,700	172,300	154,800	226,200	231,100	230,200	231,400	231,100	206,800
23	203,600	190,000	215,800	177,600	170,500	155,200	225,900	229,900	229,900	231,100	231,100	203,600
24	202,400	190,200	214,000	174,300	168,500	155,700	225,300	229,300	229,300	230,800	231,100	201,000
25	201,600	200,100	211,700	170,800	166,500	156,400	224,700	229,000	228,300	230,500	231,100	199,200
26	198,900	208,800	209,100	167,500	165,200	156,800	224,400	228,600	227,700	230,200	231,100	198,900
27	196,600	210,800	206,800	164,000	163,700	157,800	224,400	227,700	226,800	230,500	230,800	198,900
28	195,500	213,200	203,900	160,600	162,500	159,700	225,000	227,400	226,200	231,100	231,100	199,200
29	193,100	214,300	202,700	156,800	------	162,800	225,000	227,400	225,600	231,100	231,100	199,200
30	190,500	217,200	207,400	153,400	------	166,700	224,700	227,400	225,900	231,400	231,700	199,200
31	187,600	------	211,400	150,400	------	169,500	------	227,400	------	231,400	232,400	------
MAX	223,200	217,200	223,500	223,200	191,500	169,500	226,200	231,700	231,700	232,000	232,400	232,000
MIN	187,600	155,400	202,700	150,400	148,100	152,000	168,500	223,800	225,600	225,000	230,800	198,900
(†)	1,191.68	1,202.23	1,200.20	1,176.61	1,181.76	1,184.55	1,204.71	1,205.57	1,205.12	1,206.93	1,207.18	1,195.96
(‡)	-36,800	+29,600	-5,800	-61,000	+12,100	+7,000	+55,200	+2,700	-1,500	+5,500	+1,000	-33,200

CAL YR 1962....................‡ +42,900
WAT YR 1963....................‡ -25,200

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Oct. 4 and Apr. 5 furnished by city of Tacoma.

12-0850. Alder Reservoir at Alder, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	198,900	185,800	214,300	201,000	214,900	163,700	110,600	105,900	167,000	221,400	231,100	230,800
2	198,600	186,300	213,200	205,000	213,200	161,300	110,600	104,500	170,200	222,600	231,700	230,500
3	198,600	187,100	211,400	206,500	213,700	158,500	109,800	102,800	172,000	223,800	231,100	230,200
4	198,100	186,800	209,400	209,100	213,700	157,100	108,700	101,400	174,800	225,000	231,100	229,900
5	197,800	186,600	207,900	211,100	213,200	155,700	107,600	101,200	178,400	226,200	230,200	229,600
6	197,200	186,800	207,900	213,200	212,600	154,000	105,700	101,700	180,700	226,200	228,600	229,600
7	196,600	185,600	207,400	213,200	211,400	152,200	104,200	101,200	182,500	226,800	228,000	229,900
8	196,000	184,800	207,100	212,600	210,000	149,900	103,100	100,700	184,500	227,700	227,700	229,900
9	195,500	186,800	205,300	211,700	208,500	147,600	102,600	101,000	186,300	227,700	227,700	229,900
10	195,000	188,400	203,300	210,800	207,600	145,100	102,200	103,500	188,400	227,700	227,400	229,900
11	194,400	187,600	201,000	209,400	206,200	144,900	101,900	105,900	190,000	228,000	226,800	229,900
12	193,900	186,800	198,400	207,900	204,200	144,000	101,400	107,800	191,000	230,200	226,200	229,900
13	193,400	186,800	196,000	206,800	202,100	142,000	100,700	109,200	191,800	231,100	225,300	229,900
14	193,100	189,700	193,400	205,900	199,800	140,700	99,500	110,300	193,900	231,400	225,600	229,900
15	192,900	193,100	191,000	205,600	197,500	140,900	99,600	110,600	195,000	231,700	225,900	229,900
16	191,500	196,900	188,700	207,400	195,500	140,400	99,800	112,700	197,200	231,100	226,500	229,600
17	190,500	201,800	186,600	210,600	193,600	139,600	98,800	116,100	199,800	230,500	227,100	229,900
18	187,900	203,300	184,800	212,000	191,800	138,900	97,100	119,200	203,900	229,300	227,700	228,000
19	184,800	205,300	183,500	213,700	190,200	137,200	95,900	123,400	206,800	228,300	228,000	226,200
20	182,200	207,400	184,000	214,900	188,400	135,400	95,700	127,800	210,000	227,700	228,600	225,000
21	179,700	207,400	184,300	214,600	186,300	133,700	95,900	133,300	212,600	227,100	229,000	223,800
22	180,000	207,600	183,800	213,700	184,300	131,200	97,900	137,000	212,900	227,400	229,900	222,300
23	180,000	209,700	184,000	212,300	182,000	128,800	99,300	139,400	213,200	227,400	230,500	221,700
24	181,200	210,300	185,300	212,300	179,700	126,000	100,500	141,100	214,000	227,700	231,400	221,400
25	183,300	210,800	188,700	217,800	177,100	123,400	100,900	143,400	214,300	228,300	232,000	220,200
26	184,800	212,600	190,700	212,900	174,600	120,800	101,700	144,400	215,200	229,600	231,400	218,400
27	185,800	215,500	192,600	211,400	171,800	117,400	102,900	147,200	217,500	230,200	231,100	217,500
28	185,600	216,400	193,600	213,700	169,000	114,200	104,900	149,900	219,300	231,100	231,400	214,900
29	184,800	216,400	194,200	215,800	166,200	111,600	106,100	152,900	219,600	231,400	231,100	213,700
30	183,500	215,500	193,900	215,500	------	110,100	106,800	156,600	220,200	231,400	231,400	214,300
31	184,300	------	194,700	215,800	------	109,900	------	161,800	------	231,100	232,000	------
MAX	198,900	216,400	214,300	217,800	214,900	163,700	110,600	161,800	220,200	231,700	232,000	230,800
MIN	179,700	184,800	183,500	201,000	166,200	109,900	95,700	100,700	167,000	221,400	225,300	213,700
(†)	1,190.39	1,201.62	1,194.45	1,201.74	1,183.32	1,156.88	1,155.07	1,181.50	1,203.22	1,206.84	1,207.06	1,201.24
(‡)	-14,900	+31,200	-20,800	+21,100	-49,600	-56,300	-3,100	+55,000	+58,400	+10,900	+900	-17,700

CAL YR 1963....................‡ -16,700
WAT YR 1964....................‡ +15,100

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

CONTENTS, IN ACRE-FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	214,000	188,700	203,000	214,300	210,600	221,100	147,200	174,600	191,000	212,900	231,100	229,900
2	213,700	186,600	210,300	215,800	213,700	219,300	143,700	176,600	191,800	213,700	231,100	230,200
3	214,000	186,100	212,900	214,900	215,800	217,200	141,300	175,900	193,100	214,900	230,800	230,200
4	214,000	187,400	215,500	214,000	214,900	216,400	139,800	174,300	194,400	216,400	230,500	229,900
5	212,300	187,100	216,600	210,300	214,600	214,900	137,900	172,800	196,000	217,500	230,500	230,200
6	210,300	185,600	217,200	207,100	216,400	213,200	133,900	171,500	198,400	218,400	230,800	230,200
7	208,200	184,300	217,200	205,000	217,800	210,600	130,800	170,200	199,800	219,600	230,800	229,600
8	207,600	183,000	217,800	202,400	218,700	207,900	128,200	170,200	201,000	220,500	230,800	229,600
9	206,800	181,500	219,300	200,100	219,300	205,900	125,200	171,000	202,700	221,100	230,200	229,300
10	206,500	179,400	220,800	198,100	219,600	205,000	122,800	170,000	204,200	221,700	230,800	229,000
11	206,800	178,700	221,100	195,800	218,700	203,300	121,000	169,500	205,300	222,600	230,500	229,000
12	205,900	176,900	220,800	193,400	218,100	202,400	119,600	170,200	206,200	222,600	230,500	228,600
13	205,000	175,600	220,500	191,000	219,300	201,800	119,800	171,000	207,100	223,200	230,800	228,600
14	203,900	173,600	220,500	189,200	220,200	202,100	120,000	171,300	207,400	223,800	230,500	229,000
15	203,300	171,500	219,300	189,200	220,200	200,700	121,000	172,300	207,400	224,700	230,500	229,900
16	203,600	169,000	217,200	191,300	220,200	197,500	121,800	174,600	207,400	225,300	230,200	229,600
17	203,900	166,200	215,500	193,900	220,800	194,200	122,800	174,600	207,600	226,200	230,200	229,600
18	203,900	163,300	214,300	195,500	220,500	191,000	123,800	174,600	-	226,800	230,500	228,300
19	203,300	160,100	212,600	197,200	221,700	188,700	127,800	175,400	-	227,400	230,800	228,300
20	202,700	156,600	211,100	199,500	220,800	186,600	136,800	176,600	-	227,700	231,100	227,700
21	202,700	153,800	210,800	201,800	222,000	184,500	142,900	177,900	209,700	227,400	231,100	227,100
22	201,800	150,800	218,700	203,000	222,000	182,200	147,200	178,900	210,000	227,400	231,100	226,200
23	201,000	149,200	218,100	205,000	219,900	178,700	150,100	179,700	210,600	227,700	230,800	225,600
24	200,400	161,600	215,800	207,900	218,700	175,100	153,100	180,500	210,800	228,300	230,500	225,300
25	199,500	167,700	217,200	209,100	217,200	171,500	156,600	181,000	211,400	229,300	229,900	224,700
26	197,200	172,300	217,200	210,000	216,100	167,700	159,900	181,500	211,100	230,200	230,200	224,100
27	195,200	173,600	216,900	213,400	219,300	164,500	163,500	182,800	211,100	230,800	230,200	222,900
28	194,200	173,800	217,200	215,200	221,100	161,600	166,700	184,500	210,800	231,100	229,900	222,000
29	192,600	175,900	218,100	216,900	------	158,300	170,200	186,600	211,400	231,100	229,900	220,800
30	191,500	185,600	218,100	213,700	------	154,000	172,500	188,900	212,000	231,100	229,600	219,600
31	190,200	------	217,200	208,500	------	150,400	------	190,200	------	231,100	230,200	------
MAX	214,000	188,700	221,100	216,900	222,000	221,100	172,500	190,200	-	231,100	231,100	230,200
MIN	190,200	149,200	203,000	189,200	210,600	150,400	119,600	169,500	-	212,900	229,600	219,600
(†)	1,192.67	1,190.87	1,202.22	1,199.16	1,203.51	1,176.59	1,185.81	1,192.73	1,200.36	1,206.79	1,206.49	1,203.03
(‡)	-24,100	-4,600	+31,600	-8,700	+12,600	-70,700	+22,100	+17,700	+21,800	+19,100	-900	-10,600

CAL YR 1964....................‡ +22,500
WAT YR 1965.................... ‡ +5,300

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

12-0855. La Grande Reservoir at La Grande, Wash.

Location.--Lat 46°49'20", long 122°18'10", in SW¼SE¼ sec.33, T.16 N., R.4 E., at left end of gate control structure, 1 mile southeast of La Grande and 1½ miles downstream from Alder Dam.

Drainage area.--289 sq mi.

Records available.--January 1945 to September 1965. January 1945 to September 1951 included in combined adjustment to monthly flow of Nisqually River at La Grande. Month-end contents January 1945 to September 1950, published in WSP 1316.

Gage.--Water-stage recorder. Datum of gage is 7.61 ft below mean sea level, datum of 1929 (levels by city of Tacoma). Prior to June 12, 1947, month-end gage heights furnished by city of Tacoma from temporary gages in pool above dam.

Extremes.--Maximums and minimums (contents in acre-feet, gage height in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Gage height	Date	Contents	Gage height
1961	Sept. 1, 1961	2,688	935.1	Mar. 11, 1961	1,918	918.7
1962	Nov. 11, 1961	2,743	936.1	Feb. 8, 1962	1,876	917.6
1963	Nov. 24, 1962	2,676	934.9	Feb. 17, 1963	1,832	916.4
1964	Dec. 30, 1963	2,682	935.0	Sept.23, 1964	1,976	920.2
1965	Dec. 7, 1964	2,710	935.5	Oct. 8, 1964	1,980	920.3

1947-65: Maximum contents, 2,760 acre-ft May 14, 1950 (gage height, 936.4 ft); minimum observed (since reservoir first filled), 1,370 acre-ft Aug. 24, 1956 (gage height, 900.0 ft).

Remarks.--Reservoir is formed by concrete-arch dam completed in 1944; storage began February 1945. Usable storage, 1,053 acre-ft between gage heights 910 (minimum practical head) and 935 ft (normal reservoir level). Storage unusable for power production, 1,629 acre-ft. Figures given herein represent total contents. Water used by city of Tacoma for power production.

MONTH-END GAGE HEIGHT AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	932.8	2,562	-6
Nov. 30	929.3	2,382	-180
Dec. 31	933.4	2,595	+213
Calendar year 1960	-	-	+91
Jan. 31, 1961	930.6	2,448	-147
Feb. 28	925.2	2,187	-261
Mar. 31	933.4	2,595	+408
Apr. 30	923.0	2,091	-504
May 31	931.4	2,489	+398
June 30	930.4	2,437	-52
July 31	929.8	2,407	-30
Aug. 31	934.5	2,654	+247
Sept.30	933.1	2,578	-76
Water year 1961	-	-	+10
Oct. 31	930.8	2,458	-120
Nov. 30	931.8	2,510	+52
Dec. 31	930.3	2,432	-78
Calendar year 1961	-	-	-163
Jan. 31, 1962	932.6	2,552	+120
Feb. 28	933.8	2,616	+64
Mar. 31	933.5	2,600	-16
Apr. 30	932.5	2,546	-54
May 31	932.5	2,546	0
June 30	933.2	2,584	+38
July 31	931.2	2,478	-106
Aug. 31	929.8	2,407	-71
Sept.30	933.6	2,605	+198
Water year 1962	-	-	+27
Oct. 31	934.3	2,644	+39
Nov. 30	932.8	2,562	-82
Dec. 31	932.1	2,525	-37
Calendar year 1962	-	-	+93
Jan. 31, 1963	931.9	2,515	-10
Feb. 28	933.8	2,616	+101
Mar. 31	933.5	2,600	-16
Apr. 30	933.9	2,622	+22
May 31	927.8	2,308	-314
June 30	932.2	2,531	+223
July 31	931.5	2,494	-37
Aug. 31	925.3	2,192	-302
Sept.30	933.1	2,578	+386
Water year 1963	-	-	-27
Oct. 31, 1963	931.7	2,504	-74
Nov. 30	928.7	2,352	-152
Dec. 31	933.0	2,573	+221
Calendar year 1963	-	-	+48
Jan. 31, 1964	933.2	2,584	+11
Feb. 29	930.0	2,417	-167
Mar. 31	931.7	2,504	+87
Apr. 30	931.9	2,515	+11
May 31	927.0	2,270	-245
June 30	932.0	2,520	+250
July 31	933.0	2,573	+53
Aug. 31	927.0	2,270	-303
Sept.30	931.2	2,478	+208
Water year 1964	-	-	-100
Oct. 31	933.4	2,595	+117
Nov. 30	932.5	2,546	-49
Dec. 31	933.8	2,616	+70
Calendar year 1964	-	-	+43
Jan. 31, 1965	929.7	2,402	-214
Feb. 28	932.0	2,520	+118
Mar. 31	931.0	2,468	-52
Apr. 30	932.6	2,552	+84
May 31	929.9	2,412	-140
June 30	932.7	2,557	+145
July 31	930.4	2,437	-120
Aug. 31	921.2	2,016	-421
Sept.30	934.0	2,627	+611
Water year 1965	-	-	+149

† Gage height at 2400 hours.

12-0865. Nisqually River at La Grande, Wash.

Location.--Lat 46°50'30", long 122°19'35", in NW¼SE¼ sec.29, T.16 N., R.4 E., on right bank half a mile downstream from city of Tacoma powerplant, half a mile northwest of La Grande, and three-quarters of a mile upstream from Mashel River.

Drainage area.--292 sq mi.

Records available.--September 1906 to October 1911, November to December 1911 (gage heights only), October 1919 to September 1931, October 1943 to September 1965. Monthly discharge only for some periods, published in WSP 1316. Published as "below Little Nisqually River, near La Grande" 1906-10, and as "near La Grande" 1912, 1919-31.

Gage.--Digital water-stage recorder. Altitude of gage is 490 ft (from river-profile map). Sept. 5, 1906, to Sept. 8, 1910, staff gage just below site of diversion dam 4 miles upstream at different datum. January 1910 to December 1911 staff gage at La Grande powerhouse site at datum at mean sea level (levels by city of Tacoma). January 1920 to September 1931 graphic water-stage recorder at approximately same site as that of first staff gage at datum 921.17 ft above mean sea level (levels by city of Tacoma). Dec. 7, 1943, to Feb. 8, 1945, graphic water-stage recorder 600 ft downstream from La Grande powerhouse at different datum (gage destroyed by flood of Feb. 8, 1945). Mar. 9, 1945, to July 22, 1964, graphic water-stage recorder at present site and datum.

Average discharge.--39 years, 1,402 cfs (1,015,000 acre-ft per year), adjusted for storage.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	14,500	8.38	July 18, 1961	317	2.87
1962	Feb. 3, 1962	2,900	4.83	Mar. 14, 1962	210	2.61
1963	Dec. 6, 1962	9,600	7.16	June 19, 1963	8	1.90
1964	Jan. 25, 1964	8,820	6.94	Dec. 16, 1963	305	2.80
1965	Jan. 30, 1965	18,200	9.16	Sept.30, 1965	131	2.39

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Aug. 29, 1961	352	1964	Aug. 21, 1964	424
1962	Aug. 14-16, 1962	398	1965	July 18, 24, 25, 1965	357
1963	Aug. 29, 1963	365			

1906-11, 1919-31, 1943-65: Maximum discharge, 20,700 cfs Nov. 23, 1959 (gage height, 9.63 ft); practically no flow on many occasions at site near La Grande, result of regulation.

Remarks.--Records good. Flow regulated by city of Tacoma powerplant at La Grande since December 1943, by Alder Reservoir (see station 12-0850) since November 1944, and by La Grande Reservoir (see station 12-0855) since February 1945. All diversions returned to river above gage. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1216: Drainage area. WSP 1316: 1927-28(M), 1949-50.

12-0865. Nisqually River at La Grande, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,430	1,330	2,040	1,720	2,090	2,010	1,340	1,940	1,950	622	842	1,250
2	1,230	1,550	1,160	1,700	2,030	2,540	896	1,820	2,040	534	898	886
3	1,600	1,690	800	1,870	2,150	2,180	1,680	1,740	1,440	654	936	738
4	1,580	1,440	866	1,950	2,110	2,000	1,930	1,960	1,070	654	966	634
5	1,600	1,080	1,760	1,880	2,880	1,940	1,820	2,080	1,760	930	860	712
6	1,560	1,120	2,090	1,880	5,000	2,120	1,880	2,250	1,910	938	725	787
7	1,560	1,450	2,010	1,790	4,650	2,050	1,880	2,180	1,750	918	692	802
8	1,110	1,450	2,060	1,760	3,610	1,960	1,730	2,260	1,740	796	736	823
9	1,400	1,560	2,030	1,870	2,950	2,090	1,560	2,250	1,710	444	817	812
10	1,490	1,530	2,070	2,050	4,930	2,110	1,780	2,150	1,050	812	823	823
11	1,350	1,460	2,010	2,090	4,020	2,040	1,910	2,170	610	989	826	754
12	1,100	1,310	2,010	2,110	2,110	1,900	1,850	2,140	1,180	1,010	468	1,000
13	1,050	1,220	1,870	2,100	2,420	1,880	1,820	2,140	944	1,240	574	1,930
14	1,090	1,630	1,960	2,060	4,850	2,510	1,820	1,840	527	1,020	749	1,870
15	1,370	1,660	2,020	2,730	5,120	4,190	1,850	2,130	477	1,080	568	1,450
16	1,260	1,760	2,020	4,970	3,240	4,390	1,750	1,850	448	983	554	1,530
17	1,600	1,700	1,760	4,910	2,140	3,540	1,960	1,950	439	870	484	1,720
18	1,220	1,780	1,860	3,270	2,110	1,800	2,030	1,560	438	709	487	1,490
19	964	1,730	2,020	2,140	2,000	1,760	1,970	1,590	470	742	426	1,820
20	775	2,270	2,060	2,140	2,810	2,250	2,170	1,350	604	941	428	1,960
21	1,540	5,100	2,170	2,110	9,370	3,320	2,080	1,540	678	676	466	2,040
22	1,500	1,900	2,180	2,130	8,240	1,800	2,100	1,970	654	961	565	2,060
23	1,320	1,910	2,120	2,130	4,600	1,830	2,100	2,060	648	879	697	1,260
24	1,240	4,850	2,000	2,150	4,420	2,430	2,040	1,960	676	860	651	1,270
25	1,180	7,870	1,790	2,100	4,930	3,880	1,980	1,910	658	812	574	1,820
26	1,100	5,690	1,790	2,140	4,880	1,820	2,000	2,180	756	777	402	1,850
27	1,150	1,990	1,970	2,130	3,370	1,860	1,960	2,130	606	762	367	962
28	1,390	2,130	2,080	2,130	1,920	1,900	1,880	1,920	536	742	358	1,040
29	1,580	2,050	2,020	2,110	------	1,800	1,860	1,930	640	650	352	1,140
30	1,420	2,030	2,020	2,140	------	1,750	1,730	2,060	530	489	370	1,000
31	1,550	------	1,820	2,140	------	1,700	------	2,240	------	661	456	------
TOTAL	41,309	66,240	58,496	70,400	104,950	71,350	55,356	61,250	28,939	25,155	19,120	38,233
MEAN	1,333	2,208	1,887	2,271	3,748	2,302	1,845	1,976	965	811	617	1,274
MAX	1,600	7,870	2,190	4,970	9,370	4,390	2,170	2,260	2,040	1,240	966	2,060
MIN	775	1,080	800	1,700	1,920	1,700	896	1,350	438	444	352	634
AC-FT	81,940	131,400	116,000	139,600	208,200	141,500	109,800	121,500	57,400	49,890	37,920	75,830
(†)	-33,510	+60,120	-15,490	+13,550	+839	+108	-8,000	-8,300	+28,550	+2,670	+647	-53,780
MEAN ‡	788	3,218	1,634	2,492	3,763	2,303	1,711	1,841	1,444	855	627	371
CFSM ‡	2.70	11.0	5.60	8.53	12.9	7.89	5.86	6.30	4.95	2.93	2.15	1.27
IN ‡	3.11	12.30	6.45	9.84	13.42	9.09	6.54	7.27	5.52	3.37	2.48	1.42
AC-FT‡	48,430	191,500	100,500	153,200	209,000	141,600	101,800	113,200	85,950	52,560	38,570	22,050

OBSERVED

CAL YR 1960: TOTAL 551,222 MEAN 1,506 MAX 7,870 MIN 540 AC-FT 1,093,000
WAT YR 1961: TOTAL 640,798 MEAN 1,756 MAX 9,370 MIN 352 AC-FT 1,271,000

ADJUSTED ‡

CAL YR 1960: MEAN 1,504 CFSM 5.15 IN 70.18 AC-FT 1,092,000
WAT YR 1961: MEAN 1,738 CFSM 5.95 IN 80.81 AC-FT 1,258,000

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† Change in contents, in acre-feet, in Alder and La Grande Reservoirs.
‡ Adjusted for change in reservoir contents.

12-0865. Nisqually River at La Grande, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	789	1,430	2,130	1,970	2,210	561	438	1,200	828	460	960	452
2	764	1,450	1,770	2,080	2,110	622	612	1,150	866	452	888	484
3	494	1,290	1,660	2,040	2,180	518	902	1,270	892	452	1,130	594
4	535	1,020	1,970	1,960	1,720	478	972	1,580	1,050	452	846	460
5	461	914	2,070	2,070	2,060	498	1,020	1,470	1,040	460	788	480
6	550	1,470	1,880	2,020	2,050	607	1,060	1,260	900	468	1,000	564
7	500	1,240	1,960	1,970	2,070	737	1,930	1,750	1,080	452	446	621
8	472	1,260	1,440	2,020	2,070	796	2,070	1,710	1,020	452	604	452
9	491	1,290	1,520	2,150	2,120	786	1,630	1,710	678	452	1,110	445
10	624	1,500	1,520	2,150	2,020	806	1,680	1,630	686	430	849	732
11	874	1,250	1,750	2,170	1,960	686	1,640	1,650	1,070	424	576	568
12	870	852	1,640	2,200	2,000	703	1,700	1,510	1,110	424	469	490
13	1,500	1,400	1,680	2,220	1,480	556	1,630	1,230	970	424	702	588
14	1,090	1,370	1,640	2,240	1,990	406	1,540	1,680	961	410	398	928
15	1,020	1,600	1,180	2,250	1,610	532	974	1,670	990	410	398	952
16	1,140	1,500	1,060	2,250	1,260	634	1,790	1,720	799	438	398	886
17	732	1,660	1,080	2,270	1,340	492	1,570	1,700	728	445	495	1,040
18	450	1,330	1,110	2,270	2,220	572	1,540	1,620	990	460	418	1,140
19	434	964	1,080	2,290	2,330	640	1,780	919	972	417	548	1,120
20	436	1,630	1,660	2,290	1,170	558	1,930	918	916	460	568	1,140
21	438	1,630	1,990	2,270	1,320	578	1,910	1,070	932	417	428	460
22	435	1,830	1,970	2,290	804	548	1,210	1,080	888	417	618	438
23	433	1,980	2,000	2,290	1,090	548	1,570	1,120	746	417	652	438
24	672	2,050	1,830	2,290	837	430	1,620	1,130	638	417	526	486
25	798	1,980	1,870	2,290	904	430	1,350	1,070	696	573	503	424
26	660	2,000	2,000	2,270	870	522	1,180	866	884	997	504	424
27	1,370	2,020	2,080	2,290	717	956	1,690	828	860	1,290	568	424
28	1,060	1,640	2,060	2,080	635	1,030	1,700	966	751	984	471	516
29	934	2,120	2,000	2,270	------	958	1,370	956	768	561	445	772
30	1,270	2,120	2,120	2,270	------	911	1,220	882	464	822	445	656
31	740	------	2,070	2,300	------	430	------	822	------	611	460	------
TOTAL	23,036	45,790	53,790	67,790	45,147	19,529	43,228	40,137	26,173	16,348	19,211	19,176
MEAN	743	1,526	1,735	2,187	1,612	630	1,441	1,295	872	527	620	639
MAX	1,500	2,120	2,130	2,300	2,330	1,030	2,070	1,750	1,110	1,290	1,130	1,140
MIN	433	852	1,060	1,960	635	406	438	822	464	410	398	424
AC-FT	45,690	90,820	106,700	134,500	89,550	38,740	85,740	79,610	51,910	32,430	38,100	38,040
(†)	-7,820	-33,250	+30,720	-21,180	-34,440	+28,580	+33,450	+15,700	+22,140	+18,990	-671	-6,500
MEAN ‡	616	967	2,235	1,843	992	1,095	2,003	1,550	1,244	836	609	530
CFSM‡	2.11	3.31	7.65	6.31	3.40	3.75	6.86	5.31	4.26	2.86	2.09	1.82
IN ‡	2.43	3.70	8.82	7.28	3.54	4.32	7.65	6.12	4.75	3.30	2.40	2.03
AC-FT‡	37,870	57,570	137,400	113,300	55,110	67,320	119,200	95,310	74,050	51,420	37,430	31,540

OBSERVED

CAL YR 1961: TOTAL 597,369 MEAN 1,637 MAX 9,370 MIN 352 AC-FT 1,185,000
WAT YR 1962: TOTAL 419,355 MEAN 1,149 MAX 2,330 MIN 398 AC-FT 831,800

ADJUSTED ‡

CAL YR 1961: MEAN 1,590 CFSM 5.45 IN 63.27 AC-FT 1,151,000
WAT YR 1962: MEAN 1,212 CFSM 4.15 IN 56.34 AC-FT 877,500

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† Change in contents, in acre-feet, in Alder and La Grande Reservoirs.
‡ Adjusted for change in reservoir contents.

12-0865. Nisqually River at La Grande, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,160	1,750	1,780	626	2,070	2,030	1,340	1,520	750	952	728	710
2	1,530	1,630	2,000	1,200	2,050	1,760	1,500	1,250	847	676	686	830
3	1,530	1,760	2,130	1,590	2,100	1,670	1,650	1,120	1,290	830	616	830
4	1,620	1,620	2,130	2,070	2,030	2,020	1,280	1,530	1,020	505	656	840
5	1,720	1,770	2,130	2,100	2,070	1,760	1,300	500	750	505	730	690
6	1,670	1,830	3,130	2,070	2,100	1,780	996	832	837	505	748	617
7	1,230	1,870	3,760	2,150	2,120	1,100	600	878	1,040	514	638	599
8	1,780	1,790	2,020	2,150	2,100	1,020	849	2,960	610	514	548	599
9	1,610	1,820	1,960	2,150	2,030	780	590	1,740	512	505	684	590
10	2,050	1,710	2,050	2,150	2,130	562	488	1,780	660	514	780	767
11	2,020	1,700	2,020	2,180	2,220	814	510	1,410	510	522	726	1,040
12	1,780	1,700	2,020	2,170	2,150	640	479	898	812	514	838	1,240
13	783	1,800	2,050	2,130	1,740	632	522	1,700	560	514	740	1,210
14	516	1,700	2,020	2,170	1,640	638	460	1,700	673	514	742	1,130
15	1,090	1,700	3,740	2,130	1,720	656	468	1,570	534	644	688	764
16	978	1,650	3,790	2,130	2,080	672	468	1,440	510	942	656	1,120
17	1,040	1,000	1,540	2,100	2,020	640	530	998	1,300	721	586	1,830
18	1,010	500	1,850	2,150	1,770	707	555	950	1,220	744	530	1,840
19	1,020	900	2,020	2,070	1,870	688	472	544	562	780	548	2,030
20	1,680	3,000	2,050	2,050	2,080	531	460	449	896	656	539	1,810
21	1,550	2,800	1,980	2,130	2,080	570	460	893	876	624	539	1,850
22	1,700	2,100	1,960	2,070	2,000	540	770	1,690	800	786	522	1,730
23	1,040	2,000	2,050	2,100	1,870	723	1,480	1,850	668	868	522	1,940
24	1,190	1,900	1,830	2,080	1,880	772	1,510	1,360	920	909	514	1,770
25	1,120	2,500	1,930	2,080	2,020	545	1,460	1,140	1,010	857	514	1,250
26	1,800	3,300	2,050	2,070	2,150	650	1,160	1,250	904	730	505	582
27	1,600	3,250	2,000	2,070	2,030	683	1,090	1,070	920	460	505	582
28	1,110	1,760	2,050	2,130	1,910	824	744	1,060	950	452	424	582
29	1,800	1,680	1,980	2,150	------	1,030	1,060	972	935	589	365	582
30	1,920	1,610	1,300	2,170	------	742	1,250	1,100	542	539	410	582
31	1,860	------	914	2,070	------	558	------	1,070	------	578	424	------
TOTAL	44,507	56,100	66,234	62,656	56,030	28,737	26,501	39,224	24,418	19,963	18,651	32,535
MEAN	1,436	1,870	2,137	2,021	2,001	927	883	1,265	814	644	602	1,085
MAX	2,050	3,300	3,790	2,180	2,220	2,030	1,650	2,960	1,300	952	838	2,030
MIN	516	500	914	626	1,640	531	460	449	510	452	365	582
AC-FT	88,280	111,300	131,400	124,300	111,100	57,000	52,560	77,800	48,430	39,600	36,990	64,530
(†)	-36,760	+29,520	-5,840	-61,010	+12,200	+6,980	+55,220	+2,390	-1,280	+5,460	+698	-32,810
MEAN ‡	838	2,366	2,043	1,029	2,220	1,041	1,812	1,304	792	733	613	533
CFSM‡	2.87	8.10	7.00	3.52	7.60	3.57	6.21	4.47	2.71	2.51	2.10	1.83
IN ‡	3.31	9.04	8.07	4.06	7.92	4.11	6.92	5.15	3.03	2.89	2.42	2.04
AC-FT‡	51,520	140,800	125,600	63,290	123,300	63,980	107,800	80,190	47,150	45,060	37,690	31,720

OBSERVED

CAL YR 1962: TOTAL 463,580 MEAN 1,270 MAX 3,790 MIN 398 AC-FT 919,500
WAT YR 1963: TOTAL 475,557 MEAN 1,303 MAX 3,790 MIN 365 AC-FT 943,300

ADJUSTED ‡

CAL YR 1962: MEAN 1,330 CFSM 4.55 IN 61.81 AC-FT 962,600
WAT YR:1963: MEAN 1,268 CFSM 4.34 IN 58.96 AC-FT 918,100

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† Change in contents, in acre-feet, in Alder and La Grande Reservoirs.
‡ Adjusted for change in reservoir contents.

12-0865. Nisqually River at La Grande, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	582	1,590	2,180	1,610	4,110	2,150	1,750	1,700	1,110	982	1,070	868
2	582	1,610	1,930	2,290	3,580	2,150	1,880	1,890	1,700	1,020	777	795
3	590	1,400	2,020	2,240	2,100	2,150	1,940	1,880	1,880	929	1,470	799
4	590	1,320	2,080	1,080	2,050	2,130	1,990	1,790	1,810	790	1,160	577
5	599	1,310	2,150	1,020	2,120	2,060	1,940	1,130	1,830	910	1,600	731
6	599	1,360	2,080	1,230	2,010	1,970	2,110	765	1,880	1,160	1,670	515
7	608	1,410	1,820	1,800	2,050	2,010	1,930	1,270	1,940	1,380	1,250	470
8	599	912	1,810	2,050	2,070	2,020	1,890	1,280	1,900	1,330	1,140	544
9	599	954	2,070	2,180	1,960	2,120	1,810	1,270	1,740	1,390	951	547
10	599	1,070	2,230	2,000	2,050	2,130	1,830	804	1,740	1,310	1,050	477
11	508	1,800	2,110	1,990	1,800	2,150	1,980	844	1,720	1,300	1,090	474
12	508	1,800	2,200	1,970	2,140	1,900	1,940	1,120	1,820	648	1,250	475
13	644	1,190	2,150	1,960	2,070	2,220	1,910	1,320	1,560	1,330	1,330	476
14	599	1,040	2,150	1,630	2,140	2,150	2,060	1,250	1,040	1,610	749	560
15	715	636	2,100	1,400	2,140	1,750	2,040	1,420	1,580	1,980	510	505
16	908	572	2,160	1,870	2,170	1,870	1,770	850	1,780	1,760	496	621
17	902	1,430	2,120	1,770	2,170	1,980	2,150	591	1,350	1,610	513	643
18	1,720	2,200	2,170	1,800	2,150	1,880	2,060	802	1,130	1,700	463	1,590
19	1,890	2,100	2,110	1,800	2,100	2,170	1,840	652	892	1,500	438	1,450
20	1,790	1,600	2,070	1,840	2,130	2,160	1,590	826	566	1,370	428	1,180
21	1,730	1,960	1,870	2,080	2,100	2,070	1,080	1,230	459	1,460	424	1,180
22	1,390	1,950	1,990	2,100	2,140	2,160	765	1,090	1,410	862	427	1,240
23	1,080	1,540	1,750	2,130	2,130	2,230	592	1,120	1,600	873	428	1,150
24	878	2,100	965	2,470	2,160	2,260	779	1,160	1,610	749	429	735
25	491	2,200	599	7,770	2,220	2,100	1,110	1,100	1,690	743	429	1,240
26	486	2,240	852	8,150	2,200	2,170	1,120	818	1,350	472	1,090	1,360
27	490	2,240	808	5,010	2,200	2,250	850	792	460	748	851	987
28	994	2,250	1,160	2,220	2,150	2,250	638	1,040	458	751	743	1,810
29	1,410	2,240	1,340	3,180	2,150	2,180	903	1,100	1,220	936	760	1,160
30	1,400	2,200	1,440	3,480	------	2,100	1,090	932	1,070	1,120	575	606
31	1,400	------	1,210	3,380	------	1,990	------	796	------	1,140	495	------
TOTAL	28,070	48,224	55,694	77,500	64,560	64,880	47,337	34,632	42,295	35,863	26,056	25,765
MEAN	905	1,607	1,797	2,500	2,226	2,093	1,578	1,117	1,410	1,157	841	859
MAX	1,890	2,250	2,230	8,150	4,110	2,260	2,150	1,890	1,940	1,980	1,670	1,810
MIN	486	572	599	1,020	1,800	1,750	592	591	458	472	424	470
AC-FT	55,680	95,650	110,500	153,700	128,100	128,700	93,890	68,690	83,890	71,130	51,680	51,100
(†)	-14,970	+31,050	-20,580	+21,110	-49,770	-56,210	-3,090	+54,760	+58,650	+10,950	+597	-17,490
MEAN‡	662	2,129	1,462	2,843	1,362	1,179	1,526	2,007	2,395	1,335	850	565
CFSM‡	2.27	7.29	5.01	9.74	4.66	4.04	5.23	6.87	8.20	4.57	2.91	1.93
IN ‡	2.61	8.14	5.77	11.22	5.03	4.65	5.83	7.92	9.15	5.27	3.36	2.16
AC-FT‡	40,710	126,700	89,920	174,800	78,330	72,490	90,800	123,400	142,500	82,080	52,280	33,610

OBSERVED

CAL YR 1963: TOTAL 440,704 MEAN 1,207 MAX 2,960 MIN 365 AC-FT 874,100
WAT YR 1964: TOTAL 550,876 MEAN 1,505 MAX 8,150 MIN 424 AC-FT 1,093,000

ADJUSTED ‡

CAL YR 1963: MEAN 1,184 CFSM 4.05 IN 55.06 AC-FT 857,400
WAT YR 1964: MEAN 1,526 CFSM 5.23 IN 71.11 AC-FT 1,108,000

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† Change in contents, in acre-feet, in Alder and La Grande Reservoirs.
‡ Adjusted for change in reservoir contents.

12-0865. Nisqually River at La Grande, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,050	1,300	2,390	3,430	4,440	1,940	2,320	494	679	556	650	428
2	1,220	1,540	4,460	1,680	2,010	2,650	2,460	378	770	548	860	365
3	800	1,160	3,380	1,930	1,940	2,510	1,880	1,620	679	452	900	385
4	714	712	1,670	2,020	2,930	1,920	1,390	2,070	661	444	706	385
5	1,610	1,260	1,640	3,430	3,230	2,050	1,680	1,890	532	444	661	385
6	1,830	1,500	1,550	3,000	1,800	2,120	2,600	1,680	516	500	460	385
7	1,890	1,420	1,610	2,190	1,430	2,540	2,120	1,560	572	484	688	500
8	933	1,300	1,730	2,170	1,730	2,480	2,020	926	715	492	715	548
9	1,350	1,450	1,610	2,190	1,660	2,460	2,230	574	634	484	950	556
10	930	1,620	1,590	2,130	1,640	1,630	1,850	1,470	706	436	830	428
11	641	1,080	1,750	2,220	1,930	2,260	1,470	1,450	706	364	870	428
12	929	1,490	1,760	2,190	1,930	1,710	1,420	1,120	742	484	800	428
13	1,110	1,220	1,760	2,200	1,590	1,440	728	1,110	715	476	810	436
14	1,160	1,490	1,670	2,150	1,430	1,060	669	1,090	780	484	751	428
15	1,110	1,540	1,900	2,150	1,760	1,860	690	770	800	468	625	616
16	800	1,730	2,030	1,760	1,730	2,490	575	460	870	468	697	760
17	644	1,840	1,820	1,480	1,780	2,670	673	1,340	770	428	652	920
18	725	1,940	1,700	1,700	2,290	2,580	662	1,180	770	357	679	516
19	941	2,010	1,760	1,800	1,890	1,760	618	820	706	492	670	444
20	779	2,120	1,610	1,700	2,510	1,910	659	870	516	532	724	572
21	752	1,930	1,750	1,760	1,460	1,870	656	840	751	751	589	760
22	977	2,070	7,250	1,680	1,730	1,890	671	760	770	476	616	780
23	919	1,980	14,600	1,700	2,600	2,660	649	706	770	428	820	800
24	891	1,340	8,580	1,400	2,050	2,460	523	810	770	357	850	652
25	940	1,670	3,890	1,680	1,990	2,460	371	850	780	357	780	706
26	1,600	1,120	5,230	1,870	2,290	2,610	554	840	770	452	484	715
27	1,390	1,520	3,870	4,060	2,070	2,270	411	760	688	598	420	830
28	988	1,560	2,700	6,520	1,590	2,060	571	652	780	715	460	910
29	1,150	1,320	1,710	15,900	------	2,250	451	420	564	724	413	830
30	1,100	1,320	1,850	16,900	------	2,630	531	413	556	870	406	950
31	1,110	------	2,000	12,700	------	2,520	------	428	------	860	371	------
TOTAL	32,983	45,552	92,820	109,690	57,430	67,720	34,102	30,351	21,038	15,981	21,107	17,865
MEAN	1,064	1,518	2,994	3,538	2,051	2,185	1,137	979	701	516	681	596
MAX	1,890	2,120	14,600	16,900	4,440	2,670	2,600	2,070	870	870	950	950
MIN	641	712	1,550	1,400	1,430	1,060	371	378	516	357	371	385
AC-FT	65,420	90,350	184,100	217,600	113,900	134,300	67,640	60,200	41,730	31,700	41,870	35,440
(†)	-23,980	-4,650	+31,670	-8,910	+12,720	-70,750	+22,180	+17,560	+21,940	+18,980	-1,320	-9,990
MEAN‡	674	1,440	3,510	3,394	2,280	1,034	1,509	1,265	1,070	824	659	428
CFSM‡	2.31	4.93	12.0	11.6	7.81	3.54	5.17	4.33	3.66	2.82	2.26	1.47
IN ‡	2.66	5.50	13.86	13.40	8.13	4.08	5.77	4.99	4.09	3.25	2.60	1.63
AC-FT‡	41,440	85,700	215,800	208,700	126,600	63,550	89,820	77,760	63,670	50,680	40,550	25,450

OBSERVED

CAL YR 1964: TOTAL 590,243	MEAN 1,613	MAX 14,600	MIN 424	AC-FT 1,171,000
WAT YR 1965: TOTAL 546,640	MEAN 1,498	MAX 16,900	MIN 357	AC-FT 1,084,000

ADJUSTED ‡

CAL YR 1964: MEAN 1,645	CFSM 5.63	IN 76.61	AC-FT 1,194,000
WAT YR 1965: MEAN 1,504	CFSM 5.15	IN 69.96	AC-FT 1,089,000

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† Change in contents, in acre-feet, in Alder and La Grande Reservoirs.
‡ Adjusted for change in reservoir contents.

12-0874. Ohop Lake near Eatonville, Wash.

Location.--Lat 46°54'05", long 122°16'50", in SE¼NE¼ sec.3, T.16 N., R.4 E., on west shore of lake, 1½ miles uplake from outlet and 2½ miles north of Eatonville.

Drainage area.--17.3 sq mi.

Records available.--August 1960 to September 1965.

Gage.--Staff gage read once daily. Altitude of gage is 525 ft (from topographic map). Prior to Feb. 20, 1963, at site about 60 ft downlake at same datum.

Extremes.--Maximum and minimum gage heights, in feet, for August 1960 to September 1965 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1960	Aug. 28, 1960	[a] 4.36	Aug. 22, 1960	3.80
1961	Nov. 22, 1960	8.84	Aug. 19-23, 25, 30, 1961	3.35
1962	Dec. 25, 1961	6.95	Oct. 5, 1961	3.58
1963	Feb. 4, 1963	7.18	Aug. 18, 19, 1963	4.00
1964	Jan. 26, 1964	8.92	Aug. 25, 27, 1964	4.12
1965	Jan. 30, 1965	9.59	Aug. 8, 9, 1965	3.44

[a] Not previously published.

1960-65: Maximum gage height observed, 9.59 ft Jan. 30, 1965; minimum observed, 3.35 ft Aug. 19-23, 25, 30, 1961.

Remarks.--No regulation or diversion above station.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.93	5.00	6.24	5.27	5.80	7.06	4.98	5.36	4.34	3.76	3.47	3.63
2	3.93	5.04	6.04	5.21	5.86	7.00	5.06	5.34	4.28	3.76	3.46	3.70
3	3.92	5.08	5.88	5.17	5.84	6.85	5.13	5.54	4.24	3.75	3.46	3.72
4	3.89	5.10	5.88	5.10	5.90	6.57	5.26	5.66	4.19	3.73	3.44	3.71
5	3.88	5.04	5.71	5.22	5.92	6.47	5.24	5.77	4.17	3.80	3.44	3.71
6	3.88	4.96	5.60	6.14	6.01	6.18	5.20	5.84	4.13	3.82	3.43	3.70
7	3.93	4.88	5.46	6.46	6.49	6.12	5.12	5.76	4.18	3.84	3.42	3.68
8	4.04	4.80	5.36	6.54	6.54	6.01	5.06	5.60	4.24	3.81	3.41	3.68
9	4.13	4.70	5.28	6.58	6.38	5.92	5.00	5.57	4.26	3.79	3.40	3.66
10	4.12	4.84	5.16	6.38	6.29	5.88	4.94	5.54	4.28	3.77	3.40	3.65
11	4.22	5.50	5.06	6.11	6.12	5.79	4.89	5.56	4.28	3.75	3.38	3.63
12	4.14	5.86	5.10	6.00	6.05	5.74	4.90	5.44	4.30	3.74	3.37	3.60
13	4.12	5.92	5.11	5.86	5.99	5.70	5.03	5.35	4.29	3.70	3.38	3.58
14	4.10	6.16	5.11	5.74	5.91	5.76	5.09	5.20	4.24	3.68	3.36	3.58
15	4.09	6.44	5.09	5.65	5.99	5.77	5.08	5.12	4.22	3.65	3.37	3.58
16	4.09	7.11	5.04	5.78	6.32	5.76	5.01	5.06	4.16	3.64	3.37	3.59
17	4.08	7.20	5.02	5.97	6.34	5.67	4.98	4.94	4.12	3.62	3.36	3.60
18	4.08	7.24	5.08	5.95	6.26	5.61	4.95	4.82	4.09	3.60	3.36	3.58
19	4.07	7.31	5.30	5.81	6.11	5.47	4.92	4.74	4.04	3.60	3.35	3.58
20	4.04	7.94	5.76	5.70	6.14	5.50	4.90	4.68	4.00	3.58	3.35	3.58
21	4.06	8.44	5.80	5.58	6.62	5.42	4.89	4.58	3.94	3.57	3.35	3.57
22	4.09	8.84	5.76	5.48	7.72	5.44	5.04	4.50	3.92	3.56	3.35	3.56
23	4.20	7.60	5.69	5.37	7.38	5.37	5.41	4.52	3.90	3.54	3.35	3.55
24	4.77	7.68	5.59	5.31	7.00	5.28	5.60	4.52	3.86	3.53	3.36	3.55
25	4.72	8.72	5.47	5.25	6.95	5.28	5.64	4.49	3.83	3.52	3.35	3.53
26	4.77	8.08	5.43	5.17	6.93	5.30	5.57	4.42	3.81	3.51	3.36	3.53
27	4.84	7.50	5.48	5.09	6.79	5.29	5.48	4.44	3.77	3.51	3.36	3.52
28	5.07	7.08	5.48	5.02	6.96	5.26	5.32	4.44	3.76	3.50	3.36	3.55
29	5.05	6.76	5.44	5.00	------	5.19	5.30	4.45	3.75	3.49	3.36	3.57
30	4.94	6.48	5.36	5.12	------	5.11	5.28	4.41	3.76	3.49	3.35	3.58
31	4.96	------	5.35	5.58	------	5.02	------	4.38	------	3.48	3.37	------
MAX	5.07	8.84	6.24	6.58	7.72	7.06	5.64	5.84	4.34	3.84	3.47	3.72
MIN	3.88	4.70	5.02	5.00	5.80	5.02	4.89	4.38	3.75	3.48	3.35	3.52

12-0874. Ohop Lake near Eatonville, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.59	4.52	4.95	5.56	4.86	4.60	5.09	5.36	5.32	5.08	4.41	4.68
2	3.60	4.50	4.90	5.42	4.84	4.60	5.00	5.36	5.28	5.15	4.43	4.66
3	3.60	4.46	4.85	5.49	4.80	4.57	4.96	5.38	5.28	5.18	4.50	4.64
4	3.60	4.46	4.80	5.64	4.76	4.58	5.10	5.40	5.40	5.20	4.63	4.62
5	3.58	4.42	4.79	5.66	4.66	4.66	5.04	5.39	5.46	5.23	4.71	4.59
6	3.59	4.38	4.79	5.81	4.66	4.86	5.20	5.34	5.69	5.11	4.80	4.57
7	3.64	4.34	4.78	6.16	4.65	5.00	5.46	5.32	5.68	4.98	4.85	4.54
8	3.70	4.31	4.77	6.31	4.64	5.04	5.98	5.26	5.66	4.86	4.90	4.54
9	3.74	4.31	4.76	6.22	4.60	5.06	5.92	5.30	5.64	4.75	4.95	4.55
10	3.81	4.32	4.72	6.06	4.58	5.04	5.78	5.40	5.52	4.64	4.98	4.61
11	3.99	4.39	4.67	5.81	4.58	5.04	5.66	5.38	5.40	4.55	5.00	4.66
12	4.04	4.56	4.61	5.70	4.56	5.01	5.54	5.35	5.26	4.47	5.02	4.70
13	4.11	4.59	4.59	5.59	4.55	4.96	5.36	5.34	5.18	4.41	5.10	4.72
14	4.14	4.60	4.57	5.48	4.68	4.91	5.22	5.32	5.13	4.37	5.12	4.74
15	4.16	4.57	4.56	5.34	4.86	4.86	5.16	5.31	5.06	4.30	5.16	4.70
16	4.16	4.56	4.56	5.22	4.89	4.85	5.07	5.30	4.99	4.27	5.22	4.64
17	4.18	4.52	4.78	5.16	4.92	4.86	5.02	5.23	4.89	4.25	5.25	4.56
18	4.16	4.49	5.08	5.08	4.93	4.86	4.96	5.16	4.80	4.20	5.27	4.50
19	4.14	4.44	5.18	5.00	4.90	4.87	4.88	5.11	4.76	4.18	5.29	4.47
20	4.12	4.42	5.30	4.96	4.88	4.90	4.84	5.00	4.72	4.20	5.34	4.44
21	4.11	4.41	5.76	4.90	4.85	4.96	4.79	4.96	4.72	4.20	5.36	4.40
22	4.10	4.47	5.92	4.84	4.80	4.99	4.76	4.92	4.71	4.22	5.26	4.38
23	4.12	5.26	6.08	4.80	4.80	5.04	4.68	5.01	4.70	4.24	5.14	4.36
24	4.16	5.32	6.75	4.70	4.82	5.10	4.66	5.22	4.74	4.28	5.04	4.32
25	4.18	5.29	6.95	4.65	4.79	5.08	4.64	5.56	4.80	4.29	4.94	4.30
26	4.26	5.29	6.87	4.84	4.71	5.10	4.60	5.86	4.84	4.31	4.90	4.29
27	4.50	5.15	6.40	4.92	4.66	5.14	4.70	5.90	4.91	4.34	4.82	4.30
28	4.56	5.06	6.11	4.98	4.62	5.26	4.84	5.84	4.97	4.35	4.78	4.31
29	4.58	5.00	6.00	4.98	------	5.24	5.12	5.72	5.05	4.36	4.75	4.35
30	4.57	4.99	5.84	4.96	------	5.20	5.36	5.60	5.05	4.38	4.74	4.36
31	4.54	------	5.70	4.92	------	5.18	------	5.48	------	4.40	4.71	------
MAX	4.58	5.32	6.95	6.31	4.93	5.26	5.98	5.90	5.69	5.23	5.36	4.74
MIN	3.58	4.31	4.56	4.65	4.55	4.57	4.60	4.92	4.70	4.18	4.41	4.29

Note.--Gage read at various times.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.34	4.30	6.41	5.22	5.07	5.55	6.52	5.45	4.43	4.49	4.24	4.10
2	4.32	4.33	6.34	5.26	5.19	5.61	6.46	5.46	4.42	4.50	4.22	4.11
3	4.31	4.34	6.31	5.37	5.97	5.65	6.31	5.51	4.48	4.49	4.20	4.10
4	4.30	4.36	6.22	5.43	7.18	5.62	6.21	5.57	4.49	4.46	4.18	4.09
5	4.29	4.35	6.15	5.43	7.13	5.56	6.15	5.57	4.54	4.42	4.18	4.09
6	4.32	4.40	6.22	5.39	6.90	5.46	6.25	5.59	4.57	4.40	4.16	4.08
7	4.30	4.38	6.36	5.34	6.75	5.40	6.49	5.64	4.57	4.42	4.15	4.06
8	4.38	4.43	6.18	5.30	6.33	5.32	6.47	5.86	4.58	4.54	4.12	4.06
9	4.54	4.52	6.12	5.25	5.90	5.26	6.32	5.74	4.60	4.69	4.10	4.05
10	4.61	4.60	6.00	5.21	5.85	5.19	6.19	5.69	4.61	4.73	4.09	4.05
11	4.74	4.62	5.84	5.17	5.78	5.11	6.10	5.60	4.59	4.79	4.08	4.05
12	4.78	4.69	5.70	5.15	5.67	5.10	6.03	5.49	4.57	4.82	4.07	4.05
13	4.80	4.63	5.59	5.11	5.54	5.04	6.01	5.40	4.55	4.79	4.07	4.06
14	4.80	4.77	5.60	5.08	5.45	5.02	5.96	5.31	4.51	4.75	4.05	4.07
15	4.76	4.78	5.69	5.01	5.39	4.98	5.98	5.20	4.48	4.70	4.04	4.14
16	4.71	4.77	5.86	4.98	5.34	4.99	5.98	5.19	4.44	4.66	4.02	4.27
17	4.66	4.76	5.90	4.99	5.32	4.99	5.94	5.10	4.42	4.60	4.01	4.39
18	4.64	4.74	5.88	5.00	5.29	4.96	5.91	5.01	4.38	4.56	4.00	4.44
19	4.61	4.80	5.87	5.01	5.27	4.98	5.94	4.94	4.36	4.52	4.00	4.46
20	4.59	6.20	5.80	4.99	5.30	4.98	5.94	4.86	4.31	4.48	4.04	4.48
21	4.56	6.66	5.71	4.96	5.29	5.00	5.88	4.80	4.31	4.44	4.05	4.42
22	4.53	6.70	5.61	4.91	5.25	4.99	5.84	4.74	4.36	4.46	4.05	4.40
23	4.49	6.34	5.54	4.90	5.20	4.98	5.79	4.68	4.36	4.44	4.06	4.39
24	4.44	6.11	5.50	4.85	5.15	4.98	5.76	4.62	4.38	4.46	4.08	4.38
25	4.42	6.36	5.38	4.82	5.10	4.95	5.71	4.58	4.38	4.44	4.10	4.36
26	4.41	6.86	5.30	4.80	5.25	4.93	5.67	4.56	4.38	4.40	4.15	4.34
27	4.40	7.08	5.24	4.79	5.49	4.95	5.64	4.54	4.36	4.38	4.15	4.32
28	4.33	6.83	5.18	4.77	5.54	4.98	5.55	4.51	4.38	4.35	4.16	4.32
29	4.33	6.69	5.15	4.74	------	5.20	5.50	4.50	4.41	4.33	4.14	4.29
30	4.32	6.34	5.12	4.72	------	5.71	5.44	4.48	4.48	4.30	4.12	4.27
31	4.32	------	5.19	4.72	------	6.31	------	4.46	------	4.27	4.11	------
MAX	4.80	7.08	6.41	5.43	7.18	6.31	6.52	5.86	4.61	4.82	4.24	4.48
MIN	4.29	4.30	5.12	4.72	5.07	4.93	5.44	4.46	4.31	4.27	4.00	4.05

Note.--Gage read at various times.

12-0874. Ohop Lake near Eatonville, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.25	5.12	5.89	5.89	6.79	4.99	5.00	5.31	4.75	4.71	4.20	4.20
2	4.23	5.16	5.79	6.79	6.69	4.98	5.08	5.29	4.70	4.67	4.26	4.23
3	4.22	5.18	5.70	7.06	6.55	4.97	5.10	5.24	4.63	4.64	4.32	4.29
4	4.21	5.21	5.61	6.91	6.38	4.95	5.09	5.21	4.64	4.61	4.38	4.32
5	4.20	5.30	5.54	6.71	6.25	5.12	5.11	5.16	4.64	4.57	4.42	4.38
6	4.20	5.36	5.71	6.68	6.11	5.21	5.15	5.11	4.63	4.53	4.45	4.42
7	4.19	5.42	5.79	6.76	5.99	5.24	5.14	5.04	4.67	4.50	4.44	4.43
8	4.18	5.58	5.91	6.64	5.84	5.22	5.10	4.99	4.86	4.46	4.42	4.52
9	4.18	5.69	5.90	6.52	5.76	5.20	5.05	4.94	4.99	4.43	4.38	4.60
10	4.18	5.74	5.85	6.46	5.67	5.22	5.07	4.89	5.00	4.41	4.35	4.65
11	4.18	5.77	5.76	6.37	5.61	5.41	5.09	4.84	4.97	4.39	4.34	4.68
12	4.18	5.75	5.69	6.27	5.56	5.54	5.12	4.80	4.93	4.37	4.31	4.70
13	4.20	5.72	5.60	6.17	5.49	5.61	5.23	4.81	4.87	4.32	4.29	4.73
14	4.19	5.76	5.53	6.18	5.41	5.61	5.31	4.79	4.81	4.30	4.26	4.76
15	4.20	5.77	5.48	6.21	5.37	5.58	5.59	4.74	4.79	4.34	4.25	4.77
16	4.21	5.78	5.44	6.37	5.35	5.56	6.16	4.71	4.79	4.36	4.24	4.79
17	4.20	5.83	5.49	6.63	5.37	5.54	6.21	4.68	5.15	4.38	4.22	4.87
18	4.18	6.10	5.52	6.82	5.44	5.67	6.12	4.64	5.70	4.36	4.21	4.96
19	4.18	6.20	5.69	6.93	5.55	5.69	5.92	4.60	5.99	4.35	4.20	5.04
20	4.18	6.26	5.75	7.17	5.55	5.65	5.80	4.57	5.95	4.33	4.19	5.07
21	4.19	6.19	5.96	7.16	5.50	5.61	5.62	4.78	5.80	4.34	4.19	5.12
22	4.36	6.12	6.04	7.02	5.44	5.55	5.58	4.98	5.60	4.34	4.19	5.15
23	4.64	6.08	6.11	6.81	5.37	5.46	5.54	5.15	5.50	4.33	4.17	5.15
24	4.75	6.06	6.16	6.66	5.32	5.38	5.49	5.19	5.38	4.32	4.14	5.13
25	4.89	6.04	6.16	7.84	5.24	5.31	5.39	5.18	5.21	4.30	4.12	5.12
26	5.02	6.01	6.13	8.92	5.19	5.24	5.35	5.12	5.10	4.27	4.13	5.09
27	5.07	6.06	6.07	8.20	5.12	5.21	5.38	5.08	5.00	4.23	4.12	5.08
28	5.09	6.09	6.01	7.62	5.07	5.16	5.38	4.99	4.94	4.22	4.14	5.06
29	5.10	6.04	5.94	7.29	5.02	5.11	5.38	4.92	4.86	4.21	4.16	5.04
30	5.16	5.97	5.87	7.04	------	5.06	5.35	4.87	4.79	4.20	4.17	5.02
31	5.15	------	5.79	6.83	------	5.00	------	4.81	------	4.20	4.18	------
MAX	5.16	6.26	6.16	8.92	6.79	5.69	6.21	5.31	5.99	4.71	4.45	5.15
MIN	4.18	5.12	5.44	5.89	5.02	4.95	5.00	4.57	4.63	4.20	4.12	4.20

Note.--Gage read at various times.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.99	4.02	6.59	6.29	8.03	5.63	4.28	4.82	4.24	3.66	3.50	3.74
2	4.91	4.08	7.63	6.19	7.56	5.56	4.35	4.78	4.19	3.65	3.49	3.71
3	4.80	4.13	7.76	6.20	7.20	5.47	4.37	4.74	4.16	3.63	3.48	3.69
4	4.71	4.20	7.39	6.18	6.91	5.40	4.36	4.70	4.11	3.61	3.47	3.68
5	4.62	4.52	6.98	6.01	6.76	5.33	4.34	4.78	4.07	3.59	3.47	3.66
6	4.52	4.63	6.64	6.10	6.76	5.26	4.30	4.85	4.03	3.58	3.46	3.64
7	4.43	4.66	6.33	6.18	6.68	5.17	4.26	4.84	3.99	3.57	3.45	3.61
8	4.38	4.68	6.09	6.10	6.50	5.07	4.21	4.80	3.96	3.56	3.44	3.60
9	4.34	4.69	5.97	6.00	6.40	4.99	4.21	4.75	3.94	3.54	3.44	3.59
10	4.46	4.71	5.92	5.89	6.28	4.92	4.26	4.68	3.92	3.51	3.50	3.58
11	4.45	4.74	5.93	5.80	6.13	4.86	4.28	4.61	3.89	3.62	3.59	3.57
12	4.44	4.74	5.84	5.73	6.00	4.79	4.26	4.56	3.88	3.66	3.64	3.57
13	4.40	4.73	5.78	5.64	6.10	4.72	4.24	4.48	3.87	3.68	3.72	3.56
14	4.37	4.73	5.74	5.58	6.46	4.66	4.26	4.42	3.88	3.67	3.79	3.58
15	4.38	4.70	5.81	5.61	6.46	4.59	4.27	4.38	3.91	3.66	3.79	3.66
16	4.44	4.66	5.78	5.67	6.40	4.53	4.29	4.36	3.90	3.65	3.79	3.78
17	4.50	4.58	5.74	5.68	6.35	4.50	4.28	4.38	3.89	3.64	3.76	3.86
18	4.62	4.55	5.71	5.65	6.24	4.46	4.27	4.39	3.87	3.62	3.74	3.87
19	4.60	4.50	5.50	5.60	6.09	4.40	4.33	4.37	3.86	3.60	3.72	3.86
20	4.56	4.46	5.45	5.60	5.99	4.36	5.02	4.43	3.84	3.60	3.80	3.85
21	4.48	4.42	5.37	5.68	5.86	4.34	5.36	4.59	3.82	3.61	3.85	3.84
22	4.40	4.37	6.44	5.89	5.80	4.36	5.51	4.72	3.80	3.62	3.86	3.83
23	4.36	4.35	8.76	5.97	5.79	4.38	5.50	4.72	3.78	3.63	3.88	3.82
24	4.31	4.57	8.39	6.09	5.73	4.34	5.48	4.69	3.76	3.62	3.87	3.80
25	4.26	6.29	8.00	6.18	5.65	4.32	5.41	4.66	3.74	3.61	3.86	3.78
26	4.21	6.69	7.59	6.18	5.57	4.32	5.32	4.60	3.73	3.60	3.86	3.77
27	4.17	6.67	7.58	6.93	5.54	4.33	5.21	4.54	3.70	3.59	3.85	3.75
28	4.13	6.47	7.35	7.74	5.67	4.33	5.10	4.47	3.68	3.57	3.85	3.74
29	4.10	6.28	7.04	8.64	------	4.32	4.98	4.41	3.68	3.55	3.81	3.72
30	4.07	6.35	6.75	9.59	------	4.31	4.89	4.35	3.67	3.53	3.79	3.70
31	4.04	------	6.63	8.80	------	4.28	------	4.29	------	3.52	3.76	------
MAX	4.99	6.69	8.76	9.59	8.03	5.63	5.51	4.85	4.24	3.68	3.88	3.87
MIN	4.04	4.02	5.37	5.58	5.54	4.28	4.21	4.29	3.67	3.51	3.44	3.56

Note.--Gage read at various times.

12-0880. Ohop Creek near Eatonville, Wash.

Location.--Lat 46°52'50", long 122°16'40", in SE¼SE¼ sec.10, T.16 N., R.4 E., on left bank 300 ft downstream from Lynch Creek, 550 ft downstream from outlet of Ohop Lake, and 0.8 mile northwest of Eatonville.

Drainage area.--34.5 sq mi (revised).

Records available.--June 1927 to September 1932, September 1941 to September 1965.

Gage.--Digital water-stage recorder. Concrete control June 21, 1948, to June 15, 1964. Datum of gage is 519.8 ft above mean sea level (stadia traverse). June 1, 1927, to Sept. 30, 1932, graphic water-stage recorder at datum 2.79 ft higher; Sept. 6, 1941, to Mar. 17, 1942, staff gage and Mar. 18, 1942, to June 15, 1964, graphic water-stage recorder, at present datum; all at site 250 ft downstream. June 15, 1964, to Aug. 26, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--29 years, 67.3 cfs (48,720 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (320 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1430	944	4.54	Nov. 20, 1962	0300	463	3.57	June 18, 1964	0130	345	5.15
Nov. 24, 1960	1530	* 998	4.63	Nov. 25, 1962	1930	463	3.57				
Jan. 5, 1961	1830	320	3.20	Feb. 3, 1963	0900	* 529	3.72	Nov. 24, 1964	1500	716	5.91
Feb. 21, 1961	1300	710	4.10					Dec. 1, 1964	2100	882	6.16
Feb. 28, 1961	0030	399	3.41	Jan. 1, 1964	1630	455	3.55	Dec. 22, 1964	1730	1,100	6.65
				Jan. 19, 1964	2230	325	3.20	Jan. 27, 1965	0300	680	5.65
Dec. 24, 1961	1400	* 419	3.46	Jan. 25, 1964	0700	* 1,240	4.72	Jan. 29, 1965	1000	* 1,530	7.42
								Feb. 13, 1965	0800	335	4.61

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 22-26, 30, 1961	6.1	1.45	1964	Sept. 7, 15, 16	8.8	a 1.42
1962	July 31, 1962	4.5	1.35	1965	Sept.12, 13, 1965	8.3	b 2.42
1963	Sept.10, 1963	8.2	1.51				

a Occurred June 3-5, 1964, at site then in use.
b Occurred Aug. 1-5, 1965.

1927-32, 1941-65: Maximum discharge, 1,740 cfs Dec. 9, 1953; maximum gage height, 7.42 ft Jan. 29, 1965; minimum discharge, 2.3 cfs Aug. 22, 23, 1944.

Remarks.--Records good. Possible small diversions for domestic use. Natural regulation in Ohop Lake.

Revisions (water years).--WSP 1286: 1946.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	50	125	69	142	302	60	100	33	17	9.3	25
2	12	114	120	66	138	247	91	114	31	17	8.9	17
3	12	66	114	60	133	208	114	129	30	16	8.9	14
4	12	51	114	60	152	172	100	148	27	16	8.5	13
5	12	44	98	185	142	150	85	172	26	21	8.1	12
6	14	39	87	208	244	152	75	142	32	22	7.7	12
7	21	36	77	188	232	150	66	120	37	20	7.7	11
8	30	33	70	188	182	140	63	106	31	18	7.7	11
9	22	31	64	165	160	133	64	106	34	17	7.7	10
10	19	148	60	140	160	120	59	125	34	17	7.7	9.8
11	18	180	57	120	150	120	56	108	34	16	7.4	9.3
12	20	112	69	110	142	129	75	93	34	15	7.4	8.9
13	18	152	61	96	140	140	94	82	31	15	7.1	8.1
14	18	202	64	91	150	158	85	77	30	15	7.1	7.7
15	16	246	59	87	229	145	75	69	27	14	7.4	7.7
16	16	391	56	175	223	129	67	61	26	14	7.4	8.1
17	16	306	57	150	175	112	65	56	26	13	7.4	8.1
18	15	359	93	127	150	98	61	50	24	13	7.1	8.5
19	14	288	172	108	150	93	66	46	23	13	6.7	8.5
20	14	583	140	94	214	100	64	43	22	12	6.7	7.7
21	15	439	114	84	505	93	74	40	20	12	6.7	7.7
22	20	334	98	74	407	87	116	38	20	12	6.1	7.7
23	46	344	87	69	282	84	208	46	19	12	6.1	7.4
24	87	729	78	66	247	85	155	40	17	11	6.1	7.4
25	46	625	72	60	257	89	129	36	17	11	6.1	7.1
26	50	383	82	56	244	96	110	35	17	11	6.4	7.1
27	64	268	102	52	276	91	96	45	16	10	6.7	6.7
28	63	202	89	50	320	78	85	40	16	10	6.7	7.7
29	53	165	78	61	------	72	91	40	17	10	6.4	11
30	46	140	72	135	------	66	104	36	20	9.8	6.1	8.5
31	54	------	69	188	------	60	------	34	------	9.3	19	------
TOTAL	876	7,060	2,698	3,384	5,946	3,899	2,654	2,377	771	439.1	236.3	295.7
MEAN	28.3	235	87.0	109	212	126	88.5	76.7	25.7	14.2	7.62	9.86
MAX	87	729	172	208	505	302	208	172	37	22	19	25
MIN	12	31	56	50	133	60	56	34	16	9.3	6.1	6.7
CFSM	.82	6.82	2.52	3.16	6.16	3.65	2.56	2.22	.74	.41	.22	.29
IN.	.94	7.61	2.91	3.65	6.41	4.20	2.86	2.56	.83	.47	.25	.32
AC-FT	1,740	14,000	5,350	6,710	11,790	7,730	5,260	4,710	1,530	871	469	587

CAL YR 1960: TOTAL 27,885.7 MEAN 76.2 MAX 729 MIN 6.0 CFSM 2.21 IN 30.06 AC-FT 55,310
WAT YR 1961: TOTAL 30,636.1 MEAN 83.9 MAX 729 MIN 6.1 CFSM 2.43 IN 33.02 AC-FT 60,770

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0880. Ohop Creek near Eatonville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.5	34	46	93	45	30	60	75	52	8.9	4.8	13
2	8.5	31	40	82	43	30	55	78	65	8.9	5.5	12
3	8.1	30	38	142	39	29	50	80	78	8.9	11	12
4	7.7	27	38	125	37	34	55	80	102	8.9	28	11
5	7.7	24	45	120	34	78	94	69	106	24	30	10
6	11	24	40	182	34	94	205	64	125	43	18	9.3
7	18	22	40	238	33	70	205	63	96	37	14	7.4
8	15	20	41	182	32	63	165	66	80	32	14	6.7
9	13	20	36	150	31	59	136	91	69	30	12	6.7
10	29	27	32	125	34	55	112	80	59	27	9.8	14
11	33	45	30	106	33	55	94	69	53	24	8.5	30
12	27	44	28	93	39	53	78	64	47	22	9.8	16
13	28	37	28	82	37	52	69	67	46	21	22	14
14	22	35	29	72	59	49	60	69	43	19	13	18
15	18	32	29	64	59	47	57	64	39	19	10	20
16	17	30	37	59	49	52	52	61	35	18	8.9	19
17	16	27	145	56	47	52	46	55	33	17	9.8	17
18	15	26	80	50	48	49	41	49	30	16	11	15
19	15	25	85	46	45	50	37	47	27	14	10	14
20	14	24	167	38	43	53	36	43	24	9.3	8.5	14
21	14	29	214	35	39	61	34	40	20	6.7	16	14
22	14	152	155	34	40	72	33	38	16	6.1	23	13
23	19	80	223	35	42	64	30	65	14	5.8	20	13
24	22	63	363	36	39	60	30	122	12	5.5	20	12
25	19	50	278	59	36	75	30	170	11	5.5	17	11
26	40	43	199	75	32	77	29	127	12	5.1	16	11
27	61	42	158	84	30	96	73	100	12	5.1	15	12
28	41	43	136	70	31	94	93	87	11	4.8	22	18
29	33	45	127	59	------	84	118	74	10	4.8	20	20
30	29	46	129	53	------	74	87	64	9.3	4.8	16	16
31	26	------	108	48	------	66	------	56	------	4.8	14	------
TOTAL	649.5	1,177	3,144	2,693	1,110	1,877	2,264	2,277	1,336.3	466.9	457.6	419.1
MEAN	21.0	39.2	101	86.9	39.6	60.5	75.5	73.5	44.5	15.1	14.8	14.0
MAX	61	152	363	238	59	96	205	170	125	43	30	30
MIN	7.7	20	28	34	30	29	29	38	9.3	4.8	4.8	6.7
CFSM	.61	1.14	2.94	2.52	1.15	1.76	2.19	2.13	1.29	.44	.43	.40
IN.	.70	1.27	3.39	2.90	1.20	2.02	2.44	2.45	1.44	.50	.49	.45
AC-FT	1,290	2,330	6,240	5,340	2,200	3,720	4,490	4,520	2,650	926	908	831

CAL YR 1961: TOTAL 24,972.6 MEAN 68.4 MAX 505 MIN 6.1 CFSM 1.98 IN 26.92 AC-FT 49,530
WAT YR 1962: TOTAL 17,871.4 MEAN 49.0 MAX 363 MIN 4.8 CFSM 1.42 IN 19.26 AC-FT 35,450

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	15	15	162	64	148	84	165	69	18	30	17	11
2	14	15	148	76	160	100	138	78	20	25	15	12
3	18	15	136	72	388	89	127	89	28	23	15	11
4	17	15	131	65	275	78	145	80	24	20	14	11
5	15	27	145	60	230	69	152	88	30	20	15	9.9
6	15	28	185	55	179	62	215	98	26	18	14	9.4
7	19	24	148	51	148	59	203	108	24	24	14	9.0
8	34	29	120	50	122	54	160	104	30	69	13	9.0
9	52	29	102	49	104	50	134	91	32	48	13	9.0
10	41	31	89	43	88	46	120	80	27	60	12	9.0
11	34	35	78	34	76	44	127	72	25	59	12	9.4
12	38	39	68	34	68	44	122	65	23	45	12	9.0
13	38	39	62	35	64	43	116	60	21	37	12	12
14	32	33	86	37	62	42	118	55	20	32	12	14
15	28	30	127	38	57	42	129	51	18	30	11	29
16	25	30	116	48	57	42	116	48	17	28	11	50
17	23	29	106	44	55	42	118	43	16	25	9.9	34
18	22	29	95	44	57	40	131	41	15	24	9.9	24
19	22	161	93	40	61	45	122	37	15	22	11	20
20	20	337	84	37	65	50	116	35	15	20	12	18
21	20	227	76	34	59	45	114	32	17	20	11	16
22	20	158	70	32	54	43	106	30	20	30	11	16
23	19	118	64	30	51	43	106	29	20	27	11	19
24	18	106	59	30	49	43	100	28	19	24	14	17
25	17	280	54	30	49	41	95	24	22	25	14	15
26	17	311	49	29	89	41	91	22	19	22	16	14
27	17	239	48	28	80	44	82	21	18	20	14	14
28	17	173	48	27	72	65	75	20	20	19	12	13
29	16	138	45	24	------	135	72	20	33	18	12	12
30	16	145	55	23	------	188	68	19	34	17	11	12
31	15	------	52	45	------	191	------	19	------	17	11	------
TOTAL	714	2,885	2,901	1,308	2,967	2,004	3,683	1,656	666	898	391.8	467.7
MEAN	23.0	96.2	93.6	42.2	106	64.6	123	53.4	22.2	29.0	12.6	15.6
MAX	52	337	185	76	388	191	215	108	34	69	17	50
MIN	14	15	45	23	49	40	68	19	15	17	9.9	9.0
CFSM	.67	2.79	2.71	1.22	3.07	1.87	3.56	1.55	.64	.84	.37	.45
IN.	.77	3.11	3.13	1.41	3.20	2.16	3.97	1.79	.72	.97	.42	.50
AC-FT	1,420	5,720	5,750	2,590	5,880	3,970	7,310	3,280	1,320	1,780	777	928

CAL YR 1962: TOTAL 19,400.9 MEAN 53.2 MAX 337 MIN 4.8 CFSM 1.54 IN 20.91 AC-FT 38,480
WAT YR 1963: TOTAL 20,541.5 MEAN 56.3 MAX 388 MIN 9.0 CFSM 1.63 IN 22.14 AC-FT 40,740

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0880. Ohop Creek near Eatonville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	36	62	213	310	60	91	80	48	32	21	10
2	11	61	57	224	250	57	86	90	46	31	24	12
3	11	46	54	162	200	56	82	78	43	30	24	12
4	11	72	49	136	180	73	80	75	43	28	29	10
5	11	69	66	118	160	88	86	72	43	28	30	9.5
6	11	62	136	160	130	78	84	66	48	26	25	9.2
7	11	81	95	138	108	76	78	64	86	26	22	9.5
8	10	108	81	114	98	74	74	64	88	25	21	16
9	10	76	74	114	91	72	75	64	82	26	20	14
10	9.9	76	66	112	89	78	82	69	70	24	19	12
11	9.9	70	60	104	84	150	84	65	65	23	18	11
12	10	61	55	97	75	122	93	65	61	22	17	9.8
13	11	64	51	106	66	104	102	66	56	21	18	9.2
14	11	80	49	127	62	97	97	61	54	21	16	9.0
15	10	80	48	127	65	106	224	57	50	26	16	9.0
16	10	72	54	206	80	97	152	56	97	25	15	9.0
17	9.9	123	61	212	97	116	124	54	150	23	15	32
18	9.9	124	60	191	118	118	108	51	210	22	15	22
19	10	110	59	211	112	104	93	50	108	21	15	17
20	9.9	104	118	260	93	93	89	56	84	21	14	19
21	10	89	98	188	82	88	84	97	71	23	13	17
22	80	81	88	155	76	84	89	106	61	22	13	19
23	48	97	88	131	74	80	89	97	53	21	13	20
24	39	95	80	178	72	72	81	84	48	20	12	20
25	64	93	105	867	66	69	78	78	45	19	12	19
26	51	91	73	538	62	70	91	70	41	18	13	19
27	38	120	80	342	60	70	93	65	39	18	13	18
28	42	97	75	250	57	68	91	61	39	17	15	17
29	46	81	66	330	55	68	88	59	35	16	13	17
30	43	70	61	280	------	70	80	55	34	16	14	30
31	40	------	60	290	------	72	------	50	------	20	12	------
TOTAL	709.5	2,489	2,229	6,681	3,072	2,630	2,848	2,115	1,998	711	537	457.2
MEAN	22.9	83.0	71.9	216	106	84.8	94.9	68.2	66.6	22.9	17.3	15.2
MAX	80	124	136	867	310	150	224	106	210	32	30	32
MIN	9.9	36	48	97	55	56	74	50	34	16	12	9.0
CFSM	.66	2.40	2.08	6.25	3.07	2.46	2.75	1.98	1.93	.66	.50	.44
IN.	.76	2.68	2.40	7.20	3.31	2.84	3.07	2.28	2.15	.77	.58	.49
AC-FT	1,410	4,940	4,420	13,250	6,090	5,220	5,650	4,200	3,960	1,410	1,070	907

CAL YR 1963: TOTAL 19,469.0 MEAN 53.3 MAX 388 MIN 9.0 CFSM 1.55 IN 20.99 AC-FT 38,620
WAT YR 1964: TOTAL 26,476.7 MEAN 72.3 MAX 867 MIN 9.0 CFSM 2.10 IN 28.54 AC-FT 52,520

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	38	26	333	99	397	103	40	49	27	12	9.1	10
2	38	34	590	152	280	94	43	48	26	12	9.1	9.9
3	37	34	382	127	221	87	38	44	25	11	9.1	9.7
4	31	90	251	99	193	79	35	51	24	11	9.1	9.6
5	30	72	176	127	221	71	33	62	22	11	9.1	9.5
6	26	49	134	154	214	66	31	59	22	11	9.1	9.4
7	24	47	109	115	170	61	30	56	20	10	9.1	9.1
8	26	44	101	96	164	56	29	49	20	10	9.1	8.8
9	53	50	130	85	149	53	33	44	20	10	9.1	8.7
10	61	53	141	86	132	50	38	41	19	10	16	8.7
11	41	46	130	87	117	47	33	38	19	15	14	8.5
12	35	42	106	79	130	44	32	35	18	13	14	8.5
13	31	42	100	77	269	42	33	33	18	12	19	8.5
14	32	41	109	121	200	40	36	32	18	11	16	13
15	75	38	112	128	191	38	33	30	20	11	14	26
16	72	36	88	118	178	37	37	35	18	11	13	27
17	54	34	76	99	174	35	35	39	18	10	12	17
18	44	32	75	87	147	33	33	34	17	10	12	15
19	39	31	71	91	128	33	146	33	16	9.9	12	13
20	35	29	66	96	115	32	149	59	16	10	18	13
21	32	28	134	112	103	32	118	87	16	11	14	12
22	30	28	760	110	110	40	121	57	15	12	12	12
23	28	38	780	160	104	35	93	49	15	11	12	11
24	26	362	555	166	94	33	82	47	14	11	13	11
25	26	170	379	127	88	32	81	42	13	10	12	11
26	24	130	379	161	86	33	69	39	13	10	12	11
27	23	102	318	538	125	35	61	35	13	9.9	11	10
28	22	82	226	535	120	34	56	33	12	9.9	11	10
29	21	100	170	1,180	------	33	50	31	12	9.7	11	9.8
30	22	124	136	884	------	33	47	30	12	9.4	11	9.7
31	21	------	112	622	------	32	------	29	------	9.4	11	------
TOTAL	1,097	2,034	7,229	6,718	4,620	1,473	1,695	1,350	538	334.2	371.9	350.4
MEAN	35.4	67.8	233	217	165	47.5	56.5	43.5	17.9	10.8	12.0	11.7
MAX	75	362	780	1,180	397	103	149	87	27	15	19	27
MIN	21	26	66	77	86	32	29	29	12	9.4	9.1	8.5
CFSM	1.03	1.97	6.76	6.28	4.78	1.38	1.64	1.26	.52	.31	.35	.34
IN.	1.18	2.19	7.79	7.24	4.98	1.59	1.83	1.46	.58	.36	.40	.38
AC-FT	2,180	4,030	14,340	13,320	9,160	2,920	3,360	2,680	1,070	663	738	695

CAL YR 1964: TOTAL 31,409.2 MEAN 85.8 MAX 867 MIN 9.0 CFSM 2.49 IN 33.86 AC-FT 62,300
WAT YR 1965: TOTAL 27,810.5 MEAN 76.2 MAX 1,180 MIN 8.5 CFSM 2.21 IN 29.98 AC-FT 55,160

12-0885. Nisqually River near McKenna, Wash.

Location.--Lat 46°51'20", long 122°27'10", in NW¼SE¼ sec.20, T.16 N., R.3 E., on right bank 800 ft downstream from Elbow Creek, three-quarters of a mile upstream from Tanwax Creek, and 7.4 miles southeast of McKenna.

Drainage area.--445 sq mi.

Records available.--August 1941 to July 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 373.6 ft above mean sea level (stadia traverse).

Average discharge.--21 years, 1,794 cfs (1,299,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for October 1960 to July 1963 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	14,000	10.47	Aug. 28, 1961	384	3.37
1962	Dec. 24, 1961	4,220	6.86	July 24, 1962	426	3.49
1963	Dec. 6, 1962	7,340	8.22	June 19, 1963	128	2.81

1941-63: Maximum discharge, 20,800 cfs Dec. 12, 1955 (gage height, 12.06 ft); minimum, 85 cfs Oct. 19, 1945 (gage height, 2.57 ft); minimum daily, 176 cfs Jan. 30, 1945.

Remarks.--Records excellent. No diversion above station. Major portion of flow regulated by Alder Reservoir and city of Tacoma powerplant at La Grande.

Revisions (water years).--WSP 1286: 1947.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,500	1,700	2,570	2,100	3,090	3,170	1,710	2,530	2,200	650	780	1,300
2	1,260	2,130	1,790	2,060	2,830	3,580	1,610	2,440	2,300	618	861	1,000
3	1,600	2,330	1,280	2,210	2,880	3,040	2,260	2,350	1,800	664	912	800
4	1,650	1,980	1,320	2,270	2,850	2,670	2,540	2,570	1,400	602	911	700
5	1,640	1,440	2,160	2,670	3,290	2,550	2,310	2,770	2,000	1,010	840	800
6	1,630	1,460	2,500	2,970	5,750	2,760	2,340	2,850	2,100	972	769	850
7	1,770	1,730	2,450	2,700	5,500	2,610	2,200	2,740	1,900	986	685	850
8	1,370	1,710	2,440	2,720	4,530	2,540	2,040	2,740	1,900	795	693	850
9	1,600	1,830	2,440	2,800	3,460	2,700	1,950	2,800	1,900	580	800	850
10	1,670	2,010	2,400	2,790	5,420	2,680	2,050	2,740	1,500	740	800	850
11	1,550	2,610	2,310	2,740	4,780	2,670	2,170	2,700	900	966	800	800
12	1,280	2,100	2,430	2,770	3,010	2,630	2,190	2,560	1,250	1,030	550	883
13	1,150	2,050	2,280	2,720	3,110	2,850	2,270	2,490	1,100	1,180	600	1,770
14	1,220	2,910	2,330	2,640	5,190	3,460	2,220	2,180	712	1,000	630	1,800
15	1,390	2,730	2,400	3,010	5,670	4,760	2,150	2,400	608	1,100	712	1,430
16	1,380	3,560	2,360	5,690	4,360	4,650	2,060	2,130	566	982	581	1,470
17	1,800	3,320	2,050	5,600	3,000	3,980	2,300	2,200	562	900	571	1,700
18	1,380	3,810	2,460	4,230	2,790	2,420	2,320	1,960	552	800	522	1,480
19	1,000	3,240	3,260	2,810	2,700	2,300	2,360	1,870	560	800	484	1,700
20	822	4,830	2,910	2,710	3,440	2,720	2,450	1,650	684	1,000	477	1,900
21	1,640	7,800	2,830	2,660	9,220	3,660	2,360	1,740	735	693	500	2,000
22	1,690	3,680	2,700	2,600	9,290	2,390	2,570	2,190	756	886	550	2,000
23	1,620	3,740	2,630	2,570	5,120	2,380	2,880	2,270	732	885	700	1,600
24	1,600	7,510	2,450	2,560	5,110	2,730	2,690	2,180	731	843	650	1,300
25	1,500	9,850	2,280	2,510	5,510	3,990	2,560	2,060	738	801	600	1,800
26	1,400	6,680	2,140	2,510	5,310	2,380	2,510	2,280	810	755	500	1,900
27	1,670	3,170	2,510	2,500	4,220	2,380	2,390	2,300	710	775	450	1,000
28	1,880	2,990	2,570	2,450	3,070	2,310	2,380	2,200	605	746	400	1,100
29	2,080	2,760	2,460	2,530	------	2,190	2,340	2,200	681	658	400	1,200
30	1,820	2,640	2,460	3,030	------	2,100	2,400	2,300	606	542	450	1,100
31	1,990	------	2,250	3,430	------	2,100	------	2,400	------	667	600	------
TOTAL	47,552	100,300	73,420	89,560	124,500	89,350	68,590	72,790	33,598	25,626	19,778	38,783
MEAN	1,534	3,343	2,368	2,889	4,446	2,882	2,286	2,348	1,120	827	638	1,293
MAX	2,080	9,850	3,260	5,690	9,290	4,760	2,880	2,850	2,300	1,180	912	2,000
MIN	822	1,440	1,280	2,060	2,700	2,100	1,610	1,650	552	542	400	700
AC-FT	94,320	198,900	145,600	177,600	246,900	177,200	136,000	144,400	66,640	50,830	39,230	76,920

CAL YR 1960: TOTAL 694,884 MEAN 1,899 MAX 9,850 MIN 529 AC-FT 1,378,000
WAT YR 1961: TOTAL 783,837 MEAN 2,147 MAX 9,850 MIN 400 AC-FT 1,555,000

12-0885. Nisqually River near McKenna, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	950	1,300	2,520	2,400	2,290	657	758	1,590	1,010	523	877	498
2	850	1,600	2,100	2,500	2,180	698	898	1,570	1,140	516	896	516
3	600	1,400	1,750	2,800	2,280	634	1,180	1,660	1,290	502	1,150	606
4	650	1,100	2,250	2,750	1,860	618	1,250	1,960	1,570	502	924	482
5	500	1,000	2,500	2,700	2,180	889	1,600	1,830	1,580	511	908	510
6	575	1,500	2,100	3,000	2,160	1,130	1,960	1,580	1,520	545	1,030	569
7	600	1,350	2,250	3,450	2,240	1,160	3,050	1,940	1,580	545	644	617
8	575	1,300	1,750	3,200	2,160	1,100	2,900	1,930	1,420	520	620	494
9	550	1,300	1,550	3,000	2,240	1,120	2,400	2,120	1,010	516	1,080	470
10	750	1,550	1,600	2,800	2,160	1,090	2,240	1,960	956	502	931	734
11	900	1,400	1,850	2,650	2,050	951	2,060	1,990	1,240	480	648	666
12	1,030	900	1,700	2,590	2,110	955	2,100	1,840	1,330	470	565	555
13	1,560	1,500	1,700	2,540	1,740	814	2,010	1,590	1,190	470	728	628
14	1,260	1,400	1,750	2,360	2,160	644	1,880	2,020	1,100	466	508	925
15	1,100	1,650	1,400	2,450	1,940	726	1,450	1,930	1,150	462	457	993
16	1,200	1,600	1,250	2,440	1,440	864	2,010	1,920	905	475	452	904
17	816	1,700	1,600	2,440	1,510	772	1,850	1,850	888	460	530	1,080
18	565	1,400	1,450	2,430	2,380	804	1,840	1,780	1,080	502	458	1,140
19	515	1,000	1,400	2,410	2,400	886	1,950	1,150	1,040	457	576	1,150
20	515	1,700	2,540	2,360	1,310	791	2,310	1,140	966	480	596	1,150
21	510	2,200	3,390	2,280	1,420	816	2,180	1,230	1,020	444	468	576
22	500	2,520	2,820	2,300	1,090	826	1,480	1,230	967	439	650	484
23	515	2,500	3,140	2,320	1,190	830	1,770	1,340	826	434	658	480
24	681	2,350	3,670	2,340	1,060	789	1,810	1,620	698	430	588	529
25	856	2,100	3,500	2,410	1,010	964	1,490	1,880	795	568	549	469
26	885	2,100	3,000	2,520	970	1,010	1,320	1,430	960	905	552	470
27	1,590	2,200	2,760	2,540	762	1,430	2,180	1,270	915	1,230	617	470
28	1,370	1,980	2,680	2,270	741	1,500	2,280	1,330	786	1,010	548	584
29	1,000	2,510	2,550	2,360	------	1,350	2,060	1,310	790	500	535	941
30	1,300	2,500	2,650	2,410	------	1,290	1,720	1,140	582	740	506	734
31	800	------	2,450	2,400	------	753	------	1,090	------	694	502	------
TOTAL	26,068	50,610	69,620	79,420	49,033	28,861	55,986	50,220	32,304	17,318	20,751	20,430
MEAN	841	1,687	2,246	2,562	1,751	931	1,866	1,620	1,077	559	669	681
MAX	1,590	2,520	3,670	3,450	2,400	1,500	3,050	2,120	1,580	1,230	1,150	1,150
MIN	500	900	1,250	2,270	741	618	758	1,090	582	430	452	469
AC-FT	51,710	100,400	138,100	157,500	97,260	57,240	111,000	99,610	64,070	34,350	41,160	40,520

CAL YR 1961: TOTAL 708,863 MEAN 1,942 MAX 9,290 MIN 400 AC-FT 1,406,000
WAT YR 1962: TOTAL 500,621 MEAN 1,372 MAX 3,670 MIN 430 AC-FT 993,000

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1962 TO JULY 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,370	1,980	2,690	1,120	2,840	2,520	2,020	2,040	924	1,180		
2	1,640	1,870	2,990	1,910	2,870	2,390	2,230	1,870	1,030	† 1,330		
3	1,780	1,980	3,000	2,510	4,560	2,180	2,280	1,660	1,560	-		
4	1,870	1,860	2,870	2,680	3,710	2,480	2,140	2,070	1,240	-		
5	1,940	2,120	2,980	2,620	3,420	2,210	2,250	1,080	1,050	-		
6	1,840	2,210	3,980	2,540	3,180	2,180	2,370	1,560	1,040	-		
7	1,510	2,220	3,800	2,580	2,830	1,450	1,800	1,550	1,280	-		
8	2,110	2,140	3,200	2,580	2,880	1,320	1,720	3,500	872	-		
9	2,310	2,200	2,800	2,580	2,690	1,060	1,280	2,490	728	-		
10	2,680	2,150	2,600	2,540	2,700	771	1,090	2,410	864	-		
11	2,510	2,100	2,640	2,500	2,730	1,030	1,130	1,980	646	-		
12	2,400	2,400	2,630	2,470	2,610	908	1,070	1,430	1,020	-		
13	1,180	2,600	2,590	2,470	2,240	866	1,100	2,180	697	-		
14	720	2,500	2,640	2,520	2,080	840	1,090	2,150	856	-		
15	1,440	2,400	4,030	2,490	2,090	852	1,280	2,100	658	-		
16	1,240	2,200	4,310	2,540	2,470	916	1,140	1,850	610	-		
17	1,200	1,400	2,280	2,480	2,380	856	1,160	1,420	1,250	-		
18	1,200	1,000	2,500	2,530	2,260	912	1,270	1,300	1,540	-		
19	900	2,000	2,670	2,380	2,250	906	1,100	857	792	-		
20	1,500	4,000	2,650	2,380	2,510	784	1,020	682	1,040	-		
21	1,600	3,800	2,570	2,470	2,520	804	1,020	974	1,010	-		
22	2,300	3,300	2,570	2,420	2,380	774	1,310	2,010	1,060	-		
23	1,200	2,900	2,580	2,430	2,230	958	1,980	2,190	876	-		
24	1,330	2,610	2,290	2,400	2,230	1,010	2,120	1,710	1,100	-		
25	1,280	3,340	2,410	2,410	2,340	763	1,980	1,400	1,220	-		
26	1,990	4,360	2,530	2,390	2,650	816	1,720	1,500	1,190	-		
27	1,770	4,280	2,460	2,370	2,550	985	1,620	1,370	1,120	-		
28	1,380	2,780	2,540	2,420	2,390	1,300	1,220	1,220	1,160	-		
29	1,960	2,490	2,450	2,390	------	1,970	1,500	1,120	1,280	-		
30	2,150	2,510	1,920	2,460	------	1,920	1,740	1,270	889	-		
31	2,080	------	1,430	2,440	------	1,510	------	1,260	------	-		------
TOTAL	52,380	75,700	85,600	75,020	74,590	40,241	46,750	52,203	30,602	-		
MEAN	1,690	2,523	2,761	2,420	2,664	1,298	1,558	1,684	1,020	-		
MAX	2,680	4,360	4,310	2,680	4,560	2,520	2,370	3,500	1,560	-		
MIN	720	1,000	1,430	1,120	2,080	763	1,020	682	610	-		
AC-FT	103,900	150,100	169,800	148,800	147,900	79,820	92,730	103,500	60,700	-		

CAL YR 1962: TOTAL 568,003 MEAN 1,556 MAX 4,360 MIN 430 AC-FT 1,127,000
WAT YR 1963: TOTAL MEAN MAX MIN AC-FT

† Result of discharge measurement.

12-0889. Tanwax Lake near Kapowsin, Wash.

Location.--Lat 46°56'45", long 122°16'20", in SW¼NW¼ sec.23, T.17 N., R.4 E., on west shore a quarter of a mile uplake from outlet and 3 miles southwest of Kapowsin.

Drainage area.--4.08 sq mi.

Records available.--July 1962 to September 1965.

Gage.--Staff gage usually read every other day. Altitude of gage is 600 ft (from topographic map).

Extremes.--Maximum and minimum gage heights, in feet, for July 1962 to September 1965 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1962	July 3, 1962	2.41	Aug. 1, 1962	2.23
1963	Nov. 27, 1962	3.16	Sept.13, 1963	2.24
1964	Jan. 26, 1964	3.61	Sept. 3, 1964	2.22
1965	Jan. 29, 1965	3.84	Aug. 5, Sept.12,23,30	2.00

1962-65: Maximum gage height observed, 3.84 ft Jan. 29, 1965; minimum observed, 2.00 ft Aug. 5, Sept. 12, 23, 30, 1965.

Remarks.--Lake level controlled by concrete dam at lake outlet. Some diversion for domestic use.

GAGE HEIGHT, IN FEET, 1962

Date	Gage height	Date	Gage height	Date	Gage height	Date	Gage height	Date	Gage height	Date	Gage height
July 3	2.41	July 22	2.33	Aug. 5	2.32	Aug. 19	2.35	Sept. 2	2.29	Sept.16	2.30
10	2.40	24	2.31	7	2.35	21	2.36	4	2.28	18	2.29
12	2.38	26	2.30	9	2.36	23	2.34	6	2.26	20	2.29
14	2.39	28	2.29	11	2.36	25	2.32	8	2.24	22	2.29
16	2.36	30	2.24	13	2.37	27	2.32	10	2.28	24	2.28
18	2.35	Aug. 1	2.23	15	2.37	29	2.30	12	2.30	26	2.29
20	2.34	3	2.25	17	2.36	31	2.29	14	2.30	28	2.34
										30	2.35

Note.--Gage read only on days listed above.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.36	-	-	2.80	-	2.84	2.89	-	-	2.48	-	2.27
2	-	2.49	3.04	2.86	2.74	-	-	2.74	2.55	-	2.36	-
3	2.38	-	-	2.96	3.10	2.86	2.85	-	-	2.47	-	2.26
4	-	2.51	3.02	2.90	-	-	-	2.76	2.50	-	2.34	-
5	2.39	-	-	2.89	3.10	2.82	2.84	-	-	2.46	-	2.27
6	-	2.53	3.03	-	-	-	-	2.77	2.49	-	2.34	-
7	2.36	-	-	2.88	2.96	2.79	2.81	-	-	2.40	-	2.26
8	-	2.54	3.02	-	2.90	-	-	2.79	2.48	-	2.32	-
9	2.40	-	-	2.86	2.86	2.77	2.85	-	2.50	2.42	-	2.26
10	-	2.56	2.92	-	-	-	-	2.75	-	-	2.30	2.25
11	2.56	-	-	2.82	2.82	2.72	2.89	-	2.48	2.40	-	2.25
12	-	2.60	2.86	2.79	-	2.69	-	2.72	-	-	2.30	-
13	2.60	-	-	2.76	2.78	2.70	2.88	-	2.47	2.40	-	2.24
14	-	2.62	2.80	-	-	-	-	2.70	-	-	2.29	2.28
15	2.58	-	-	2.72	2.76	2.70	2.92	-	2.46	2.40	-	2.31
16	-	2.63	2.84	-	-	-	-	2.68	-	-	2.28	-
17	2.57	-	-	2.70	2.78	2.70	2.87	-	2.41	2.39	-	2.32
18	-	2.64	2.86	-	-	-	-	2.66	-	-	2.26	-
19	2.54	-	-	2.68	2.78	2.73	2.86	2.63	2.39	2.36	-	2.33
20	-	2.90	2.90	-	-	-	-	-	-	-	2.27	-
21	2.52	-	-	2.64	2.76	2.71	-	2.61	2.39	2.39	-	2.34
22	-	2.98	2.88	-	-	-	2.88	-	-	-	2.28	-
23	2.51	-	-	2.62	2.75	2.69	-	2.59	2.44	2.41	-	2.34
24	-	3.01	2.84	-	-	-	2.80	-	-	-	2.29	-
25	2.50	-	-	2.60	2.80	2.69	-	2.58	2.38	2.38	-	2.34
26	-	3.02	2.78	-	-	2.66	2.76	-	2.35	-	2.29	-
27	2.50	3.16	-	2.60	2.82	2.74	-	2.57	2.36	2.37	-	2.31
28	-	3.10	2.74	-	-	-	2.70	-	-	-	2.28	-
29	2.50	-	-	2.59	------	2.80	-	2.55	2.38	2.36	-	2.31
30	-	3.08	2.70	-	------	-	2.72	-	2.38	-	2.28	2.30
31	2.49	------	2.72	2.64	------	2.89	------	2.53	------	2.38	-	------

12-0889. Tanwax Lake near Kapowsin, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.30	-	-	-	3.09	2.67	2.69	2.70	-	-	2.37	2.23
2	-	2.60	2.91	3.12	3.08	-	-	-	2.53	2.52	-	-
3	2.29	-	-	-	-	2.68	2.67	2.68	-	-	2.41	2.22
4	-	2.61	2.87	3.09	3.00	2.70	-	-	2.51	2.50	-	-
5	2.30	-	-	-	-	-	2.68	2.66	-	-	2.38	2.23
6	-	2.62	2.88	3.07	2.90	2.72	-	-	2.55	2.49	-	-
7	2.30	-	-	-	-	-	2.69	2.63	-	-	2.36	2.24
8	-	2.66	2.89	3.02	2.85	2.74	-	-	2.60	2.48	-	-
9	2.30	-	-	-	-	-	2.69	2.62	-	-	2.34	2.26
10	-	2.72	2.86	3.00	2.80	2.75	-	-	2.62	2.44	-	-
11	2.30	-	-	-	-	-	2.67	2.63	-	-	2.32	2.26
12	-	2.78	2.84	2.94	2.79	2.78	-	-	2.58	2.40	-	-
13	2.32	-	-	-	-	-	2.69	2.64	-	-	2.30	2.26
14	-	2.84	2.80	2.93	2.78	2.79	-	-	2.54	2.41	-	-
15	2.31	-	-	-	-	-	2.71	2.60	-	-	2.29	2.25
16	-	2.88	2.80	2.95	2.78	2.78	-	-	2.58	2.38	-	-
17	2.31	-	-	-	-	-	2.70	2.58	-	-	2.28	2.24
18	-	3.00	2.84	3.02	2.78	2.80	-	-	2.64	2.39	-	-
19	2.30	-	-	-	-	-	2.68	2.60	-	-	2.26	2.24
20	-	3.03	2.90	3.15	2.76	2.80	-	-	2.68	2.40	-	-
21	2.40	-	-	-	-	2.79	2.70	2.62	-	-	-	2.26
22	-	3.05	3.00	3.09	2.75	2.78	-	-	2.64	2.41	2.24	-
23	2.50	-	-	-	-	-	2.69	2.66	-	-	-	2.28
24	-	2.97	3.02	-	2.71	2.76	-	-	2.60	2.40	2.25	-
25	2.52	-	-	3.60	-	-	2.71	2.60	-	-	-	2.26
26	-	2.96	3.00	3.61	2.68	2.75	-	-	2.57	2.40	2.24	-
27	2.54	-	-	-	-	-	2.72	2.58	-	-	-	2.28
28	-	2.96	2.97	3.52	-	2.70	-	-	2.56	2.38	2.24	-
29	2.57	-	2.92	-	2.67	-	2.69	2.56	-	-	-	2.26
30	-	2.95	-	3.20	------	2.70	-	-	2.54	2.36	2.23	2.32
31	2.59	------	2.92	-	------	-	------	2.55	------	-	-	------

Note.--Readings usually made in the afternoon.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.36	-	-	3.16	-	2.94	2.52	2.70	2.46	2.24	2.08	-
2	2.34	2.56	3.46	3.10	3.40	-	2.56	2.72	-	-	-	2.10
3	2.32	-	3.46	-	-	2.90	2.54	-	2.44	2.22	2.02	-
4	-	2.60	-	3.22	2.64	-	2.54	2.70	-	2.18	-	2.06
5	2.28	-	-	-	-	2.88	-	-	2.40	-	2.00	2.08
6	-	2.62	-	3.18	3.30	-	2.50	2.74	2.38	2.14	-	-
7	2.30	-	3.10	-	3.20	2.84	-	-	-	-	2.08	2.06
8	2.30	2.70	-	3.14	-	-	2.54	2.60	2.34	2.12	2.08	-
9	2.42	-	3.04	-	3.16	2.80	-	2.64	-	-	-	2.08
10	-	2.60	-	-	-	-	2.58	-	2.30	2.14	2.10	-
11	2.32	-	3.00	2.96	3.06	2.74	2.52	2.60	-	2.18	-	2.06
12	-	2.60	-	-	-	-	-	-	2.30	-	2.16	2.00
13	2.40	2.60	3.10	2.94	3.02	2.70	2.54	2.54	2.36	2.20	-	-
14	-	-	-	-	-	-	2.53	-	-	-	2.10	2.04
15	2.44	-	3.06	2.90	3.06	2.70	2.56	2.70	2.40	2.22	2.18	2.07
16	2.46	2.62	-	-	-	-	-	2.44	-	-	-	2.02
17	-	-	3.14	2.90	3.06	2.68	2.54	-	2.42	2.24	2.16	-
18	2.50	2.56	-	-	-	-	2.56	2.50	-	2.16	-	2.06
19	-	-	3.20	2.80	2.98	2.66	-	-	2.30	-	2.14	2.02
20	2.42	2.52	-	-	-	-	2.86	2.50	2.40	2.19	-	-
21	-	-	3.30	2.84	2.94	2.64	-	-	-	-	2.18	2.04
22	2.36	-	-	-	-	-	2.84	2.55	2.34	2.16	2.20	-
23	-	2.64	3.68	3.00	2.90	2.60	-	2.58	-	-	-	2.00
24	2.30	2.86	-	-	-	-	2.90	-	2.40	2.18	2.18	-
25	2.38	-	3.68	3.00	2.88	2.64	2.86	2.54	-	2.14	-	2.02
26	-	-	-	-	-	-	-	-	2.24	-	2.20	2.04
27	2.50	-	3.69	3.36	-	2.60	2.82	2.50	2.24	2.10	-	-
28	-	3.06	-	-	-	2.56	-	-	-	-	2.18	2.04
29	2.48	-	3.46	3.84	------	-	2.80	2.46	2.20	2.08	2.17	-
30	-	3.10	-	-	------	2.54	-	2.48	-	-	-	2.00
31	2.50	------	3.16	3.76	------	-	------	-	------	2.08	2.15	------

Note.--Readings usually made in the afternoon.

12-0895. Nisqually River at McKenna, Wash.

Location.--Lat 46°56'00", long 122°33'35", in SE¼NW¼ sec.28, T.17 N., R.2 E., on left bank 100 ft downstream from highway bridge at McKenna and 9.0 miles downstream from Tanwax Creek.

Drainage area.--517 sq mi.

Records available.--October 1947 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 275 ft (from topographic map). Prior to July 1, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 22, 1961	15,700	10.32	Aug. 28, 1961	22	0.90
1962	Dec. 24, 1961	3,920	5.36	July 24, 1962	22	.90
1963	Dec. 6, 1962	7,660	7.29	Aug. 29, 30, 1963	28	.95
1964	Jan. 25, 1964	14,300	9.82	Aug. 19, 1964	31	.95
1965	Jan. 29, 1965	25,700	13.00	Sept.10, 11, 1965	20	.80

1947-65: Maximum discharge, 25,700 cfs Jan. 29, 1965 (gage height, 13.00 ft); minimum, 20 cfs Sept. 10, 11, 1965 (gage height, 0.80 ft).

Remarks.--Records excellent except those for June 1 to Aug. 19, 1963, which are fair. Flow regulated by Alder and La Grande Reservoirs. Centralia power canal diverts 4.4 miles above station; water is returned to river at powerplant 4.5 miles below station. Minor amount of diversion for irrigation above station. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions.--WSP 1246: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,030	1,060	2,090	1,590	2,740	2,800	1,150	1,990	1,430	87	210	762
2	835	1,480	1,460	1,490	2,420	3,300	1,110	1,940	1,560	102	350	710
3	1,100	1,710	816	1,610	2,440	2,670	1,570	1,840	1,110	84	365	460
4	1,170	1,490	856	1,690	2,450	2,230	1,950	2,030	672	175	450	304
5	1,210	880	1,450	2,040	2,680	2,050	1,730	2,320	1,130	466	341	261
6	1,420	920	1,930	2,680	5,740	2,290	1,610	2,360	1,410	429	292	335
7	1,240	1,070	1,910	2,360	5,700	2,140	1,570	2,260	1,340	476	175	278
8	1,030	1,100	1,850	2,370	4,850	1,990	1,390	2,210	1,200	186	187	325
9	1,020	1,240	1,840	2,420	2,870	2,180	1,390	2,200	1,350	135	282	320
10	1,080	1,390	1,800	2,380	5,430	2,130	1,390	2,200	690	157	310	330
11	1,000	2,060	1,740	2,330	5,080	2,110	1,540	2,130	416	397	230	315
12	744	1,540	1,840	2,320	2,650	2,060	1,560	2,000	625	554	38	243
13	603	1,500	1,720	2,260	2,640	2,270	1,720	1,910	576	582	40	1,130
14	659	2,280	1,770	2,180	4,920	2,790	1,670	1,640	259	504	123	1,290
15	673	2,220	1,800	2,220	5,850	4,700	1,520	1,780	89	582	166	687
16	776	2,990	1,760	5,640	4,580	4,590	1,480	1,570	58	482	73	967
17	1,140	2,740	1,450	5,580	2,690	3,900	1,640	1,540	51	299	62	1,150
18	968	3,250	1,790	4,330	2,440	1,900	1,730	1,350	45	262	40	888
19	371	2,720	2,830	2,400	2,290	1,730	1,790	1,210	46	174	32	1,230
20	310	4,240	2,480	2,270	2,900	2,080	1,980	1,050	114	287	28	1,260
21	920	8,200	2,380	2,150	9,170	3,300	1,800	1,140	201	317	32	1,400
22	1,090	3,640	2,240	2,090	11,400	1,950	1,990	1,460	234	251	79	1,370
23	1,100	3,460	2,140	2,040	5,390	1,780	2,390	1,620	180	398	132	844
24	984	6,970	1,940	2,040	5,290	1,560	2,160	1,540	180	323	234	650
25	904	11,900	1,820	1,990	6,070	4,020	2,020	1,410	209	308	108	1,020
26	808	8,120	1,560	1,970	5,780	1,880	1,950	1,570	256	242	32	1,210
27	1,040	3,120	1,980	1,940	4,510	1,820	1,840	1,690	213	253	28	716
28	1,190	2,740	2,040	1,920	2,840	1,740	1,680	1,500	89	190	26	532
29	1,460	2,370	1,920	1,980	------	1,650	1,720	1,490	123	137	315	648
30	1,260	2,200	1,880	2,490	------	1,480	1,910	1,530	111	73	395	390
31	1,330	------	1,690	3,120	------	1,550	------	1,680	------	136	248	------
TOTAL	30,465	90,600	56,772	75,890	123,810	75,040	50,850	54,160	15,977	9,048	5,423	22,265
MEAN	983	3,020	1,831	2,448	4,422	2,421	1,695	1,747	533	292	175	742
MAX	1,460	11,900	2,830	5,640	11,400	4,700	2,390	2,360	1,560	582	450	1,400
MIN	310	880	816	1,490	2,290	1,480	1,110	1,050	45	73	26	243
AC-FT	60,430	179,700	112,600	150,500	245,600	148,800	100,900	107,400	31,690	17,950	10,760	44,160

CAL YR 1960: TOTAL 510,454 MEAN 1,395 MAX 11,900 MIN 46 AC-FT 1,012,000
WAT YR 1961: TOTAL 610,300 MEAN 1,672 MAX 11,900 MIN 26 AC-FT 1,211,000

12-0895. Nisqually River at McKenna, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	298	806	1,950	1,890	1,730	182	264	942	491	41	240	34
2	277	1,090	1,530	1,940	1,590	196	316	950	518	35	773	46
3	52	937	1,310	2,270	1,710	129	595	1,040	767	34	563	70
4	58	654	1,660	2,210	1,270	123	634	1,280	1,430	32	376	60
5	32	496	1,940	2,140	1,590	330	1,010	1,250	1,500	34	418	32
6	38	922	1,600	2,320	1,570	628	1,310	998	1,260	38	503	79
7	46	875	1,660	2,830	1,670	654	2,590	1,260	958	42	209	120
8	45	720	1,200	2,600	1,530	530	2,450	1,300	818	35	126	60
9	36	861	1,140	2,390	1,640	535	1,910	1,530	530	35	420	32
10	79	870	1,100	2,180	1,600	547	1,680	1,420	420	34	366	125
11	352	1,020	1,240	2,080	1,430	410	1,400	1,380	547	32	189	227
12	452	559	1,200	2,040	1,510	395	1,540	1,250	660	30	68	79
13	855	932	1,300	1,950	1,170	326	1,320	1,050	640	30	123	77
14	732	923	1,180	1,910	1,460	161	1,200	1,330	474	30	87	298
15	553	1,110	878	1,860	1,400	192	942	1,340	513	30	30	486
16	654	1,200	739	1,800	820	298	1,290	1,310	375	28	28	390
17	294	1,170	1,150	1,810	938	312	1,210	1,240	290	32	50	577
18	92	957	1,030	1,780	1,770	239	1,210	1,200	390	35	38	547
19	32	551	910	1,790	1,800	357	1,260	656	469	32	70	608
20	30	1,020	1,750	1,720	781	326	1,680	556	348	34	102	640
21	30	1,120	3,160	1,680	858	290	1,550	645	380	28	45	155
22	30	2,000	2,320	1,690	720	326	878	652	385	26	87	34
23	34	1,980	2,650	1,710	553	326	1,120	772	239	24	138	32
24	46	1,720	3,250	1,720	547	321	1,210	976	165	24	132	56
25	260	1,580	3,020	1,790	486	447	517	1,270	247	66	46	32
26	357	1,540	2,480	1,950	486	469	726	886	290	288	48	40
27	832	1,670	2,270	1,980	243	753	1,520	686	321	621	123	40
28	877	1,400	2,170	1,740	235	942	1,700	767	239	496	70	70
29	560	1,930	2,060	1,770	------	795	1,490	725	182	225	375	285
30	754	1,930	2,210	1,830	------	732	1,000	565	117	168	152	203
31	454	------	2,060	1,830	------	285	------	541	------	207	32	------
TOTAL	9,241	34,543	54,117	61,200	33,107	12,556	37,522	31,767	15,963	2,846	6,027	5,535
MEAN	298	1,151	1,746	1,974	1,182	405	1,251	1,025	532	91.8	194	185
MAX	877	2,000	3,250	2,830	1,800	942	2,590	1,530	1,500	621	773	640
MIN	30	496	739	1,680	235	123	264	541	117	24	28	32
AC-FT	18,330	68,520	107,300	121,400	65,670	24,900	74,420	63,010	31,660	5,640	11,950	10,980

CAL YR 1961: TOTAL 530,364 MEAN 1,453 MAX 11,400 MIN 26 AC-FT 1,052,000
WAT YR 1962: TOTAL 304,424 MEAN 834 MAX 3,250 MIN 24 AC-FT 603,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	672	1,330	2,280	629	2,230	1,930	1,360	1,410	436	481	188	127
2	891	1,280	2,660	1,140	2,310	1,880	1,680	1,280	410	470	231	322
3	1,050	1,260	2,700	1,460	4,890	1,580	1,690	1,150	870	390	112	326
4	1,100	1,230	2,510	2,150	3,960	1,860	1,590	1,370	818	151	148	320
5	1,180	1,450	2,590	2,040	3,450	1,630	1,700	690	1,100	50	184	253
6	1,030	1,550	3,650	1,920	2,980	1,560	1,870	998	795	47	215	97
7	902	1,570	4,850	1,950	2,740	1,020	1,390	855	662	68	181	100
8	1,230	1,490	2,390	1,970	2,490	746	1,270	3,010	325	223	105	100
9	1,460	1,570	2,230	1,950	2,230	590	803	1,850	207	195	79	93
10	1,860	1,500	2,220	1,890	2,210	255	616	1,700	298	203	320	118
11	1,710	1,440	2,100	1,850	2,210	459	590	1,330	120	302	247	535
12	1,840	1,580	2,060	1,810	2,090	437	597	886	380	223	316	691
13	1,100	1,800	2,050	1,800	1,710	360	584	1,360	160	160	325	740
14	502	1,690	2,140	1,850	1,460	320	578	1,370	271	123	288	672
15	1,180	1,630	3,620	1,820	1,490	345	753	1,440	112	181	219	464
16	1,000	1,570	4,620	1,870	1,860	360	636	1,160	79	548	110	721
17	1,040	879	2,110	1,820	1,780	370	578	840	375	251	118	1,370
18	1,010	400	1,990	1,860	1,680	360	753	616	1,050	267	94	1,450
19	673	816	2,090	1,780	1,650	365	623	365	365	345	56	1,630
20	1,280	3,690	2,060	1,740	1,930	325	514	160	385	199	82	1,420
21	1,250	3,520	1,990	1,800	1,950	207	508	289	420	223	64	1,370
22	1,320	2,760	1,950	1,740	1,810	289	669	1,330	453	280	85	1,270
23	647	2,340	1,940	1,740	1,610	385	1,310	1,520	311	459	62	1,510
24	718	2,100	1,700	1,710	1,610	420	1,520	1,150	458	437	71	1,340
25	629	3,040	1,800	1,730	1,720	325	1,400	810	578	519	71	943
26	1,210	4,380	1,860	1,710	2,090	219	1,170	894	572	335	71	308
27	1,180	4,910	1,810	1,700	2,050	410	1,010	840	497	118	66	129
28	826	2,490	1,870	1,720	1,790	636	704	662	536	47	51	110
29	1,150	2,100	1,810	1,760	------	1,300	894	578	616	90	29	120
30	1,500	1,970	1,550	1,780	------	1,440	1,070	623	385	96	29	136
31	1,460	------	732	1,790	------	1,090	------	683	------	122	32	------
TOTAL	34,600	59,335	71,932	54,479	61,980	23,473	30,430	33,219	14,044	7,603	4,249	18,785
MEAN	1,116	1,978	2,320	1,757	2,214	757	1,014	1,072	468	245	137	626
MAX	1,860	4,910	4,850	2,150	4,890	1,930	1,870	3,010	1,100	548	325	1,630
MIN	502	400	732	629	1,460	207	508	160	79	47	29	93
AC-FT	68,630	117,700	142,700	108,100	122,900	46,560	60,360	65,890	27,860	15,080	8,430	37,260

CAL YR 1962: TOTAL 372,390 MEAN 1,020 MAX 4,910 MIN 24 AC-FT 738,600
WAT YR 1963: TOTAL 414,129 MEAN 1,135 MAX 4,910 MIN 29 AC-FT 821,400

12-0895. Nisqually River at McKenna, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	96	1,170	1,870	1,630	5,070	1,810	1,710	1,170	710	446	534	227
2	83	1,310	1,630	3,220	4,570	1,800	1,660	1,500	1,180	622	412	403
3	85	1,200	1,560	2,590	2,560	1,750	1,640	1,420	1,280	450	758	385
4	90	1,200	1,650	1,370	2,380	1,820	1,620	1,440	1,320	427	809	177
5	85	1,150	1,720	1,060	2,360	1,940	1,630	892	1,430	361	1,020	222
6	98	1,110	2,020	1,350	2,160	1,720	1,700	489	1,460	640	1,110	124
7	105	1,310	1,750	1,740	2,070	1,740	1,610	754	1,640	817	841	66
8	90	1,020	1,610	1,940	2,000	1,660	1,490	847	1,760	902	690	99
9	79	902	1,860	2,120	1,900	1,750	1,470	862	1,490	941	476	139
10	81	958	1,940	1,970	1,930	1,780	1,600	663	1,370	813	574	61
11	81	1,420	1,760	1,950	1,700	2,220	1,620	619	1,330	808	559	66
12	90	1,640	1,810	1,710	1,970	2,050	1,650	844	1,330	368	620	57
13	133	1,020	1,730	1,810	1,910	2,060	1,660	974	1,190	655	742	61
14	128	962	1,730	1,650	1,890	1,900	1,780	940	838	913	456	72
15	184	771	1,670	1,420	1,930	1,700	2,380	934	918	1,310	126	134
16	344	490	1,750	2,340	1,930	1,700	2,090	621	1,460	1,350	59	120
17	364	989	1,760	2,680	2,010	1,820	2,040	387	1,500	959	62	206
18	974	2,350	1,830	2,500	2,060	1,860	1,890	510	1,600	1,080	75	860
19	1,270	2,170	1,740	2,420	2,110	1,940	1,630	414	1,050	1,010	57	1,050
20	1,290	1,800	2,020	2,800	1,990	1,830	1,440	522	563	875	70	688
21	1,310	1,860	1,880	2,530	1,940	1,700	918	1,030	296	853	65	793
22	1,270	1,820	1,880	2,350	1,900	1,740	700	1,010	884	524	58	689
23	953	1,370	1,670	2,210	1,850	1,780	412	860	1,110	405	55	704
24	690	2,030	974	2,310	1,870	1,740	511	960	1,190	283	56	302
25	318	2,060	616	11,600	1,870	1,580	756	1,470	1,230	287	55	450
26	254	2,140	792	10,900	1,830	1,660	912	862	957	128	382	1,040
27	180	2,340	680	7,610	1,810	1,720	788	466	326	182	466	446
28	398	2,210	856	3,630	1,780	1,710	592	632	113	284	297	1,080
29	1,070	2,060	1,030	4,160	1,780	1,660	622	782	509	365	318	823
30	1,070	1,910	1,230	4,740	------	1,680	804	588	668	551	186	286
31	996	------	1,030	3,920	------	1,750	------	508	------	607	110	------
TOTAL	14,259	44,742	48,048	96,230	63,130	55,570	41,325	25,970	32,702	20,216	12,098	11,830
MEAN	460	1,491	1,550	3,104	2,177	1,793	1,378	838	1,090	652	390	394
MAX	1,310	2,350	2,020	11,600	5,070	2,220	2,380	1,500	1,760	1,350	1,110	1,080
MIN	79	490	616	1,060	1,700	1,580	412	387	113	128	55	57
AC-FT	28,280	88,740	95,300	190,900	125,200	110,200	81,970	51,510	64,860	40,100	24,000	23,460

CAL YR 1963: TOTAL 355,311 MEAN 973 MAX 4,890 MIN 29 AC-FT 704,700
WAT YR 1964: TOTAL 466,120 MEAN 1,274 MAX 11,600 MIN 55 AC-FT 924,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	558	811	2,740	3,450	7,000	2,090	1,920	355	183	90	310	32
2	768	1,080	6,180	2,430	3,140	2,640	2,060	216	251	97	400	28
3	469	972	5,130	2,460	2,700	2,570	1,520	854	280	54	297	28
4	323	441	2,190	2,350	3,160	1,760	1,350	1,640	187	65	243	26
5	958	825	1,790	3,050	4,020	1,860	1,010	1,580	111	56	159	26
6	1,340	972	1,580	3,670	2,640	1,940	2,050	1,450	125	71	38	25
7	1,390	916	1,500	2,430	2,030	2,370	1,800	1,390	657	54	50	25
8	689	884	1,620	2,310	2,130	2,150	1,580	918	692	56	176	122
9	1,020	908	1,670	2,220	2,050	2,190	1,600	385	566	58	333	117
10	632	1,130	1,680	2,140	1,850	1,410	1,700	968	183	43	280	23
11	378	762	1,800	2,230	1,920	1,990	968	1,160	223	54	385	22
12	507	916	1,620	2,180	2,060	1,460	1,240	838	194	80	346	28
13	520	783	1,620	2,150	2,400	1,330	405	713	216	60	284	26
14	762	876	1,590	2,220	2,060	862	422	685	267	56	271	29
15	762	1,030	1,850	2,490	2,150	1,450	346	395	289	42	173	183
16	595	1,070	1,880	2,240	2,090	2,040	400	239	351	47	156	319
17	400	1,280	1,560	1,870	2,180	2,240	297	862	259	35	153	484
18	355	1,330	1,490	1,880	2,860	2,180	365	798	259	38	134	141
19	573	1,350	1,440	2,040	2,140	1,610	502	390	235	60	156	90
20	410	1,470	1,340	1,960	2,840	1,540	1,310	514	103	67	190	111
21	331	1,310	1,760	2,000	1,640	1,450	995	533	150	255	180	173
22	446	1,450	7,680	1,990	1,720	1,520	854	411	231	54	111	293
23	496	1,410	19,500	2,130	2,570	2,200	685	351	239	45	267	280
24	430	1,810	11,200	2,310	1,990	2,020	527	405	239	42	315	220
25	446	2,340	5,880	1,990	1,880	2,020	375	433	239	67	280	163
26	932	1,530	6,440	2,100	2,140	2,180	438	422	235	75	128	235
27	940	1,440	5,730	5,800	2,600	1,860	315	351	194	56	33	251
28	606	1,300	4,180	7,100	2,020	1,660	380	310	205	159	29	293
29	584	1,340	2,570	20,900	------	1,780	355	95	156	209	40	355
30	648	1,510	2,330	21,800	------	2,140	267	56	95	187	29	306
31	612	------	2,350	16,300	------	2,040	------	52	------	319	28	------
TOTAL	19,980	35,246	111,890	132,190	69,980	58,552	28,036	19,769	7,614	2,651	5,974	4,454
MEAN	645	1,175	3,609	4,264	2,499	1,889	935	638	254	85.5	193	148
MAX	1,390	2,340	19,500	21,800	7,000	2,640	2,060	1,640	692	319	400	484
MIN	323	441	1,340	1,870	1,640	862	267	52	95	35	28	22
AC-FT	39,630	69,910	221,900	262,200	138,800	116,100	55,610	39,210	15,100	5,260	11,850	8,830

CAL YR 1964: TOTAL 526,187 MEAN 1,438 MAX 19,500 MIN 55 AC-FT 1,044,000
WAT YR 1965: TOTAL 496,336 MEAN 1,360 MAX 21,800 MIN 22 AC-FT 984,500

12-0902. Muck Creek at Roy, Wash.

Location.--Lat 47°00'20", long 122°32'30", in SW¼NW¼ sec.34, T.18 N., R.2 E., on right bank 0.3 mile downstream from Muck Lake at north edge of Roy.

Drainage area.--86.8 sq mi (revised).

Records available.--May 1956 to September 1965.

Gage.--Staff gage read once daily. Altitude of gage is 310 ft (from topographic map).

Average discharge.--9 years, 62.5 cfs (45,250 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 26, 27, 1961	428	4.20	Sept.17, 1961	1.80	a 1.01
1962	Jan. 7, Mar. 7	94	b 2.28	Sept.19-28, 1962	0	-
1963	Feb. 5, 1963	267	3.50	Sept.27-30, 1963	.10	c 1.08
1964	Jan. 27, 28, 1964	500	4.50	Several days	.10	d 1.06
1965	Feb. 1, 1965	584	5.00	do.	0	-

a Occurred Oct. 21, 22, 1960.
b Occurred Mar. 7, 1962.
c Occurred Oct. 25, 1962.
d Occurred Oct. 2, 3, 4, 1964.

1956-65: Maximum discharge observed, 584 cfs Feb. 1, 1965 (gage height, 5.00 ft); no flow at times in most years.

Remarks.--Records good. Some regulation in lakes above station. Small amount of diversion above station for domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.8	4.9	254	130	191	401	144	112	61	21	12	4.5
2	4.4	5.5	239	126	197	394	147	120	58	21	12	4.5
3	3.8	5.8	224	122	206	394	147	125	55	21	12	4.5
4	3.8	5.2	209	119	212	377	141	135	54	21	12	3.8
5	3.6	4.5	194	133	221	357	135	135	52	21	11	3.8
6	5.3	4.1	185	161	236	343	128	131	49	21	9.4	3.8
7	4.8	4.0	170	221	263	329	125	128	52	20	8.9	3.8
8	5.8	3.8	164	245	272	309	115	128	49	19	7.9	2.9
9	5.3	3.8	155	260	260	300	114	128	49	17	7.9	2.9
10	4.8	3.8	153	245	260	289	112	131	49	17	7.5	2.9
11	4.6	4.5	153	232	251	272	106	125	49	16	7.0	2.9
12	4.4	7.2	155	224	248	261	106	119	46	16	7.0	2.9
13	4.4	9.8	157	218	248	251	112	112	45	16	7.0	2.4
14	4.2	12	158	209	245	265	109	109	42	16	7.0	1.9
15	4.0	17	155	197	260	255	106	103	41	16	7.0	1.9
16	3.7	31	147	209	272	248	103	100	38	16	7.0	1.9
17	3.4	48	144	224	282	238	100	94	33	16	6.5	1.8
18	3.3	64	147	230	282	217	94	90	31	15	6.5	1.9
19	3.3	72	153	224	276	214	91	85	31	15	6.5	1.9
20	3.3	91	161	215	272	207	94	79	30	14	6.1	1.9
21	3.2	119	158	203	292	200	94	79	26	14	6.1	2.4
22	3.2	158	155	194	320	190	100	79	25	14	5.6	2.4
23	4.1	188	150	178	346	193	103	79	24	14	4.8	2.4
24	4.9	266	144	173	365	197	109	79	24	14	4.8	1.9
25	4.9	330	141	167	397	197	106	76	23	13	4.8	1.9
26	4.5	391	141	160	428	197	103	73	22	13	4.1	2.4
27	5.5	362	141	153	428	190	100	73	21	12	4.1	2.4
28	5.2	330	141	150	418	180	94	73	21	12	3.5	1.9
29	4.3	301	139	161	------	163	100	70	21	12	3.8	1.9
30	4.3	272	136	161	------	157	115	67	21	12	3.5	1.9
31	4.3	------	136	176	------	144	------	64	------	12	4.5	------
TOTAL	133.4	3,118.9	5,059	5,820	7,948	7,929	3,353	3,101	1,142	497	217.8	80.3
MEAN	4.30	104	163	188	284	256	112	100	38.1	16.0	7.03	2.68
MAX	5.8	391	254	260	428	401	147	135	61	21	12	4.5
MIN	3.2	3.8	136	119	191	144	91	64	21	12	3.5	1.8
AC-FT	265	6,190	10,030	11,540	15,760	15,730	6,650	6,150	2,270	986	432	159

CAL YR 1960: TOTAL 28,552.0 MEAN 78.0 MAX 391 MIN 3.2 AC-FT 56,630
WAT YR 1961: TOTAL 38,399.4 MEAN 105 MAX 428 MIN 1.8 AC-FT 76,160

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0902. Muck Creek at Roy, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.9	1.3	3.5	45	47	44	64	51	37	13	5.6	1.6
2	1.9	1.3	2.9	39	47	44	60	51	35	13	5.6	1.3
3	1.9	1.3	2.4	52	47	44	57	51	36	13	5.6	1.3
4	1.9	1.2	2.4	64	44	49	60	49	39	13	5.6	1.1
5	1.8	1.2	2.4	67	43	60	66	49	41	13	6.7	1.0
6	1.4	1.0	2.4	82	42	87	72	47	42	13	6.7	.80
7	1.4	1.0	2.9	94	40	94	81	44	42	12	6.7	.50
8	1.4	.90	2.9	91	42	87	91	44	42	12	6.7	.30
9	1.2	1.2	2.9	89	42	87	87	49	40	11	5.9	.30
10	1.3	1.9	2.4	86	40	87	87	48	40	11	5.2	.30
11	1.3	3.8	2.4	81	40	83	84	47	40	11	4.9	.60
12	1.4	2.9	1.9	80	40	78	81	47	35	11	5.2	.60
13	1.3	2.1	1.9	78	40	78	81	47	32	11	4.9	.60
14	1.3	1.6	1.9	78	47	75	81	47	29	11	4.6	.30
15	1.2	1.4	4.1	76	54	72	81	47	26	9.5	4.6	.30
16	1.2	1.3	5.2	76	54	66	57	46	25	9.5	4.6	.30
17	.90	1.2	15	70	63	63	51	41	23	9.5	4.6	.30
18	.90	1.2	13	70	60	63	58	41	23	9.0	4.1	.10
19	1.3	1.2	11	66	60	60	57	37	20	8.0	3.6	0
20	1.3	1.2	15	60	58	57	54	35	20	8.0	3.4	0
21	.90	2.6	20	51	57	57	49	35	19	7.5	3.2	0
22	.90	5.6	20	47	54	57	46	33	18	6.7	3.2	0
23	1.1	2.9	26	44	51	57	42	33	16	5.9	3.2	0
24	1.0	1.9	33	42	51	63	40	37	15	5.2	2.8	0
25	1.0	1.6	43	42	49	72	40	41	13	5.2	2.4	0
26	1.6	1.6	46	47	47	72	38	43	13	5.2	2.1	0
27	2.9	1.6	46	51	44	75	42	43	13	5.2	2.0	0
28	2.4	1.6	49	51	44	75	47	43	13	5.2	2.0	0
29	1.8	4.1	49	51	------	75	51	48	13	5.2	2.0	.40
30	1.5	4.1	45	51	------	72	51	43	13	5.2	1.8	.60
31	1.4	------	45	51	------	69	------	41	------	5.2	1.8	------
TOTAL	44.70	57.80	520.5	1,972	1,347	2,122	1,856	1,358	813	283.2	131.3	12.60
MEAN	1.44	1.93	16.8	63.6	48.1	68.5	61.9	43.8	27.1	9.14	4.24	.42
MAX	2.9	5.6	49	94	63	94	91	51	42	13	6.7	1.6
MIN	.90	.90	1.9	39	40	44	38	33	13	5.2	1.8	0
AC-FT	89	115	1,030	3,910	2,670	4,210	3,680	2,690	1,610	562	260	25

CAL YR 1961: TOTAL 30,711.10 MEAN 84.1 MAX 428 MIN .90 AC-FT 60,910
WAT YR 1962: TOTAL 10,518.10 MEAN 28.8 MAX 94 MIN 0 AC-FT 20,860

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.30	.50	144	149	84	130	140	90	36	20	8.3	2.6
2	.30	.80	144	170	105	134	140	90	38	18	7.4	2.4
3	.30	.80	144	185	158	134	132	90	40	18	7.4	2.4
4	.30	.80	154	180	233	129	126	95	40	18	6.4	2.0
5	.30	1.1	148	176	267	120	129	98	38	17	6.4	1.8
6	.30	1.8	148	170	264	119	140	104	38	17	6.4	1.7
7	.30	2.4	148	164	247	116	152	104	36	20	6.4	1.5
8	1.1	2.1	148	155	233	111	164	97	36	20	6.4	1.4
9	2.1	2.1	139	140	220	105	164	97	36	18	5.7	1.2
10	2.4	2.8	133	132	207	101	155	93	34	18	5.3	1.1
11	2.1	3.6	125	123	182	95	129	90	33	18	5.0	1.0
12	1.7	4.1	116	112	167	98	129	88	33	17	4.4	.90
13	1.6	4.6	113	104	152	90	134	85	33	16	4.4	.80
14	1.3	4.6	133	98	152	90	143	77	31	14	4.4	.80
15	1.2	3.6	155	93	152	90	149	72	28	14	4.4	.90
16	1.1	3.6	184	93	149	93	146	68	26	16	3.8	1.0
17	1.0	3.2	199	93	149	90	143	65	24	14	3.8	1.5
18	.80	3.2	199	93	150	88	142	62	24	14	3.8	1.2
19	.80	5.9	198	90	144	88	137	60	24	13	3.8	.90
20	.60	19	210	90	139	85	132	57	23	13	3.8	.60
21	.60	32	166	85	133	80	129	54	21	13	3.8	.40
22	.60	29	140	82	129	80	126	51	21	13	3.3	.50
23	.50	22	132	80	123	77	120	48	21	13	3.3	.70
24	.40	31	126	77	120	77	118	46	20	13	3.3	.60
25	.30	52	120	75	115	72	112	44	20	13	3.8	.40
26	.80	88	112	72	130	72	106	42	18	13	3.8	.20
27	.80	122	106	70	130	72	101	40	18	12	3.3	.10
28	.80	130	101	67	130	88	95	40	19	11	3.3	.10
29	.80	127	98	65	------	99	90	40	18	9.3	3.1	.10
30	.80	125	132	60	------	118	90	38	20	8.3	2.9	.10
31	.80	------	132	60	------	134	------	38	------	8.3	2.8	------
TOTAL	27.10	828.60	4,447	3,403	4,564	3,075	3,913	2,163	847	459.9	144.4	30.90
MEAN	.87	27.6	143	110	163	99.2	130	69.8	28.2	14.8	4.66	1.03
MAX	2.4	130	210	185	267	134	164	104	40	20	8.3	2.6
MIN	.30	.50	98	60	84	72	90	38	18	8.3	2.8	.10
AC-FT	54	1,640	8,820	6,750	9,050	6,100	7,760	4,290	1,680	912	286	61

CAL YR 1962: TOTAL 15,197.80 MEAN 41.6 MAX 210 MIN 0 AC-FT 30,140
WAT YR 1963: TOTAL 23,902.90 MEAN 65.5 MAX 267 MIN .10 AC-FT 47,410

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0902. Muck Creek at Roy, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.10	5.0	54	118	432	108	77	50	34	13	4.5	1.0
2	.10	4.7	52	146	398	108	74	47	25	12	4.4	1.0
3	.10	4.7	49	178	382	108	74	47	23	11	4.4	1.0
4	.10	4.7	45	185	358	108	71	45	24	12	4.4	1.0
5	.10	4.4	43	195	332	115	71	45	24	12	4.4	.80
6	.60	4.4	55	211	316	115	68	43	24	10	4.4	.60
7	.70	5.0	60	211	300	111	68	41	24	9.0	3.7	.80
8	.70	5.7	65	204	278	108	68	38	24	9.8	3.1	.60
9	.70	5.7	66	197	256	108	63	36	23	9.0	2.6	.80
10	.70	5.7	65	193	237	108	63	36	23	6.7	2.1	.60
11	.80	6.4	62	186	230	108	63	36	22	6.7	2.0	.50
12	.90	8.3	60	176	217	115	63	34	22	6.7	1.9	.50
13	1.0	17	58	166	206	115	63	32	21	7.0	1.6	.50
14	1.0	20	55	166	195	115	63	32	19	7.4	1.7	.30
15	1.0	21	54	166	181	108	63	30	18	7.8	1.6	.20
16	1.0	24	54	186	170	104	71	29	18	7.6	1.6	.20
17	.80	24	56	217	170	104	74	29	24	7.4	1.4	.30
18	.80	26	59	243	170	115	71	29	28	7.2	1.3	.30
19	.80	37	64	262	170	111	68	27	28	7.2	1.2	.30
20	1.0	52	78	292	159	108	65	27	28	7.2	1.1	.20
21	1.8	56	92	292	145	108	63	29	28	7.2	.90	.20
22	4.7	56	105	285	145	104	63	34	25	7.2	.70	.10
23	6.9	56	111	268	138	104	63	34	24	7.2	.70	.10
24	4.7	56	105	292	132	101	63	34	22	7.2	.70	.10
25	4.7	53	111	340	125	95	63	34	19	6.8	.70	.10
26	4.7	50	115	418	118	91	60	32	17	6.2	.80	.10
27	4.4	53	115	495	115	91	57	30	15	5.6	.80	.10
28	4.4	55	112	492	108	88	55	29	15	5.0	.80	.10
29	5.0	58	109	440	104	85	52	27	15	4.4	.80	.10
30	6.4	58	106	455	------	82	50	27	14	4.4	.80	.20
31	5.7	------	104	455	------	79	------	34	------	4.4	1.0	------
TOTAL	66.40	836.7	2,339	8,130	6,287	3,228	1,950	1,077	670	242.3	62.30	12.60
MEAN	2.14	27.9	75.5	262	217	104	65.0	34.7	22.3	7.82	2.01	.43
MAX	6.9	58	115	495	432	115	77	50	34	13	4.5	1.0
MIN	.10	4.4	43	118	104	79	50	27	14	4.4	.70	.10
AC-FT	132	1,660	4,640	16,130	12,470	6,400	3,870	2,140	1,330	481	124	26

CAL YR 1963: TOTAL 21,842.30 MEAN 59.8 MAX 267 MIN .10 AC-FT 43,320
WAT YR 1964: TOTAL 24,901.60 MEAN 68.0 MAX 495 MIN .10 AC-FT 49,390

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.40	.20	64	303	560	201	72	75	28	11	2.0	.40
2	1.6	.40	75	284	537	194	72	70	27	11	1.9	.30
3	1.2	1.2	83	265	474	184	70	67	26	10	1.9	.30
4	.80	5.8	83	247	422	170	70	64	24	9.6	1.9	.20
5	.80	5.8	83	243	405	160	67	64	24	9.6	1.7	.20
6	1.0	5.0	83	240	392	147	64	64	22	9.0	1.4	.10
7	1.0	4.4	78	240	376	141	62	64	22	8.0	2.3	.10
8	1.0	3.7	72	229	363	131	60	64	20	7.5	1.8	.30
9	1.0	2.6	72	222	343	125	60	64	19	7.5	1.8	.20
10	1.2	2.6	70	211	323	122	60	62	17	7.9	1.6	.10
11	1.0	2.6	67	208	303	115	60	57	17	8.7	1.6	.10
12	.60	3.1	64	194	284	112	60	52	16	8.7	1.6	.10
13	1.0	3.1	64	184	273	106	57	50	16	7.5	2.6	0
14	1.0	2.6	67	177	273	100	57	48	16	7.0	2.3	.20
15	1.0	2.6	80	163	273	97	57	46	16	7.0	1.8	.20
16	1.0	2.1	80	154	261	94	55	48	16	6.2	1.4	.20
17	1.0	1.7	72	147	251	91	55	48	16	6.2	1.2	.10
18	1.0	1.4	67	144	243	91	55	48	15	5.5	1.0	0
19	1.0	1.4	67	138	236	89	57	48	14	5.0	1.8	0
20	1.0	1.4	74	134	225	86	97	48	14	5.0	1.8	0
21	.60	1.4	152	131	211	86	136	48	14	5.5	1.6	0
22	.60	1.4	269	141	187	83	141	46	14	5.5	1.4	0
23	.60	2.1	313	144	184	80	138	46	13	5.0	1.2	0
24	.60	11	353	150	177	80	128	43	12	4.5	1.2	0
25	.30	22	405	160	170	78	115	42	12	4.0	1.4	0
26	.30	34	426	177	160	78	106	40	12	3.8	1.4	0
27	.20	38	426	220	177	78	97	38	12	3.2	1.2	0
28	.20	38	413	294	201	75	89	35	11	2.8	1.0	0
29	.20	43	397	374	------	75	83	32	11	2.5	.80	0
30	.20	57	363	474	------	75	78	30	11	2.3	.70	0
31	.20	------	323	537	------	72	------	29	------	2.0	.40	------
TOTAL	23.60	301.60	5,305	6,929	8,284	3,416	2,378	1,580	507	199.0	47.70	3.10
MEAN	.76	10.1	171	224	296	110	79.3	51.0	16.9	6.42	1.54	.10
MAX	1.6	57	426	537	560	201	141	75	28	11	2.6	.40
MIN	.20	.20	64	131	160	72	55	29	11	2.0	.40	0
AC-FT	47	598	10,520	13,740	16,430	6,780	4,720	3,130	1,010	395	95	6.2

CAL YR 1964: TOTAL 27,289.70 MEAN 74.6 MAX 495 MIN .10 AC-FT 54,130
WAT YR 1965: TOTAL 28,974.00 MEAN 79.4 MAX 560 MIN 0 AC-FT 57,470

12-0910.5. Flett Creek at 74th Street, at Tacoma, Wash.

Location.--Lat 47°11'26", long 122°29'08", in NE¼SE¼ sec.25, T.20 N., R.2 E., on right bank just downstream from South 74th Street crossing in Tacoma, 3 miles upstream from mouth.

Drainage area.--4.23 sq mi (revised).

Records available.--May 1959 to September 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 235 ft (from topographic map). Prior to Oct. 13, 1961, at site 75 ft downstream at same datum.

Extremes.--Maximum and minimum discharges for the water years 1961-63 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 25, 1961	7.2	1.81	Many days	0	-
1962	-	-	-	do.	0	-
1963	(a)	-	-	Entire year	0	-

a No flow for entire year.

1959-63: Maximum discharge, 7.2 cfs Feb. 25, 1961 (gage height, 1.81 ft); maximum gage height, 2.34 ft Nov. 21, 1959; no flow for many days in each year.

Remarks.--No regulation. Some small diversions above station.

Discharge, in cubic feet per second, water years October 1960 to September 1963

Date	cfs	Date	cfs	Date	cfs	Date	cfs
Nov. 20, 1960	0.50	Jan. 31, 1961	0.10	Feb. 21, 1961	2.6	Mar. 10, 1961	0.10
23	.40	Feb. 1	.10	22	2.6	11	.20
24	1.2	2	.10	23	1.2	12	.20
25	1.0	3	.10	24	3.9	13	.40
26	.50	4	.10	25	6.5	14	.40
Dec. 18	.10	5	.20	26	3.4	15	.30
19	.10	6	.60	27	2.2	16	.10
Jan. 4, 1961	.10	7	.20	28	1.1	17	.10
5	.60	8	.10	Mar. 1	1.0	20	.10
6	.20	9	.20	2	.50	22	.20
7	.10	13	.30	3	.20	23	.10
8	.20	14	.10	4	.20	Apr. 2	.10
9	.10	15	.30	5	.30	29	.10
15	.10	16	.10	6	.20	May 1	.10
17	.30	17	.10	7	.10	2	.10
29	.20	19	.20	8	.10	4	.10
30	.20	20	.90	9	.10	9	.10

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
November 1960	3.60	1.2	0	0.12	7.1
December	.20	.10	0	.007	.4
Calendar year 1960	90.30	4.7	0	.25	179
January 1961	2.20	.60	0	.071	4.4
February	27.20	6.5	0	.97	54
March	4.90	1.0	0	.16	9.7
April	.20	.10	0	.007	.4
May	.40	.10	0	.013	.8
Water year 1960-61	38.70	6.5	0	.11	77
Calendar year 1961	34.90	6.5	0	.096	69

Note.--Flow occurred only on days listed above.

12-0910.7. Flett Creek below Flett Springs, at Tacoma, Wash.

Location.--Lat 47°10'50", long 122°30'10", in SW¼NW¼ sec.36, T.20 N., R.2 E., on left bank 20 ft downstream from Flett Springs, a quarter of a mile south of city limits of Tacoma, and 1½ miles upstream from mouth.

Drainage area.--6.72 sq mi (revised), not including some urban storm drainage outside the basin.

Records available.--July 1959 to September 1965 (discontinued).

Gage.--Water-stage recorder. Datum of gage is about 230 ft (from topographic map).

Average discharge.--6 years, 6.09 cfs (4,410 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 24, 1961	37	2.31	July 27, 1961	0.20	1.01
1962	Dec. 22, 1961	16	1.39	(a)	0	-
1963	Nov. 19, 1962	24	2.13	Sept. 9, 1963	.40	.91
1964	Jan. 25, 1964	66	2.56	Oct. 19, 20, 1963	.20	.83
1965	Jan. 26, 1965	26	2.06	July 30, 1965	0	-

a For part of many days during period July 23 to Sept. 4, 1962.

1959-65: Maximum discharge, 66 cfs Jan. 25, 1964 (gage height, 2.56 ft); no flow for part of each day Aug. 12, 1960, several days during period July 23 to Sept. 4, 1962, and July 30, 1965.

Remarks.--Records good. Storm sewer drainage above station. Several diversions for irrigation and industrial use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.2	1.0	14	11	12	25	16	9.3	4.5	2.2	1.2	2.8
2	2.5	1.0	14	11	12	23	17	7.9	4.5	2.2	1.5	2.5
3	2.5	.80	14	11	12	20	15	7.4	4.2	2.2	1.5	2.2
4	2.5	.80	15	11	12	19	13	7.0	3.8	2.2	1.2	2.2
5	2.5	.80	14	17	12	20	12	6.5	3.5	2.8	1.5	2.5
6	2.8	.60	14	15	16	19	11	6.1	3.8	2.8	1.7	2.2
7	2.5	.80	13	13	12	17	11	6.1	3.8	3.1	1.5	1.5
8	2.2	1.0	12	14	12	17	9.9	6.1	3.5	3.1	1.2	1.2
9	2.2	1.2	12	12	14	17	9.9	7.0	3.5	3.1	1.2	1.5
10	2.0	2.5	11	11	13	17	9.9	7.0	3.5	2.8	1.0	1.5
11	2.2	2.2	14	11	13	18	9.9	7.0	4.0	2.2	1.2	1.0
12	2.2	2.0	15	11	12	18	11	7.0	4.2	2.0	1.2	1.2
13	2.2	2.0	12	12	15	17	11	6.5	4.2	1.7	1.5	1.0
14	2.2	2.0	11	13	15	18	11	6.5	3.8	1.5	1.5	1.0
15	2.2	2.2	11	15	17	17	11	6.5	3.5	1.7	1.0	1.0
16	2.2	2.0	11	14	15	16	11	6.5	3.5	2.2	1.0	1.0
17	2.2	2.5	11	15	15	16	11	6.5	3.5	2.2	1.0	1.2
18	2.2	2.5	15	12	15	15	9.9	6.5	3.5	1.7	.80	1.2
19	2.5	2.0	16	11	17	15	9.9	6.1	2.5	2.0	1.0	1.2
20	2.5	5.7	13	11	19	16	9.9	5.7	2.2	1.7	.60	1.2
21	2.8	4.9	12	11	29	16	9.3	5.7	2.0	1.7	.70	1.2
22	3.2	3.8	13	12	23	17	9.3	5.3	2.0	2.2	.80	1.0
23	3.8	6.1	13	12	20	17	9.3	4.9	1.7	2.8	.80	1.0
24	3.5	15	14	12	30	16	8.8	4.9	2.0	2.2	1.0	1.0
25	2.5	8.8	14	12	34	17	8.8	4.5	2.0	1.7	1.2	1.0
26	2.5	8.4	15	12	29	17	8.8	4.5	2.0	1.7	1.5	1.0
27	2.2	9.3	14	11	29	17	8.8	4.2	2.0	1.7	1.7	1.2
28	1.5	12	14	11	23	17	8.8	3.8	2.4	1.7	1.5	1.5
29	1.2	14	13	15	------	17	9.3	3.8	2.0	1.7	1.7	1.5
30	1.0	14	12	15	------	17	9.3	4.2	2.0	1.7	1.7	1.5
31	1.0	------	12	13	------	16	------	4.2	------	1.7	3.1	------
TOTAL	71.7	131.90	408	387	497	544	320.8	185.2	93.6	66.2	40.00	43.0
MEAN	2.31	4.40	13.2	12.5	17.8	17.5	10.7	5.97	3.12	2.14	1.29	1.43
MAX	3.8	15	16	17	34	25	17	9.3	4.5	3.1	3.1	2.8
MIN	1.0	.60	11	11	12	15	8.8	3.8	1.7	1.5	.60	1.0
AC-FT	142	262	809	768	986	1,080	636	367	186	131	79	85

CAL YR 1960: TOTAL 2,897.20 MEAN 7.92 MAX 26 MIN .60 AC-FT 5,750
WAT YR 1961: TOTAL 2,788.40 MEAN 7.64 MAX 34 MIN .60 AC-FT 5,530

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0910.7. Flett Creek below Flett Springs, at Tacoma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.5	1.0	2.2	7.4	4.5	4.2	3.5	2.5	2.4	.90	.30	.20
2	1.5	1.0	2.2	8.4	4.5	4.2	3.1	2.5	2.6	.80	.30	.30
3	1.5	1.2	2.0	8.4	4.5	4.2	3.1	2.5	2.4	.80	.40	.30
4	1.5	1.2	2.2	6.5	4.5	5.3	3.5	2.5	2.4	1.3	.70	.30
5	1.7	1.2	2.2	6.5	4.5	6.5	3.8	2.5	2.4	1.0	1.0	.20
6	1.7	1.2	2.2	6.5	4.5	5.7	4.2	2.5	2.4	1.0	1.1	.20
7	1.7	1.2	2.5	6.5	4.5	4.9	3.1	2.5	2.2	1.0	1.3	.20
8	1.7	1.5	2.5	6.5	4.5	4.2	3.1	2.2	2.2	1.3	1.3	.30
9	1.7	2.8	2.5	6.5	4.5	4.2	2.8	2.5	2.2	.70	1.2	.60
10	2.0	3.1	2.5	6.5	4.5	4.2	2.5	2.5	2.2	.80	1.2	.90
11	2.0	2.8	2.5	6.5	4.2	4.2	2.2	2.5	2.0	.80	1.3	.90
12	1.7	2.2	2.5	6.5	4.2	4.2	2.2	2.5	1.9	.80	1.3	.90
13	1.7	2.2	2.8	7.0	4.2	4.2	2.2	2.5	2.2	.60	1.3	1.4
14	1.5	2.0	2.8	7.0	4.2	4.2	2.2	2.5	2.0	.90	.90	1.2
15	1.5	2.0	2.8	7.0	3.8	4.2	2.2	2.5	1.8	1.4	.70	1.0
16	1.5	2.0	3.8	7.0	3.8	4.2	2.2	2.5	2.0	.90	.50	1.0
17	1.5	1.7	6.1	6.5	3.8	4.2	2.2	2.5	2.1	.80	.80	1.0
18	1.5	1.7	3.8	6.5	3.8	4.2	2.2	2.5	1.6	.50	1.2	.90
19	1.5	1.7	4.9	6.5	3.8	4.2	2.0	2.5	1.2	.40	1.2	.80
20	1.5	1.7	4.9	6.1	3.8	4.5	2.0	2.5	1.0	.80	.90	.80
21	1.5	2.2	5.3	5.7	3.8	4.5	2.0	2.2	1.0	.60	.90	.90
22	1.5	4.2	7.2	5.7	3.8	4.5	2.2	2.2	.80	.80	.90	1.0
23	1.7	2.5	7.0	5.7	3.8	4.5	2.2	2.5	1.0	.70	.70	.90
24	1.5	2.2	5.7	5.7	3.8	4.9	2.5	2.5	1.0	.30	.40	.90
25	1.7	2.2	5.3	5.7	4.2	5.3	2.2	2.5	1.1	.20	.50	1.0
26	2.0	2.0	5.3	5.7	3.8	4.5	2.2	2.8	1.2	.30	.40	1.0
27	2.2	2.0	5.7	5.3	3.8	4.2	3.1	2.5	1.3	.30	.30	1.0
28	1.7	3.5	6.5	5.3	3.8	3.8	2.8	2.5	1.1	.40	.20	1.2
29	1.5	2.8	7.9	5.3	------	3.8	2.5	2.4	.70	.60	.20	1.0
30	1.5	2.5	7.4	5.3	------	3.8	2.5	2.4	1.0	.20	.20	1.0
31	1.2	------	7.4	4.5	------	3.8	------	2.4	------	.20	.20	------
TOTAL	50.4	61.5	130.6	196.2	115.4	137.5	78.5	76.6	51.40	22.10	23.80	23.30
MEAN	1.63	2.05	4.21	6.33	4.12	4.44	2.62	2.47	1.71	.71	.77	.78
MAX	2.2	4.2	7.9	8.4	4.5	6.5	4.2	2.8	2.6	1.4	1.3	1.4
MIN	1.2	1.0	2.0	4.5	3.8	3.8	2.0	2.2	.70	.20	.20	.20
AC-FT	100	122	259	389	229	273	156	152	102	44	47	46

CAL YR 1961: TOTAL 2,419.30 MEAN 6.63 MAX 34 MIN .60 AC-FT 4,800
WAT YR 1962: TOTAL 967.30 MEAN 2.65 MAX 8.4 MIN .20 AC-FT 1,920

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.1	1.3	14	14	8.8	10	9.1	8.6	3.4	2.3	2.1	1.6
2	1.1	1.3	14	13	11	9.9	8.3	9.1	3.4	1.8	1.8	1.6
3	1.1	1.3	14	12	15	9.9	8.3	8.8	3.5	1.9	1.7	1.4
4	1.1	1.4	14	11	11	9.6	8.3	8.8	3.8	2.3	1.8	1.4
5	1.1	1.6	14	11	9.9	9.6	8.8	8.6	4.1	2.2	1.9	1.3
6	1.2	1.4	14	10	8.8	9.4	12	8.3	4.1	2.0	1.2	1.0
7	1.5	1.4	14	11	8.8	9.4	11	8.0	4.3	2.6	1.1	1.0
8	2.3	1.6	13	11	9.1	9.4	10	8.0	4.3	2.5	1.0	1.3
9	3.1	1.8	13	11	9.4	9.4	10	7.7	4.2	2.4	.90	1.1
10	1.9	2.9	13	11	9.9	9.1	10	7.7	3.8	2.6	1.2	.90
11	1.4	3.4	12	11	11	9.1	10	7.5	3.5	2.4	1.2	1.1
12	1.1	2.7	12	11	11	8.8	10	7.2	3.2	2.0	1.2	.90
13	1.2	2.5	13	11	11	8.6	11	7.0	3.0	2.0	1.3	1.9
14	.80	2.4	17	11	11	8.6	12	7.0	3.0	2.0	1.3	1.9
15	.60	2.4	16	10	11	8.0	12	6.7	2.8	1.7	1.3	1.9
16	.50	2.3	14	9.9	11	8.6	11	6.7	2.8	1.6	1.0	2.0
17	.60	2.3	14	9.6	11	8.0	11	6.7	2.8	1.6	.80	2.0
18	.80	2.2	14	9.4	11	7.5	11	6.7	2.2	1.6	1.0	2.0
19	.90	11	14	9.1	11	7.5	11	6.3	2.2	1.3	1.2	2.0
20	1.0	11	13	8.8	11	7.5	11	6.3	2.2	1.2	1.0	2.0
21	1.1	5.5	13	8.8	11	7.2	10	6.1	2.3	1.7	1.2	2.0
22	1.1	3.9	13	8.6	11	7.0	9.9	5.9	2.6	2.6	1.4	2.0
23	1.2	3.5	13	8.6	10	7.0	9.6	5.5	3.0	1.9	1.2	2.0
24	1.2	5.0	12	8.3	9.9	6.7	9.6	5.3	2.7	2.0	1.0	2.0
25	1.2	14	12	8.0	11	6.7	9.6	5.0	2.5	2.2	1.4	2.0
26	1.2	18	12	7.7	11	6.7	9.4	5.1	2.4	2.0	1.5	2.0
27	1.2	13	12	7.5	10	7.2	9.1	5.1	2.0	2.0	1.5	1.8
28	1.2	11	11	7.2	10	9.6	8.6	4.5	2.0	2.1	1.5	1.8
29	1.2	11	12	7.0	------	12	8.8	4.3	2.2	2.0	1.5	1.9
30	1.2	14	16	7.0	------	11	8.6	4.2	2.8	1.9	1.5	2.0
31	1.2	------	13	8.6	------	9.9	------	3.9	------	2.0	1.6	------
TOTAL	37.40	157.1	415	303.1	295.6	268.9	299.0	206.6	91.1	62.4	41.30	49.80
MEAN	1.21	5.24	13.4	9.78	10.6	8.67	9.97	6.66	3.04	2.01	1.33	1.66
MAX	3.1	18	17	14	15	12	12	9.1	4.3	2.6	2.1	2.0
MIN	.50	1.3	11	7.0	8.8	6.7	8.3	3.9	2.0	1.2	.80	.90
AC-FT	74	312	823	601	586	533	593	410	181	124	82	99

CAL YR 1962: TOTAL 1,334.30 MEAN 3.66 MAX 18 MIN .20 AC-FT 2,650
WAT YR 1963: TOTAL 2,227.30 MEAN 6.10 MAX 18 MIN .50 AC-FT 4,420

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0910.7. Flett Creek below Flett Springs, at Tacoma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.0	1.7	9.9	22	40	16	9.9	6.5	1.7	1.3	1.6	1.3
2	2.1	2.0	9.9	14	31	14	9.6	6.3	1.4	1.1	1.8	1.4
3	1.9	1.8	9.9	13	28	13	9.6	6.3	1.4	1.1	1.8	1.5
4	1.8	1.8	9.9	13	26	14	9.6	6.1	1.6	1.5	1.9	1.4
5	1.8	1.7	10	14	25	13	9.4	6.1	1.7	2.4	1.9	1.4
6	1.8	2.3	11	15	24	13	9.1	5.7	1.6	1.8	1.6	1.5
7	1.7	2.5	9.6	14	23	12	8.8	5.7	1.5	1.6	1.4	1.5
8	1.5	2.5	9.6	15	23	12	8.8	6.1	1.4	1.7	1.6	1.7
9	1.1	2.2	9.4	17	22	12	8.8	5.9	1.3	1.6	1.6	1.6
10	.90	2.7	9.1	16	21	12	8.8	5.7	1.2	1.4	1.1	1.6
11	.70	2.5	8.6	15	21	12	8.6	5.5	1.2	1.3	.80	1.6
12	.60	5.0	8.3	14	20	13	8.3	5.0	1.1	1.6	.80	1.6
13	.60	6.7	8.3	16	19	12	8.3	4.8	1.1	1.4	.70	1.6
14	.50	8.3	8.0	16	19	12	8.3	4.1	1.0	1.8	.80	1.6
15	.50	6.7	8.0	17	18	11	8.3	4.2	1.2	2.0	1.4	1.6
16	.30	6.1	8.3	19	18	11	8.0	4.6	2.0	2.0	1.5	1.6
17	.30	7.5	8.3	19	18	13	7.7	4.8	1.9	1.8	1.3	1.7
18	.30	6.5	8.3	22	17	12	7.7	4.3	1.6	2.0	1.4	1.6
19	.30	11	8.8	26	17	11	7.5	3.4	1.3	2.0	.80	1.6
20	.40	9.9	10	27	17	11	7.5	2.9	1.4	1.8	.60	1.6
21	1.0	8.8	8.8	24	16	11	7.5	2.4	1.7	2.0	.60	1.6
22	1.8	8.7	9.6	22	16	10	7.7	2.3	1.8	1.8	.80	1.6
23	1.3	9.6	9.4	21	16	9.9	7.5	2.4	1.7	1.9	1.2	1.6
24	1.3	9.6	8.8	36	15	9.6	7.2	2.3	1.7	1.6	1.3	1.6
25	1.5	9.9	9.1	58	15	9.4	7.2	2.4	1.4	1.4	1.2	1.6
26	1.5	10	9.9	43	14	9.9	7.2	2.4	1.2	1.7	1.4	1.6
27	1.4	10	11	37	14	10	7.0	1.9	1.4	1.6	1.4	1.6
28	2.0	10	10	34	13	10	6.7	1.6	1.8	1.1	1.5	1.6
29	1.7	10	9.6	40	13	10	6.7	1.6	1.8	1.0	1.5	1.6
30	1.6	9.9	9.6	33	------	9.9	6.5	1.8	1.7	1.1	1.7	2.2
31	1.6	------	10	38	------	9.9	------	1.8	------	1.2	1.5	------
TOTAL	37.80	187.9	289.0	730	579	358.6	243.8	126.9	44.8	49.6	40.50	47.6
MEAN	1.22	6.26	9.32	23.5	20.0	11.6	8.13	4.09	1.49	1.60	1.31	1.59
MAX	2.1	11	11	58	40	16	9.9	6.5	2.0	2.4	1.9	2.2
MIN	.30	1.7	8.0	13	13	9.4	6.5	1.6	1.0	1.0	.60	1.3
AC-FT	75	373	573	1,450	1,150	711	484	252	89	98	80	94

CAL YR 1963: TOTAL 2,132.50 MEAN 5.84 MAX 15 MIN .30 AC-FT 4,230
WAT YR 1964: TOTAL 2,735.50 MEAN 7.47 MAX 58 MIN .30 AC-FT 5,430

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.2	1.7	6.1	13	14	8.3	4.5	3.6	3.5	1.4	1.1	1.2
2	2.2	1.6	3.8	13	14	8.8	4.2	3.9	3.4	1.4	1.1	1.0
3	2.2	2.2	3.1	13	14	9.1	4.1	4.2	3.0	1.3	1.0	1.0
4	2.3	3.0	2.9	13	15	9.4	3.9	4.5	2.7	1.7	.80	1.1
5	2.0	2.3	2.9	14	16	9.1	4.1	4.9	3.1	1.7	.60	1.2
6	1.6	2.0	3.0	15	14	8.6	4.3	4.8	3.4	1.2	.50	1.2
7	1.6	2.0	3.5	13	14	8.6	4.3	4.8	3.1	1.1	.70	1.0
8	1.6	2.0	4.3	13	14	8.8	3.8	4.8	3.1	1.1	.90	.80
9	1.7	1.9	5.0	13	14	9.1	3.6	4.8	2.9	1.1	.70	.60
10	1.7	2.0	5.3	13	13	9.1	3.6	4.6	2.8	1.4	.70	.60
11	1.6	2.0	5.7	13	13	9.1	3.8	4.5	3.0	2.0	.70	.80
12	1.6	2.0	5.7	12	13	8.8	3.9	4.3	3.1	1.9	1.1	1.1
13	1.6	2.0	5.9	12	13	8.6	4.2	4.3	3.3	1.8	1.4	1.1
14	1.7	2.0	7.2	12	13	8.3	4.2	4.3	3.3	1.3	1.4	1.1
15	1.8	1.9	6.8	12	12	8.3	4.2	4.5	2.9	1.0	1.4	1.3
16	1.8	1.9	5.8	12	12	8.0	4.3	4.8	2.7	.90	.70	1.2
17	1.8	1.9	5.3	12	12	8.0	4.2	4.5	2.7	1.2	.50	1.2
18	1.7	1.9	5.0	11	11	7.7	4.1	4.5	2.7	1.6	.40	1.2
19	1.6	1.9	5.1	11	11	7.5	8.4	4.6	2.6	1.3	.60	1.2
20	1.7	1.8	5.3	11	11	7.5	6.7	4.5	2.3	1.3	1.5	1.2
21	1.7	1.8	9.3	12	10	7.5	5.3	4.5	2.0	.80	1.4	1.2
22	1.7	1.8	14	12	9.1	7.2	4.1	4.3	1.9	.80	1.5	1.2
23	1.7	2.0	9.9	14	8.8	7.2	3.6	3.9	1.9	.80	1.5	1.2
24	1.6	5.6	9.6	12	8.6	7.0	3.5	3.9	1.9	1.1	1.4	1.2
25	1.6	4.7	9.9	11	8.3	6.5	3.4	3.9	2.3	1.4	1.5	1.2
26	1.6	4.1	11	13	9.4	5.7	3.4	3.9	2.5	.90	1.5	1.2
27	1.6	3.6	12	18	10	5.0	3.4	3.8	2.5	.80	1.4	1.2
28	1.6	3.1	13	13	8.6	4.8	3.4	3.3	2.0	.50	1.4	1.1
29	1.6	3.6	13	16	------	4.5	3.5	3.3	1.7	.50	1.4	1.1
30	1.6	5.3	13	17	------	4.2	3.6	3.6	1.6	.40	1.2	1.1
31	1.6	------	13	14	------	4.2	------	3.5	------	.60	1.3	------
TOTAL	53.9	75.6	225.4	403	335.8	234.5	125.6	131.6	79.9	36.30	33.50	32.80
MEAN	1.74	2.52	7.27	13.0	12.0	7.56	4.19	4.25	2.66	1.17	1.08	1.09
MAX	2.3	5.6	14	18	16	9.4	8.4	4.9	3.5	2.0	1.5	1.3
MIN	1.6	1.6	2.9	11	8.3	4.2	3.4	3.3	1.6	.40	.40	.60
AC-FT	107	150	447	799	666	465	249	261	158	72	66	65

CAL YR 1964: TOTAL 2,575.70 MEAN 7.04 MAX 58 MIN .60 AC-FT 5,110
WAT YR 1965: TOTAL 1,767.90 MEAN 4.84 MAX 18 MIN .40 AC-FT 3,510

12-0911. Flett Creek at Tacoma, Wash.

Location.--Lat 47°11'23", long 122°31'08", in NE¼SW¼ sec.26, T.20 N., R.2 E., on right bank at 75th Street, half a mile west of city limits of Tacoma and 0.6 mile upstream from mouth.

Drainage area.--8.01 sq mi (revised), not including some urban storm drainage outside the basin.

Records available.--June 1959 to September 1965.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 200 ft (from topographic map).

Average discharge.--6 years, 7.62 cfs (5,520 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 24, 1961	43	2.57	Aug. 17, 21, 1961	1.0	1.43
1962	Dec. 22, 1961	22	2.26	(a)	.50	1.37
1963	Feb. 3, 1963	27	2.38	Aug. 16, 1963	.80	1.45
1964	Jan. 25, 1964	86	2.82	Oct. 19, 20, 1963	.90	1.42
1965	Jan. 26, 27, 1965	39	2.49	July 29, 31, 1965	.40	1.39

a Aug. 31, Sept. 1, 5, 6, 7, 1962.

1959-65: Maximum discharge, 86 cfs Jan. 25, 1964 (gage height, 2.82 ft, from high watermark in well), from rating curve extended above 33 cfs on basis of computation of peak flow over weir; minimum, 0.40 cfs July 29, 31, 1965; minimum gage height, 1.37 ft Aug. 31, Sept. 1, 5, 6, 7, 1962.

Remarks.--Records good. Storm sewer drainage above station. Several diversions for irrigation and industrial use. At times during winter months, 1,000 gpm is pumped into creek for short intervals from Mountain View Memorial Park. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.7	2.0	15	13	18	32	19	12	5.9	2.8	1.8	3.7
2	2.7	1.8	15	13	18	28	19	11	5.7	3.0	1.6	3.0
3	2.7	1.6	15	13	17	27	18	9.8	5.5	2.8	1.6	2.6
4	2.7	1.5	15	13	17	26	17	9.5	4.9	2.8	1.5	2.6
5	2.7	1.3	15	19	19	27	16	8.6	4.7	3.6	2.0	2.8
6	3.1	1.2	15	17	22	27	15	7.7	5.1	3.4	2.0	2.7
7	3.2	1.4	14	15	17	24	14	7.2	4.9	3.9	1.8	2.0
8	2.6	1.6	14	16	17	25	14	8.0	4.6	3.9	1.6	1.6
9	2.6	1.8	14	14	19	24	13	9.2	4.6	3.7	1.6	1.8
10	2.7	3.2	13	13	17	24	13	9.2	4.6	3.6	1.5	1.8
11	2.7	2.8	15	14	17	25	13	8.9	4.7	4.0	1.4	1.4
12	2.6	2.4	17	13	17	25	14	8.6	4.6	2.7	1.4	1.8
13	2.4	2.4	14	14	20	25	14	8.6	4.4	2.7	1.5	2.0
14	2.3	2.8	13	14	20	26	14	8.6	4.4	2.7	1.4	1.6
15	2.3	3.0	13	16	23	24	14	8.6	4.0	2.7	1.1	1.6
16	2.1	3.1	12	16	20	23	13	8.6	4.0	2.8	1.1	1.6
17	2.0	3.3	13	18	20	22	13	8.6	4.0	2.6	1.2	1.8
18	2.1	3.7	16	16	20	22	13	8.3	4.0	2.4	1.1	1.8
19	2.1	3.0	17	15	22	21	13	8.0	3.6	2.3	1.5	1.8
20	2.1	9.5	14	14	26	24	12	7.2	3.2	2.3	1.1	1.8
21	2.1	8.0	14	15	36	21	12	7.0	3.1	2.2	1.1	1.8
22	2.2	5.9	14	15	29	21	12	6.5	3.0	2.2	1.6	1.6
23	3.6	8.2	14	16	27	21	12	6.7	3.0	2.3	1.4	1.6
24	4.0	17	14	16	35	20	12	6.7	3.0	2.3	1.5	1.8
25	2.7	12	14	16	39	19	11	6.3	3.1	2.2	1.8	1.8
26	3.0	11	15	16	35	19	11	6.1	3.0	2.1	2.2	1.8
27	2.8	12	14	15	34	19	10	5.9	2.8	2.1	2.2	1.8
28	2.0	13	14	15	32	19	11	5.5	3.1	2.1	2.1	2.0
29	1.8	14	13	19	------	19	12	5.5	3.0	2.1	2.1	1.8
30	1.8	15	13	19	------	19	12	5.7	3.0	2.0	2.1	1.6
31	1.8	------	13	19	------	19	------	5.7	------	2.0	3.7	------
TOTAL	78.2	169.5	441	477	653	717	406	243.8	121.5	84.3	51.6	59.6
MEAN	2.52	5.65	14.2	15.4	23.3	23.1	13.5	7.86	4.05	2.72	1.66	1.99
MAX	4.0	17	17	19	39	32	19	12	5.9	4.0	3.7	3.7
MIN	1.8	1.2	12	13	17	19	10	5.5	2.8	2.0	1.1	1.4
AC-FT	155	336	875	946	1,300	1,420	805	484	241	167	102	118

CAL YR 1960: TOTAL 3,470.9 MEAN 9.48 MAX 30 MIN 1.2 AC-FT 6,880
WAT YR 1961: TOTAL 3,502.5 MEAN 9.60 MAX 39 MIN 1.1 AC-FT 6,950

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0911. Flett Creek at Tacoma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.8	1.8	3.2	8.6	6.0	5.2	4.8	4.0	3.2	1.8	.80	.60
2	1.8	1.8	3.2	11	5.8	5.0	4.6	4.0	3.5	1.6	.80	.70
3	2.0	1.8	3.2	13	5.6	5.0	4.8	3.8	3.1	1.4	1.1	.70
4	1.8	1.8	3.6	9.5	5.4	7.0	5.2	3.6	3.1	2.0	1.3	.80
5	2.0	1.8	3.4	9.8	5.4	9.2	5.2	3.6	3.0	2.2	1.8	.60
6	2.1	1.8	3.4	9.8	5.4	7.6	6.2	3.6	3.1	2.0	1.8	.60
7	2.0	1.8	3.4	9.2	5.6	6.4	4.8	3.4	3.1	1.8	2.0	.80
8	2.0	2.0	3.4	8.9	5.4	6.2	4.3	3.2	3.0	2.2	2.0	.70
9	2.1	3.8	3.4	8.6	5.6	6.2	4.0	3.2	3.0	1.6	2.0	1.0
10	2.2	4.4	3.4	8.0	5.8	6.0	3.6	3.1	3.1	1.8	1.8	1.4
11	2.2	3.6	3.1	8.0	5.4	5.6	3.5	3.2	2.8	1.4	1.8	1.4
12	2.2	2.7	3.2	8.0	5.4	5.4	3.4	3.4	2.7	1.6	2.0	1.8
13	1.8	2.4	3.6	8.3	5.8	5.4	3.4	3.4	2.8	1.3	1.8	2.5
14	2.0	2.3	3.6	8.3	6.0	5.6	3.2	3.2	3.0	1.6	1.6	2.0
15	1.8	2.3	3.7	8.3	5.6	5.4	3.1	3.2	2.7	1.8	1.3	1.6
16	1.8	2.2	5.0	8.3	5.4	5.2	3.0	3.2	2.7	1.8	1.0	1.5
17	1.8	2.3	9.4	8.3	5.8	5.4	3.0	3.2	2.8	1.6	1.2	1.4
18	1.8	2.3	5.5	8.0	5.4	5.4	2.8	3.2	2.7	1.3	1.6	1.3
19	1.8	2.2	6.7	8.0	5.2	5.6	2.8	3.2	2.4	1.2	1.6	1.2
20	1.8	2.2	7.2	7.8	5.0	5.6	2.6	3.1	2.0	1.4	1.6	1.2
21	1.6	3.0	8.0	7.6	5.0	5.8	2.7	3.1	1.8	1.2	1.4	1.3
22	1.8	5.2	9.7	7.3	5.0	6.2	3.0	3.2	1.8	1.4	1.4	1.4
23	2.1	3.1	12	7.3	5.0	6.0	3.1	3.5	1.6	1.3	1.3	1.4
24	2.0	2.8	9.5	7.0	5.0	6.8	3.2	3.5	1.8	1.2	.90	1.4
25	2.2	2.7	7.8	7.0	4.8	7.0	3.2	3.6	2.0	.70	1.0	1.4
26	2.4	2.4	7.8	6.8	4.8	5.8	3.5	3.5	2.0	.80	.80	1.4
27	2.7	2.4	8.0	6.6	5.0	5.4	5.0	3.5	2.0	.80	.80	1.6
28	2.3	4.2	8.6	6.4	5.2	4.8	4.4	3.5	2.0	.90	.60	1.6
29	1.8	3.7	11	6.4	------	4.6	4.0	3.4	1.6	1.0	.60	1.6
30	1.8	3.2	9.5	6.2	------	4.6	3.8	3.2	1.6	.80	.60	1.6
31	1.6	------	8.9	6.2	------	4.8	------	3.2	------	.80	.60	------
TOTAL	61.1	80.0	185.4	252.5	150.8	180.2	114.2	105.0	76.0	44.30	40.90	38.50
MEAN	1.97	2.67	5.98	8.15	5.39	5.81	3.81	3.39	2.53	1.43	1.32	1.28
MAX	2.7	5.2	12	13	6.0	9.2	6.2	4.0	3.5	2.2	2.0	2.5
MIN	1.6	1.8	3.1	6.2	4.8	4.6	2.6	3.1	1.6	.70	.60	.60
AC-FT	121	159	368	501	299	357	227	208	151	88	81	76

CAL YR 1961: TOTAL 3,140.3 MEAN 8.60 MAX 39 MIN 1.1 AC-FT 6,230
WAT YR 1962: TOTAL 1,328.90 MEAN 3.64 MAX 13 MIN .60 AC-FT 2,640

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.6	2.0	16	17	12	12	9.8	10	3.8	3.1	2.4	2.2
2	1.6	2.0	16	16	16	11	9.2	11	3.8	2.5	2.3	2.2
3	1.6	2.0	16	15	20	11	9.2	10	3.8	2.5	2.0	2.0
4	1.6	2.2	16	13	14	11	8.9	9.5	4.3	2.8	2.2	2.0
5	1.6	2.3	17	13	13	11	9.8	11	4.8	3.0	2.2	2.0
6	1.6	2.2	17	13	11	11	14	9.8	4.8	2.6	1.8	1.8
7	2.0	2.0	16	13	11	10	14	9.2	5.0	3.2	1.4	1.8
8	3.0	2.2	15	13	11	10	12	8.9	5.0	3.2	1.3	2.0
9	4.3	2.4	15	13	11	10	12	8.6	4.8	3.0	1.2	2.0
10	2.8	3.6	15	13	12	9.8	11	8.3	4.3	3.1	1.4	1.6
11	2.3	4.6	14	13	12	9.8	11	8.3	3.8	3.1	1.6	1.8
12	1.8	3.6	14	12	13	9.5	12	8.0	3.6	2.6	1.6	2.0
13	2.3	3.4	15	12	13	9.2	12	7.8	3.4	2.5	1.8	2.6
14	1.6	3.1	19	12	13	9.2	13	7.8	3.4	2.5	1.8	2.6
15	1.4	3.1	19	12	13	8.9	13	7.6	3.2	2.2	1.8	2.6
16	1.2	3.0	17	12	13	9.2	12	7.3	3.2	2.0	1.4	2.6
17	1.3	3.0	16	11	13	8.6	12	7.0	3.2	2.0	1.1	2.6
18	1.4	2.8	15	11	13	8.3	12	6.8	2.6	2.0	1.4	2.7
19	1.6	10	16	11	14	8.3	12	6.6	2.6	1.8	1.6	2.7
20	1.6	13	15	10	13	8.3	13	6.8	2.6	1.6	1.3	2.7
21	1.6	7.3	15	9.8	13	8.0	12	6.6	2.7	2.0	1.6	2.6
22	1.6	5.4	14	9.5	12	7.8	12	6.0	3.0	3.0	1.8	2.6
23	1.6	4.8	14	9.2	12	7.8	12	5.6	3.5	2.5	1.6	2.6
24	1.6	6.8	14	9.2	12	7.6	11	5.4	3.2	2.4	1.3	2.6
25	1.6	16	14	8.9	13	7.6	11	5.2	3.0	2.6	1.6	2.6
26	1.8	20	13	8.6	14	7.6	11	5.2	2.7	2.4	2.0	2.6
27	1.8	15	13	8.3	12	8.0	11	5.2	2.7	2.4	2.0	2.6
28	1.8	13	14	8.0	12	11	10	4.8	2.7	2.5	2.0	2.5
29	1.8	13	14	7.8	------	14	10	4.8	2.8	2.4	2.0	2.4
30	1.8	16	19	7.8	------	12	10	4.6	3.4	2.2	2.0	2.4
31	1.8	------	15	10	------	11	------	4.3	------	2.3	2.0	------
TOTAL	57.0	189.8	478	352.1	361	298.5	341.9	228.0	105.7	78.0	53.5	70.0
MEAN	1.84	6.33	15.4	11.4	12.9	9.63	11.4	7.35	3.52	2.52	1.73	2.33
MAX	4.3	20	19	17	20	14	14	11	5.0	3.2	2.4	2.7
MIN	1.2	2.0	13	7.8	11	7.6	8.9	4.3	2.6	1.6	1.1	1.6
AC-FT	113	376	948	698	716	592	678	452	210	155	106	139

CAL YR 1962: TOTAL 1,727.20 MEAN 4.73 MAX 20 MIN .60 AC-FT 3,430
WAT YR 1963: TOTAL 2,613.5 MEAN 7.16 MAX 20 MIN 1.1 AC-FT 5,180

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0911. Flett Creek at Tacoma, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	2.6	12	32	48	18	11	7.4	2.5	2.4	2.4	2.2
2	2.3	2.9	12	22	40	16	11	7.1	2.2	2.0	2.6	2.2
3	2.4	2.9	12	20	34	16	11	6.9	2.3	1.9	2.6	2.3
4	2.4	2.9	12	20	33	18	11	6.9	2.5	2.2	2.7	2.3
5	2.5	2.9	13	20	32	16	11	7.1	2.6	2.7	2.6	2.3
6	2.5	3.7	14	22	31	15	10	6.9	2.5	2.6	2.4	2.3
7	2.4	4.3	12	21	31	14	10	6.7	2.5	2.5	2.4	2.4
8	2.3	4.1	12	20	30	15	10	6.7	2.4	2.7	2.4	2.7
9	1.9	3.5	12	25	29	14	10	6.7	2.2	2.5	2.5	2.6
10	1.5	4.3	11	23	28	14	10	6.2	2.0	2.4	2.0	2.6
11	1.5	3.5	11	21	27	15	10	6.0	2.0	2.2	1.6	2.6
12	1.3	7.0	10	20	26	16	9.8	5.6	2.0	2.3	1.5	2.0
13	1.4	9.2	9.8	23	26	15	9.5	5.2	1.9	2.2	1.5	2.6
14	1.1	11	9.8	22	25	14	9.5	4.5	1.9	2.0	1.5	2.6
15	1.0	8.6	9.8	25	25	14	9.5	4.5	2.1	2.7	2.3	2.6
16	1.0	7.4	10	30	24	13	9.5	4.8	3.1	2.7	2.4	2.7
17	1.0	8.6	11	28	24	15	9.2	5.0	3.1	2.6	2.2	2.7
18	1.0	7.8	10	33	22	14	8.6	4.8	2.6	2.6	2.2	2.6
19	.90	15	11	36	21	13	8.3	3.7	2.3	2.6	1.7	2.7
20	1.1	12	15	41	20	14	8.3	3.5	2.3	2.6	1.5	2.6
21	1.7	10	12	37	20	14	8.3	3.3	2.5	2.7	1.4	2.6
22	3.1	10	13	33	19	13	8.6	3.1	2.5	2.6	1.6	2.6
23	2.2	12	12	32	18	13	8.3	3.1	2.5	2.6	2.0	2.7
24	2.2	12	11	48	18	12	8.0	3.0	2.5	2.4	2.1	2.7
25	2.3	12	12	71	18	12	7.8	3.1	2.4	2.0	2.1	2.6
26	2.3	14	13	57	17	12	7.6	3.1	2.0	2.3	2.3	2.6
27	2.2	14	15	51	17	12	7.6	2.7	2.2	2.4	2.3	2.6
28	2.9	13	14	48	16	12	7.4	2.4	2.5	2.0	2.4	2.5
29	2.7	12	13	51	16	12	7.4	2.4	2.6	1.7	2.5	2.5
30	2.6	12	12	44	------	11	7.4	2.5	2.5	1.8	2.6	3.1
31	2.4	------	14	48	------	11	------	2.6	------	2.0	2.4	------
TOTAL	60.60	245.2	370.4	1,024	735	433	275.6	147.5	71.2	73.5	66.7	76.7
MEAN	1.95	8.17	11.9	33.0	25.3	14.0	9.19	4.76	2.37	2.37	2.15	2.56
MAX	3.1	15	15	71	48	18	11	7.4	3.1	2.7	2.7	3.1
MIN	.90	2.6	9.8	20	16	11	7.4	2.4	1.9	1.7	1.4	2.2
AC-FT	120	486	735	2,030	1,460	859	547	293	141	146	132	152

CAL YR 1963: TOTAL 2,564.90 MEAN 7.03 MAX 20 MIN .90 AC-FT 5,090
WAT YR 1964: TOTAL 3,579.40 MEAN 9.78 MAX 71 MIN .90 AC-FT 7,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.7	3.7	7.8	14	18	12	6.3	5.0	4.5	2.1	.90	1.8
2	2.6	3.0	5.2	14	18	12	6.0	5.2	4.3	2.0	1.1	1.4
3	2.5	3.6	4.1	14	18	12	5.8	5.4	3.8	1.9	1.1	1.3
4	2.5	4.0	3.8	14	19	12	5.6	5.6	3.3	2.0	1.1	1.5
5	2.5	2.9	3.8	14	20	12	5.6	6.3	3.9	2.1	.80	1.5
6	2.5	2.7	3.8	16	18	11	5.8	6.0	4.3	2.0	.70	1.5
7	2.6	2.7	4.5	15	17	11	6.0	6.0	3.9	1.6	.70	1.4
8	2.7	2.6	5.0	14	17	11	5.4	6.0	3.9	1.5	.90	1.1
9	3.1	2.6	5.6	14	17	11	5.2	6.0	3.6	1.4	1.0	.90
10	2.9	2.6	6.2	14	16	11	5.0	5.6	3.5	1.8	.80	.80
11	2.4	2.6	6.7	13	15	11	5.2	5.4	3.8	2.2	.90	1.0
12	2.4	2.6	6.7	13	15	11	5.4	5.2	3.8	2.3	1.1	1.3
13	2.4	2.7	7.0	12	15	10	6.3	5.2	3.8	2.1	1.5	1.4
14	2.5	2.6	8.0	12	14	10	6.0	5.2	3.9	1.9	1.5	1.5
15	2.6	2.5	7.5	12	14	10	5.8	5.4	3.6	1.4	1.5	1.5
16	2.7	2.5	6.5	12	14	9.7	6.3	6.0	3.3	1.1	1.1	1.5
17	2.6	2.5	5.9	12	13	9.4	6.0	5.4	3.2	1.3	1.0	1.5
18	2.5	2.5	5.4	11	12	9.1	5.8	5.4	3.0	1.6	1.0	1.5
19	2.5	2.5	5.5	11	12	8.8	13	5.6	3.0	1.4	1.5	1.6
20	2.5	2.4	5.6	11	12	8.8	11	5.4	2.9	1.4	2.2	1.6
21	2.5	2.3	10	12	12	8.5	9.7	5.4	2.6	1.0	2.1	1.6
22	2.5	2.4	20	14	11	8.5	7.4	5.2	2.4	.80	2.1	1.6
23	2.5	2.7	13	17	11	8.5	6.3	5.0	2.3	.80	2.2	1.6
24	2.6	7.8	12	15	11	8.2	5.8	5.0	2.3	.80	2.1	1.6
25	2.9	4.3	11	12	10	7.9	5.8	5.0	2.4	1.1	2.2	1.6
26	2.9	4.5	13	18	12	7.7	5.6	5.0	2.9	1.1	2.2	1.8
27	2.9	4.3	14	27	16	7.0	5.4	4.8	2.9	.90	2.1	1.6
28	2.9	4.0	14	19	12	6.5	5.4	4.3	2.4	.60	2.0	1.6
29	3.0	4.5	14	21	------	6.3	5.0	4.3	2.1	.60	2.0	1.6
30	3.1	6.4	14	22	------	5.8	4.8	4.6	2.2	.50	1.9	1.5
31	3.3	------	14	18	------	5.8	------	4.5	------	.60	1.9	------
TOTAL	82.8	99.2	263.6	457	409	293.5	188.7	164.4	97.8	43.90	45.20	43.70
MEAN	2.67	3.31	8.50	14.7	14.6	9.47	6.29	5.30	3.26	1.42	1.46	1.46
MAX	3.3	7.8	20	27	20	12	13	6.3	4.5	2.3	2.2	1.8
MIN	2.4	2.3	3.8	11	10	5.8	4.8	4.3	2.1	.50	.70	.80
AC-FT	164	197	523	906	811	582	374	326	194	87	90	87

CAL YR 1964: TOTAL 3,348.8 MEAN 9.15 MAX 71 MIN 1.4 AC-FT 6,640
WAT YR 1965: TOTAL 2,188.80 MEAN 6.00 MAX 27 MIN .50 AC-FT 4,340

12-0912. Leach Creek near Fircrest, Wash.

Location.--Lat 47°13'15", long 122°30'30", in lot 24, block 14, SE¼NE¼ sec.14, T.20 N., R.2 E., on right bank 1¼ miles south of Fircrest and 2 miles upstream from mouth.

Drainage area.--4.05 sq mi (revised).

Records available.--March 1957 to September 1965.

Gage.--Water-stage recorder and wooden control. Altitude of gage is 190 ft (from topographic map).

Average discharge.--8 years, 3.84 cfs (2,780 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 24, 1961	60	2.11	Sept.20, 1961	0.70	1.12
1962	Dec. 22, 1961	48	1.96	Oct. 20, 1961	.60	1.10
1963	Nov. 19, 1962	69	2.22	Aug. 8, 1963	1.5	a 1.18
1964	Oct. 21, 1963	38	1.82	Aug. 24, 1964	.50	1.09
1965	Jan. 26, 1965	44	1.81	Sept.22, 1965	.10	1.02

a Occurred on several days.

1957-65: Maximum discharge, 69 cfs Nov. 19, 1962; maximum gage height, 2.43 ft Nov. 20, 1959; minimum discharge, 0.10 cfs Sept. 22, 1965 (gage height, 1.02 ft).

Remarks.--Records good. Since Oct. 1, 1961, flow may be regulated by dam above station for flood control. Storage is not retained, and observed annual runoff closely represents natural runoff of basin. Drainage into upper end of basin influenced by urbanizing of area. No known diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.4	3.2	3.0	3.0	8.1	11	3.2	6.9	2.0	2.0	1.6	2.8
2	2.4	4.4	2.8	2.8	8.0	5.5	3.8	4.4	2.0	1.8	1.6	2.0
3	2.4	2.8	3.2	3.0	8.8	4.4	3.0	4.2	2.0	1.8	1.6	1.8
4	2.6	2.5	3.0	4.8	7.8	4.8	2.8	4.2	1.8	1.8	1.8	1.8
5	2.6	2.2	2.5	18	12	8.0	2.8	3.0	1.8	4.5	2.0	1.8
6	4.1	2.2	2.5	7.4	24	6.6	2.5	2.8	3.2	2.5	2.0	1.6
7	3.8	2.2	2.5	5.5	8.3	4.2	2.5	2.5	2.0	2.2	2.0	1.6
8	3.3	2.2	2.5	8.3	7.0	5.5	2.5	4.4	1.8	2.2	2.2	1.6
9	2.8	2.2	2.5	4.8	10	6.9	2.5	4.4	2.8	2.0	2.2	1.6
10	2.8	8.8	2.5	3.8	6.2	5.8	2.5	3.0	2.0	2.0	2.5	1.6
11	3.0	4.2	6.2	6.2	4.4	7.8	2.2	2.2	2.0	2.2	2.5	1.6
12	2.8	2.5	9.1	4.4	3.8	9.8	5.3	2.5	2.0	2.2	2.5	1.6
13	2.6	6.4	3.2	5.8	11	9.7	2.8	2.5	2.0	2.0	2.5	1.4
14	2.6	7.0	3.0	7.0	6.8	12	2.5	2.5	1.8	2.2	2.5	1.4
15	2.6	6.9	2.8	14	16	9.8	2.5	2.5	2.0	2.2	2.5	1.4
16	2.6	8.2	2.5	8.3	6.6	5.5	2.5	2.5	1.8	2.2	2.2	1.6
17	2.6	7.2	3.2	17	6.6	4.8	2.5	2.2	1.8	2.2	2.2	1.6
18	2.6	6.6	9.2	7.4	4.8	4.2	2.2	2.2	1.8	2.2	2.0	1.4
19	2.8	4.2	12	4.8	8.7	5.2	2.5	2.2	1.8	2.2	1.8	1.4
20	2.8	24	3.6	3.8	18	8.2	2.2	2.2	1.8	2.2	1.6	1.2
21	3.0	13	3.2	3.2	36	4.4	2.8	2.2	1.8	2.0	1.6	1.6
22	3.8	5.8	3.0	3.2	13	5.5	3.2	2.2	1.8	2.0	1.4	1.4
23	8.2	13	3.0	3.2	7.0	7.0	2.8	3.2	1.8	2.0	1.4	1.4
24	6.0	24	3.2	3.0	34	5.2	2.5	2.2	1.8	2.0	1.4	1.4
25	2.8	9.3	3.0	2.8	20	4.4	2.5	2.0	1.8	2.0	1.4	1.6
26	5.5	5.2	5.5	2.8	11	3.8	2.8	2.5	1.8	2.0	1.4	1.6
27	4.8	3.8	3.2	2.8	13	3.0	2.5	2.5	1.6	1.8	1.4	1.6
28	3.0	3.6	3.0	2.8	7.0	2.8	2.5	2.2	1.6	1.8	1.6	2.2
29	2.5	3.2	3.0	11	------	2.8	4.8	2.0	2.0	1.6	1.8	1.8
30	3.6	3.2	3.0	12	------	2.5	2.8	2.0	2.0	1.6	1.8	1.6
31	3.6	------	3.2	6.6	------	2.5	------	2.0	------	1.6	4.8	------
TOTAL	103.0	194.0	118.1	193.5	327.9	183.6	84.5	88.3	58.2	65.0	61.8	49.0
MEAN	3.32	6.47	3.81	6.24	11.7	5.92	2.82	2.85	1.94	2.10	1.99	1.63
MAX	8.2	24	12	18	36	12	5.3	6.9	3.2	4.5	4.8	2.8
MIN	2.4	2.2	2.5	2.8	3.8	2.5	2.2	2.0	1.6	1.6	1.4	1.2
AC-FT	204	385	234	384	650	364	168	175	115	129	123	97

CAL YR 1960: TOTAL 1,453.8 MEAN 3.97 MAX 29 MIN 2.0 AC-FT 2,880
WAT YR 1961: TOTAL 1,526.9 MEAN 4.18 MAX 36 MIN 1.2 AC-FT 3,030

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0912. Leach Creek near Fircrest, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.9	2.1	2.8	2.5	1.7	2.8	2.3	3.0	1.4	2.1	1.7	1.5
2	1.9	2.1	2.5	11	1.7	2.8	2.3	2.1	2.8	1.7	1.7	1.4
3	1.9	2.5	2.3	11	1.7	2.3	2.3	2.5	2.1	1.7	3.8	1.4
4	1.9	1.9	3.8	3.6	1.7	6.6	3.6	2.1	1.9	2.3	4.3	1.4
5	2.1	1.7	2.5	5.8	1.7	7.8	3.0	2.1	1.9	1.9	2.3	1.5
6	2.3	1.7	2.1	5.2	2.3	3.6	5.5	2.1	1.5	1.7	3.8	1.4
7	2.1	1.7	2.3	3.6	2.8	2.8	3.2	2.3	1.5	1.7	5.3	1.4
8	1.9	1.7	2.1	3.0	3.0	2.5	3.2	3.0	1.7	1.7	2.8	1.4
9	2.5	11	2.1	2.5	2.8	2.3	2.8	3.2	1.7	1.7	1.9	1.4
10	2.5	9.8	2.1	2.1	3.6	2.5	2.8	2.1	1.7	1.5	1.7	3.8
11	2.3	3.6	2.1	1.9	2.3	2.3	2.3	2.1	1.7	1.7	1.5	1.9
12	4.2	2.5	2.1	1.9	2.3	2.1	2.3	1.7	1.9	1.7	1.9	1.7
13	2.3	2.3	3.2	1.9	3.8	1.9	2.1	1.7	2.3	1.7	1.7	2.8
14	2.1	2.8	2.8	2.1	7.4	1.9	2.1	1.7	1.9	1.5	1.5	2.3
15	1.9	2.3	3.2	1.7	3.0	1.9	2.1	1.7	1.7	1.5	1.7	1.7
16	2.3	2.1	8.2	1.7	2.5	2.5	2.1	1.7	1.7	1.5	1.7	1.5
17	1.9	2.1	17	1.7	3.2	2.1	1.9	1.7	1.7	1.5	1.7	1.5
18	1.9	2.1	4.8	1.7	2.8	2.3	1.7	1.5	1.7	1.5	2.1	1.7
19	1.9	2.1	9.1	1.5	2.5	2.5	1.7	1.5	1.7	1.5	1.7	1.7
20	1.7	2.1	7.8	1.4	2.3	2.5	1.7	1.5	1.7	1.5	1.7	1.7
21	1.9	5.0	7.8	1.4	2.1	3.0	1.7	1.7	1.7	1.5	1.7	1.7
22	2.1	9.2	12	1.4	2.1	3.2	1.7	1.9	1.7	1.5	1.5	1.7
23	5.5	3.0	9.8	1.5	2.8	2.8	1.7	3.9	1.7	1.5	1.5	1.7
24	2.1	2.5	7.4	1.5	2.1	5.5	2.3	3.0	1.5	1.9	1.5	1.7
25	3.0	2.1	4.2	2.3	2.1	4.4	1.7	2.8	1.7	1.5	1.5	1.7
26	5.8	2.1	3.6	2.1	2.1	3.0	1.8	2.1	1.9	1.5	1.5	3.2
27	4.8	2.5	2.8	1.9	2.1	3.0	8.9	1.9	1.9	1.5	1.5	6.6
28	2.3	9.5	4.2	1.7	2.1	2.5	3.8	1.7	1.7	1.5	1.9	2.3
29	2.1	4.2	5.2	1.7	------	2.5	2.3	1.5	1.7	1.5	1.7	2.1
30	2.1	3.2	3.0	1.7	------	2.3	2.1	1.5	1.7	1.5	1.5	2.1
31	1.9	------	2.5	1.7	------	2.3	------	1.4	------	1.5	1.5	------
TOTAL	77.1	103.5	147.4	86.7	72.6	92.5	79.0	64.7	53.4	50.5	63.8	59.9
MEAN	2.49	3.45	4.75	2.80	2.59	2.98	2.63	2.09	1.78	1.63	2.06	2.00
MAX	5.8	11	17	11	7.4	7.8	8.9	3.9	2.8	2.3	5.3	6.6
MIN	1.7	1.7	2.1	1.4	1.7	1.9	1.7	1.4	1.4	1.5	1.5	1.4
AC-FT	153	205	292	172	144	183	157	128	106	100	127	119

CAL YR 1961: TOTAL 1,439.8 MEAN 3.94 MAX 36 MIN 1.2 AC-FT 2,860
WAT YR 1962: TOTAL 951.1 MEAN 2.61 MAX 17 MIN 1.4 AC-FT 1,890

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.9	2.3	6.6	14	5.6	3.2	3.0	3.2	2.1	1.9	1.9	2.5
2	1.9	2.3	7.4	8.8	15	2.5	2.5	4.2	2.1	1.9	1.9	2.3
3	2.5	2.3	5.5	6.2	14	2.1	3.6	3.0	2.1	1.9	1.7	2.3
4	1.7	3.2	4.4	3.6	8.8	2.1	3.2	2.8	2.8	1.9	1.7	2.1
5	1.7	4.5	5.8	3.0	6.2	2.1	6.3	6.6	4.8	1.9	1.9	2.1
6	2.1	5.8	4.4	2.8	4.4	2.1	14	3.2	2.3	1.9	1.9	2.1
7	7.0	2.8	3.2	2.8	3.2	2.3	6.6	2.8	2.1	3.5	1.7	2.1
8	13	2.9	2.8	2.5	3.0	2.1	7.1	2.5	2.3	2.8	1.7	2.1
9	17	3.0	2.8	2.5	2.5	2.1	3.8	2.5	2.1	2.1	1.9	2.1
10	3.0	15	2.5	2.3	2.5	2.1	3.0	2.5	2.1	2.3	1.9	3.0
11	3.0	6.0	2.3	2.2	2.5	2.5	2.5	2.5	2.3	2.1	3.9	2.1
12	2.8	4.0	2.3	2.1	2.3	2.3	3.0	2.3	2.1	2.1	2.8	2.1
13	5.6	3.5	4.4	2.1	3.6	2.3	2.5	2.3	1.9	1.9	2.5	3.2
14	2.5	3.1	15	2.1	3.0	2.1	6.8	2.3	1.9	1.9	2.5	2.3
15	2.3	3.0	12	3.2	3.6	2.1	3.0	2.3	1.9	1.9	2.5	2.5
16	2.3	2.9	4.8	3.0	3.8	3.2	2.5	2.3	1.9	1.9	2.5	3.2
17	2.3	3.0	3.6	3.6	3.6	2.3	2.5	2.3	1.9	1.9	2.5	2.3
18	2.3	2.8	3.0	2.8	4.4	2.1	2.5	2.3	1.9	1.9	2.3	2.3
19	2.1	40	4.2	2.3	7.4	2.5	3.0	2.1	1.9	2.1	2.5	2.3
20	2.1	27	2.8	2.1	3.2	2.3	3.0	2.1	1.9	2.1	2.3	2.3
21	2.1	4.4	2.8	2.1	3.0	2.3	2.5	2.1	1.9	2.1	2.1	1.9
22	2.3	3.0	2.5	2.1	2.8	2.5	2.3	2.1	2.3	3.6	1.9	2.3
23	2.3	2.5	2.3	2.1	2.8	2.5	2.1	2.1	2.5	2.2	2.5	2.3
24	2.3	9.6	2.3	2.1	2.8	2.8	1.9	2.1	2.5	2.5	2.3	2.1
25	2.3	32	2.5	2.1	6.3	3.0	1.9	2.1	2.3	2.1	2.8	2.1
26	2.5	27	2.3	2.3	4.8	3.5	2.5	2.1	1.9	2.0	2.1	2.1
27	2.3	11	2.3	2.1	3.0	5.0	2.3	2.1	1.9	1.9	2.3	2.1
28	2.3	5.5	3.2	2.1	4.7	7.0	2.3	2.1	1.9	1.9	2.1	2.1
29	2.3	4.8	9.2	1.9	------	12	3.0	1.9	1.9	1.9	2.1	2.1
30	2.3	13	18	1.9	------	5.3	2.8	2.1	1.9	1.9	2.1	2.1
31	2.3	------	6.6	8.4	------	3.8	------	2.1	------	1.9	2.3	------
TOTAL	104.4	252.2	153.8	103.2	132.8	96.1	108.0	79.0	65.4	65.9	69.1	68.5
MEAN	3.37	8.41	4.96	3.33	4.74	3.10	3.60	2.55	2.18	2.13	2.23	2.28
MAX	17	40	18	14	15	12	14	6.6	4.8	3.6	3.9	3.2
MIN	1.7	2.3	2.3	1.9	2.3	2.1	1.9	1.9	1.9	1.9	1.7	1.9
AC-FT	207	500	305	205	263	191	214	157	130	131	137	136

CAL YR 1962: TOTAL 1,133.5 MEAN 3.11 MAX 40 MIN 1.4 AC-FT 2,250
WAT YR 1963: TOTAL 1,298.4 MEAN 3.56 MAX 40 MIN 1.7 AC-FT 2,580

Note.--No gage-height record Nov. 4-19. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0912. Leach Creek near Fircrest, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.9	5.9	3.2	26	9.8	6.2	3.0	3.0	3.0	2.1	4.8	2.1
2	1.9	5.5	3.2	14	5.8	3.2	2.8	3.0	2.8	2.1	2.8	2.1
3	1.9	3.2	3.0	5.8	5.2	3.8	3.0	3.0	2.8	2.1	2.5	1.9
4	3.0	6.2	2.8	4.8	4.8	7.2	3.6	3.0	6.6	2.1	2.1	1.9
5	3.0	3.8	6.6	5.8	4.2	3.2	3.2	4.2	4.8	2.1	1.9	1.9
6	2.8	8.3	6.6	7.8	4.2	3.0	3.2	3.0	3.8	1.9	1.9	2.1
7	2.8	10	3.2	4.2	3.8	3.2	3.2	3.0	4.2	1.9	1.7	2.3
8	2.8	4.4	3.8	3.8	3.6	3.6	3.2	3.0	4.8	2.3	1.9	6.3
9	2.5	4.4	3.6	11	3.6	3.2	3.8	2.8	3.2	2.1	1.9	2.3
10	2.5	7.9	3.2	5.2	3.8	3.6	3.6	2.8	2.8	1.9	1.7	2.1
11	2.5	3.2	3.0	3.8	4.2	4.6	3.6	2.8	3.6	1.9	1.9	2.1
12	2.8	19	2.8	3.6	3.0	3.8	3.6	3.0	2.5	1.9	2.1	2.1
13	5.2	12	2.5	10	3.0	3.0	3.2	3.0	2.8	1.9	1.9	2.1
14	3.0	18	2.5	5.5	3.0	4.4	3.2	3.0	2.5	5.3	1.9	2.1
15	2.8	8.8	3.2	11	3.6	3.2	3.6	2.8	2.8	3.0	1.7	2.1
16	2.5	6.2	4.8	12	4.8	3.2	3.2	2.8	10	2.1	1.7	2.7
17	2.3	7.9	4.8	14	3.6	7.7	3.2	2.8	5.8	1.9	1.9	3.8
18	2.3	4.2	3.8	18	3.8	3.6	3.2	2.8	3.8	1.9	2.5	2.1
19	2.3	24	8.3	16	3.2	3.0	3.2	2.8	2.8	1.9	2.1	2.3
20	3.8	7.5	12	18	3.2	4.2	3.2	3.8	2.5	2.3	1.9	2.1
21	8.8	4.4	4.8	9.8	3.2	4.2	3.6	3.0	2.5	2.3	1.9	2.1
22	16	4.8	13	8.8	3.2	3.0	3.8	3.0	2.5	1.9	1.7	2.3
23	3.8	8.3	6.2	5.8	3.2	3.0	3.2	3.0	2.3	1.9	1.7	2.1
24	5.2	4.2	4.4	19	3.0	2.8	3.2	3.0	2.3	1.7	1.7	2.1
25	6.6	3.8	5.2	32	3.0	2.8	2.5	3.0	2.3	1.7	2.1	2.1
26	5.2	6.2	7.6	26	3.0	3.0	3.1	2.8	2.1	1.7	2.1	2.1
27	3.2	6.6	7.0	12	3.0	2.8	3.2	2.8	2.8	1.7	2.1	2.1
28	9.6	3.6	6.2	7.8	3.0	2.8	3.0	2.8	2.5	1.7	2.1	2.1
29	5.5	3.2	4.2	12	3.8	2.8	3.0	2.8	2.3	1.7	2.3	2.5
30	3.2	3.2	3.8	7.8	------	2.8	3.0	2.5	2.3	1.9	2.1	8.1
31	3.0	------	6.2	13	------	3.0	------	2.5	------	1.9	2.1	------
TOTAL	124.7	218.7	155.5	354.3	112.6	113.9	97.4	91.6	101.8	64.8	64.7	76.1
MEAN	4.02	7.29	5.02	11.4	3.88	3.67	3.25	2.95	3.39	2.09	2.09	2.54
MAX	16	24	13	32	9.8	7.7	3.8	4.2	10	5.3	4.8	8.1
MIN	1.9	3.2	2.5	3.6	3.0	2.8	2.5	2.5	2.1	1.7	1.7	1.9
AC-FT	247	434	308	703	223	226	193	182	202	129	128	151

CAL YR 1963: TOTAL 1,286.9 MEAN 3.53 MAX 24 MIN 1.7 AC-FT 2,550
WAT YR 1964: TOTAL 1,576.1 MEAN 4.31 MAX 32 MIN 1.7 AC-FT 3,130

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.5	4.1	14	3.8	6.1	4.4	5.2	2.0	1.6	1.3	1.0	1.1
2	2.3	3.2	5.2	6.1	5.2	4.4	2.3	1.6	1.6	1.3	1.1	1.1
3	2.0	11	3.5	5.7	4.8	4.4	2.3	1.6	1.6	1.3	1.3	1.1
4	2.0	7.8	3.0	3.2	9.7	4.1	2.0	1.6	1.6	1.3	1.3	1.3
5	2.0	2.7	2.7	6.5	13	4.1	2.0	1.6	1.5	1.3	1.3	1.1
6	2.0	2.5	2.5	11	5.2	4.4	2.5	1.6	1.5	1.3	1.1	1.1
7	2.3	3.5	4.4	4.4	3.8	3.5	2.3	1.6	1.5	1.3	1.1	1.1
8	3.8	2.7	3.8	4.1	9.7	3.0	2.0	1.5	1.5	1.5	1.0	1.1
9	5.7	3.2	3.8	3.2	4.1	2.7	3.2	1.5	1.5	1.5	1.3	1.3
10	2.5	3.2	3.2	3.2	3.5	2.5	1.8	1.5	1.5	2.3	1.3	1.3
11	2.3	3.2	2.5	3.2	3.2	2.5	1.8	1.5	3.5	3.0	1.3	1.3
12	2.0	3.8	3.0	3.0	4.4	2.2	1.8	1.5	1.8	1.6	6.1	1.5
13	2.5	9.7	3.5	2.7	7.4	2.0	4.8	1.5	2.3	1.4	2.5	1.8
14	3.7	3.0	10	2.7	4.1	2.0	2.3	1.5	3.0	1.3	1.3	2.7
15	6.3	2.7	3.5	2.7	3.5	2.3	2.0	3.0	1.8	1.3	1.1	3.2
16	3.9	2.5	2.5	2.7	3.5	2.3	2.7	4.1	1.8	1.3	1.3	1.6
17	2.3	2.5	2.4	2.7	3.5	2.3	2.0	1.8	1.8	1.3	1.1	1.5
18	2.0	2.5	2.3	2.7	3.2	2.0	2.3	1.6	1.6	1.3	1.1	1.5
19	1.8	2.5	2.3	2.7	3.2	2.3	24	2.7	1.6	1.5	8.3	1.3
20	1.8	2.5	4.1	2.7	3.2	2.0	19	1.8	1.6	2.3	7.3	1.3
21	1.8	2.5	17	7.8	4.8	2.0	6.5	1.5	1.5	1.5	1.5	1.5
22	1.8	4.8	30	5.7	3.5	2.0	4.5	1.6	1.5	1.5	1.5	1.3
23	1.8	8.2	14	15	3.5	2.0	3.2	1.6	1.5	1.3	3.0	1.3
24	1.8	28	9.1	7.4	3.5	2.0	2.7	1.5	1.5	1.3	2.0	1.3
25	1.8	6.5	4.8	3.8	3.5	2.5	2.5	1.3	1.5	1.3	1.5	1.1
26	1.8	8.2	11	11	12	2.7	2.3	1.3	1.5	1.1	1.5	1.3
27	1.8	6.5	6.1	29	19	2.3	2.0	1.5	1.5	2.7	1.3	1.3
28	1.8	3.5	4.1	7.1	5.2	3.2	1.8	1.5	1.5	1.3	1.1	1.3
29	1.8	9.7	3.5	21	------	2.5	2.0	1.5	1.3	1.1	1.1	1.3
30	2.0	20	3.2	21	------	2.3	3.5	1.5	1.3	1.5	1.1	1.3
31	2.0	------	3.2	8.4	------	2.3	------	1.5	------	1.5	1.1	------
TOTAL	75.9	176.7	188.2	216.2	159.3	85.2	119.3	53.4	50.8	46.8	59.9	42.3
MEAN	2.45	5.89	6.07	6.97	5.69	2.75	3.98	1.72	1.69	1.51	1.93	1.41
MAX	6.3	28	30	29	19	4.4	24	4.1	3.5	3.0	8.3	3.2
MIN	1.8	2.5	2.3	2.7	3.2	2.0	1.8	1.3	1.3	1.1	1.0	1.1
AC-FT	151	350	373	429	316	169	237	106	101	93	119	84

CAL YR 1964: TOTAL 1,518.0 MEAN 4.15 MAX 32 MIN 1.7 AC-FT 3,010
WAT YR 1965: TOTAL 1,274.0 MEAN 3.49 MAX 30 MIN 1.0 AC-FT 2,530

12-0913. Leach Creek near Steilacoom, Wash.

Location.--Lat 47°11'55", long 122°31'15", in NW¼NW¼ sec.26, T.20 N., R.2 E., on left bank a third of a mile upstream from mouth and 4 miles northeast of Steilacoom.

Drainage area.--5.88 sq mi (revised).

Records available.--February 1957 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 140 ft (from topographic map). Supplementary water-stage recorder on right bank at site 200 ft downstream at different datum used Feb. 4, 1963, to Feb. 27, 1964.

Average discharge.--8 years, 9.63 cfs (6,970 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 24, 1961	92	3.53	July 3, 1961	2.0	1.56
1962	Dec. 23, 1961	65	3.04	Sept. 7, 1962	3.1	1.65
1963	Nov. 19, 1962	82	3.67	July 16, Sept. 12	a 5.4	-
1964	Jan. 25, 1964	b 38	-	Oct. 2,3,8-12,1963	a 5.4	-
1965	Jan. 27, 1965	71	3.39	June 23, July 1, 6	a 5.0	-

a Minimum daily.
b Maximum daily.

1957-65: Maximum discharge, 94 cfs Nov. 21, 1959; maximum gage height, 3.67 ft Nov. 19, 1962; minimum discharge, 2.0 cfs July 3, 1961 (gage height, 1.56 ft).

Remarks.--Records good. Drainage into upper end of basin influenced by urbanizing of area. Some pumping for community use above gage. Flow can be regulated by manually operated flood control dam. Storage is not retained, and observed annual runoff closely represents natural runoff of basin. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.1	9.5	9.3	9.3	15	20	9.5	14	6.9	6.7	6.0	8.0
2	7.1	11	9.1	9.1	18	13	11	11	6.7	6.7	6.0	6.7
3	7.4	7.7	10	9.1	16	11	9.3	10	7.1	6.0	6.0	6.7
4	7.1	6.8	9.3	10	15	12	8.8	10	7.1	6.5	5.8	6.7
5	7.4	6.8	8.8	27	19	15	8.8	8.8	6.9	9.1	6.5	6.9
6	9.9	6.5	8.8	15	38	14	8.6	8.2	8.6	9.3	6.2	6.4
7	9.1	6.5	8.6	12	18	11	8.6	8.0	7.1	6.5	5.7	6.4
8	7.7	6.5	8.4	15	15	12	8.6	10	7.3	6.5	5.7	6.2
9	6.8	6.2	8.2	12	19	14	8.4	11	8.8	6.5	5.8	6.5
10	6.8	16	8.2	9.5	14	13	8.4	8.6	8.0	6.2	5.7	6.5
11	7.1	12	12	11	12	15	8.4	8.0	7.8	6.4	5.7	6.2
12	7.1	7.1	20	12	11	17	12	7.8	6.9	6.4	6.0	6.4
13	6.8	12	10	12	21	16	9.1	7.8	6.9	6.2	6.0	6.2
14	6.8	15	9.5	14	15	21	8.6	7.8	6.7	6.4	5.5	6.4
15	6.8	15	9.1	18	26	18	8.6	7.7	6.9	6.7	6.2	6.4
16	6.8	16	8.8	19	15	13	8.6	7.7	6.7	6.5	6.0	6.7
17	6.5	13	10	24	15	11	8.6	7.3	6.9	6.2	5.7	6.7
18	6.5	15	18	15	13	11	8.4	6.7	6.9	6.2	5.8	6.4
19	6.5	11	21	11	17	11	8.6	6.7	6.5	6.4	6.2	6.5
20	6.5	43	10	9.7	25	16	8.4	7.5	6.7	5.7	6.2	6.4
21	7.1	34	9.5	9.3	61	10	9.3	7.7	6.5	6.2	5.7	6.7
22	8.0	20	9.3	9.1	22	12	10	7.8	6.9	6.5	5.8	6.7
23	15	32	9.1	9.1	14	14	9.3	8.6	6.5	6.7	5.8	6.5
24	15	44	9.5	9.1	51	13	8.8	7.7	7.1	6.2	5.8	6.5
25	7.4	19	9.5	8.8	36	12	8.8	6.9	6.7	6.0	5.7	6.5
26	12	12	14	8.8	18	11	8.8	7.8	6.2	6.0	6.5	6.5
27	11	11	10	8.6	20	9.7	8.6	8.2	6.2	6.0	6.5	6.7
28	8.3	10	9.5	8.8	15	9.3	8.6	7.7	6.2	6.0	6.0	7.3
29	6.8	9.7	9.5	20	------	9.3	12	6.9	6.7	6.4	6.0	6.7
30	8.3	9.5	9.3	21	------	8.8	9.5	7.3	6.7	6.4	6.4	6.7
31	9.4	------	9.7	16	------	8.8	------	6.9	------	6.2	9.1	------
TOTAL	252.1	443.8	326.0	402.3	594	401.9	273.0	258.1	209.1	201.7	188.0	198.1
MEAN	8.13	14.8	10.5	13.0	21.2	13.0	9.10	8.33	6.97	6.51	6.06	6.60
MAX	15	44	21	27	61	21	12	14	8.8	9.3	9.1	8.0
MIN	6.5	6.2	8.2	8.6	11	8.8	8.4	6.7	6.2	5.7	5.5	6.2
AC-FT	500	880	647	798	1,180	797	541	512	415	400	373	393

CAL YR 1960: TOTAL 3,568.7 MEAN 9.75 MAX 44 MIN 6.2 AC-FT 7,080
WAT YR 1961: TOTAL 3,748.1 MEAN 10.3 MAX 61 MIN 5.5 AC-FT 7,430

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0913. Leach Creek near Steilacoom, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.7	7.7	7.8	7.3	6.9	7.7	6.7	10	5.2	6.2	5.4	6.5
2	6.7	7.3	7.3	17	6.9	8.2	6.9	9.0	7.3	5.4	5.5	6.5
3	6.7	7.8	7.1	20	6.9	8.0	6.9	7.3	6.7	5.2	7.7	6.4
4	6.7	7.3	8.8	9.3	6.9	14	8.2	6.2	6.7	5.8	8.5	6.4
5	7.1	7.3	7.3	12	6.9	18	7.5	6.0	6.5	5.8	7.7	6.2
6	7.3	7.3	6.7	12	8.0	11	12	6.0	6.4	5.7	8.0	6.4
7	7.1	7.3	6.7	9.1	8.2	7.5	7.5	6.7	6.0	5.7	9.2	6.2
8	6.9	7.3	6.9	8.0	8.8	6.9	7.5	6.9	6.2	5.5	9.3	6.0
9	7.5	15	6.7	7.7	8.4	6.5	7.0	7.5	6.2	5.4	6.9	6.4
10	8.0	19	6.4	7.1	11	6.5	7.0	6.4	6.0	5.4	6.7	8.9
11	7.5	9.5	6.5	7.1	8.4	7.1	7.0	6.0	6.0	5.4	6.4	7.1
12	9.3	7.8	6.7	7.1	8.0	6.5	7.0	5.8	6.2	5.5	6.9	6.4
13	8.0	7.5	8.2	7.1	9.5	6.5	6.5	5.8	6.9	5.5	6.9	7.6
14	7.3	7.5	7.5	7.1	13	6.5	6.5	5.8	6.2	5.5	6.7	7.9
15	7.1	7.8	8.0	6.9	8.2	6.5	6.5	5.7	6.2	5.7	6.5	6.4
16	7.7	7.8	12	6.9	7.5	6.9	6.5	5.4	6.5	5.4	6.4	6.4
17	7.1	7.8	26	6.9	8.6	6.5	6.5	5.4	6.5	5.5	6.7	6.2
18	7.1	7.8	10	6.9	8.0	6.7	6.5	5.5	6.2	5.5	7.1	6.2
19	6.9	7.8	14	6.7	7.3	7.1	6.0	5.5	6.2	5.5	6.7	6.2
20	7.1	7.8	14	6.7	7.1	7.5	6.0	5.5	6.0	5.5	6.5	6.2
21	7.3	11	14	6.5	7.1	7.5	6.0	5.5	5.8	5.4	6.7	6.4
22	7.3	18	14	6.5	7.1	7.7	6.0	5.5	5.7	5.5	6.5	6.4
23	11	8.4	23	6.5	8.0	6.9	6.0	7.8	6.0	5.2	6.4	6.2
24	7.7	8.0	14	6.9	7.3	10	7.5	7.3	6.0	5.5	6.2	6.4
25	8.4	7.5	9.7	7.5	7.1	11	6.5	7.5	5.5	5.5	6.5	6.4
26	12	7.5	8.4	7.5	7.1	7.7	7.0	6.0	5.7	5.5	6.5	6.2
27	11	8.0	7.5	7.3	7.1	7.7	15	5.7	5.7	5.5	6.2	7.5
28	8.0	17	9.1	6.9	7.5	7.1	10	5.4	5.7	5.4	6.4	13
29	7.5	11	11	6.9	------	6.9	9.0	5.2	5.5	5.5	6.2	7.3
30	7.5	8.2	8.2	6.9	------	6.7	8.5	5.4	5.5	5.4	6.4	6.6
31	7.3	------	7.7	6.9	------	6.5	------	5.5	------	5.5	6.2	------
TOTAL	240.8	277.0	311.2	255.2	222.8	247.8	223.7	195.2	183.2	171.0	211.9	204.9
MEAN	7.77	9.23	10.0	8.23	7.96	7.99	7.46	6.30	6.11	5.52	6.84	6.83
MAX	12	19	26	20	13	18	15	10	7.3	6.2	9.3	13
MIN	6.7	7.3	6.4	6.5	6.9	6.5	6.0	5.2	5.2	5.2	5.4	6.0
AC-FT	478	549	617	506	442	492	444	387	363	339	420	406

CAL YR 1961: TOTAL 3,555.2 MEAN 9.74 MAX 61 MIN 5.5 AC-FT 7,050
WAT YR 1962: TOTAL 2,744.7 MEAN 7.52 MAX 26 MIN 5.2 AC-FT 5,440

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.4	6.8	16	25	13	11	9.7	9.0	6.9	6.0	7.6	7.5
2	6.6	6.8	14	19	21	9.0	8.3	12	7.6	6.0	7.6	7.0
3	7.0	6.6	12	15	28	8.3	9.7	9.0	6.9	6.0	7.6	7.0
4	6.4	9.2	9.2	11	17	8.3	9.0	9.0	9.0	6.1	8.3	6.1
5	6.4	11	11	8.0	16	7.6	14	16	11	6.1	7.6	6.1
6	6.6	11	9.5	7.7	11	7.6	22	11	6.9	7.6	7.6	8.3
7	13	7.6	8.3	7.5	9.0	7.6	14	9.7	6.9	8.3	8.3	8.6
8	22	7.9	8.0	7.2	7.6	7.6	14	9.0	7.6	9.7	7.6	9.0
9	31	8.3	8.0	7.0	7.6	7.6	11	9.0	7.6	7.6	8.3	6.1
10	9.2	21	7.6	6.8	6.9	7.6	9.7	9.0	6.1	6.9	8.3	7.6
11	7.9	21	7.3	6.4	6.9	8.3	8.3	8.3	6.9	6.9	11	6.1
12	7.6	11	7.0	6.6	6.9	7.6	9.7	8.3	6.1	6.1	9.7	5.4
13	12	9.5	12	6.6	9.0	7.6	9.0	7.6	6.1	6.1	8.3	11
14	7.9	8.3	25	6.8	7.6	7.6	14	7.6	6.9	6.9	8.3	8.3
15	7.3	8.6	20	7.9	9.0	7.6	11	7.6	7.6	6.1	7.6	9.0
16	7.0	7.6	12	7.3	9.7	11	9.0	7.6	8.3	5.4	6.9	11
17	7.0	8.0	9.5	7.9	8.3	8.8	9.0	7.6	6.9	6.1	6.9	8.3
18	6.8	7.3	8.5	7.3	11	8.3	9.0	7.6	7.6	6.1	6.5	8.3
19	6.8	45	10	6.8	14	8.7	9.7	6.9	6.9	6.1	7.0	8.3
20	6.6	33	8.0	7.0	11	8.3	11	6.9	6.1	6.9	6.6	8.3
21	6.6	12	8.0	7.0	8.3	7.6	9.0	6.9	6.0	6.9	6.4	8.3
22	6.6	8.3	7.5	7.3	8.3	8.3	8.3	6.9	8.0	11	6.0	9.0
23	6.6	7.6	7.5	7.3	8.3	8.3	8.3	6.9	9.0	8.3	7.0	9.0
24	6.8	14	7.5	7.3	8.3	8.3	8.3	6.9	9.0	8.3	6.5	8.3
25	6.8	42	8.0	7.6	13	9.0	8.3	6.9	8.0	8.3	9.0	8.3
26	7.3	34	7.5	7.6	13	9.0	8.3	6.9	7.0	8.3	6.2	8.3
27	7.0	22	7.5	7.9	9.0	11	7.6	6.1	6.0	7.6	6.6	7.6
28	7.0	15	10	7.6	9.7	20	7.6	6.1	6.0	6.9	6.2	6.9
29	7.0	14	20	7.6	------	23	9.0	6.1	6.0	6.9	6.2	7.6
30	6.8	22	31	7.9	------	12	8.3	6.1	6.0	7.6	6.2	6.9
31	6.8	------	18	12	------	11	------	6.1	------	7.6	6.6	------
TOTAL	266.8	446.4	355.4	271.9	308.4	293.5	304.1	250.6	216.9	220.7	230.6	237.5
MEAN	8.61	14.9	11.5	8.77	11.0	9.47	10.1	8.08	7.23	7.12	7.44	7.92
MAX	31	45	31	25	28	23	22	16	11	11	11	11
MIN	6.4	6.6	7.0	6.4	6.9	7.6	7.6	6.1	6.0	5.4	6.0	5.4
AC-FT	529	885	705	539	612	582	603	497	430	438	457	471

CAL YR 1962: TOTAL 2,984.3 MEAN 8.18 MAX 45 MIN 5.2 AC-FT 5,920
WAT YR 1963: TOTAL 3,402.8 MEAN 9.32 MAX 45 MIN 5.4 AC-FT 6,750

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0913. Leach Creek near Steilacoom, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.3	13	9.7	33	21	15	9.8	9.0	7.7	7.8	8.8	6.4
2	5.4	15	9.7	26	13	10	9.4	9.1	7.7	7.4	8.5	6.5
3	5.4	11	9.7	13	13	11	9.4	9.1	7.2	7.5	8.1	6.5
4	9.0	14	9.7	11	12	16	9.8	9.1	11	7.7	7.8	6.5
5	8.3	13	16	13	11	11	9.4	10	11	8.1	7.5	6.6
6	6.1	16	18	18	10	10	9.3	9.1	10	7.5	6.9	6.8
7	6.1	17	9.7	11	10	10	9.1	9.0	9.8	7.1	6.6	6.9
8	5.4	15	11	10	9.7	10	9.3	9.0	11	7.5	6.8	11
9	5.4	13	10	22	9.7	10	11	9.1	9.1	7.8	7.1	7.7
10	5.4	16	7.6	14	10	11	10	9.0	8.6	7.4	6.5	7.4
11	5.4	8.3	7.6	10	11	12	11	8.5	9.1	7.5	6.4	7.1
12	5.4	21	6.9	10	9.7	11	10	8.6	8.5	7.4	6.6	6.9
13	11	23	6.9	19	9.0	10	9.6	8.8	8.5	7.4	6.4	7.1
14	6.9	30	7.6	15	9.0	11	9.8	8.3	8.3	9.8	6.4	7.1
15	6.9	21	7.6	19	10	10	11	8.5	8.5	10	6.0	7.2
16	6.9	15	13	24	13	9.6	9.6	8.5	17	8.6	6.8	7.5
17	8.3	19	12	23	12	15	9.6	8.3	13	8.6	6.4	9.3
18	9.0	9.7	8.3	28	11	11	9.6	8.1	12	6.5	6.0	7.5
19	9.0	34	16	26	10	10	9.6	8.3	9.0	8.0	6.5	7.7
20	11	23	26	28	10	13	9.6	9.3	8.8	8.3	6.4	7.5
21	15	12	10	21	9.7	12	9.6	8.1	8.3	9.1	6.2	7.2
22	27	13	18	18	9.7	10	10	8.1	8.1	6.8	6.4	7.5
23	12	20	17	13	9.7	9.8	9.6	8.0	7.7	8.1	6.5	7.5
24	13	12	12	26	9.7	9.6	9.4	8.1	7.7	8.0	5.9	7.5
25	14	11	14	38	9.7	9.6	9.3	7.7	7.7	8.3	6.1	7.4
26	13	14	16	33	9.0	10	9.1	7.4	7.7	8.0	6.2	7.4
27	9.7	18	17	24	13	9.6	9.6	7.4	8.5	7.8	6.1	7.1
28	18	10	16	17	10	9.6	9.1	7.2	8.5	7.5	6.2	7.2
29	16	10	10	24	12	9.6	9.1	7.1	8.0	7.7	6.5	7.5
30	13	9.7	9.7	18	------	9.6	9.0	7.1	7.5	7.8	6.8	14
31	11	------	15	23	------	9.8	------	7.1	------	8.0	6.4	------
TOTAL	306.3	476.7	377.7	628	316.6	335.8	289.7	260.2	275.5	249.0	210.0	227.5
MEAN	9.88	15.9	12.2	20.3	10.9	10.8	9.66	8.39	9.18	8.03	6.77	7.58
MAX	27	34	26	38	21	16	11	10	17	10	8.8	14
MIN	5.4	8.3	6.9	10	9.0	9.6	9.0	7.1	7.2	7.1	5.9	6.4
AC-FT	608	946	749	1,250	628	666	575	516	546	494	417	451

CAL YR 1963: TOTAL 3,494.9 MEAN 9.58 MAX 34 MIN 5.4 AC-FT 6,930
WAT YR 1964: TOTAL 3,953.0 MEAN 10.8 MAX 38 MIN 5.4 AC-FT 7,840

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.6	10	24	9.6	12	10	12	8.8	6.1	5.0	5.5	6.2
2	8.0	9.4	12	12	11	10	8.6	8.3	5.9	5.1	5.4	5.4
3	7.8	17	9.4	12	11	9.6	8.3	8.3	5.7	5.3	5.5	6.4
4	7.8	20	8.8	9.8	16	9.4	8.1	8.1	5.4	5.4	5.4	6.1
5	7.7	8.8	8.5	12	22	9.1	8.1	7.8	5.7	5.1	5.4	6.2
6	7.7	8.1	8.5	17	13	9.1	8.6	7.5	5.4	5.0	5.4	5.9
7	7.7	9.1	10	11	11	9.0	8.5	7.5	5.7	5.1	5.5	5.9
8	9.3	8.1	11	11	18	9.0	8.0	7.4	5.5	5.4	5.4	6.1
9	11	8.6	9.6	9.8	11	8.6	9.4	7.2	5.5	5.1	5.4	6.1
10	8.5	8.3	9.3	9.4	11	9.0	8.0	7.1	5.3	5.5	5.3	6.1
11	8.3	8.5	8.5	9.4	10	8.8	7.8	7.2	7.4	6.9	5.4	6.2
12	8.1	8.8	8.8	9.3	12	8.3	7.7	7.1	5.9	5.4	7.5	6.2
13	8.3	17	7.9	8.8	15	8.6	12	6.9	6.2	5.3	7.3	6.2
14	9.1	8.6	17	8.8	11	8.6	9.1	7.1	6.9	5.4	6.1	8.0
15	11	8.0	10	8.8	11	8.6	8.3	7.7	5.9	5.1	5.8	8.0
16	11	7.8	8.1	9.0	10	9.0	9.1	11	5.8	5.3	5.7	5.9
17	9.0	7.8	7.8	9.0	11	8.3	8.8	6.9	5.7	5.3	5.5	6.6
18	8.6	7.7	8.0	9.0	9.4	8.3	8.6	6.6	5.7	5.4	5.4	6.5
19	8.6	7.7	8.1	9.0	9.8	8.6	34	7.5	5.7	5.3	5.5	5.9
20	8.6	7.7	10	9.0	9.3	8.6	32	7.1	5.3	6.1	17	5.9
21	8.5	7.7	27	13	11	8.6	15	6.4	5.3	5.5	6.9	5.9
22	8.5	9.1	47	14	10	8.1	9.8	6.4	5.4	5.3	6.0	6.1
23	8.5	14	27	22	9.4	7.8	9.0	6.2	5.0	5.4	7.6	6.2
24	8.5	40	19	17	9.3	8.1	8.8	5.9	5.1	5.4	7.2	6.4
25	8.5	14	12	10	9.1	8.6	9.0	5.9	5.1	5.5	6.6	6.4
26	8.3	16	19	17	19	8.6	8.8	5.9	5.5	5.4	6.6	6.5
27	8.3	13	14	43	31	8.0	8.1	5.9	5.5	5.9	6.5	6.4
28	8.3	10	11	17	12	9.1	7.8	5.8	5.1	5.4	6.5	6.2
29	8.3	16	10	29	------	8.6	8.0	5.8	5.1	5.5	6.2	6.6
30	8.6	26	9.8	31	------	8.3	8.5	6.1	5.1	5.7	6.1	6.6
31	8.6	------	9.3	18	------	8.3	------	6.1	------	5.9	6.2	------
TOTAL	267.6	362.8	412.4	434.7	355.3	270.6	317.8	219.5	168.9	168.4	202.8	191.1
MEAN	8.63	12.1	13.3	14.0	12.7	8.73	10.6	7.08	5.63	5.43	6.54	6.37
MAX	11	40	47	43	31	10	34	11	7.4	6.9	17	8.0
MIN	7.7	7.7	7.8	8.8	9.1	7.8	7.7	5.8	5.0	5.0	5.3	5.9
AC-FT	531	720	818	862	705	537	630	435	335	334	402	379

CAL YR 1964: TOTAL 3,835.1 MEAN 10.5 MAX 47 MIN 5.9 AC-FT 7,610
WAT YR 1965: TOTAL 3,371.9 MEAN 9.24 MAX 47 MIN 5.0 AC-FT 6,690

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0915. Chambers Creek below Leach Creek, near Steilacoom, Wash.

Location.--Lat 47°11'55", long 122°31'45", in NE¼NE¼ sec.27, T.20 N., R.2 E., on left bank an eighth of a mile downstream from Leach Creek, 1½ miles downstream from outlet of Steilacoom Lake, and 4 miles northeast of Steilacoom.

Drainage area.--104 sq mi.

Records available.--December 1937 to September 1940, July 1943 to September 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map). Prior to Jan. 13, 1960, at sites 100 and 150 ft upstream at datum 0.95 ft higher.

Average discharge.--24 years (1938-40, 1943-65), 112 cfs (81,080 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 24, 1961	530	3.17	June 12, 13, 14	31	1.39
1962	Dec. 23, 1961	161	2.03	Sept. 8, 1962	24	1.21
1963	Dec. 14, 1962	262	2.24	July 8, 10, 1963	38	1.28
1964	Jan. 31, 1964	508	2.88	(a)	35	b 1.27
1965	Feb. 5, 1965	c 330	-	Aug. 15, 16, 17	14	d 1.59

a Aug. 13, 14, 15, 31, Sept. 15, 28, 1963.
b Occurred Oct. 16, 1963.
c Maximum daily.
d Occurred Oct. 3, 1964.

1937-40, 1943-65: Maximum discharge, 792 cfs Jan. 5, 1956 (gage height, 3.58 ft, site and datum then in use); minimum, 14 cfs Aug. 15, 16, 17, 1965; minimum gage height, 1.21 ft Sept. 8, 1962.

Remarks.--Records good except those for period of no gage-height record and those for Oct. 1, 1964, to May 4, 1965, which are poor. Some regulation by gates at outlet of Steilacoom Lake. Some diversions from tributaries for domestic use. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	46	204	168	207	438	257	161	119	82	63	51
2	41	46	196	163	221	421	254	161	119	80	62	46
3	40	43	191	161	221	410	246	163	119	78	62	46
4	38	43	180	163	226	381	237	166	115	78	60	46
5	45	41	176	207	243	365	229	171	113	88	60	46
6	74	41	168	199	298	372	221	168	111	82	60	44
7	82	40	163	199	277	376	215	169	119	80	60	44
8	76	38	158	221	283	362	210	170	119	78	60	43
9	72	38	154	223	292	339	204	180	117	76	60	43
10	67	58	152	223	280	335	202	183	111	74	58	43
11	65	53	158	232	274	335	202	176	109	72	56	41
12	63	44	183	229	263	326	207	173	60	72	56	41
13	59	54	161	221	295	329	196	170	31	69	56	41
14	56	61	156	229	286	332	191	170	32	67	56	41
15	54	65	154	243	326	339	188	168	62	69	54	41
16	53	69	149	249	310	332	188	166	102	70	55	40
17	51	67	154	263	320	332	188	163	115	65	54	40
18	49	80	176	237	320	342	183	156	126	65	52	40
19	48	72	199	232	335	345	180	152	115	67	51	40
20	46	136	178	226	368	339	180	152	111	65	50	40
21	46	124	178	223	425	313	178	147	104	65	48	40
22	44	109	178	218	393	295	178	140	104	65	47	40
23	59	140	178	212	418	286	176	142	100	65	47	40
24	56	191	178	210	477	271	170	135	96	65	47	38
25	44	186	178	210	428	274	168	133	94	65	46	38
26	48	204	188	202	428	274	163	135	88	65	45	38
27	48	221	178	193	442	280	161	131	86	63	45	38
28	43	223	173	191	432	274	147	126	86	65	45	43
29	41	223	173	212	------	271	147	126	86	67	45	43
30	44	212	170	215	------	268	149	124	82	66	43	43
31	46	------	170	210	------	257	------	122	------	64	51	------
TOTAL	1,641	2,968	5,352	6,584	9,088	10,213	5,815	4,799	2,951	2,192	1,654	1,258
MEAN	52.9	98.9	173	212	325	329	194	155	98.4	70.7	53.4	41.9
MAX	82	223	204	263	477	438	257	183	126	88	63	51
MIN	38	38	149	161	207	257	147	122	31	63	43	38
AC-FT	3,250	5,890	10,620	13,060	18,030	20,260	11,530	9,520	5,850	4,350	3,280	2,500

CAL YR 1960: TOTAL 44,364 MEAN 121 MAX 280 MIN 38 AC-FT 87,990
WAT YR 1961: TOTAL 54,515 MEAN 149 MAX 477 MIN 31 AC-FT 108,100

Note.--No gage-height record July 30 to Aug. 29.

12-0915. Chambers Creek below Leach Creek, near Steilacoom, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	46	61	100	86	78	84	80	59	46	34	31
2	48	44	70	119	84	78	82	76	65	48	35	31
3	72	46	67	128	82	76	80	76	65	49	38	31
4	69	43	69	111	82	88	86	72	67	51	41	31
5	65	43	63	117	80	96	84	70	65	46	40	31
6	63	43	59	117	80	88	92	70	65	43	38	31
7	61	43	58	113	80	84	82	70	65	49	43	31
8	59	43	56	111	80	82	70	70	63	76	41	29
9	58	67	54	106	80	80	69	76	61	54	35	31
10	61	80	53	104	82	78	69	82	61	37	34	40
11	58	59	53	104	82	80	69	90	61	34	34	35
12	61	51	53	104	78	82	70	92	63	35	34	34
13	58	51	56	104	82	82	70	92	61	34	35	37
14	53	51	58	104	92	82	70	90	46	35	34	38
15	51	49	59	104	84	82	72	88	46	37	32	37
16	53	48	69	104	82	84	90	86	46	37	34	35
17	51	48	98	104	84	84	90	84	41	35	34	35
18	49	49	72	102	82	84	88	84	41	34	37	37
19	49	49	84	100	80	86	86	84	41	34	35	37
20	49	49	86	100	78	82	82	82	44	34	37	37
21	48	58	88	100	78	82	80	80	56	34	34	37
22	48	76	94	100	74	84	80	80	58	34	32	37
23	54	56	104	100	76	84	78	84	58	34	31	37
24	46	53	98	96	74	90	78	82	56	34	31	37
25	46	53	94	96	74	94	76	84	46	32	31	37
26	54	53	96	94	78	90	74	82	46	32	31	35
27	53	54	96	90	76	88	90	76	44	32	31	36
28	43	74	102	88	76	86	78	59	44	32	32	44
29	43	63	109	88	------	86	78	58	44	34	31	41
30	43	58	104	88	------	84	78	59	44	34	31	56
31	43	------	100	86	------	84	------	59	------	34	29	------
TOTAL	1,652	1,600	2,383	3,182	2,246	2,608	2,375	2,417	1,622	1,214	1,069	1,078
MEAN	53.3	53.3	76.9	103	80.2	84.1	79.2	78.0	54.1	39.2	34.5	35.9
MAX	72	80	109	128	92	96	92	92	67	76	43	56
MIN	43	43	53	86	74	76	69	58	41	32	29	29
AC-FT	3,280	3,170	4,730	6,310	4,450	5,170	4,710	4,790	3,220	2,410	2,120	2,140

CAL YR 1961: TOTAL 50,189 MEAN 138 MAX 477 MIN 31 AC-FT 99,550
WAT YR 1962: TOTAL 23,446 MEAN 64.2 MAX 128 MIN 29 AC-FT 46,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	54	43	209	198	144	154	142	154	103	63	52	49
2	52	41	226	212	167	154	134	156	103	63	52	49
3	52	41	235	214	198	170	142	152	101	56	52	48
4	49	46	229	209	192	178	142	149	101	52	49	48
5	48	49	223	206	200	170	152	162	105	61	49	55
6	48	49	220	203	203	167	175	156	99	74	51	57
7	70	44	203	200	203	162	162	152	99	70	51	49
8	126	44	192	195	200	159	146	144	96	53	49	48
9	136	46	192	189	198	156	152	134	96	41	51	48
10	92	68	178	181	192	152	146	129	94	40	49	46
11	84	68	167	178	186	154	149	126	92	41	54	46
12	74	56	175	175	181	152	156	129	90	49	54	48
13	78	52	186	172	181	149	199	132	88	49	51	51
14	63	51	226	164	172	146	241	129	84	59	51	48
15	51	52	214	162	172	144	217	129	84	61	49	46
16	48	51	200	159	172	149	200	129	103	54	51	46
17	46	52	200	156	167	136	195	126	112	54	49	46
18	46	52	198	152	170	129	189	114	78	52	51	44
19	44	140	200	149	175	132	164	105	72	51	51	44
20	44	110	189	146	164	134	159	105	68	51	51	44
21	43	84	209	144	159	132	159	110	67	48	52	46
22	43	80	214	139	159	132	159	122	67	54	52	46
23	43	80	192	136	156	129	162	116	68	51	52	46
24	43	98	175	134	154	129	159	112	70	52	54	46
25	43	186	170	129	162	126	159	112	72	51	51	46
26	44	206	167	126	175	124	159	110	70	48	52	46
27	44	178	164	124	159	132	156	114	70	46	51	44
28	43	170	167	122	149	152	154	122	68	46	49	43
29	43	167	167	116	------	167	156	114	63	50	48	43
30	43	198	220	114	------	152	152	107	63	61	48	41
31	43	------	178	139	------	149	------	105	------	61	48	------
TOTAL	1,780	2,602	6,085	5,043	4,910	4,571	4,937	3,956	2,546	1,662	1,574	1,407
MEAN	57.4	86.7	196	163	175	147	165	128	84.9	53.6	50.8	46.9
MAX	136	206	235	214	203	178	241	162	112	74	54	57
MIN	43	41	164	114	144	124	134	105	63	40	48	41
AC-FT	3,530	5,160	12,070	10,000	9,740	9,070	9,790	7,850	5,050	3,300	3,120	2,790

CAL YR 1962: TOTAL 28,278 MEAN 77.5 MAX 235 MIN 29 AC-FT 56,090
WAT YR 1963: TOTAL 41,073 MEAN 113 MAX 241 MIN 40 AC-FT 81,470

12-0915. Chambers Creek below Leach Creek, near Steilacoom, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	63	107	229	476	212	154	105	72	78	63	38
2	43	68	107	186	456	203	149	105	74	94	63	37
3	46	58	105	170	400	203	149	105	74	96	63	37
4	46	59	105	172	388	214	146	105	80	68	63	37
5	49	58	119	175	376	203	144	105	84	52	58	40
6	51	65	126	189	331	186	142	99	84	46	58	40
7	51	68	112	184	320	186	142	94	82	41	49	44
8	46	61	114	186	274	189	139	94	82	43	56	51
9	46	58	110	217	277	189	136	94	78	48	56	41
10	44	67	107	206	301	189	139	92	78	52	52	40
11	44	67	105	195	310	189	136	92	76	56	49	40
12	44	92	105	189	301	192	134	92	74	56	38	38
13	48	94	105	209	314	189	129	90	74	58	37	37
14	46	107	105	203	295	189	129	88	72	63	35	37
15	44	94	107	214	292	184	132	88	72	63	38	37
16	48	88	112	241	286	178	124	88	92	61	40	38
17	54	96	112	247	277	186	101	88	88	65	38	43
18	54	86	107	277	265	184	101	90	86	68	40	38
19	54	142	114	283	259	178	103	86	80	63	38	38
20	52	119	139	247	250	175	105	87	78	63	37	38
21	58	105	114	203	244	175	110	86	76	63	38	37
22	72	107	132	189	229	170	116	84	74	63	44	37
23	46	119	124	181	226	170	122	72	74	61	46	38
24	49	110	116	220	220	167	116	51	76	59	46	40
25	51	110	122	286	214	167	114	52	74	58	45	38
26	51	116	129	292	214	164	114	56	72	59	44	37
27	48	122	134	348	209	172	110	61	74	56	44	37
28	59	112	132	420	206	175	110	67	72	51	44	37
29	61	110	122	456	206	167	110	72	70	68	41	37
30	65	110	122	444	------	162	110	74	67	63	38	44
31	63	------	136	484	------	159	------	74	------	61	37	------
TOTAL	1,576	2,731	3,606	7,742	8,416	5,666	3,766	2,636	2,309	1,896	1,439	1,171
MEAN	50.8	91.0	116	250	290	183	126	85.0	77.0	61.2	46.4	39.0
MAX	72	142	139	484	476	214	154	105	92	96	63	51
MIN	43	58	105	170	206	159	101	51	67	41	35	37
AC-FT	3,130	5,420	7,150	15,360	16,690	11,240	7,470	5,230	4,580	3,760	2,850	2,320

CAL YR 1963: TOTAL 38,519 MEAN 106 MAX 241 MIN 40 AC-FT 76,400
WAT YR 1964: TOTAL 42,954 MEAN 117 MAX 484 MIN 35 AC-FT 85,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	44	82	178	280	236	139	119	80	42	58	33
2	37	49	68	178	300	230	127	116	82	38	56	34
3	35	46	67	184	315	224	123	109	87	38	56	34
4	35	54	67	178	300	224	123	113	90	38	48	34
5	35	65	67	181	330	207	123	116	84	39	33	34
6	35	49	67	186	325	202	119	113	82	36	38	34
7	35	46	70	178	315	193	116	113	80	27	50	34
8	38	46	72	172	310	183	109	113	80	27	50	34
9	38	44	74	170	304	183	106	109	82	27	48	34
10	38	44	74	170	290	183	106	109	74	36	36	34
11	37	43	72	170	304	178	74	109	80	46	30	34
12	49	44	74	164	304	173	56	106	72	50	38	34
13	58	44	76	162	310	169	70	109	72	62	36	36
14	58	43	94	162	297	169	70	116	77	58	32	40
15	58	42	88	159	290	164	77	113	72	56	24	39
16	63	42	80	156	277	159	90	123	72	52	14	38
17	60	42	75	156	264	151	109	116	70	44	18	36
18	59	42	75	154	264	151	119	119	56	44	25	38
19	59	42	80	152	258	151	169	123	46	42	33	34
20	59	41	84	152	247	147	178	119	46	46	46	36
21	59	40	116	159	247	147	151	113	46	44	32	34
22	59	41	156	164	241	143	131	109	56	42	32	34
23	59	53	146	181	236	143	123	103	58	44	34	34
24	58	80	144	189	236	143	123	84	64	42	34	34
25	54	58	144	175	236	143	123	72	80	38	34	34
26	51	61	170	184	258	143	123	74	80	39	34	34
27	48	58	170	244	277	139	119	77	74	39	36	34
28	48	54	178	217	241	139	119	77	72	34	36	36
29	46	65	178	232	------	135	119	80	70	36	34	36
30	46	78	181	235	------	131	119	80	58	36	33	36
31	44	------	178	265	------	131	------	80	------	42	33	------
TOTAL	1,498	1,500	3,267	5,607	7,856	5,214	3,453	3,232	2,142	1,284	1,143	1,052
MEAN	48.3	50.0	105	181	281	168	115	104	71.4	41.4	36.9	35.1
MAX	63	80	181	265	330	236	178	123	90	62	58	40
MIN	35	40	67	152	236	131	56	72	46	27	14	33
AC-FT	2,970	2,980	6,480	11,120	15,580	10,340	6,850	6,410	4,250	2,550	2,270	2,090

CAL YR 1964: TOTAL 41,306 MEAN 113 MAX 484 MIN 35 AC-FT 81,930
WAT YR 1965: TOTAL 37,248 MEAN 102 MAX 330 MIN 14 AC-FT 73,880

12-0920. Puyallup River near Electron, Wash.

Location.--Lat 46°54'15", long 122°02'05", in SE¼NW¼ sec.3, T.16 N., R.6 E., on left bank 1,000 ft upstream from Puget Sound Power & Light Co.'s flume headworks, a third of a mile downstream from Mowich River, and 10 miles southeast of Electron.

Drainage area.--92.8 sq mi.

Records available.--October 1908 to September 1926, October 1926 to September 1933 (monthly mean discharge only), October 1944 to September 1949, and October 1957 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,640 ft (from river-profile map). Prior to Jan. 1, 1913, staff gage. Jan. 1, 1913, to Sept. 30, 1926, Oct. 1, 1944, to Sept. 30, 1949, and Oct. 1, 1957, to Nov. 22, 1959 (gage destroyed by flood), water-stage recorder at sites within 125 ft upstream at different datums.

Average discharge.--38 years, 532 cfs (385,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,300 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 11, 1960	0100	2,400	4.27	Jan. 7, 1962	1000	2,660	4.45	Dec. 1, 1964	1930	2,990	5.15
Nov. 16, 1960	1000	2,680	4.53	Apr. 6, 1962	1900	* 3,940	5.10	Dec. 22, 1964	1530	4,640	5.75
Nov. 17, 1960	1800	2,790	4.68					Jan. 29, 1965	0400	* 6,970	5.88
Nov. 20, 1960	1600	2,880	4.74	Nov. 20, 1962	0230	* 10,600	6.71	Apr. 20, 1965	0030	2,360	3.61
Nov. 24, 1960	1430	3,250	4.93	Nov. 25, 1962	1830	2,970	4.67				
Feb. 21, 1961	1100	* 3,740	5.02	Feb. 3, 1963	0700	5,470	5.72				
Dec. 24, 1961	0930	2,750	4.50	Jan. 25, 1964	0700	* 2,520	4.75				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.24, 1961	158	1.66	1964	Oct. 7, 20, 1963	218	2.01
1962	Feb. 26, 27, 1962	171	a 1.72	1965	Apr. 8, 12, 1965	208	1.23
1963	Jan. 30, 1963	166	b 1.94				

a Occurred Oct. 1, 2, 1961.
b Occurred Nov. 18, 19, 1962.

1908-26, 1944-49, 1957-65: Maximum discharge, 10,800 cfs Nov. 22, 1959 (gage height, 11.9 ft, from floodmarks, site and datum then in use), result of slope-area measurement; minimum not determined, probably occurred during period of ice effect in December 1914 or December 1922.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1092: 1946(M). WSP 1346: 1913, 1916-17(M), 1918-23, drainage area. WSP 1566: 1945(M), 1947(P).

Monthly and yearly mean discharge, in cubic feet per second

Water year	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	The year
1927	614	546	513	501	456	288	377	623	960	742	665	727	585
1928	937	1,326	536	881	231	505	467	861	565	762	491	377	664
1929	457	257	309	251	171	384	379	1,020	1,230	760	718	336	525
1930	218	130	453	213	830	432	499	508	556	621	599	376	451
1931	308	196	180	530	341	343	524	510	712	511	401	399	413
1932	385	359	340	384	468	741	606	688	1,090	730	498	358	552
1933	458	1,470	628	575	179	288	328	537	1,100	934	612	403	628

12-0920. Puyallup River near Electron, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	303	809	497	289	785	784	400	890	908	416	627	995
2	285	725	508	259	750	607	778	809	1,160	483	675	531
3	249	607	474	255	647	506	1,040	675	1,290	562	703	443
4	232	512	430	289	674	443	841	607	1,180	640	785	454
5	241	454	388	905	1,140	411	661	549	1,090	785	809	432
6	375	405	353	978	1,740	395	555	495	1,290	668	647	341
7	581	365	344	841	1,180	360	483	460	1,120	506	587	326
8	411	341	334	708	900	355	489	449	833	443	549	303
9	303	312	316	608	946	345	477	506	778	512	543	322
10	262	1,010	302	532	930	322	438	537	675	587	555	341
11	249	1,470	358	508	848	326	416	483	682	732	562	322
12	267	882	743	479	729	336	477	438	661	874	627	326
13	254	725	576	457	661	409	506	405	654	968	689	322
14	228	647	582	588	608	795	427	405	778	924	675	317
15	254	865	497	950	715	833	395	405	977	865	689	308
16	285	1,970	435	1,160	608	675	416	449	1,210	710	627	308
17	285	1,700	424	855	539	549	512	537	1,450	614	601	303
18	262	1,540	702	674	479	477	483	661	1,430	574	601	326
19	245	1,060	820	582	701	477	454	809	1,150	587	607	308
20	228	1,800	614	514	1,070	500	416	890	916	661	675	317
21	280	1,340	529	497	2,780	443	411	833	740	793	654	241
22	360	946	474	457	1,560	427	411	718	710	740	770	207
23	581	915	462	440	1,000	438	411	785	762	740	732	178
24	710	2,090	451	408	968	432	405	654	770	647	607	174
25	466	1,380	413	383	770	427	405	647	793	574	454	190
26	689	930	446	349	620	400	411	762	770	633	427	182
27	770	715	403	330	581	355	390	762	627	627	390	182
28	1,000	608	358	320	531	331	405	661	537	562	416	303
29	710	539	344	430	------	312	825	661	512	555	489	219
30	633	485	307	908	------	308	959	725	438	531	466	199
31	825	------	302	1,020	------	322	------	710	------	555	933	------
TOTAL	12,823	28,147	14,186	17,973	25,460	14,100	15,697	19,377	26,891	20,068	19,171	9,720
MEAN	414	938	458	580	909	455	523	625	896	647	618	324
MAX	1,000	2,090	820	1,160	2,780	833	1,040	890	1,450	968	933	995
MIN	228	312	302	255	479	308	390	405	438	416	390	174
CFSM	4.46	10.1	4.93	6.25	9.80	4.90	5.64	6.74	9.66	6.98	6.66	3.49
IN.	5.14	11.3	5.69	7.20	10.2	5.65	6.29	7.77	10.8	8.04	7.68	3.90
AC-FT	25,430	55,830	28,140	35,650	50,500	27,970	31,130	38,430	53,340	39,800	38,030	19,280

CAL YR 1960: TOTAL 195,848 MEAN 535 MAX 2,090 MIN 183 CFSM 5.77 IN 78.49 AC-FT 388,500
WAT YR 1961: TOTAL 223,613 MEAN 613 MAX 2,780 MIN 174 CFSM 6.60 IN 89.61 AC-FT 443,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	199	477	460	504	390	188	266	482	445	556	619	476
2	194	400	400	640	465	186	273	520	626	445	532	425
3	203	460	380	1,660	526	183	259	580	626	415	704	415
4	219	370	466	1,020	482	202	342	532	593	435	684	405
5	254	331	471	905	410	270	482	465	600	465	684	425
6	350	298	390	1,010	390	256	2,000	440	568	520	544	420
7	322	230	375	2,330	380	230	1,820	400	550	476	538	450
8	241	285	336	1,600	360	218	959	445	619	532	487	360
9	374	298	290	1,110	334	210	717	514	638	550	430	380
10	740	483	267	836	324	202	568	526	586	556	415	504
11	471	483	262	671	304	193	492	476	526	556	440	390
12	675	395	262	580	288	186	470	445	544	562	520	300
13	833	360	262	487	276	188	504	425	520	550	509	347
14	647	405	254	440	338	188	626	400	492	487	465	356
15	600	365	254	400	292	191	684	380	568	470	520	304
16	512	322	267	365	273	199	562	360	671	470	600	288
17	400	303	375	342	262	202	532	365	645	450	526	329
18	341	290	285	316	266	202	568	375	612	415	482	390
19	312	267	500	288	256	202	619	360	638	405	504	415
20	267	245	801	256	242	207	562	347	658	455	580	450
21	241	433	933	245	227	204	514	342	684	532	504	435
22	228	983	696	288	233	204	504	370	697	638	405	410
23	326	574	1,270	304	224	199	532	482	724	671	395	360
24	276	454	2,230	262	204	227	600	498	812	738	450	356
25	303	390	1,140	334	199	273	520	550	852	788	455	395
26	390	365	731	356	188	259	450	562	738	724	380	385
27	438	449	562	405	196	256	684	580	580	704	342	352
28	331	518	574	356	196	230	619	612	544	697	470	520
29	290	518	645	334	------	221	538	580	619	664	405	435
30	290	477	638	342	------	218	476	520	652	697	380	356
31	294	------	532	370	------	236	------	460	------	704	440	------
TOTAL	11,561	12,288	17,308	19,356	8,525	6,630	18,742	14,393	18,627	17,327	15,409	11,833
MEAN	373	410	558	624	304	214	625	464	621	559	497	394
MAX	833	983	2,230	2,330	526	273	2,000	612	852	788	704	520
MIN	194	245	254	245	188	183	259	342	445	405	342	288
CFSM	4.02	4.41	6.02	6.73	3.28	2.30	6.73	5.00	6.69	6.02	5.36	4.25
IN.	4.63	4.92	6.94	7.76	3.42	2.66	7.51	5.77	7.46	6.94	6.18	4.74
AC-FT	22,930	24,370	34,330	38,390	16,910	13,150	37,170	28,550	36,950	34,370	30,560	23,470

CAL YR 1961: TOTAL 209,614 MEAN 574 MAX 2,780 MIN 174 CFSM 6.19 IN 84.00 AC-FT 415,800
WAT YR 1962: TOTAL 171,999 MEAN 471 MAX 2,330 MIN 183 CFSM 5.08 IN 68.93 AC-FT 341,200

12-0920. Puyallup River near Electron, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	380	276	550	678	308	476	340	375	552	526	429	617
2	445	284	574	738	694	434	312	370	637	526	440	513
3	498	276	482	745	3,210	385	350	335	520	539	500	482
4	347	308	470	568	1,760	355	482	322	513	584	558	578
5	284	365	901	492	1,540	335	652	500	786	578	578	591
6	270	288	1,500	440	1,060	317	950	539	624	546	565	506
7	320	248	977	405	810	299	686	513	565	565	584	558
8	420	347	852	390	679	290	552	446	610	651	637	728
9	632	288	752	380	591	286	482	407	610	617	686	686
10	498	284	684	320	520	282	429	385	558	794	679	693
11	445	316	638	270	464	294	396	375	610	763	770	584
12	435	320	593	260	418	286	402	360	637	679	904	565
13	470	320	704	270	402	274	424	340	637	700	826	630
14	380	280	1,090	273	375	266	686	340	693	728	665	476
15	334	259	1,590	273	360	250	770	360	763	630	520	470
16	312	245	968	270	350	250	591	370	834	558	500	446
17	292	239	690	259	345	246	506	418	834	558	513	355
18	316	227	568	245	424	243	476	558	735	552	506	322
19	324	2,230	550	233	578	290	429	763	630	552	520	326
20	324	5,190	470	230	552	294	407	859	565	558	482	345
21	324	1,730	504	227	470	335	385	940	558	539	412	390
22	316	860	482	221	418	375	402	922	470	714	385	452
23	296	600	420	218	385	370	390	749	434	520	418	546
24	288	544	370	212	355	340	370	617	434	500	407	402
25	276	1,560	360	210	380	330	350	552	482	470	370	396
26	288	1,610	347	204	658	322	345	513	429	452	370	429
27	273	932	338	199	500	355	330	494	390	506	360	558
28	284	684	347	196	470	458	322	539	429	520	385	685
29	312	568	370	183	------	482	385	604	637	476	440	672
30	300	632	593	186	------	446	390	610	578	452	553	482
31	266	------	514	256	------	385	------	572	------	458	617	------
TOTAL	10,949	22,310	20,248	10,051	19,076	10,350	13,991	16,047	17,754	17,811	16,584	15,484
MEAN	353	744	653	324	681	334	466	518	592	575	535	516
MAX	632	5,190	1,590	745	3,210	482	950	940	834	794	904	728
MIN	266	227	338	183	308	243	312	322	390	452	360	322
CFSM	3.81	8.01	7.04	3.49	7.34	3.60	5.03	5.58	6.38	6.19	5.76	5.56
IN.	4.39	8.94	8.11	4.03	7.64	4.15	5.61	6.43	7.11	7.14	6.65	6.21
AC-FT	21,720	44,250	40,160	19,940	37,840	20,530	27,750	31,830	35,210	35,330	32,890	30,710

CAL YR 1962: TOTAL 184,349 MEAN 505 MAX 5,190 MIN 183 CFSM 5.44 IN 73.88 AC-FT 365,700
WAT YR 1963: TOTAL 190,655 MEAN 522 MAX 5,190 MIN 183 CFSM 5.63 IN 76.41 AC-FT 378,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	424	290	424	1,230	657	273	548	365	1,600	962	728	444
2	429	340	385	1,000	560	249	461	341	1,460	990	638	408
3	370	299	360	693	503	245	400	314	1,140	926	800	439
4	294	345	350	565	509	314	370	314	1,770	917	809	422
5	262	317	458	500	479	301	365	314	1,640	926	631	412
6	240	335	637	591	422	273	346	297	1,460	908	603	406
7	226	429	500	476	390	253	350	297	1,650	1,100	652	400
8	229	630	464	418	365	245	360	314	1,590	1,290	596	434
9	250	488	429	407	350	241	400	400	1,480	1,090	645	370
10	282	424	375	380	370	245	467	587	1,450	962	631	350
11	294	380	350	360	355	318	444	574	1,320	1,130	698	345
12	290	380	340	340	332	277	433	587	1,220	1,410	784	350
13	424	407	322	370	318	241	400	574	1,170	1,330	705	350
14	578	721	312	370	305	285	395	503	1,120	1,510	589	365
15	546	584	308	446	305	341	615	467	1,110	1,560	549	375
16	402	513	375	810	305	305	515	522	1,560	1,070	568	434
17	345	552	434	624	314	355	450	671	1,520	953	610	768
18	274	476	418	520	375	355	406	713	1,720	827	668	504
19	236	552	440	513	365	318	385	845	1,270	744	523	498
20	246	482	578	494	332	297	375	1,000	1,000	760	516	645
21	282	412	470	424	323	293	370	1,050	863	845	582	492
22	707	390	565	380	310	273	406	827	845	784	668	652
23	429	464	624	345	305	257	370	638	1,060	660	720	675
24	458	440	513	589	305	237	346	568	1,100	705	690	638
25	452	552	591	1,920	285	233	346	510	1,000	784	705	523
26	365	850	500	1,120	269	241	390	516	990	845	752	439
27	317	960	470	953	261	233	380	638	863	917	720	406
28	345	686	488	776	257	237	365	845	736	1,000	872	400
29	322	565	440	917	261	273	390	899	690	1,020	638	417
30	294	470	429	728	------	380	370	1,070	827	917	568	631
31	278	------	532	699	------	485	------	1,320	------	784	498	------
TOTAL	10,890	14,733	13,881	19,958	10,487	8,873	12,218	18,880	37,224	30,626	20,356	14,052
MEAN	351	491	448	644	362	286	407	609	1,241	988	657	468
MAX	707	960	637	1,920	657	485	615	1,320	1,770	1,560	872	768
MIN	226	290	308	340	257	233	346	297	690	660	498	345
CFSM	3.79	5.29	4.83	6.94	3.90	3.08	4.39	6.56	13.4	10.6	7.08	5.05
IN.	4.36	5.90	5.56	8.00	4.20	3.56	4.90	7.57	14.9	12.3	8.16	5.63
AC-FT	21,600	29,220	27,530	39,590	20,800	17,600	24,230	37,450	73,830	60,750	40,380	27,870

CAL YR 1963: TOTAL 176,652 MEAN 484 MAX 3,210 MIN 183 CFSM 5.22 IN 70.79 AC-FT 350,400
WAT YR 1964: TOTAL 212,178 MEAN 580 MAX 1,920 MIN 226 CFSM 6.25 IN 85.03 AC-FT 420,800

12-0920. Puyallup River near Electron, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	624	365	2,530	370	1,320	491	294	545	497	680	808	375
2	1,010	327	1,930	390	921	446	255	463	571	784	858	375
3	836	415	1,130	355	784	419	230	419	704	776	736	340
4	653	549	827	318	728	408	230	419	744	792	659	316
5	596	412	645	318	858	392	223	386	784	760	673	289
6	589	355	536	309	712	380	223	355	824	760	673	267
7	603	336	462	288	624	375	215	335	816	840	704	280
8	752	309	610	276	617	380	211	325	832	752	824	316
9	792	322	705	264	521	392	234	350	832	564	840	325
10	705	304	692	284	463	414	234	380	776	503	1,040	316
11	631	292	562	268	430	424	215	446	867	485	921	316
12	645	284	486	253	436	430	219	539	752	441	948	294
13	568	280	444	260	617	414	234	564	564	509	824	264
14	510	260	400	390	539	392	242	503	509	652	604	817
15	575	260	355	575	485	375	272	497	491	736	610	1,110
16	492	256	296	720	509	360	392	696	458	680	624	744
17	444	253	322	698	832	325	340	552	604	673	610	465
18	406	246	322	675	840	302	316	474	638	638	720	386
19	406	242	284	712	832	284	956	497	617	521	849	355
20	400	236	264	728	736	276	1,790	558	617	497	808	335
21	385	232	516	568	652	276	1,090	491	610	480	631	380
22	370	246	2,780	549	584	284	752	463	604	424	617	474
23	345	328	2,420	668	509	259	610	435	610	463	638	441
24	340	1,440	1,370	675	468	234	597	430	571	558	604	424
25	318	899	926	536	436	242	645	458	509	712	515	419
26	296	652	962	596	503	238	696	539	441	876	485	345
27	288	530	744	1,440	816	227	824	688	397	832	441	280
28	284	456	589	2,960	564	223	912	849	414	744	345	246
29	296	748	504	5,340	------	219	784	800	452	680	289	245
30	332	1,600	450	3,710	------	219	659	680	545	752	263	251
31	322	------	400	2,220	------	227	------	564	------	760	312	------
TOTAL	15,813	13,434	25,503	27,813	18,336	10,327	14,894	15,701	18,650	20,324	20,473	11,831
MEAN	510	448	823	897	655	333	496	506	622	656	660	394
MAX	1,010	1,600	2,780	5,340	1,320	491	1,790	849	867	876	1,040	1,110
MIN	284	232	264	253	430	219	211	325	397	424	263	246
CFSM	5.50	4.83	8.87	9.67	7.06	3.59	5.35	5.46	6.70	7.06	7.12	4.25
IN.	6.34	5.38	10.2	11.1	7.35	4.14	5.97	6.29	7.47	8.14	8.20	4.74
AC-FT	31,360	26,650	50,580	55,170	36,370	20,480	29,540	31,140	36,990	40,310	40,610	23,470

CAL YR 1964: TOTAL 227,424 MEAN 621 MAX 2,780 MIN 232 CFSM 6.70 IN 91.14 AC-FT 451,100
WAT YR 1965: TOTAL 213,099 MEAN 584 MAX 5,340 MIN 211 CFSM 6.29 IN 85.40 AC-FT 422,700

12-0935. Puyallup River near Orting, Wash.

Location.--Lat 47°02'20", long 122°12'25", in SW¼SW¼ sec.17, T.18 N., R.5 E., on right bank 600 ft downstream from highway bridge, 4 miles south of Orting, and 9 miles upstream from Carbon River.

Drainage area.--172 sq mi.

Records available.--September 1931 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 352.5 ft above mean sea level, unadjusted. Prior to Feb. 6, 1946, at site 600 ft upstream at datum 8.93 ft higher. Supplementary water-stage recorder 200 ft upstream at datum 7.1 ft higher than present gage datum used at times during periods in 1942-46. Feb. 6, 1946, to Mar. 12, 1965, at present site at datum 5.0 ft higher.

Average discharge.--34 years, 712 cfs (515,500 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1600	4,500	5.47	Nov. 20, 1962	0400	* 15,300	6.82	Dec. 1, 1964	2230	4,550	9.28
Nov. 24, 1960	1800	6,100	5.40	Nov. 25, 1962	1900	6,120	4.55	Dec. 22, 1964	1800	7,930	10.40
Feb. 21, 1961	1400	* 6,230	5.45	Feb. 3, 1963	0930	10,800	5.71	Jan. 29, 1965	0700	* 12,200	11.11
Apr. 6, 1962	2030	* 4,420	5.33	Jan. 25, 1964	0900	* 5,960	4.85				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.30, 1961	77	0.66	1964	Oct. 7, 8, 1963	b 290	-
1962	Oct. 4, 1961	73	.64	1965	Aug. 29, 1965	88	3.76
1963	Oct. 6, 7, 1962	117	a .77				

a Occurred Mar. 26, 1963.
b Minimum daily.

1931-65: Maximum discharge, 15,300 cfs Nov. 20, 1962 (gage height, 11.82 ft, present datum), from rating curve extended above 8,600 cfs on basis of slope-area measurement at gage height 12.25 ft, present datum; maximum gage height, 11.87 ft from recorded range in stage, Dec. 10, 1933 (site and datum then in use); minimum discharge, 25 cfs Nov. 28, 1952; minimum daily, 59 cfs Nov. 29, 1952.

Remarks.--Records good. Water diverted for Electron powerplant of Puget Sound Power & Light Co., returned to river above gage. Some regulation by Electron powerplant. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 932: 1937-39. WSP 962: 1934. WSP 1246: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	322	975	730	432	1,220	1,540	519	1,140	980	477	646	1,140
2	306	912	750	394	1,190	1,320	935	1,220	1,250	525	723	650
3	300	816	700	366	1,020	1,080	1,240	1,080	1,380	570	810	470
4	265	688	650	377	1,070	908	1,020	1,010	1,290	653	890	500
5	275	610	625	1,270	1,520	826	810	971	1,190	874	908	460
6	449	554	532	1,760	2,500	802	695	850	1,370	754	716	360
7	671	508	495	1,360	1,960	730	611	778	1,300	577	653	360
8	568	469	460	1,180	1,430	688	604	702	926	507	611	325
9	421	439	438	1,010	1,180	674	618	786	908	570	618	340
10	361	1,060	410	850	1,370	639	570	874	762	639	590	372
11	328	2,300	443	818	1,200	625	525	770	786	734	611	345
12	350	1,400	890	810	1,060	632	618	702	748	944	681	350
13	316	1,240	709	730	989	702	702	632	730	1,080	785	360
14	295	1,290	754	794	917	1,130	604	618	818	1,030	770	350
15	300	1,590	639	1,200	1,240	1,220	564	618	1,040	980	816	345
16	333	3,270	570	1,900	1,120	998	564	625	1,260	778	705	340
17	338	2,700	551	1,380	953	850	674	695	1,570	646	660	335
18	306	2,730	784	1,120	826	738	618	802	1,560	611	660	355
19	295	1,970	1,210	917	1,140	702	597	944	1,270	618	667	330
20	280	3,100	926	818	1,710	786	538	1,030	998	688	778	335
21	316	2,280	770	754	4,600	660	538	971	826	850	709	270
22	427	1,540	667	688	2,810	653	551	842	762	810	882	230
23	637	1,430	639	653	1,710	660	667	935	826	794	866	200
24	939	3,990	611	632	1,560	653	632	770	826	702	688	190
25	631	3,030	577	577	1,430	653	611	716	858	611	500	210
26	836	1,780	597	532	1,180	639	584	866	850	674	470	200
27	984	1,290	604	483	1,200	584	544	882	681	660	430	200
28	1,220	1,030	525	471	1,300	525	544	762	604	597	450	355
29	912	850	483	604	------	513	899	754	577	590	530	267
30	776	720	460	1,260	------	489	1,140	842	525	570	500	220
31	966	------	448	1,540	------	477	------	802	------	584	1,110	------
TOTAL	15,723	46,561	19,647	27,680	41,405	24,096	20,336	25,989	29,471	21,757	21,440	10,784
MEAN	507	1,552	634	893	1,479	777	678	838	982	702	692	359
MAX	1,220	3,990	1,210	1,900	4,600	1,540	1,240	1,220	1,570	1,080	1,110	1,140
MIN	265	439	410	366	826	477	519	618	525	477	430	190
CFSM	2.95	9.02	3.68	5.19	8.60	4.52	3.94	4.87	5.71	4.08	4.02	2.09
IN.	3.40	10.1	4.25	5.98	8.95	5.21	4.40	5.62	6.37	4.70	4.64	2.33
AC-FT	31,190	92,350	38,970	54,900	82,130	47,790	40,340	51,550	58,450	43,150	42,530	21,390

CAL YR 1960: TOTAL 262,889 MEAN 718 MAX 3,990 MIN 237 CFSM 4.18 IN 56.84 AC-FT 521,400
WAT YR 1961: TOTAL 304,889 MEAN 835 MAX 4,600 MIN 190 CFSM 4.86 IN 65.92 AC-FT 604,700

12-0935. Puyallup River near Orting, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	241	523	544	600	490	290	400	697	606	636	697	546
2	224	489	460	900	540	280	410	739	778	546	606	510
3	237	513	445	1,900	612	270	385	830	823	495	746	500
4	250	443	505	1,440	576	400	447	767	851	505	774	510
5	266	360	590	1,360	510	540	648	684	851	546	781	510
6	426	325	477	1,600	475	495	1,990	630	823	594	630	495
7	416	315	448	2,980	470	435	2,410	618	718	546	606	510
8	286	303	416	2,170	465	390	1,400	636	795	594	558	430
9	341	316	377	1,530	440	360	1,040	760	830	606	500	430
10	933	503	330	1,100	445	340	844	767	753	624	455	592
11	611	632	320	865	425	320	739	690	678	636	480	546
12	727	501	300	781	420	310	690	648	690	642	564	380
13	1,000	423	300	672	405	320	690	654	654	636	588	354
14	730	483	300	606	508	320	802	612	642	564	528	445
15	660	421	300	558	465	320	900	582	642	522	564	371
16	590	362	330	505	425	328	760	558	781	534	654	350
17	460	333	450	480	425	333	684	529	767	510	612	384
18	382	313	340	445	415	324	704	546	711	475	552	435
19	377	283	560	410	400	351	767	516	725	455	570	462
20	305	258	920	370	380	342	711	500	746	495	660	516
21	282	290	1,120	350	360	342	648	490	774	576	630	510
22	258	1,430	860	390	370	342	642	495	781	697	490	490
23	377	858	1,400	410	350	338	660	660	823	739	455	440
24	342	632	2,700	380	330	356	746	739	900	816	510	415
25	341	495	1,550	450	310	445	678	858	948	844	552	460
26	495	432	960	500	300	445	594	823	837	802	460	485
27	625	484	720	570	310	455	857	809	672	774	410	448
28	471	587	680	505	300	425	844	830	612	774	518	622
29	388	611	760	470	------	400	809	781	672	732	480	582
30	372	564	760	470	------	385	704	711	697	746	430	430
31	350	------	670	485	------	385	------	630	------	760	465	------
TOTAL	13,763	14,482	20,892	26,252	11,921	11,386	24,603	20,788	22,580	19,421	17,525	14,198
MEAN	444	483	674	847	426	367	820	671	753	626	565	473
MAX	1,000	1,430	2,700	2,980	612	540	2,410	858	948	844	781	622
MIN	224	258	300	350	300	270	385	490	606	455	410	350
CFSM	2.58	2.81	3.92	4.92	2.48	2.14	4.77	3.90	4.38	3.64	3.29	2.75
IN.	2.98	3.13	4.52	5.68	2.58	2.46	5.32	4.49	4.88	4.20	3.79	3.07
AC-FT	27,300	28,720	41,440	52,070	23,640	22,580	48,800	41,230	44,790	38,520	34,760	28,160

CAL YR 1961: TOTAL 272,095 MEAN 745 MAX 4,600 MIN 190 CFSM 4.33 IN 58.83 AC-FT 539,700
WAT YR 1962: TOTAL 217,811 MEAN 597 MAX 2,980 MIN 224 CFSM 3.47 IN 47.10 AC-FT 432,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	435	307	890	890	586	673	712	610	586	624	514	688
2	490	320	880	1,170	880	631	610	631	696	610	502	610
3	618	315	778	1,130	6,220	562	610	610	617	617	574	550
4	445	324	696	870	2,700	514	760	568	586	680	624	645
5	360	460	1,140	736	2,270	484	910	720	900	652	645	673
6	338	375	2,200	638	1,560	457	1,590	850	728	638	645	568
7	365	315	1,370	592	1,210	452	1,270	850	638	652	673	638
8	546	415	1,160	556	920	430	940	760	688	805	688	778
9	802	365	961	562	787	415	778	680	704	720	744	769
10	678	365	850	474	696	400	728	624	624	930	712	787
11	594	380	796	395	624	425	680	598	666	940	850	659
12	546	425	712	375	562	410	680	550	688	805	994	631
13	642	430	796	400	556	395	696	526	680	796	961	704
14	500	370	1,230	400	520	380	394	508	760	841	814	598
15	430	338	1,840	385	496	380	1,170	514	805	712	598	574
16	370	324	1,240	410	496	376	980	544	870	638	586	580
17	342	295	950	400	468	372	814	532	900	638	604	484
18	365	291	787	372	538	358	805	645	814	631	562	440
19	380	2,300	760	362	624	405	728	850	704	652	598	435
20	365	7,620	659	340	688	425	704	1,030	645	638	556	435
21	375	2,510	638	354	574	430	680	1,080	631	610	490	457
22	365	1,500	638	322	514	479	659	1,060	568	860	446	520
23	342	1,200	574	313	496	474	666	860	526	638	452	610
24	324	1,000	526	313	468	446	610	720	496	598	502	490
25	311	2,900	484	313	474	440	586	638	556	574	440	468
26	324	3,120	457	291	870	435	574	604	514	538	457	508
27	315	2,050	457	287	673	457	550	562	490	598	435	624
28	315	1,400	474	279	610	631	520	604	490	604	435	796
29	338	1,100	484	271	------	760	574	666	720	556	496	769
30	338	1,180	870	267	------	900	610	680	688	526	610	550
31	303	------	744	362	------	850	------	652	------	544	680	------
TOTAL	13,261	34,294	27,041	14,829	28,080	15,246	23,088	21,326	19,978	20,865	18,887	18,038
MEAN	428	1,143	872	478	1,003	492	770	688	666	673	609	601
MAX	802	7,620	2,200	1,170	6,220	900	1,590	1,080	900	940	994	796
MIN	303	291	457	267	468	358	520	508	490	526	435	435
CFSM	2.49	6.65	5.07	2.78	5.83	2.86	4.47	4.00	3.87	3.91	3.54	3.50
IN.	2.87	7.42	5.85	3.21	6.07	3.30	4.99	4.61	4.32	4.51	4.08	3.90
AC-FT	26,300	68,020	53,640	29,410	55,700	30,240	45,790	42,300	39,630	41,390	37,460	35,780

CAL YR 1962: TOTAL 243,270 MEAN 666 MAX 7,620 MIN 270 CFSM 3.88 IN 52.60 AC-FT 482,500
WAT YR 1963: TOTAL 254,933 MEAN 698 MAX 7,620 MIN 267 CFSM 4.06 IN 55.12 AC-FT 505,700

12-0935. Puyallup River near Orting, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	508	376	574	2,070	1,190	376	870	480	1,680	1,030	764	444
2	502	484	544	1,820	1,000	355	692	438	1,460	1,110	724	444
3	450	446	514	1,080	800	340	578	392	1,130	1,000	834	426
4	380	479	496	850	750	518	550	376	1,750	970	942	414
5	330	468	563	728	700	620	550	382	1,920	970	756	392
6	300	474	940	1,040	650	501	515	330	1,670	933	692	382
7	290	556	720	796	620	432	501	315	1,830	1,170	740	376
8	290	910	680	652	578	409	515	350	1,730	1,410	700	426
9	310	631	631	645	515	414	550	409	1,530	1,280	732	409
10	330	580	568	610	543	432	660	708	1,480	1,070	700	335
11	370	532	532	574	529	615	652	676	1,420	1,240	732	330
12	380	474	490	526	456	564	652	676	1,200	1,510	825	330
13	480	490	474	538	444	480	652	684	1,220	1,500	789	330
14	610	841	446	610	404	537	620	564	1,150	1,610	660	360
15	624	720	435	666	409	724	1,190	508	1,130	1,780	599	390
16	474	624	520	1,480	409	599	1,010	543	1,770	1,220	592	426
17	474	814	568	1,180	468	714	825	748	1,690	1,040	628	634
18	354	796	550	983	599	834	676	816	2,180	924	716	578
19	304	787	592	1,010	613	668	599	951	1,610	798	564	480
20	300	752	823	1,080	522	585	564	1,160	1,270	798	487	716
21	336	645	736	796	474	536	487	1,380	1,060	915	557	508
22	981	617	755	659	450	468	628	1,150	970	643	660	676
23	574	673	890	592	420	426	557	879	1,170	692	708	700
24	508	673	720	967	426	392	501	740	1,220	716	708	692
25	598	744	841	4,350	392	365	462	613	1,110	825	708	592
26	479	1,120	728	2,290	355	376	578	592	1,090	870	825	462
27	425	1,460	680	1,650	340	360	564	724	942	906	764	426
28	425	910	680	1,390	382	330	543	915	825	1,030	905	409
29	468	728	610	1,400	335	355	550	942	732	1,060	652	414
30	405	624	592	1,220	------	487	536	1,130	861	960	585	693
31	395	------	673	1,150	------	668	------	1,470	------	852	501	------
TOTAL	13,654	20,428	19,565	35,402	15,773	15,480	18,827	22,041	40,800	33,032	21,750	14,394
MEAN	440	681	631	1,142	544	499	628	711	1,360	1,066	702	480
MAX	981	1,460	940	4,350	1,190	834	1,190	1,470	2,180	1,780	942	834
MIN	290	376	435	526	335	330	462	315	732	692	487	330
CFSM	2.56	3.96	3.67	6.64	3.16	2.90	3.65	4.13	7.91	6.20	4.08	2.79
IN.	2.95	4.42	4.23	7.65	3.41	3.35	4.07	4.77	8.82	7.14	4.70	3.11
AC-FT	27,080	40,520	38,810	70,220	31,290	30,700	37,340	43,720	80,930	65,520	43,140	28,550

CAL YR 1963: TOTAL 233,984 MEAN 641 MAX 6,220 MIN 267 CFSM 3.73 IN 50.59 AC-FT 464,100
WAT YR 1964: TOTAL 271,146 MEAN 741 MAX 4,350 MIN 290 CFSM 4.31 IN 58.63 AC-FT 537,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	732	370	3,510	668	2,260	700	362	724	604	730	886	358
2	1,050	370	3,410	716	1,650	590	370	646	658	851	556	411
3	942	392	1,900	652	1,350	540	330	586	816	858	809	384
4	732	724	1,380	571	1,200	530	318	616	858	844	742	366
5	628	592	1,070	557	1,470	510	306	580	886	830	742	318
6	599	468	852	606	1,300	500	294	544	916	816	742	286
7	599	420	700	529	1,070	480	278	510	893	858	742	302
8	1,060	392	800	474	1,100	490	270	485	916	809	851	339
9	869	409	1,050	420	915	500	314	480	924	640	872	344
10	825	392	1,040	432	800	520	339	500	886	562	1,060	344
11	676	365	879	426	700	540	290	550	972	556	980	344
12	694	360	740	392	760	550	290	646	872	495	948	334
13	620	365	600	387	1,170	532	314	670	694	538	893	310
14	536	320	520	501	1,010	500	314	628	634	670	640	689
15	692	306	460	772	906	470	344	598	610	774	634	1,120
16	660	297	400	960	888	430	445	795	538	730	652	823
17	557	297	430	942	1,230	411	435	706	634	712	634	536
18	501	288	430	888	1,220	380	384	610	700	694	716	420
19	462	288	390	933	1,160	344	981	622	676	610	865	375
20	450	274	360	980	1,030	357	2,090	724	694	574	879	375
21	414	250	900	980	897	339	1,440	682	694	562	670	388
22	404	262	4,760	852	861	380	1,080	628	664	485	658	470
23	376	335	4,460	949	770	344	886	574	676	500	664	405
24	365	2,310	2,560	1,060	680	310	830	556	658	598	646	435
25	335	1,570	1,730	834	640	322	886	574	592	718	568	430
26	310	1,110	1,850	936	730	314	879	652	532	886	526	380
27	292	789	1,710	3,080	1,060	314	956	767	460	932	480	306
28	297	628	1,320	4,230	834	298	1,010	932	460	844	388	262
29	302	917	1,050	9,070	------	290	940	916	505	748	330	254
30	330	2,070	879	5,780	------	286	823	788	592	837	306	266
31	340	------	749	3,340	------	282	------	694	------	872	334	------
TOTAL	17,639	17,930	42,888	43,917	29,661	13,353	18,798	19,983	21,214	22,133	21,815	12,476
MEAN	569	598	1,383	1,417	1,059	431	627	645	707	714	704	416
MAX	1,060	2,310	4,760	9,070	2,260	700	2,090	932	972	932	1,060	1,120
MIN	292	250	360	387	640	282	270	480	460	485	306	254
CFSM	3.31	3.47	8.04	8.24	6.16	2.50	3.64	3.75	4.11	4.15	4.09	2.42
IN.	3.81	3.88	9.27	9.50	6.41	2.89	4.06	4.32	4.59	4.79	4.72	2.70
AC-FT	34,990	35,560	85,070	87,110	58,830	26,490	37,290	39,640	42,080	43,900	43,270	24,750

CAL YR 1964: TOTAL 295,956 MEAN 809 MAX 4,760 MIN 250 CFSM 4.70 IN 63.99 AC-FT 587,000
WAT YR 1965: TOTAL 281,807 MEAN 772 MAX 9,070 MIN 250 CFSM 4.49 IN 60.93 AC-FT 559,000

12-0940. Carbon River near Fairfax, Wash.

Location.--Lat 47°01'40", long 122°01'50", in SW¼SW¼ sec.22, T.18 N., R.6 E., on left bank 1¼ miles upstream from highway bridge, 1¼ miles northwest of Fairfax, and 2¼ miles downstream from Evans Creek.

Drainage area.--78.9 sq mi.

Records available.--November 1910 to July 1912, March 1929 to September 1965 (discontinued). Published as "at Fairfax" 1910-12.

Gage.--Water-stage recorder. Datum of gage is 1,212.6 ft above mean sea level (river-profile survey). Prior to July 13, 1912, staff gage at railroad crossing 1.7 miles upstream at different datum.

Average discharge.--36 years (1929-65), 425 cfs (307,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,800 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 11, 1960	0200	2,390	4.40	Jan. 7, 1962	1030	2,300	4.47	Jan. 25, 1964	0600	* 2,550	4.05
Nov. 16, 1960	1100	* 3,360	5.16	Apr. 6, 1962	2300	* 3,430	5.21	June 18, 1964	0400	1,810	3.20
Nov. 24, 1960	1700	2,070	4.11								
Feb. 21, 1961	1300	3,080	4.95	Nov. 20, 1962	0300	* 6,460	6.96	Nov. 24, 1964	1100	2,230	3.63
				Nov. 25, 1962	2100	1,880	3.49	Dec. 1, 1964	1930	2,920	4.24
Dec. 24, 1961	0800	2,820	4.75	Dec. 6, 1962	0230	1,990	3.61	Dec. 22, 1964	1930	4,520	5.45
Jan. 3, 1962	0800	2,210	4.24	Feb. 3, 1963	0800	4,150	5.50	Jan. 29, 1965	0630	* 6,800	6.85

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	90	0.93	1964	Oct. 11, 1963	a 130	-
1962	Oct. 4, 5, 1961	115	1.04	1965	Apr. 8, 12, 1965	a 140	-
1963	Jan. 30, 1963	a 115	-				

a Minimum daily.

1910-12, 1929-65: Maximum discharge, 11,000 cfs Dec. 9, 1933 (gage height, 10.2 ft), from rating curve extended above 4,200 cfs; minimum, 36 cfs Nov. 28, 29, 1952.

Remarks.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station.

Revisions (water years).--WSP 1246: Drainage area. WSP 1286: 1930, 1931-32(M), 1933-35.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	187	680	343	232	565	740	348	632	746	360	318	728
2	176	585	366	214	580	614	724	638	952	369	339	434
3	165	505	350	206	515	500	1,060	540	989	350	364	283
4	164	426	322	228	580	429	752	505	919	425	394	264
5	161	382	294	908	1,090	390	545	465	828	485	420	261
6	209	350	271	1,100	1,280	369	451	420	849	451	348	218
7	294	322	262	835	596	335	394	399	807	386	315	192
8	315	298	250	650	782	323	394	394	638	365	299	177
9	235	280	244	530	722	315	390	412	644	382	283	162
10	206	876	235	458	764	295	352	432	555	407	276	153
11	198	1,520	257	440	670	287	339	412	550	442	280	159
12	203	821	545	417	580	280	386	373	525	555	249	162
13	162	665	515	374	550	327	390	356	535	608	323	159
14	166	605	595	440	505	550	348	365	596	590	331	151
15	171	803	458	704	590	638	327	382	746	545	356	151
16	184	2,230	378	1,020	535	550	344	425	842	447	331	153
17	176	1,320	354	693	476	465	434	515	947	386	315	153
18	169	1,180	404	550	422	420	412	590	1,080	369	307	156
19	169	856	540	462	530	403	373	710	954	360	303	157
20	166	1,180	544	412	1,020	403	335	752	716	377	331	177
21	184	975	370	385	2,340	369	319	686	596	420	323	142
22	256	672	366	366	1,350	352	323	578	560	425	335	119
23	362	645	358	343	835	360	327	632	566	420	327	107
24	650	1,390	354	322	716	360	327	545	566	369	280	101
25	503	1,120	332	298	602	373	331	525	584	331	225	99
26	565	722	326	277	495	356	323	644	590	339	215	97
27	610	550	301	262	500	323	307	662	485	365	186	94
28	884	453	271	256	480	303	319	555	407	335	199	166
29	655	390	262	358	------	287	513	540	420	299	215	153
30	540	354	247	555	------	291	638	555	390	280	218	122
31	740	------	241	692	------	311	------	540	------	307	478	------
TOTAL	9,855	23,175	10,985	14,993	21,170	12,318	12,825	16,179	20,582	12,589	9,538	5,652
MEAN	318	773	354	484	756	397	428	522	686	406	308	188
MAX	884	2,230	595	1,100	2,340	740	1,060	752	1,080	608	478	728
MIN	161	280	235	206	422	280	307	356	340	280	186	94
CFSM	4.03	9.79	4.49	6.13	9.58	5.04	5.42	6.61	8.70	5.15	3.90	2.39
IN.	4.65	10.9	5.18	7.07	9.98	5.81	6.05	7.63	9.70	5.93	4.50	2.66
AC-FT	19,550	45,970	21,790	29,740	41,990	24,430	25,440	32,090	40,820	24,970	18,920	11,210

CAL YR 1960: TOTAL 156,406 MEAN 427 MAX 2,230 MIN 133 CFSM 5.42 IN 73.72 AC-FT 310,200
WAT YR 1961: TOTAL 169,861 MEAN 465 MAX 2,340 MIN 94 CFSM 5.90 IN 80.07 AC-FT 336,900

12-0940. Carbon River near Fairfax, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	129	408	331	520	315	153	264	373	393	495	436	257
2	122	373	303	665	356	148	280	446	495	405	397	250
3	119	416	291	1,920	425	145	261	530	510	373	441	246
4	117	339	339	1,120	416	162	323	495	475	393	480	243
5	135	283	373	982	356	189	505	418	510	397	583	246
6	246	250	323	1,070	315	202	1,640	389	490	495	432	243
7	236	236	307	1,900	295	196	1,850	349	470	465	381	254
8	180	228	280	1,300	276	192	917	373	540	490	341	218
9	267	236	250	905	268	192	649	428	572	530	309	200
10	732	331	222	704	268	186	520	460	520	525	301	309
11	434	365	212	550	253	180	436	428	460	505	305	337
12	512	291	208	495	246	171	401	397	465	495	349	240
13	741	264	205	447	232	168	436	373	441	455	373	218
14	480	382	199	403	250	171	535	341	432	428	325	203
15	407	327	196	356	228	171	632	329	490	455	321	185
16	344	283	199	319	215	177	490	313	583	428	337	170
17	287	257	287	295	215	180	428	317	583	401	321	170
18	232	239	239	268	218	186	450	337	545	349	313	182
19	205	215	407	239	208	189	510	321	556	333	325	203
20	180	192	710	215	202	192	460	297	572	361	349	229
21	162	222	674	208	192	180	432	278	594	410	357	243
22	151	944	596	200	192	174	423	297	583	480	285	240
23	264	638	1,350	195	189	168	441	397	610	525	260	203
24	222	456	2,330	220	168	196	515	441	660	530	268	186
25	218	373	1,110	260	159	228	436	495	708	545	289	197
26	271	331	728	295	156	236	369	515	696	525	257	203
27	311	327	540	331	159	242	389	520	525	480	215	203
28	257	360	545	303	156	218	393	588	475	475	274	266
29	228	382	674	283	------	215	365	556	525	465	274	266
30	225	365	770	287	------	215	337	470	550	455	264	209
31	239	------	584	307	------	228	------	418	------	470	254	------
TOTAL	8,673	10,313	15,782	17,562	6,928	5,850	16,087	12,689	16,028	14,138	10,416	6,825
MEAN	280	344	509	567	247	189	536	409	534	456	336	228
MAX	741	944	2,330	1,920	425	242	1,850	588	708	545	583	337
MIN	117	192	196	195	156	145	261	278	393	333	215	170
CFSM	3.55	4.36	6.45	7.18	3.14	2.39	6.80	5.19	6.77	5.78	4.26	2.88
IN.	4.09	4.86	7.44	8.28	3.27	2.76	7.58	5.98	7.55	6.60	4.91	3.22
AC-FT	17,200	20,460	31,300	34,830	13,740	11,600	31,910	25,170	31,790	28,040	20,660	13,540

CAL YR 1961: TOTAL 160,614 MEAN 440 MAX 2,340 MIN 94 CFSM 5.58 IN 75.71 AC-FT 318,600
WAT YR 1962: TOTAL 141,291 MEAN 387 MAX 2,330 MIN 117 CFSM 4.91 IN 66.60 AC-FT 280,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	185	142	600	563	238	454	314	342	459	454	300	304
2	179	142	590	690	443	358	282	346	522	438	300	286
3	268	140	565	800	2,600	352	318	324	454	414	314	265
4	236	142	545	580	1,460	321	464	296	418	434	328	296
5	194	215	852	472	1,160	296	614	360	645	418	335	296
6	176	209	1,540	406	818	276	890	446	545	398	346	272
7	204	176	932	366	675	265	670	486	477	402	363	279
8	293	278	824	349	560	247	526	442	508	464	346	318
9	357	250	685	338	495	238	446	402	550	446	363	338
10	321	226	605	286	450	229	410	360	500	561	346	346
11	278	229	540	247	394	241	394	352	536	650	366	314
12	257	215	510	230	356	229	386	332	585	545	434	307
13	285	206	500	240	338	214	370	318	540	513	442	338
14	250	203	721	241	324	217	498	318	540	504	370	324
15	222	185	983	232	304	202	620	349	580	450	314	272
16	200	194	680	220	296	199	490	356	650	382	296	268
17	185	170	550	205	262	190	430	394	615	410	304	227
18	194	161	454	193	342	187	398	538	585	386	307	202
19	209	1,460	454	178	512	236	374	710	531	406	324	190
20	197	3,600	410	172	575	244	366	770	464	390	314	187
21	206	1,560	430	170	468	259	346	812	482	370	276	193
22	200	986	450	172	414	296	346	800	459	438	250	205
23	191	715	400	168	374	296	338	645	378	398	250	266
24	182	631	360	162	338	268	324	518	378	366	253	223
25	176	1,200	340	160	320	265	314	468	446	342	238	211
26	179	1,400	330	155	609	279	307	434	406	300	226	208
27	179	914	320	150	468	314	290	426	356	328	226	235
28	167	690	310	145	434	370	272	446	349	352	229	293
29	164	595	341	120	------	386	314	490	477	321	235	318
30	155	645	610	115	------	386	342	513	486	296	256	257
31	150	------	545	233	------	349	------	518	------	304	286	------
TOTAL	6,639	17,879	18,056	8,759	16,047	8,703	12,453	14,311	14,941	12,880	9,557	8,044
MEAN	214	596	582	283	573	281	415	462	498	415	308	268
MAX	357	3,600	1,540	800	2,600	454	890	812	650	650	442	346
MIN	150	140	310	115	238	187	272	296	349	296	226	187
CFSM	2.71	7.55	7.38	3.58	7.26	3.56	5.26	5.85	6.31	5.27	3.91	3.40
IN.	3.13	8.43	8.51	4.13	7.56	4.10	5.87	6.75	7.04	6.07	4.50	3.79
AC-FT	13,170	35,460	35,810	17,370	31,830	17,260	24,700	28,390	29,640	25,550	18,960	15,960

CAL YR 1962: TOTAL 149,097 MEAN 408 MAX 3,600 MIN 140 CFSM 5.18 IN 70.28 AC-FT 295,700
WAT YR 1963: TOTAL 148,268 MEAN 406 MAX 3,600 MIN 115 CFSM 5.15 IN 69.89 AC-FT 294,100

12-0940. Carbon River near Fairfax, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBEP 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	214	232	370	871	520	217	528	331	1,480	892	590	346
2	211	290	332	797	448	192	425	300	1,340	892	570	338
3	196	253	307	600	399	186	354	267	1,000	778	590	358
4	170	300	296	500	399	276	342	267	1,240	766	664	338
5	152	282	357	464	386	267	338	278	1,310	802	605	323
6	145	286	565	570	350	233	312	250	1,110	772	556	308
7	140	377	438	482	319	214	315	250	1,230	913	551	323
8	136	785	414	418	297	207	331	271	1,220	1,040	520	359
9	133	536	370	398	282	198	362	362	1,250	885	542	338
10	131	442	328	366	289	211	434	622	1,320	814	524	297
11	130	370	300	335	286	217	416	585	1,180	899	497	271
12	135	356	282	307	264	207	391	560	1,040	1,120	533	257
13	172	366	265	335	250	186	354	538	1,000	1,080	565	250
14	202	502	250	342	236	233	364	456	1,020	1,090	488	264
15	250	464	247	453	230	319	640	412	1,020	1,160	448	278
16	247	398	338	827	233	282	506	448	1,480	909	430	300
17	196	490	426	645	247	362	421	640	1,390	706	421	572
18	168	418	422	531	282	391	374	700	1,640	640	434	421
19	142	426	402	518	323	327	350	784	1,160	605	456	382
20	142	394	477	486	297	297	334	948	913	634	399	520
21	148	352	410	410	278	282	327	1,000	772	718	374	434
22	538	335	503	366	267	250	378	760	724	652	395	506
23	406	346	710	324	264	230	327	580	934	542	425	506
24	387	346	555	628	264	211	308	538	969	560	434	461
25	430	474	536	2,010	240	204	312	474	934	622	434	408
26	338	1,010	450	1,110	230	204	378	479	920	640	533	334
27	279	1,060	422	820	214	186	362	610	820	646	524	297
28	296	640	422	670	211	182	350	814	700	736	646	274
29	276	504	382	670	207	207	362	857	628	802	488	282
30	250	422	356	575	------	295	342	1,020	760	724	474	556
31	232	------	447	538	------	422	------	1,260	------	664	395	------
TOTAL	6,992	13,456	12,379	18,366	8,512	7,695	11,337	17,661	32,504	24,703	15,505	10,941
MEAN	226	449	399	592	294	248	378	570	1,083	797	500	365
MAX	538	1,060	710	2,010	520	422	640	1,260	1,640	1,160	664	572
MIN	130	232	247	307	207	182	308	250	628	542	374	250
CFSM	2.86	5.68	5.06	7.51	3.72	3.15	4.79	7.22	13.7	10.1	6.34	4.62
IN.	3.30	6.34	5.83	8.66	4.01	3.63	5.34	8.32	15.3	11.6	7.31	5.16
AC-FT	13,870	26,690	24,550	36,430	16,880	15,260	22,490	35,030	64,470	49,000	30,750	21,700

CAL YR 1963: TOTAL 138,521 MEAN 380 MAX 2,600 MIN 115 CFSM 4.81 IN 65.29 AC-FT 274,800
WAT YR 1964: TOTAL 180,051 MEAN 492 MAX 2,010 MIN 130 CFSM 6.24 IN 84.87 AC-FT 357,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	616	230	2,500	342	1,200	390	210	450	445	550	500	190
2	497	233	1,970	350	900	360	190	410	520	600	510	210
3	844	302	1,120	323	700	340	170	390	615	600	410	195
4	595	457	754	286	740	320	160	410	595	600	380	180
5	492	378	580	290	800	290	150	390	605	595	375	175
6	425	315	497	320	700	280	150	365	630	565	370	170
7	391	293	430	280	600	260	145	350	625	595	385	165
8	515	264	512	250	640	250	140	335	642	580	410	160
9	603	274	600	233	550	250	155	330	642	440	430	155
10	585	257	616	230	480	255	180	340	615	398	490	150
11	466	236	515	236	450	245	150	365	720	394	445	160
12	408	223	448	227	500	240	140	420	648	362	440	165
13	382	217	412	223	640	230	150	470	520	374	475	170
14	391	198	370	290	600	215	160	440	470	430	370	430
15	546	186	331	497	560	210	180	422	435	485	350	720
16	506	179	260	646	550	210	230	585	410	470	330	599
17	434	176	230	610	650	205	190	505	500	510	320	400
18	382	173	210	546	600	190	170	430	520	450	370	330
19	366	167	215	546	560	185	700	430	475	380	390	280
20	342	161	227	556	530	190	1,370	470	495	360	450	250
21	315	156	334	542	480	195	800	440	500	350	350	220
22	289	170	2,550	434	490	200	580	414	490	320	320	200
23	267	233	2,270	421	430	180	560	390	500	330	320	190
24	250	1,620	1,240	443	390	175	635	370	465	370	380	180
25	236	1,060	814	382	380	170	605	394	440	400	340	170
26	217	706	814	476	460	165	620	445	394	465	300	165
27	204	538	646	1,360	580	165	726	570	358	545	260	165
28	198	448	538	2,110	450	165	792	696	362	480	220	170
29	192	735	479	4,850	------	160	672	684	398	430	190	175
30	214	1,780	421	3,030	------	160	550	570	480	470	170	180
31	214	------	374	1,770	------	160	------	495	------	465	170	------
TOTAL	12,882	12,365	23,277	23,099	16,610	7,010	11,630	13,775	15,514	14,363	11,220	7,069
MEAN	416	412	751	745	593	226	388	444	517	463	362	236
MAX	997	1,780	2,550	4,850	1,200	390	1,370	696	720	600	510	720
MIN	192	156	210	223	380	160	140	330	358	320	170	150
CFSM	5.27	5.22	9.52	9.44	7.52	2.87	4.91	5.63	6.55	5.87	4.59	2.59
IN.	6.07	5.83	11.0	10.9	7.83	3.30	5.48	6.49	7.31	6.77	5.29	3.33
AC-FT	25,550	24,530	46,170	45,820	32,950	13,900	23,070	27,320	30,770	28,490	22,250	14,020

CAL YR 1964: TOTAL 195,748 MEAN 535 MAX 2,550 MIN 156 CFSM 6.78 IN 92.27 AC-FT 388,300
WAT YR 1965: TOTAL 168,814 MEAN 463 MAX 4,850 MIN 140 CFSM 5.86 IN 79.57 AC-FT 334,800

Note.--No gage-height record Feb. 1 to Apr. 19.

12-0944. South Prairie Creek near Enumclaw, Wash.

Location.--Lat 47°05'30", long 121°57'05", in SE¼NE¼ sec.31, T.19 N., R.7 E., on left bank 400 ft upstream from diversion dam, 1¼ miles downstream from East Fork, and 8 miles south of Enumclaw.

Drainage area.--22.4 sq mi.

Records available.--September 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,420 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (600 cfs), September 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 25, 1964	0430	* 1,090	3.43	Nov. 24, 1964	0900	748	2.88	Dec. 22, 1964	1830	1,430	3.88
June 18, 1964	0100	618	2.65	Dec. 1, 1964	1930	766	2.91	Jan. 29, 1965	0900	* 3,290	6.13
								Apr. 20, 1965	0130	627	4.01

Annual minimum discharge, September 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	Oct. 9-11, 1963	24	a 0.79	1965	Sept. 10-13, 1965	19	b 1.00

a Occurred Oct. 11, 1963.
b Occurred Dec. 21, 1964.

1963-65: Maximum discharge, 3,290 cfs Jan. 29, 1965 (gage height, 6.13 ft), from rating curve extended above 220 cfs on basis of slope-area measurement of peak flow; minimum, 19 cfs Sept. 10-13, 1965.

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1												-
2												-
3												-
4												-
5												-
6												-
7												-
8												-
9												-
10												-
11												-
12												-
13												-
14												-
15												-
16												-
17												-
18												-
19												-
20												33
21												32
22												32
23												40
24												36
25												33
26												32
27												30
28												28
29												28
30					------							27
31		------			------		------		------			------
TOTAL												-
MEAN												-
MAX												-
MIN												-
CFSM												-
IN												-
AC-FT												-

12-0944. South Prairie Creek near Enumclaw, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27	69	102	290	167	71	192	111	325	162	100	62
2	26	98	92	251	146	64	151	100	258	151	100	66
3	26	78	82	197	134	64	129	92	197	136	115	60
4	26	120	76	167	136	92	124	88	285	132	122	69
5	26	109	112	151	129	90	120	90	273	132	122	62
6	27	109	159	200	118	80	115	84	237	127	104	59
7	26	139	122	178	109	72	122	84	305	154	98	70
8	25	212	127	154	100	70	127	88	277	156	88	127
9	24	149	119	139	94	65	134	120	289	127	86	98
10	24	125	104	124	100	70	154	186	273	115	82	82
11	24	109	94	113	94	72	144	167	234	139	75	73
12	25	111	88	104	86	66	134	164	206	151	75	66
13	37	113	80	111	82	62	124	159	200	134	60	62
14	36	154	75	118	78	80	135	134	215	149	71	60
15	28	124	80	172	76	109	251	122	208	151	66	56
16	27	113	115	312	78	98	189	129	358	118	60	61
17	27	149	141	234	80	141	151	172	370	111	55	152
18	27	134	129	186	107	167	129	175	480	104	73	107
19	25	164	134	186	109	139	118	189	293	96	78	100
20	31	146	156	186	98	122	109	221	218	102	64	122
21	33	124	132	162	94	111	102	248	183	118	58	96
22	283	113	162	141	90	98	115	194	178	102	55	113
23	146	111	172	124	90	88	102	164	203	90	53	102
24	136	107	139	258	86	80	102	156	180	90	50	66
25	162	181	144	789	80	76	102	144	162	94	52	78
26	124	314	124	355	76	73	124	141	164	90	65	73
27	100	270	120	254	73	67	124	180	141	86	80	67
28	111	178	115	200	69	66	127	209	124	94	58	62
29	96	144	102	206	69	78	132	206	122	92	78	64
30	88	118	92	180	------	120	118	251	149	84	78	124
31	76	------	115	175	------	156	------	297	------	122	67	------
TOTAL	1,901	4,189	3,613	6,417	2,848	2,807	4,005	4,865	7,107	3,709	2,454	2,531
MEAN	61.3	140	117	207	98.2	90.5	134	157	237	120	79.2	84.4
MAX	283	314	172	789	167	167	251	297	480	162	122	162
MIN	24	69	75	104	69	62	102	84	122	84	50	58
CFSM	2.74	6.25	5.22	9.24	4.38	4.04	5.98	7.01	10.6	5.36	3.54	3.77
IN	3.16	6.95	6.00	10.65	4.73	4.66	6.65	8.08	11.80	6.16	4.07	4.20
AC-FT	3,770	8,310	7,170	12,730	5,650	5,570	7,940	9,650	14,100	7,360	4,870	5,020

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 46,446 MEAN 127 MAX 789 MIN 24 CFSM 5.67 IN 77.11 AC-FT 92,140

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	136	59	628	100	291	133	74	117	90	69	24	22
2	175	60	535	96	202	121	63	103	109	66	24	22
3	134	86	281	90	172	111	58	97	125	63	25	21
4	107	139	197	82	180	105	60	99	115	61	25	20
5	90	124	156	80	202	99	58	90	115	55	25	21
6	78	104	132	75	165	97	55	86	117	54	24	21
7	69	94	120	69	151	95	54	84	113	55	24	20
8	90	86	141	66	153	95	53	82	117	48	22	20
9	111	92	159	62	137	97	60	86	107	40	23	20
10	111	88	164	64	123	99	59	97	99	42	30	20
11	98	82	136	62	113	101	54	113	115	55	25	19
12	78	76	124	59	121	97	54	129	93	45	31	20
13	73	75	118	62	185	88	58	115	74	41	41	20
14	86	67	109	111	165	81	58	103	72	43	30	60
15	151	62	98	200	149	77	64	99	75	41	24	127
16	134	60	90	240	155	72	90	137	72	39	24	97
17	118	64	85	215	235	69	75	117	91	36	23	47
18	102	62	80	194	217	64	69	109	84	36	23	35
19	98	59	85	192	217	61	299	115	69	32	27	31
20	86	56	90	189	188	61	430	145	72	36	43	28
21	76	54	100	178	158	61	280	129	69	37	29	27
22	67	66	868	149	141	63	202	119	67	32	25	25
23	62	111	720	159	123	57	162	113	67	31	32	24
24	62	510	337	172	113	53	168	105	63	30	32	23
25	59	305	215	154	107	54	185	105	57	29	29	23
26	54	209	254	199	127	54	175	115	53	29	29	22
27	52	159	212	579	172	51	190	141	48	28	28	23
28	48	132	169	897	149	51	190	153	50	28	26	21
29	48	232	146	2,170	------	51	145	135	55	26	24	21
30	50	495	124	1,130	------	53	129	111	64	24	24	20
31	47	------	109	549	------	57	------	97	------	24	23	------
TOTAL	2,740	3,868	6,782	8,644	4,611	2,428	3,671	3,446	2,519	1,275	838	940
MEAN	88.4	129	219	279	165	78.3	122	111	84.0	41.1	27.0	31.3
MAX	175	510	868	2,170	291	133	430	153	125	69	43	127
MIN	47	54	80	59	107	51	53	82	48	24	22	19
CFSM	3.95	5.76	9.78	12.5	7.37	3.50	5.45	4.96	3.75	1.83	1.21	1.40
IN	4.55	6.42	11.26	14.35	7.66	4.03	6.09	5.72	4.18	2.12	1.39	1.56
AC-FT	5,430	7,670	13,450	17,150	9,150	4,820	7,280	6,840	5,000	2,530	1,660	1,860

CAL YR 1964: TOTAL 50,133 MEAN 137 MAX 868 MIN 47 CFSM 6.12 IN 83.23 AC-FT 99,440
WAT YR 1965: TOTAL 41,762 MEAN 114 MAX 2,170 MIN 19 CFSM 5.09 IN 69.33 AC-FT 82,840

12-0950. South Prairie Creek at South Prairie, Wash.

Location.--Lat 47°08'30", long 122°05'30", in NE¼NW¼ sec.18, T.19 N., R.6 E., on right bank 0.3 mile northeast of South Prairie and 5 miles upstream from mouth.

Drainage area.--79.5 sq mi (revised).

Records available.--June 1949 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 430 ft (from topographic map).

Average discharge.--16 years, 247 cfs (178,800 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,400 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	1100	1,940	5.65	Apr. 7, 1962	0100	1,510	5.02	June 18, 1964	0200	1,430	4.87
Nov. 24, 1960	1800	* 3,340	7.05	Nov. 20, 1962	0630	2,140	5.87	Nov. 24, 1964	1300	1,930	5.60
Jan. 5, 1961	1800	1,500	5.10	Nov. 25, 1962	2200	1,650	5.26	Dec. 1, 1964	2300	1,540	5.05
Feb. 21, 1961	1730	2,530	6.28	Feb. 3, 1963	1030	* 3,850	7.47	Dec. 22, 1964	2030	3,570	7.31
Dec. 24, 1961	1000	* 1,760	5.44	Jan. 25, 1964	0800	* 3,380	7.09	Jan. 29, 1965	0900	* 6,400	9.48

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 1960, Aug. 11,12, 1961	37	a 1.38	1963	Sept.28, 29, 1963	45	1.30
				1964	Oct. 10, 11, 1963	42	1.28
1962	July 30 to Aug. 2	36	1.33	1965	Sept. 8, 9, 1965	23	.86

a Occurred Sept. 11, 12, 1961.

1949-65: Maximum discharge, 6,850 cfs Dec. 11, 1955 (gage height, 9.78 ft), from rating curve extended above 3,000 cfs; minimum, 22 cfs Nov. 29, 1952.

Remarks.--Records good except those for period of no gage-height record, which are fair. Small amount of diversion for domestic use. Rainier State School diverts 2 to 3 cfs above station. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	41	467	286	175	330	860	232	400	228	86	42	149
2	44	450	324	160	429	682	414	446	245	83	42	80
3	42	470	327	152	354	511	677	436	222	77	41	53
4	41	373	312	156	387	409	485	439	201	74	41	48
5	41	351	269	857	566	360	363	500	184	91	42	48
6	54	321	242	907	984	354	315	403	247	96	42	48
7	72	232	225	654	855	315	267	342	250	83	42	46
8	115	272	210	492	626	300	272	327	180	71	42	44
9	88	256	198	381	550	297	294	330	213	64	42	42
10	74	434	187	321	582	275	261	384	187	61	40	40
11	68	930	206	300	485	267	242	330	184	58	38	39
12	78	446	474	283	403	269	312	280	167	57	39	39
13	70	390	369	253	396	306	333	253	154	57	39	40
14	61	416	442	269	384	453	286	261	160	57	42	40
15	55	575	339	330	578	474	261	253	180	57	45	42
16	57	1,460	286	590	618	400	256	245	182	57	50	46
17	58	880	283	463	467	345	292	256	182	57	48	45
18	50	962	342	372	378	315	267	269	160	55	45	45
19	48	642	467	318	522	303	242	286	135	54	42	45
20	48	1,070	369	286	767	324	222	286	120	53	40	45
21	57	850	333	256	1,830	283	215	242	110	49	40	48
22	99	646	289	232	1,250	258	232	206	104	49	39	46
23	247	754	267	213	695	267	275	230	102	49	40	44
24	522	2,260	245	203	642	280	283	191	99	49	39	41
25	342	1,630	225	187	650	354	278	175	97	48	40	41
26	464	800	242	169	550	345	264	198	96	45	41	41
27	530	542	232	156	550	303	242	275	88	45	44	40
28	582	416	206	152	638	264	232	218	83	46	42	52
29	470	345	194	210	------	242	318	215	86	46	41	74
30	393	303	180	294	------	228	357	203	110	45	40	51
31	492	------	175	393	------	222	------	187	------	44	86	------
TOTAL	5,403	19,943	8,745	10,184	17,466	10,865	8,989	9,066	4,756	1,863	1,336	1,502
MEAN	174	665	282	329	624	350	300	292	159	60.1	43.1	50.1
MAX	582	2,260	474	907	1,830	860	677	500	250	96	86	149
MIN	41	256	175	152	330	222	215	175	83	44	38	39
CFSM	2.19	8.36	3.55	4.13	7.85	4.41	3.77	3.68	1.99	.76	.54	.63
IN.	2.53	9.33	4.09	4.76	8.17	5.08	4.21	4.24	2.22	.87	.62	.70
AC-FT	10,720	39,560	17,350	20,200	34,640	21,550	17,830	17,980	9,430	3,700	2,650	2,980

CAL YR 1960: TOTAL 92,458 MEAN 253 MAX 2,260 MIN 41 CFSM 3.18 IN 43.25 AC-FT 183,400
WAT YR 1961: TOTAL 100,118 MEAN 274 MAX 2,260 MIN 38 CFSM 3.45 IN 46.84 AC-FT 198,600

12-0950. South Prairie Creek at South Prairie, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	154	178	275	146	96	242	261	196	93	36	62
2	50	133	156	346	154	91	232	357	266	94	36	58
3	49	139	150	810	162	89	208	390	269	80	57	57
4	46	117	158	530	152	109	250	366	264	82	105	53
5	46	99	210	493	129	254	422	300	312	93	184	50
6	77	91	169	570	120	306	759	269	292	131	128	49
7	93	86	162	740	120	275	1,050	256	258	113	99	46
8	80	83	152	582	115	267	586	272	250	99	88	45
9	83	83	137	432	113	250	429	381	240	94	77	45
10	278	160	126	345	131	228	339	369	210	93	68	88
11	148	245	115	286	126	210	283	321	184	85	64	169
12	144	180	110	250	139	187	253	286	178	78	65	93
13	217	139	117	218	137	175	253	275	171	77	112	77
14	117	191	120	191	204	175	278	242	162	77	83	68
15	88	156	115	175	189	182	303	222	162	72	71	61
16	76	129	129	162	158	208	245	206	182	68	65	55
17	72	115	254	156	150	215	213	194	167	64	68	51
18	62	107	208	142	152	208	210	196	152	58	91	48
19	58	99	398	128	139	215	222	187	141	55	85	46
20	57	91	650	110	129	215	203	171	141	54	74	46
21	55	96	511	100	120	206	187	160	135	54	85	46
22	55	694	438	95	124	196	194	160	128	54	78	46
23	91	381	918	90	124	182	187	246	133	51	70	45
24	89	256	1,470	91	109	210	206	312	137	48	62	44
25	78	189	790	165	99	294	184	381	131	46	58	41
26	144	158	485	187	94	303	160	354	146	44	58	40
27	156	152	351	184	99	324	215	318	115	41	60	46
28	133	196	348	165	97	292	240	303	106	41	104	121
29	105	245	384	154	------	275	245	269	109	41	101	169
30	96	206	387	154	------	253	232	245	109	39	77	105
31	99	------	303	150	------	240	------	215	------	36	67	------
TOTAL	2,993	5,170	10,199	8,476	3,731	6,730	9,030	8,484	5,446	2,155	2,476	1,970
MEAN	96.5	172	329	273	133	217	301	274	182	69.5	79.9	65.7
MAX	278	694	1,470	810	204	324	1,050	390	312	131	184	169
MIN	46	83	110	90	94	89	160	160	106	36	36	40
CFSM	1.21	2.17	4.14	3.44	1.68	2.73	3.79	3.44	2.28	.87	1.00	.83
IN.	1.40	2.42	4.77	3.97	1.75	3.15	4.22	3.97	2.55	1.01	1.16	.92
AC-FT	5,940	10,250	20,230	16,810	7,400	13,350	17,910	16,830	10,800	4,270	4,910	3,910

CAL YR 1961: TOTAL 84,389 MEAN 231 MAX 1,830 MIN 38 CFSM 2.91 IN 39.48 AC-FT 167,400
WAT YR 1962: TOTAL 66,860 MEAN 183 MAX 1,470 MIN 36 CFSM 2.30 IN 31.28 AC-FT 132,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	80	55	393	489	240	339	351	280	126	182	83	64
2	72	55	400	542	360	300	300	320	162	156	74	70
3	89	51	354	558	2,280	264	309	270	182	139	68	64
4	82	53	306	432	1,040	235	456	250	154	128	64	57
5	71	106	505	360	665	215	546	300	261	115	62	53
6	71	152	854	306	478	201	795	320	218	109	61	50
7	103	105	511	269	400	187	664	330	178	122	60	50
8	175	135	412	250	339	173	478	270	208	184	57	49
9	283	129	342	238	294	162	378	250	245	167	54	50
10	256	120	289	203	264	156	324	230	201	294	54	49
11	187	137	256	180	235	162	300	210	184	396	54	50
12	169	167	225	170	213	160	270	200	175	267	54	50
13	152	146	235	160	210	152	260	190	158	206	57	58
14	129	126	328	154	203	148	270	190	144	175	55	76
15	115	115	403	162	189	142	280	191	137	160	51	82
16	105	117	348	178	201	141	270	182	133	141	49	109
17	97	110	327	160	198	137	300	184	120	128	46	101
18	93	102	289	154	240	137	360	248	112	120	46	76
19	93	496	292	139	292	167	340	283	107	110	72	67
20	88	1,460	264	133	306	187	390	278	102	102	94	61
21	83	778	278	128	250	191	320	278	142	99	148	55
22	82	429	303	122	220	206	400	256	144	128	97	55
23	78	289	256	120	203	198	400	201	144	113	89	61
24	76	262	225	119	189	189	370	171	135	102	104	60
25	71	1,020	203	117	203	189	340	156	158	110	91	53
26	74	1,200	187	112	446	198	300	144	135	96	91	50
27	74	670	182	109	339	225	260	137	126	88	78	48
28	67	439	261	107	312	312	250	139	131	82	70	46
29	64	333	271	95	------	348	260	144	203	78	65	45
30	60	386	642	90	------	425	240	146	206	74	61	48
31	58	------	492	141	------	412	------	137	------	74	61	------
TOTAL	3,297	9,743	10,633	6,497	10,809	6,658	10,781	6,885	4,831	4,445	2,170	1,807
MEAN	106	325	343	210	386	215	359	222	161	143	70.0	60.2
MAX	283	1,460	854	558	2,280	425	795	330	261	396	148	109
MIN	58	51	182	90	189	137	240	137	102	74	46	45
CFSM	1.34	4.09	4.31	2.64	4.86	2.70	4.52	2.79	2.03	1.80	.88	.76
IN.	1.54	4.56	4.97	3.04	5.06	3.11	5.04	3.22	2.26	2.08	1.02	.85
AC-FT	6,540	19,320	21,090	12,890	21,440	13,210	21,380	13,660	9,580	8,820	4,300	3,580

CAL YR 1962: TOTAL 72,171 MEAN 198 MAX 1,460 MIN 36 CFSM 2.49 IN 33.76 AC-FT 143,100
WAT YR 1963: TOTAL 78,556 MEAN 215 MAX 2,280 MIN 45 CFSM 2.71 IN 36.75 AC-FT 155,800

Note.--No gage-height record Apr. 11 to May 14.

12-0950. South Prairie Creek at South Prairie, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	48	122	238	681	548	185	416	251	488	239	170	100
2	48	208	208	767	460	165	335	228	436	237	160	130
3	48	173	187	507	398	159	274	208	318	215	175	115
4	50	238	173	390	374	235	265	195	436	202	190	104
5	53	240	229	333	349	280	305	210	476	202	200	97
6	53	230	496	488	299	237	305	198	402	190	170	92
7	49	264	348	406	274	217	290	188	568	245	155	96
8	46	421	348	330	251	200	277	190	580	245	140	174
9	44	297	318	303	237	195	280	220	524	200	130	152
10	44	272	267	278	242	208	325	356	472	185	125	120
11	44	238	235	245	248	226	309	328	412	205	115	108
12	46	218	213	222	218	215	290	312	363	230	110	100
13	60	220	194	240	208	192	293	312	342	210	120	92
14	71	345	184	339	198	205	290	256	363	270	110	91
15	55	283	187	388	200	277	680	228	338	240	100	90
16	49	250	253	690	205	245	540	231	733	200	95	90
17	46	357	292	550	220	377	412	286	773	180	90	257
18	48	357	280	449	256	572	335	296	1,140	175	110	176
19	45	452	286	478	274	412	286	309	672	170	120	148
20	50	396	412	566	242	335	259	366	488	160	105	172
21	68	318	354	419	226	305	234	464	394	185	95	140
22	439	286	367	342	212	271	290	433	342	161	85	156
23	256	275	409	289	205	237	262	356	356	140	80	156
24	200	256	321	529	208	217	245	318	315	133	75	135
25	278	337	348	2,450	192	200	231	290	277	140	80	124
26	213	558	297	1,190	181	198	280	265	271	135	90	113
27	167	664	280	790	172	183	283	296	245	130	110	105
28	178	442	261	628	167	176	274	346	226	140	150	100
29	171	348	232	636	165	185	274	328	202	135	130	99
30	154	280	210	540	------	228	254	380	223	130	120	192
31	137	------	235	532	------	286	------	440	------	190	110	------
TOTAL	3,258	9,345	8,662	16,995	7,429	7,623	9,393	9,084	13,175	5,819	3,815	3,824
MEAN	105	312	279	548	256	246	313	293	439	188	123	127
MAX	439	664	496	2,450	548	572	680	464	1,140	270	200	257
MIN	44	122	173	222	165	159	231	188	202	130	75	90
CFSM	1.32	3.92	3.51	6.90	3.22	3.09	3.94	3.69	5.52	2.36	1.55	1.50
IN.	1.52	4.37	4.05	7.95	3.48	3.57	4.39	4.25	6.16	2.72	1.78	1.79
AC-FT	6,460	18,540	17,180	33,710	14,740	15,120	18,630	18,020	26,130	11,540	7,570	7,580

CAL YR 1963: TOTAL 76,148 MEAN 209 MAX 2,280 MIN 44 CFSM 2.62 IN 35.62 AC-FT 151,000
WAT YR 1964: TOTAL 98,422 MEAN 269 MAX 2,450 MIN 44 CFSM 3.38 IN 46.04 AC-FT 155,200

Note.--No gage-height record July 25 to Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	251	117	1,190	276	895	339	169	262	160	95	44	31
2	278	135	1,220	291	645	306	160	251	169	95	45	31
3	251	168	716	279	524	282	139	226	194	89	48	30
4	190	315	500	241	516	257	135	236	187	89	51	29
5	156	286	394	244	584	236	129	238	171	86	49	27
6	136	210	328	262	500	226	124	228	180	79	47	27
7	125	195	296	233	431	218	120	220	171	79	44	25
8	150	172	309	216	470	208	116	208	176	78	44	24
9	178	192	356	203	410	201	135	198	167	69	45	24
10	220	205	360	203	358	201	145	201	152	73	66	25
11	167	185	328	201	318	198	128	213	167	106	62	26
12	144	167	296	192	333	194	120	228	158	85	69	26
13	133	174	293	192	548	178	133	216	126	75	81	28
14	146	161	299	262	484	171	143	198	128	73	64	79
15	259	146	283	403	473	165	137	189	131	71	46	197
16	262	136	235	462	442	160	185	257	118	67	38	203
17	215	135	210	424	528	158	162	236	133	64	31	98
18	183	135	195	375	488	150	150	210	133	63	31	75
19	165	127	200	368	466	147	572	213	115	60	42	53
20	148	124	210	372	424	145	1,060	303	113	64	106	48
21	133	120	322	396	368	150	748	282	110	69	69	42
22	122	125	2,110	352	372	155	548	249	106	63	49	36
23	113	200	1,960	378	324	140	428	236	103	59	58	36
24	110	1,280	963	431	294	135	396	216	96	57	72	33
25	117	908	614	358	285	130	417	206	92	54	55	32
26	105	640	766	435	327	126	372	208	88	53	54	30
27	99	440	681	1,600	484	124	372	228	83	51	49	30
28	97	328	500	1,710	406	126	378	246	82	48	47	28
29	94	485	403	4,440	------	128	303	226	85	48	37	30
30	97	885	339	2,520	------	126	274	194	89	47	34	33
31	96	------	294	1,450	------	126	------	173	------	46	32	------
TOTAL	4,940	8,896	17,170	19,769	12,697	5,606	8,398	6,995	3,983	2,155	1,609	1,444
MEAN	159	297	554	638	453	181	280	226	133	69.5	51.9	48.1
MAX	278	1,280	2,110	4,440	895	339	1,060	303	194	106	106	203
MIN	94	117	195	192	285	124	116	173	82	46	31	24
CFSM	2.00	3.73	6.97	8.02	5.70	2.27	3.52	2.84	1.67	.87	.65	.61
IN.	2.31	4.16	8.03	9.25	5.94	2.62	3.93	3.27	1.86	1.01	.75	.68
AC-FT	9,800	17,640	34,060	39,210	25,180	11,120	16,660	13,870	7,900	4,270	3,190	2,860

CAL YR 1964: TOTAL 108,163 MEAN 296 MAX 2,450 MIN 75 CFSM 3.72 IN 50.60 AC-FT 214,500
WAT YR 1965: TOTAL 93,662 MEAN 257 MAX 4,440 MIN 24 CFSM 3.23 IN 43.81 AC-FT 185,800

12-0966. White River near Greenwater, Wash.

Location.--Lat 46°53'50", long 121°31'40", in sec.1, T.16 N., R.9 E. (unsurveyed), on left bank at Yakima Park road crossing, 1 mile upstream from Fryingpan Creek and 18½ miles south of Greenwater.

Drainage area.--16.2 sq mi.

Records available.--August 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 3,880 ft (from topographic map).

Extremes.--Maximum and minimum discharges for August 1964 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Aug. 4, 1964	330	-	Sept.12, 29, 1964	76	1.00
1965	July 27, Aug. 12, 19	a 365	-	Dec. 18, 1964, Apr. 11, 1965	b 30	-

a Maximum daily.
b Minimum daily.

1964-65: Maximum daily discharge, 365 cfs July 27, Aug. 12, 19, 1965; minimum daily, 30 cfs Dec. 18, 1964, Apr. 11, 1965.

Remarks.--Records fair. No regulation or diversion above station. Record of water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1964

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	310	100	6	227	121	11	242	90	16	227	133	21	199	100	26	183	118
2	280	96	7	234	111	12	280	90	17	236	140	22	225	124	27	191	110
3	310	99	8	223	100	13	231	98	18	218	111	23	227	156	28	162	93
4	330	113	9	220	87	14	212	98	19	151	99	24	210	150	29	135	83
5	270	121	10	214	90	15	206	113	20	167	100	25	218	135	30	116	130
															31	105	-
TOTAL																6,759	3,309
MEAN																218	110
MAX																330	156
MIN																105	83
CFSM																13.5	6.79
IN																15.52	7.60
AC-FT																13,410	6,560

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	125	52	90	42	115	48	38	92	160	281	337	136
2	150	55	70	41	88	48	37	78	168	293	312	133
3	145	65	59	40	78	43	36	71	173	279	304	135
4	105	125	54	39	72	39	36	67	176	308	274	119
5	85	80	51	36	84	38	41	64	188	285	287	103
6	76	60	47	36	75	37	36	60	189	278	260	99
7	74	55	47	34	63	36	35	55	193	302	287	100
8	100	51	45	33	58	37	33	55	204	258	314	104
9	120	50	43	33	51	39	34	65	215	211	325	116
10	95	48	42	33	47	45	32	87	198	193	335	119
11	82	45	36	32	44	49	30	92	236	158	340	124
12	80	42	37	32	45	53	35	110	227	162	365	119
13	75	40	38	31	45	51	38	125	196	182	249	107
14	70	36	38	39	44	48	39	121	172	210	207	157
15	74	36	36	43	42	46	48	115	148	264	266	161
16	66	38	34	47	41	44	51	112	149	250	287	100
17	62	39	32	54	44	43	46	111	155	260	281	74
18	59	36	30	53	53	40	43	106	170	222	344	64
19	57	36	31	52	57	39	90	106	198	206	365	62
20	57	36	32	57	55	39	134	100	196	203	355	67
21	58	35	35	57	52	38	104	94	194	173	270	87
22	58	35	80	55	49	37	88	93	230	164	310	107
23	57	40	99	48	45	36	80	93	240	198	270	108
24	56	80	71	45	42	36	78	107	227	225	215	112
25	54	64	61	43	39	35	78	107	215	281	235	97
26	53	57	56	41	41	35	86	128	194	331	170	75
27	50	51	52	46	70	34	94	160	174	365	165	64
28	50	47	48	66	55	34	110	179	186	350	113	59
29	50	50	47	150	------	34	111	173	206	330	101	59
30	51	76	46	160	------	34	108	160	234	295	104	59
31	51	------	43	140	------	34	------	155	------	300	119	------
TOTAL	2,345	1,560	1,530	1,658	1,594	1,249	1,849	3,241	5,811	7,817	8,166	3,028
MEAN	75.6	52.0	49.4	53.5	56.9	40.3	61.6	105	194	252	263	101
MAX	150	125	99	160	115	53	134	179	240	365	365	161
MIN	50	35	30	31	39	34	30	55	148	158	101	59
CFSM	4.67	3.21	3.05	3.30	3.51	2.49	3.80	6.48	12.0	15.6	16.2	6.23
IN	5.38	3.58	3.51	3.81	3.66	2.87	4.24	7.44	13.34	17.95	18.75	6.95
AC-FT	4,650	3,090	3,030	3,290	3,160	2,480	3,670	6,430	11,530	15,500	16,200	6,010

CAL YR 1964:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965:	TOTAL 39,848	MEAN 109	MAX 365	MIN 30	CFSM 6.73	IN 91.48	AC-FT 79,040

Note.--No gage-height record Feb. 27 to Mar. 30, Aug. 19-23.

12-0970. White River at Greenwater, Wash.

Location.--Lat 47°08'50", long 121°38'50", in NW¼SE¼ sec.10, T.19 N., R.9 E., on right bank three-quarters of a mile southeast of Greenwater, three-quarters of a mile upstream from Greenwater River, and 18½ miles east of and 25 miles upstream from Buckley.

Drainage area.--216 sq mi.

Records available.--December 1911 to May 1912 (fragmentary), March 1929 to September 1965. Published as "near Enumclaw" 1911-12.

Gage.--Water-stage recorder. Altitude of gage is 1,725 ft (from river-profile map). Prior to May 6, 1912, staff gage at site 2 miles upstream at different datum.

Average discharge.--36 years (1929-65), 858 cfs (621,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,400 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	1700	3,480	4.96	Jan. 7, 1962	1730	* 4,580	5.34	June 1, 1964	1900	* 3,400	5.12
June 3, 1961	0330	3,220	4.65	Apr. 6, 1962	2400	4,540	5.32	June 16, 1964	0700	3,170	4.99
June 18, 1961	0230	* 3,660	4.88					July 14, 1964	2230	2,610	4.55
				Nov. 20, 1962	0600	* 9,280	7.29				
Dec. 24, 1961	1200	3,160	4.70	Nov. 26, 1962	0030	3,290	4.96	Dec. 1, 1964	2130	3,020	4.90
Jan. 3, 1962	1700	3,370	4.80	Dec. 15, 1962	1130	3,020	4.85	Dec. 22, 1964	2400	4,300	5.60
				Feb. 3, 1963	1230	5,060	5.76	Jan. 29, 1965	0600	* 10,400	7.85

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 15, 1960	294	1.94	1964	Oct. 8, 9, 1964	311	2.16
1962	Oct. 22, 1961	311	1.96	1965	Nov. 22, 1964	290	b 1.90
1963	Jan. 30, 1963	307	a 2.10				

a Occurred Oct. 7, 1962.
b Occurred Sept. 29, 30, 1965.

1911-12, 1929-65: Maximum discharge, 18,100 cfs Dec. 21, 1933 (gage height, 9.38 ft), from rating curve extended above 3,600 cfs; minimum, 120 cfs Nov. 2, 1935 (gage height, 1.69 ft).

Remarks.--Records good except those for period of no gage-height record and those for Jan. 1 to Mar. 30, 1964, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1932-33(M), 1934, 1943(M). WSP 1636: 1930(M).

DISCHARGE, IN CUBIC FEET PER SECDNO, WATER YEAR OCTOBER 1960 TD SEPTEMBER 1961

DAY	OCT.	NDV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	383	660	785	448	894	1,130	778	1,190	1,970	1,150	900	990
2	373	602	800	419	1,030	1,020	1,050	1,270	2,540	1,120	950	736
3	368	556	778	402	951	910	1,340	1,210	3,010	1,200	1,000	660
4	363	514	719	408	934	846	1,190	1,120	2,980	1,300	1,050	654
5	358	496	662	1,090	1,280	838	1,020	1,050	2,660	1,400	1,100	648
6	448	472	620	1,620	1,770	816	918	960	2,710	1,300	1,000	563
7	654	448	600	1,330	1,620	785	846	902	2,400	1,200	900	514
8	514	420	573	1,140	1,380	763	831	878	1,980	1,080	850	490
9	409	409	541	1,010	1,420	734	808	902	1,850	1,100	800	484
10	368	715	515	910	1,650	704	785	960	1,740	1,200	750	490
11	343	1,360	522	854	1,580	690	770	926	1,720	1,350	810	484
12	324	930	778	838	1,340	683	800	886	1,650	1,500	857	478
13	311	849	785	816	1,230	704	785	870	1,650	1,650	881	460
14	302	750	793	823	1,070	862	719	862	1,780	1,600	889	430
15	302	802	763	982	1,130	1,120	690	878	2,270	1,500	897	436
16	319	1,790	704	1,410	1,010	1,070	697	960	2,890	1,300	857	472
17	328	1,530	669	1,160	926	960	770	1,120	3,120	1,050	818	454
18	328	1,570	742	976	854	894	755	1,270	3,500	1,000	833	460
19	315	1,250	831	870	1,110	910	712	1,560	2,940	1,000	833	454
20	311	1,680	793	831	1,430	943	669	1,850	2,380	1,050	865	448
21	324	1,470	763	816	2,750	870	655	2,040	2,050	1,150	833	409
22	378	1,080	741	800	2,290	831	648	1,790	1,910	1,200	889	373
23	628	943	741	763	1,600	823	641	1,880	1,940	1,150	873	363
24	701	1,620	734	726	1,390	823	641	1,710	1,920	1,100	780	353
25	526	1,610	690	683	1,190	816	634	1,690	1,920	950	694	353
26	563	1,140	648	648	1,040	808	614	1,990	1,870	1,000	648	343
27	576	926	600	600	968	770	614	1,980	1,630	1,050	628	338
28	634	846	547	580	886	719	648	1,830	1,420	950	615	404
29	544	823	515	683	------	697	943	1,660	1,330	850	634	368
30	508	785	484	854	------	704	1,160	1,640	1,260	800	634	338
31	622	------	466	934	------	726	------	1,630	------	850	939	------
TOTAL	13,425	29,046	20,902	26,424	36,723	25,969	24,131	41,464	64,990	36,100	26,007	14,447
MEAN	433	968	674	852	1,312	838	804	1,338	2,166	1,165	839	482
MAX	701	1,790	831	1,620	2,750	1,130	1,340	2,040	3,500	1,650	1,100	990
MIN	302	409	466	402	854	683	614	862	1,260	800	615	338
CFSM	2.00	4.48	3.12	3.95	6.07	3.88	3.72	6.19	10.0	5.39	3.88	2.23
IN.	2.31	5.00	3.60	4.55	6.32	4.47	4.15	7.14	11.2	6.22	4.48	2.49
AC-FT	26,630	57,610	41,460	52,410	72,840	51,510	47,860	82,240	128,900	71,600	51,580	28,660

CAL YR 1960: TOTAL 305,736 MEAN 835 MAX 2,400 MIN 302 CFSM 3.87 IN 52.64 AC-FT 606,400
WAT YR 1961: TOTAL 359,628 MEAN 985 MAX 3,500 MIN 302 CFSM 4.56 IN 61.92 AC-FT 713,300

Note.--No gage-height record July 1 to Aug. 10.

12-0970. White River at Greenwater, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	338	448	596	1,190	570	409	648	788	1,020	1,450	948	615
2	328	414	544	1,360	654	394	660	833	1,110	1,190	881	596
3	328	420	526	2,990	743	394	628	922	1,090	1,100	939	576
4	333	383	563	2,450	722	388	667	889	1,010	1,110	948	570
5	348	353	608	1,980	680	399	758	818	956	1,100	818	576
6	425	343	550	1,950	660	394	1,920	802	914	1,080	788	576
7	409	338	538	1,770	648	378	2,950	758	948	1,070	788	582
8	353	338	496	3,390	641	383	1,670	772	1,130	1,180	765	520
9	353	338	460	2,380	608	373	1,220	810	1,310	1,300	708	502
10	589	430	420	1,750	582	358	990	849	1,310	1,300	687	615
11	460	466	404	1,400	556	348	881	841	1,250	1,260	694	556
12	466	409	409	1,180	526	338	841	818	1,260	1,240	729	448
13	608	394	404	990	514	338	865	788	1,200	1,160	743	472
14	544	460	388	905	532	343	990	772	1,130	1,100	701	466
15	514	409	378	810	496	348	1,180	765	1,260	1,050	729	436
16	484	378	378	743	472	363	1,050	743	1,590	1,020	750	425
17	436	363	414	708	454	363	999	765	1,700	982	674	454
18	399	363	378	680	448	368	1,040	788	1,660	881	641	490
19	378	353	440	628	430	378	1,140	765	1,660	873	648	532
20	348	328	736	560	420	383	1,070	736	1,690	922	701	544
21	328	353	788	520	404	378	982	715	1,720	982	743	563
22	319	1,120	729	500	447	378	948	758	1,750	1,090	648	544
23	425	825	1,400	470	436	368	982	849	1,760	1,120	602	496
24	378	641	2,780	460	399	460	1,070	889	1,940	1,170	641	484
25	363	532	2,080	480	380	520	999	1,040	1,990	1,120	680	502
26	414	490	1,490	520	360	556	897	1,120	1,840	1,070	641	514
27	420	520	1,210	538	370	570	1,020	1,210	1,480	1,040	550	490
28	388	615	1,140	502	414	532	922	1,330	1,350	1,040	660	687
29	353	680	1,290	478	------	520	818	1,310	1,420	1,010	589	538
30	348	641	1,420	496	------	520	765	1,160	1,570	1,010	563	454
31	358	------	1,250	538	------	556	------	1,080	------	1,020	589	------
TOTAL	12,535	14,145	25,207	35,316	14,566	12,798	31,570	27,483	42,018	34,040	22,186	15,823
MEAN	404	472	813	1,139	520	413	1,052	887	1,401	1,098	716	527
MAX	608	1,120	2,780	3,390	743	570	2,950	1,330	1,990	1,450	948	687
MIN	319	328	378	460	360	338	628	715	914	873	550	425
CFSM	1.87	2.18	3.76	5.27	2.41	1.91	4.87	4.10	6.48	5.08	3.31	2.44
IN.	2.16	2.44	4.34	6.08	2.51	2.20	5.44	4.73	7.23	5.86	3.82	2.72
AC-FT	24,860	28,060	50,000	70,050	28,890	25,380	62,620	54,510	83,340	67,520	44,010	31,380

CAL YR 1961: TOTAL 348,142 MEAN 954 MAX 3,500 MIN 319 CFSM 4.42 IN 59.94 AC-FT 690,500
WAT YR 1962: TOTAL 287,687 MEAN 788 MAX 3,390 MIN 319 CFSM 3.65 IN 49.53 AC-FT 570,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	454	454	1,120	1,150	396	739	596	620	1,360	746	596	614
2	478	460	1,060	1,240	496	704	578	614	1,290	832	614	554
3	538	454	974	1,230	3,610	662	590	578	1,150	880	648	524
4	460	466	912	1,020	2,400	648	648	548	1,070	920	690	560
5	414	596	1,090	904	2,200	627	800	641	1,080	880	711	578
6	399	532	2,000	832	1,730	602	1,200	792	1,050	840	704	572
7	430	466	1,520	768	1,490	584	1,120	808	1,030	824	697	554
8	478	608	1,480	739	1,310	566	974	760	1,070	938	704	648
9	570	538	1,420	697	1,210	542	856	725	1,110	880	732	648
10	508	502	1,300	627	1,080	530	816	697	1,060	856	718	655
11	508	526	1,240	548	974	530	768	690	1,190	848	800	596
12	570	532	1,150	518	888	500	746	655	1,310	840	912	584
13	736	508	1,120	520	832	485	739	641	1,360	904	920	590
14	582	472	1,530	540	784	485	974	634	1,340	920	776	518
15	520	466	2,610	560	739	470	1,220	655	1,420	832	662	440
16	472	442	2,420	530	711	475	1,030	676	1,570	784	627	420
17	448	420	1,840	506	676	460	896	718	1,570	800	641	391
18	466	409	1,540	480	697	455	808	880	1,530	768	608	368
19	502	1,770	1,340	455	800	465	746	1,170	1,450	792	584	368
20	466	7,000	1,170	455	816	480	711	1,420	1,200	800	578	368
21	490	3,670	1,150	440	753	500	669	1,660	1,080	768	536	386
22	496	1,930	1,120	425	711	542	662	1,770	965	856	524	440
23	484	1,410	1,020	410	683	548	648	1,700	896	746	572	455
24	478	1,240	920	405	662	518	634	1,520	896	739	542	400
25	478	1,880	880	396	655	518	627	1,370	872	676	506	400
26	490	2,630	832	382	776	518	614	1,280	872	676	490	415
27	484	1,800	792	382	697	548	584	1,220	792	711	500	460
28	472	1,400	808	373	697	620	578	1,270	760	746	500	524
29	496	1,210	832	339	------	608	608	1,370	760	704	518	548
30	496	1,250	1,220	315	------	602	627	1,460	732	669	542	470
31	466	------	1,150	405	------	596	------	1,470	------	627	584	------
TOTAL	15,329	36,041	39,560	18,591	29,473	17,127	23,067	31,012	33,835	24,802	19,736	15,048
MEAN	494	1,201	1,276	600	1,053	552	769	1,000	1,128	800	637	502
MAX	736	7,000	2,610	1,240	3,610	739	1,220	1,770	1,570	938	920	655
MIN	399	409	792	315	396	455	578	548	732	627	490	368
CFSM	2.29	5.56	5.91	2.78	4.87	2.56	3.56	4.63	5.22	3.70	2.95	2.32
IN.	2.64	6.21	6.81	3.20	5.07	2.95	3.97	5.34	5.83	4.27	3.40	2.59
AC-FT	30,400	71,490	78,470	36,870	58,460	33,970	45,750	61,510	67,110	49,190	39,150	29,850

CAL YR 1962: TOTAL 326,730 MEAN 895 MAX 7,000 MIN 338 CFSM 4.14 IN 56.26 AC-FT 648,100
WAT YR 1963: TOTAL 303,621 MEAN 832 MAX 7,000 MIN 315 CFSM 3.85 IN 52.28 AC-FT 602,200

12-0970. White River at Greenwater, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	435	341	612	1,100	745	482	942	694	3,040	1,890	1,080	550
2	435	445	568	990	673	445	806	666	2,910	2,040	998	556
3	430	365	538	822	626	440	715	626	2,370	1,820	1,080	550
4	385	390	526	701	619	492	694	626	2,560	1,800	1,140	550
5	353	370	556	645	606	520	680	632	2,890	1,850	1,010	562
6	337	370	715	701	593	498	673	593	2,600	1,820	974	556
7	318	428	659	612	586	487	680	612	2,320	2,040	982	550
8	311	701	638	562	580	476	715	666	2,120	2,230	958	544
9	311	532	593	550	574	470	782	790	2,320	1,950	942	504
10	325	482	538	538	574	465	806	1,060	2,540	1,780	894	487
11	353	440	520	526	562	476	806	1,050	2,490	1,890	934	482
12	357	430	526	509	532	465	752	1,090	2,250	2,200	998	476
13	430	430	514	487	509	440	708	1,070	2,220	2,220	942	482
14	538	651	498	460	492	476	701	974	2,150	2,230	870	498
15	514	666	492	460	482	544	870	934	2,200	2,290	830	504
16	440	580	544	619	470	532	798	998	2,920	1,760	830	520
17	400	600	600	586	460	574	715	1,260	2,390	1,560	846	606
18	361	562	632	556	504	626	694	1,360	2,090	1,490	862	509
19	325	612	632	544	550	619	687	1,640	1,850	1,370	752	492
20	325	580	694	538	550	612	687	1,840	1,690	1,390	715	562
21	365	520	666	532	550	606	694	1,840	1,530	1,400	760	492
22	638	514	680	526	556	586	768	1,610	1,550	1,300	798	556
23	470	544	838	487	562	556	701	1,340	1,850	1,170	822	580
24	465	514	798	539	562	514	694	1,230	2,060	1,210	806	586
25	498	562	806	1,590	532	498	694	1,120	2,060	1,270	830	562
26	420	767	730	1,160	509	482	722	1,140	2,000	1,290	775	492
27	385	1,010	701	958	492	465	708	1,330	1,760	1,300	730	465
28	385	822	687	846	482	465	694	1,630	1,530	1,360	760	445
29	370	715	680	854	460	498	752	1,840	1,480	1,380	666	445
30	353	666	666	790	------	638	708	2,120	1,610	1,300	626	650
31	341	------	680	768	------	854	------	2,430	------	1,170	568	------
TOTAL	12,373	16,609	19,527	21,556	15,992	16,301	22,046	36,811	65,350	51,770	26,778	15,813
MEAN	399	554	630	695	551	526	735	1,187	2,178	1,670	864	527
MAX	638	1,010	838	1,590	745	854	942	2,430	3,040	2,290	1,140	650
MIN	311	341	492	460	460	440	673	593	1,480	1,170	568	445
CFSM	1.85	2.56	2.92	3.22	2.55	2.43	3.40	5.50	10.1	7.73	4.00	2.44
IN.	2.13	2.86	3.36	3.71	2.75	2.81	3.80	6.34	11.3	8.91	4.61	2.72
AC-FT	24,540	32,940	38,730	42,760	31,720	32,330	43,730	73,010	129,600	102,700	53,110	31,360

CAL YR 1963: TOTAL 261,200 MEAN 716 MAX 3,610 MIN 311 CFSM 3.31 IN 44.97 AC-FT 518,100
WAT YR 1964: TOTAL 320,926 MEAN 877 MAX 3,040 MIN 311 CFSM 4.06 IN 55.26 AC-FT 636,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	694	349	2,520	659	2,610	818	552	1,270	1,290	1,260	962	520
2	830	353	2,400	652	1,930	602	530	1,100	1,380	1,330	962	520
3	822	395	1,630	612	1,590	786	505	980	1,650	1,330	874	515
4	659	701	1,240	568	1,470	754	515	926	1,730	1,320	826	495
5	593	538	1,010	544	1,690	738	535	826	1,730	1,290	802	470
6	562	465	870	520	1,490	723	520	778	1,820	1,230	802	450
7	556	435	775	492	1,280	723	505	754	1,850	1,250	810	450
8	659	405	814	470	1,210	738	490	716	1,800	1,210	842	455
9	701	400	846	450	1,060	754	495	723	1,880	1,010	866	465
10	638	390	846	445	953	794	490	778	1,820	926	908	475
11	580	370	760	425	850	826	475	899	1,920	826	882	470
12	586	357	701	415	802	826	485	1,100	1,800	762	944	465
13	562	349	694	415	882	786	515	1,210	1,510	786	858	460
14	532	322	680	492	850	754	510	1,210	1,320	824	730	573
15	568	318	666	730	794	723	564	1,190	1,180	1,040	703	667
16	526	314	586	1,010	794	702	709	1,330	1,120	998	746	558
17	492	311	500	1,050	899	654	681	1,190	1,290	926	754	470
18	455	304	460	1,010	1,010	612	636	1,070	1,510	858	826	436
19	440	300	480	1,060	1,090	582	1,080	1,050	1,470	808	890	420
20	420	300	520	1,100	1,060	570	2,050	1,080	1,440	778	786	412
21	415	297	544	1,100	998	558	1,710	1,070	1,440	730	746	424
22	395	297	2,120	982	899	552	1,380	1,090	1,370	660	709	455
23	385	333	2,980	910	810	540	1,210	1,050	1,350	709	738	455
24	375	1,510	1,700	830	802	515	1,160	1,020	1,310	778	688	450
25	365	1,180	1,220	738	786	515	1,160	1,050	1,240	850	648	436
26	345	886	1,070	752	810	510	1,290	1,130	1,120	971	612	416
27	333	722	934	1,820	1,020	490	1,510	1,140	1,020	989	598	386
28	333	666	814	3,620	882	485	1,670	1,670	998	899	525	372
29	333	687	730	8,360	------	480	1,610	1,820	1,040	866	490	368
30	333	1,310	694	6,350	------	475	1,480	1,600	1,120	890	425	368
31	333	------	673	4,050	------	480	------	1,390	------	899	495	------
TOTAL	15,820	15,564	32,477	42,631	31,321	20,265	27,022	34,210	43,518	30,003	23,453	13,876
MEAN	510	519	1,048	1,375	1,119	654	901	1,104	1,451	968	757	463
MAX	830	1,510	2,980	8,360	2,610	826	2,050	1,820	1,920	1,330	962	667
MIN	333	297	460	415	786	475	475	716	998	660	425	368
CFSM	2.36	2.40	4.85	6.37	5.18	3.03	4.17	5.11	6.72	4.48	3.50	2.14
IN.	2.72	2.68	5.59	7.34	5.39	3.49	4.65	5.89	7.49	5.17	4.04	2.39
AC-FT	31,380	30,870	64,420	84,560	62,120	40,200	53,600	67,850	86,320	59,510	46,520	27,520

CAL YR 1964: TOTAL 336,278 MEAN 919 MAX 3,040 MIN 297 CFSM 4.25 IN 57.90 AC-FT 667,000
WAT YR 1965: TOTAL 330,160 MEAN 905 MAX 8,360 MIN 297 CFSM 4.19 IN 56.85 AC-FT 654,900

12-0975. Greenwater River at Greenwater, Wash.

Location.--Lat 47°09'15", long 121°38'00", in NW¼NW¼ sec.11, T.19 N., R.9 E., on left bank 1 mile upstream from mouth, 1 mile east of Greenwater, and 19 miles east of Buckley.

Drainage area.--73.5 sq mi (revised).

Records available.--September 1911 to August 1912 (fragmentary), May 1929 to September 1965. Published as "near Enumclaw" 1911-12.

Gage.--Digital water-stage recorder. Altitude of gage is 1,725 ft (from topographic map). Prior to Aug. 10, 1912, staff gages at approximately present site at different datums. May 1, 1929, to Aug. 14, 1934, graphic water-stage recorder at site 900 ft upstream at different datum. Aug. 15, 1934, to Aug. 19, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--36 years (1929-65), 210 cfs (152,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	1,180	4.53	Oct. 20, 21, 1960	31	2.02
1962	Jan. 8, 1962	1,220	4.58	Oct. 5, 1961	33	a 2.01
1963	Feb. 3, 1963	948	4.26	Sept.26, 1963	42	b 2.05
1964	June 2, 1964	1,220	4.58	Oct. 20, 1963	37	2.01
1965	Jan. 29, 1965	5,090	7.52	Sept.12, 30, 1965	48	1.17

a Occurred Sept. 27, 1962.
b Occurred Oct. 2, 1962.

1911-12, 1929-65: Maximum discharge, 5,360 cfs Nov. 22, 1959 (gage height, 7.67 ft), from rating curve extended above 1,200 cfs on basis of slope-area measurement of peak flow; minimum, 23 cfs Oct. 7, 1934; minimum gage height, 1.17 ft Sept. 12, 30, 1965.

Remarks.--Records excellent except those for period of no gage-height record and those for winter periods, which are good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	125	178	127	227	373	240	425	548	173	64	76
2	39	112	190	120	272	364	355	450	632	162	62	83
3	38	105	181	114	275	319	500	450	698	154	61	58
4	37	91	170	116	295	287	490	430	716	146	60	51
5	35	80	151	336	391	264	410	410	698	187	58	48
6	38	72	141	596	382	244	351	378	668	162	58	46
7	45	66	134	465	554	224	311	355	620	149	56	43
8	50	61	127	378	480	214	295	339	548	137	55	41
9	45	56	120	327	440	208	283	331	500	127	54	40
10	35	109	114	283	465	199	264	347	450	125	54	38
11	36	261	116	258	450	193	258	335	415	116	52	37
12	38	193	144	244	410	190	268	323	391	112	52	37
13	36	156	146	234	391	193	272	311	378	109	51	36
14	34	139	167	224	364	254	254	307	378	105	50	36
15	34	179	162	234	368	335	240	307	396	103	52	35
16	33	506	151	307	355	335	237	335	420	99	60	36
17	33	445	144	303	327	315	254	339	450	97	54	36
18	33	410	149	275	295	287	254	435	460	95	51	36
19	32	368	170	250	315	299	240	506	440	91	50	36
20	32	512	164	230	490	311	227	578	400	89	48	38
21	33	512	154	214	948	295	221	614	360	87	46	64
22	40	368	151	202	860	272	224	596	315	83	46	48
23	56	307	159	193	560	261	224	626	283	83	44	42
24	66	534	173	181	465	254	230	608	261	83	44	38
25	54	554	173	170	400	247	237	578	240	80	44	37
26	60	382	170	159	347	244	237	608	227	78	43	36
27	80	295	162	151	331	227	230	608	214	74	42	35
28	105	244	149	149	307	214	234	560	202	72	41	40
29	109	208	144	167	------	208	299	536	196	71	41	50
30	83	187	139	199	------	208	410	530	196	69	40	38
31	123	------	134	221	------	221	------	512	------	67	56	------
TOTAL	1,552	7,637	4,727	7,427	11,764	8,059	8,549	14,067	12,700	3,385	1,589	1,315
MEAN	50.1	255	152	240	420	260	285	454	423	109	51.3	43.8
MAX	123	554	190	596	948	373	500	626	716	187	64	83
MIN	32	56	114	114	227	190	221	307	196	67	40	35
CFSM	.68	3.46	2.07	3.26	5.72	3.54	3.88	6.17	5.76	1.49	.70	.60
IN.	.79	3.86	2.39	3.76	5.95	4.08	4.33	7.12	6.43	1.71	.80	.67
AC-FT	3,080	15,150	9,380	14,730	23,330	15,980	16,960	27,900	25,190	6,710	3,150	2,610

CAL YR 1960: TOTAL 66,689 MEAN 182 MAX 566 MIN 32 CFSM 2.48 IN 33.74 AC-FT 132,300
WAT YR 1961: TOTAL 82,771 MEAN 227 MAX 948 MIN 32 CFSM 3.09 IN 41.88 AC-FT 164,200

12-0975. Greenwater River at Greenwater, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	38	116	110	346	245	114	165	289	330	226	72	55
2	36	109	105	354	272	112	172	318	330	217	70	54
3	35	103	105	650	322	110	162	334	330	202	75	51
4	34	89	160	620	322	110	162	334	318	194	85	50
5	35	80	170	500	300	106	197	314	311	188	110	49
6	46	72	155	500	275	106	430	300	300	185	100	49
7	51	69	140	996	255	104	771	282	296	172	95	48
8	47	64	115	1,150	236	106	500	272	304	162	90	47
9	48	62	105	860	223	104	346	268	318	160	65	47
10	87	64	95	644	214	102	318	275	326	153	60	55
11	71	83	85	518	202	98	275	268	318	148	70	67
12	71	81	80	440	191	94	251	265	311	144	75	52
13	87	74	75	384	183	93	248	255	307	139	80	50
14	67	103	70	342	185	93	279	245	300	137	75	48
15	58	101	70	311	175	94	322	236	304	133	70	47
16	54	91	70	282	165	100	311	226	322	128	70	46
17	51	83	70	255	162	104	296	226	342	126	67	46
18	47	78	70	232	160	106	300	226	342	122	60	44
19	46	72	75	214	153	106	326	223	338	118	63	43
20	44	67	140	200	148	108	318	217	338	114	63	43
21	42	67	170	190	141	104	311	214	330	110	61	43
22	43	260	160	180	141	102	304	220	326	106	60	43
23	62	215	350	175	133	98	307	245	318	105	59	41
24	58	170	950	172	122	124	334	279	318	100	58	41
25	54	140	800	180	120	153	330	354	311	94	58	40
26	56	120	520	191	120	165	311	384	304	90	58	40
27	67	110	330	202	120	165	318	384	286	86	59	40
28	74	105	286	200	116	150	307	389	265	84	72	55
29	66	105	330	197	------	144	289	384	248	80	64	58
30	61	105	402	205	------	139	279	367	236	76	58	49
31	64	------	371	232	------	144	------	346	------	74	56	------
TOTAL	1,702	3,058	6,734	11,922	5,401	3,558	9,239	8,939	9,327	4,173	2,227	1,441
MEAN	54.9	102	217	385	193	115	308	288	311	135	71.8	48.0
MAX	87	260	950	1,150	322	165	771	389	342	226	110	67
MIN	34	62	70	172	116	93	162	214	236	74	56	40
CFSM	.75	1.39	2.96	5.23	2.62	1.56	4.19	3.92	4.23	1.83	.98	.65
IN.	.86	1.55	3.41	6.03	2.73	1.80	4.67	4.52	4.72	2.11	1.13	.73
AC-FT	3,380	6,070	13,360	23,650	10,710	7,060	18,330	17,730	18,500	8,280	4,420	2,860

CAL YR 1961: TOTAL 80,349 MEAN 220 MAX 950 MIN 34 CFSM 3.00 IN 40.66 AC-FT 159,400
WAT YR 1962: TOTAL 67,721 MEAN 186 MAX 1,150 MIN 34 CFSM 2.52 IN 34.27 AC-FT 134,300

Note.--No gage-height record Nov. 22 to Dec. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	46	46	279	330	110	261	196	230	335	137	76	51
2	44	44	258	334	126	250	187	234	327	129	74	52
3	54	44	236	314	677	234	187	221	311	125	72	51
4	49	44	217	342	596	221	218	208	295	120	69	48
5	47	54	284	314	500	208	283	224	303	116	67	46
6	44	67	578	293	445	202	378	254	291	114	66	48
7	50	58	475	272	400	190	386	272	283	114	66	47
8	58	75	445	258	382	181	331	268	287	127	62	47
9	67	72	455	245	355	175	287	258	287	123	62	47
10	66	64	421	217	331	170	258	244	279	129	61	47
11	53	69	384	200	303	175	234	234	268	134	61	46
12	69	70	346	180	283	167	218	227	261	129	64	46
13	82	69	314	180	264	159	211	211	258	125	69	52
14	69	64	322	183	247	159	234	205	247	123	62	52
15	70	63	376	178	234	154	272	208	237	123	60	48
16	67	61	398	170	230	149	258	208	230	116	58	50
17	60	61	376	165	227	144	240	218	224	112	56	50
18	58	60	346	155	244	141	230	254	214	107	56	47
19	58	130	330	148	268	159	221	311	202	103	53	46
20	55	608	304	146	275	170	224	364	190	101	58	46
21	55	572	314	141	261	184	227	415	184	97	56	46
22	55	362	354	137	244	205	247	450	178	103	56	47
23	55	279	334	133	230	205	258	450	170	97	69	50
24	54	245	304	131	221	196	247	435	159	99	66	47
25	51	325	282	126	211	187	237	410	156	93	61	46
26	52	518	262	122	250	184	234	391	146	87	58	43
27	51	407	245	118	237	187	221	373	141	85	55	44
28	50	330	251	114	237	208	211	360	139	81	54	43
29	49	286	251	90	------	211	218	355	151	80	52	43
30	48	293	371	80	------	218	224	355	141	78	52	43
31	47	------	354	100	------	208	------	351	------	78	51	------
TOTAL	1,743	5,440	10,466	5,916	8,388	5,862	7,377	9,198	6,894	3,385	1,907	1,421
MEAN	56.2	181	338	191	300	189	246	297	230	109	61.5	47.4
MAX	82	608	578	342	677	261	386	450	335	137	76	52
MIN	44	44	217	80	110	141	187	205	139	78	51	43
CFSM	.76	2.47	4.59	2.60	4.08	2.57	3.35	4.04	3.13	1.49	.84	.64
IN.	.88	2.75	5.30	2.99	4.24	2.97	3.73	4.65	3.49	1.71	.96	.72
AC-FT	3,460	10,790	20,760	11,730	16,640	11,630	14,630	18,240	13,670	6,710	3,780	2,820

CAL YR 1962: TOTAL 73,876 MEAN 202 MAX 1,150 MIN 40 CFSM 2.75 IN 37.38 AC-FT 146,500
WAT YR 1963: TOTAL 67,997 MEAN 186 MAX 677 MIN 43 CFSM 2.53 IN 34.41 AC-FT 134,900

12-0975. Greenwater River at Greenwater, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	45	145	254	245	148	396	268	1,110	410	134	76
2	39	55	135	335	235	138	335	245	1,140	430	129	78
3	39	53	130	283	215	140	271	222	948	415	124	78
4	40	55	130	242	208	160	245	212	884	391	124	73
5	41	55	140	218	202	190	231	202	900	386	124	72
6	42	57	190	245	190	172	222	190	876	378	114	70
7	41	80	170	225	178	153	231	187	836	373	107	70
8	40	162	160	194	167	146	268	196	844	373	103	76
9	39	105	150	181	162	138	291	238	836	364	101	72
10	39	89	145	170	162	138	307	400	860	339	98	67
11	39	80	140	153	156	136	307	430	852	327	94	65
12	39	73	145	143	150	136	287	435	792	323	92	62
13	41	70	130	136	150	126	264	430	764	315	92	62
14	41	82	125	129	150	129	253	391	736	307	89	61
15	40	87	115	131	145	148	347	351	736	295	87	61
16	39	85	143	199	140	151	331	360	948	268	85	60
17	38	101	175	208	140	193	291	460	908	249	82	66
18	38	103	181	196	150	275	256	495	892	231	85	62
19	38	114	170	181	180	231	235	590	785	218	89	62
20	39	109	167	181	200	208	231	694	680	205	82	70
21	39	98	151	162	220	190	222	729	590	199	79	69
22	77	92	156	151	240	175	253	644	542	193	78	82
23	56	96	187	141	225	156	242	548	548	181	76	78
24	54	99	187	148	205	141	235	495	554	172	74	73
25	76	129	199	417	190	138	238	450	542	162	74	69
26	61	199	184	355	170	136	249	445	536	156	78	66
27	52	245	175	303	159	129	253	495	495	148	78	64
28	52	193	167	283	153	124	253	620	460	143	87	62
29	52	170	153	279	146	134	287	701	430	136	82	64
30	49	155	146	260	------	202	287	852	396	136	82	100
31	46	------	148	249	------	331	------	956	------	136	79	------
TOTAL	1,406	3,136	4,839	6,752	5,233	5,112	8,118	13,931	22,420	8,359	2,902	2,090
MEAN	45.4	105	156	218	180	165	271	449	747	270	93.6	69.7
MAX	77	245	199	417	245	331	396	956	1,140	430	134	100
MIN	38	45	115	129	140	124	222	187	396	136	74	60
CFSM	.62	1.42	2.12	2.96	2.46	2.24	3.68	6.11	10.2	3.67	1.27	.95
IN.	.71	1.59	2.45	3.42	2.65	2.59	4.11	7.05	11.3	4.23	1.47	1.06
AC-FT	2,790	6,220	9,600	13,390	10,380	10,140	16,100	27,630	44,470	16,580	5,760	4,150

CAL YR 1963: TOTAL 59,729 MEAN 164 MAX 677 MIN 38 CFSM 2.23 IN 30.22 AC-FT 118,500
WAT YR 1964: TOTAL 84,298 MEAN 230 MAX 1,140 MIN 38 CFSM 3.13 IN 42.65 AC-FT 167,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	129	69	590	196	990	327	172	470	430	198	84	58
2	197	70	715	190	754	299	168	419	426	196	86	57
3	181	78	506	181	625	278	162	385	454	189	87	56
4	138	84	386	167	551	267	164	360	470	185	84	55
5	116	80	315	162	551	256	166	334	479	178	83	54
6	103	74	264	156	515	250	164	308	492	174	80	53
7	96	72	231	148	470	256	160	287	497	168	78	53
8	99	70	228	143	458	261	156	276	492	162	78	52
9	101	69	238	138	415	270	158	270	488	157	77	51
10	105	69	256	136	378	284	158	281	470	155	82	51
11	94	67	249	129	344	305	153	302	470	153	77	50
12	89	66	228	124	331	308	153	347	454	146	79	49
13	87	66	212	129	378	290	158	371	419	139	82	50
14	87	64	196	164	371	276	158	382	385	135	74	94
15	103	62	181	299	347	261	176	382	350	130	70	108
16	101	62	155	440	371	253	245	385	324	126	68	101
17	96	62	140	435	538	234	253	371	312	119	67	77
18	92	62	130	400	551	220	237	354	312	116	66	68
19	89	61	135	420	556	210	324	350	305	113	69	63
20	87	60	140	425	524	203	569	350	299	113	82	60
21	85	58	141	430	470	196	533	360	293	114	69	57
22	82	60	500	391	419	194	458	382	281	110	66	56
23	80	69	940	351	360	183	411	378	273	106	87	54
24	78	340	590	323	331	172	392	368	264	101	84	53
25	76	291	435	291	312	172	411	364	256	98	73	52
26	74	222	364	283	318	166	454	374	245	97	70	51
27	72	178	319	720	385	160	524	407	230	98	66	51
28	70	151	279	1,920	360	157	578	470	220	98	64	51
29	70	156	249	3,650	------	153	560	520	212	94	63	49
30	70	295	228	2,440	------	149	520	506	203	90	61	49
31	69	------	208	1,540	------	153	------	462	------	87	59	------
TOTAL	3,016	3,187	9,748	16,921	12,973	7,163	8,895	11,575	10,805	4,145	2,315	1,783
MEAN	97.3	106	314	546	463	231	297	373	360	134	74.7	59.4
MAX	197	340	940	3,650	990	327	578	520	497	198	87	108
MIN	69	58	130	124	312	149	153	270	203	87	59	49
CFSM	1.32	1.45	4.28	7.43	6.30	3.14	4.03	5.08	4.90	1.82	1.02	.81
IN.	1.53	1.61	4.93	8.56	6.56	3.62	4.50	5.86	5.47	2.10	1.17	.90
AC-FT	5,980	6,320	19,330	33,560	25,730	14,210	17,640	22,960	21,430	8,220	4,590	3,540

CAL YR 1964: TOTAL 90,868 MEAN 248 MAX 1,140 MIN 58 CFSM 3.38 IN 45.98 AC-FT 180,200
WAT YR 1965: TOTAL 92,526 MEAN 253 MAX 3,650 MIN 49 CFSM 3.45 IN 46.82 AC-FT 183,500

12-0980. Mud Mountain Reservoir near Buckley, Wash.

Location.--Lat 47°08'30", long 121°55'50", in NE¼ sec.17 T.19 N., R.7 E., on left bank of reservoir just upstream from Mud Mountain Dam on White River, 5 miles southeast of Buckley and 6 miles downstream from Clearwater River.

Drainage area.--400 sq mi.

Records available.--October 1943 to September 1965. Month-end contents only October 1943 to September 1944, published in WSP 1316.

Gage.--Staff gage read once daily. Datum of gage is at mean sea level (levels by Corps of Engineers).

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum observed			Minimum observed		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	June 4, 1961	23,400	1,086.7	Many days	43	908.0
1962	Apr. 8, 1962	11,600	1,049.1	do.	43	908.0
1963	Nov. 22, 1962	13,100	1,055.2	do.	43	908.0
1964	July 8, 1964	10,300	1,043.0	Oct. 1-7, 1963	43	908.0
1965	Jan. 31, 1965	44,130	1,130.0	Sept.21, 1965	141	925.0

1943-65: Maximum contents observed since dam was completed, 44,130 acre-ft Jan. 31, 1965 (elevation, 1,130.0 ft); no pool at times in some years.

Remarks.--Reservoir, for flood control, is formed by earthfill dam. Embankment completed and storage began on small scale in 1942. Capacity, 106,000 acre-ft between elevations 895 (invert of outlet tunnel) and 1,215 ft (spillway crest). Storage is not retained but is dissipated as soon after a flood as is possible without creating damaging flows downstream in order to have the maximum capacity available for any following flood which might develop.

Cooperation.--Records of reservoir elevations and capacity table furnished by Corps of Engineers.

Capacity table, water years 1961-65 (elevation, in feet, and contents, in acre-feet)

908	43	935	266	985	2,510	1,060	14,400
915	77	945	491	1,000	3,830	1,090	24,690
925	141	955	817	1,020	6,260	1,130	44,130
930	191	970	1,520	1,040	9,680		

CONTENTS, IN ACRE-FEET, AT 1230 HOURS, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	168	43	783	95	134	1,480	149	382	22,000	218	107	1,910
2	168	43	147	95	344	2,040	413	708	22,800	204	107	1,850
3	168	43	149	95	149	1,050	1,970	761	23,100	158	107	1,790
4	168	43	144	95	249	266	3,350	491	23,400	191	107	1,820
5	168	43	141	191	979	191	2,590	469	23,300	233	107	1,820
6	168	43	141	4,930	3,020	184	1,140	191	22,800	3,750	107	1,790
7	168	43	134	5,930	5,520	179	170	168	22,500	7,000	107	1,770
8	168	43	134	4,740	5,820	177	168	168	21,000	6,270	107	1,770
9	43	43	95	2,900	4,860	176	168	168	21,400	4,940	107	1,760
10	43	43	95	2,550	5,480	175	168	168	22,000	4,180	107	1,760
11	43	1,220	95	2,040	5,630	174	158	168	22,200	3,830	107	1,760
12	43	1,180	107	124	4,870	172	158	168	22,200	4,030	107	1,760
13	43	303	107	124	3,390	171	158	168	22,200	4,990	107	1,760
14	43	101	107	124	2,250	191	158	168	22,200	5,200	107	1,760
15	43	99	95	124	1,380	798	158	168	20,100	3,850	107	1,740
16	43	3,570	95	1,270	1,310	950	158	168	19,000	3,000	107	1,760
17	43	5,890	95	1,210	491	464	158	168	19,000	2,170	107	1,760
18	43	5,670	95	194	163	211	158	313	19,600	1,310	107	1,760
19	43	3,980	107	124	413	191	158	798	20,000	168	107	1,760
20	43	3,170	107	124	1,820	191	158	2,150	19,000	168	107	1,760
21	43	4,360	107	124	6,880	179	158	2,440	17,000	168	107	1,790
22	43	2,290	95	124	9,070	179	158	3,260	14,400	168	107	1,760
23	43	1,770	95	124	10,300	177	158	9,720	11,600	168	1,700	1,740
24	43	1,820	95	124	6,460	177	158	15,000	9,050	168	107	1,730
25	43	9,440	95	124	5,900	175	158	19,200	6,370	168	107	1,730
26	43	8,710	95	124	4,110	172	158	21,600	4,080	141	107	1,730
27	43	5,430	95	124	2,950	170	158	21,400	2,700	107	107	1,730
28	43	4,030	95	124	2,080	166	158	20,700	1,200	107	107	1,740
29	43	3,330	95	124	------	149	158	20,700	258	107	107	1,770
30	43	2,490	95	124	------	149	438	21,100	249	107	107	1,740
31	43	------	95	134	------	149	------	21,700	------	107	674	------
MAX	168	9,440	783	5,930	10,300	2,040	3,350	21,600	23,400	7,000	1,700	1,910
MIN	43	43	95	95	134	149	149	168	249	107	107	1,730
(†)	908.0	970.0	918.0	924.0	974.3	926.0	941.9	1,082.7	933.1	920.0	963.2	973.8
(‡)	-125	+1,480	-1,420	+39	+1,640	-1,620	+262	+21,400	-21,580	-128	+1,060	+570

CAL YR 1960.................... ‡ -12,740
WAT YR 1961.................... ‡ +1,570

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† Elevation, in feet, at 2400 hours (estimated), on last day of month.
‡ Change in contents, in acre-feet.

12-0980. Mud Mountain Reservoir near Buckley, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 1230 HOURS, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,740	43	43	6,210	120	120	120	127	127	141	134	134
2	1,740	43	43	5,660	120	120	120	127	127	139	134	134
3	1,740	43	43	6,730	120	120	120	127	127	138	134	134
4	1,730	43	43	3,070	120	120	120	127	127	138	134	134
5	1,720	43	43	1,760	120	120	120	127	127	137	134	134
6	1,800	43	43	3,570	120	120	120	127	127	134	134	62
7	1,800	43	43	6,140	120	120	9,970	127	127	134	134	43
8	1,780	43	43	5,550	120	120	11,600	127	127	134	134	43
9	1,760	43	43	3,730	120	120	10,400	127	127	136	134	43
10	1,980	43	43	9,010	120	120	10,600	127	127	134	134	43
11	1,890	43	43	7,900	120	120	9,950	127	127	134	134	43
12	1,860	43	43	5,700	120	120	9,130	127	127	134	134	366
13	2,000	43	43	5,410	120	120	8,270	127	127	134	134	43
14	1,940	43	43	5,410	120	120	7,850	127	127	134	134	43
15	1,900	43	43	5,000	120	120	8,660	127	127	134	134	43
16	1,860	43	43	4,360	120	120	8,560	127	127	134	134	43
17	1,840	43	43	3,610	120	120	8,130	127	467	134	134	43
18	1,830	43	43	2,360	120	120	7,730	127	394	134	134	43
19	1,790	43	43	120	120	120	7,850	127	344	134	134	43
20	1,790	43	43	366	120	120	7,650	127	426	134	134	43
21	1,770	43	43	1,580	120	120	3,080	127	413	134	134	43
22	1,770	1,260	43	1,710	120	120	141	127	408	134	134	43
23	1,850	1,160	1,960	1,710	120	120	140	127	438	134	134	43
24	1,850	72	8,960	1,610	120	120	134	127	691	134	134	43
25	1,830	43	5,430	120	120	120	134	127	856	134	134	43
26	1,850	43	6,260	120	120	120	134	127	979	134	134	43
27	1,640	43	7,820	233	120	120	134	127	215	134	134	43
28	72	43	7,130	233	120	120	134	127	141	134	134	43
29	72	43	6,880	204	------	120	134	127	141	134	134	43
30	43	43	8,200	120	------	120	128	127	141	134	134	43
31	43	------	6,620	120	------	120	------	127	------	134	134	------
MAX	2,000	1,260	8,960	9,010	120	120	11,600	127	979	141	134	366
MIN	43	43	43	120	120	120	120	127	127	134	134	43
(†)	908.0	908.0	1,021.2	922.0	922.0	922.0	923.1	923.0	925.0	924.0	924.0	908.0
(‡)	-1,700	0	+6,390	-6,310	0	0	+8	-1	+14	-7	0	-91

CAL YR 1961.................... ‡ +6,340
WAT YR 1962.................... ‡ -1,700

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† Elevation, in feet, at 2400 hours (estimated), on last day of month.
‡ Change in contents, in acre-feet.

CONTENTS, IN ACRE-FEET, AT 1230 HOURS, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	43	3,650	958	1,830	168	168	168	168	168	168	168
2	43	43	3,320	962	1,830	168	168	168	168	168	168	168
3	43	43	3,000	1,160	8,420	168	168	168	168	168	168	168
4	43	43	1,890	2,060	6,850	168	168	168	168	168	168	168
5	43	43	273	1,830	3,830	168	168	168	168	168	168	168
6	43	43	4,030	1,790	9,580	168	1,580	168	168	168	168	168
7	43	43	6,670	1,770	1,650	168	2,230	168	168	168	168	168
8	43	43	5,810	1,930	2,450	168	1,590	168	168	168	168	168
9	43	43	4,750	1,940	2,140	168	168	168	168	168	168	674
10	43	43	3,370	1,940	856	168	168	168	168	168	168	1,790
11	43	43	1,890	1,850	399	168	168	168	168	168	168	1,790
12	43	43	491	1,850	284	168	168	168	168	168	168	1,790
13	43	43	241	1,850	280	168	168	168	168	168	168	1,520
14	43	43	644	1,850	280	168	168	168	168	168	168	43
15	43	43	2,150	1,850	271	168	464	168	366	168	168	43
16	43	43	4,670	1,850	271	168	168	168	1,820	168	168	43
17	43	43	4,600	1,850	271	168	168	168	2,590	168	168	43
18	43	43	3,320	1,850	271	168	168	168	1,470	168	168	43
19	43	43	3,400	1,850	271	168	168	168	1,360	168	168	43
20	43	10,800	1,790	1,850	295	168	168	491	168	168	168	43
21	43	9,620	168	1,850	294	168	168	856	168	168	168	43
22	43	13,100	168	1,850	294	168	168	1,360	168	168	168	43
23	43	11,500	168	1,850	290	168	168	1,520	168	168	168	43
24	43	8,820	168	1,850	288	168	168	1,020	168	168	168	43
25	43	491	168	1,850	168	168	168	366	168	168	168	43
26	43	2,400	168	1,850	168	168	168	168	168	168	168	43
27	43	1,910	168	1,850	168	168	168	168	168	168	168	43
28	43	1,530	168	1,850	168	168	168	168	168	168	1,960	43
29	43	1,830	168	1,850	------	168	168	168	168	168	168	43
30	43	1,900	1,410	1,850	------	168	168	168	168	168	168	284
31	43	------	1,960	1,850	------	168	------	168	------	168	168	------
MAX	43	13,100	6,670	2,060	9,580	168	2,230	1,520	2,590	168	1,960	1,790
MIN	43	43	168	168	958	168	168	168	168	168	168	43
(†)	908.0	986.8	967.5	975.4	928.0	928.0	928.0	928.0	928.0	928.0	928.0	922.6
(‡)	0	+2,610	-1,260	+450	-1,670	0	0	0	0	0	0	-44

CAL YR 1962.................... ‡ -5,040
WAT YR 1963.................... ‡ +81

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† Elevation, in feet, at 2400 hours (estimated), on last day of month.
‡ Change in contents, in acre-feet.

12-0980. Mud Mountain Reservoir near Buckley, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 1230 HOURS, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	1,760	1,890	2.250	2,480	2,010	2,570	2,140	3,630	2,960	2,240	2,060
2	43	1,830	1,870	2,630	2,400	1,980	2,510	83	4,130	2,970	2,240	2,040
3	43	1,830	1,850	2,240	2,320	1,960	2,370	83	3,320	2,940	2,220	2,060
4	43	1,860	1,840	2,350	2,250	1,980	2,360	641	3,210	2,940	2,350	2,060
5	43	2,020	1,840	2,220	2,250	2,140	2,350	2,130	3,670	2,830	2,270	2,040
6	43	3,300	2,020	2,410	2,220	2,120	2,350	2,130	3,670	2,850	2,230	2,040
7	43	2,560	1,970	2,320	2,160	2,040	2,220	2,110	3,270	4,060	2,220	2,040
8	179	4,370	1,940	2,200	2,170	2,010	2,250	2,140	3,270	10,300	2,200	2,070
9	1,230	5,110	1,910	2,160	2,170	2,000	2,320	2,220	3,170	9,320	2,190	2,050
10	1,740	3,350	1,880	2,100	2,070	2,000	2,320	2,500	3,170	9,540	2,180	2,030
11	1,760	1,890	1,850	2,060	2,080	1,980	2,320	2,550	3,220	7,700	2,180	2,010
12	1,710	1,870	1,850	2,020	2,040	2,000	2,320	2,510	3,250	6,900	2,200	2,010
13	1,710	775	1,840	1,990	2,020	1,980	2,320	2,510	3,120	6,960	2,210	2,010
14	2,040	389	1,830	2,020	2,000	1,940	2,320	2,510	3,080	6,740	2,170	2,010
15	1,980	70	1,850	2,010	1,990	2,080	2,320	2,400	3,080	7,210	2,140	2,010
16	1,720	67	1,970	2,430	1,980	2,100	2,320	2,390	3,080	6,700	2,140	2,020
17	1,700	67	2,170	2,380	2,010	2,110	2,470	2,550	3,620	5,180	2,140	2,120
18	1,700	67	2,040	2,280	2,090	2,500	2,400	2,590	3,880	3,230	2,150	2,080
19	1,690	52	2,010	2,190	2,260	2,360	2,340	2,710	3,320	2,360	2,150	2,040
20	1,670	52	2,060	2,290	2,210	2,250	2,300	2,890	3,030	2,380	2,100	2,100
21	1,690	52	2,030	2,240	2,140	2,220	2,270	2,960	2,880	2,400	2,120	2,100
22	2,030	52	1,990	2,120	2,120	2,140	2,400	2,850	2,820	2,360	2,130	2,110
23	1,880	52	2,170	2,080	2,110	2,100	2,340	2,690	2,910	2,290	2,140	2,120
24	1,710	52	2,110	2,050	2,110	2,040	2,320	2,600	3,010	2,300	2,130	2,110
25	1,910	52	2,150	3,510	2,110	2,040	2,290	2,540	3,010	2,320	2,140	2,100
26	1,940	615	2,070	2,850	2,040	2,030	2,380	2,530	3,000	2,350	2,150	2,110
27	1,870	2,190	2,030	2,650	2,010	1,980	2,380	2,620	2,930	2,790	2,100	2,090
28	1,840	2,040	2,030	2,550	2,010	1,980	2,380	2,790	2,870	2,340	2,160	2,010
29	1,850	2,290	1,980	2,590	2,000	2,000	2,400	2,880	2,680	2,360	2,120	2,010
30	1,790	1,920	1,960	2,510	------	2,140	2,400	3,000	2,730	2,350	2,110	2,110
31	1,790	------	1,990	2,450	------	2,380	------	3,180	------	2,310	2,110	------
MAX	2,040	5,110	2,170	3,510	2,480	2,500	2,570	3,180	4,130	10,300	2,350	2,120
MIN	43	52	1,830	1,990	1,980	1,960	2,220	83	2,680	2,290	2,100	2,010
(†)	974.3	976.5	979.5	984.4	977.9	984.4	981.6	995.7	989.2	981.8	979.1	981.3
(‡)	+1,650	+140	+200	+360	-470	+470	-210	+1,160	-570	-580	-190	+160

CAL YR 1963.................... ‡ +720
WAT YR 1964.................... ‡ +2,120

† Elevation, in feet, at 2400 hours (estimated), on last day of month.
‡ Change in contents, in acre-feet.

CONTENTS, IN ACRE-FEET, AT 1230 HOURS, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,360	1,990	7,570	2,280	36,010	2,550	2,320	17,190	9,720	2,670	2,470	2,250
2	2,270	2,020	8,900	2,280	23,840	2,500	2,330	16,200	9,880	2,700	2,490	2,250
3	2,420	2,020	5,290	2,280	9,480	2,460	2,290	15,600	10,220	2,700	2,440	2,250
4	2,250	2,270	2,790	2,200	3,980	2,440	2,280	15,660	11,170	2,700	2,400	2,250
5	2,170	2,270	2,810	2,200	2,960	2,440	2,290	14,260	12,090	2,700	2,400	2,250
6	2,140	2,160	2,650	2,180	2,860	2,420	2,290	12,520	13,070	2,670	2,400	2,250
7	2,110	2,060	2,650	2,170	2,780	2,440	2,230	10,380	14,260	2,660	2,360	2,250
8	2,150	2,040	2,390	2,130	2,790	2,440	2,240	8,490	11,510	2,660	2,390	2,250
9	2,140	2,040	2,470	2,130	2,710	2,460	2,240	6,430	13,330	2,560	2,400	2,250
10	2,200	2,040	2,470	2,110	3,490	2,490	2,260	4,580	11,060	2,510	2,400	2,250
11	2,140	2,040	2,410	2,110	2,570	2,530	2,230	3,660	7,260	2,490	2,400	2,250
12	2,140	2,050	2,400	2,110	2,530	2,550	2,220	3,350	4,210	2,440	2,440	2,250
13	2,120	2,050	2,400	2,100	2,720	2,510	2,270	3,730	2,800	2,440	2,440	2,250
14	2,100	2,050	2,340	2,100	2,710	2,470	2,290	4,190	2,730	2,470	2,320	2,250
15	2,180	2,040	2,320	2,100	2,660	2,450	2,330	4,430	2,690	2,510	2,280	2,250
16	2,200	2,020	2,290	2,710	2,640	2,440	2,510	4,930	2,670	2,530	2,240	2,360
17	2,200	2,000	2,140	2,720	2,760	2,400	2,530	5,550	2,670	2,510	2,290	2,240
18	2,140	2,000	2,140	2,690	2,390	2,350	2,480	5,410	2,690	2,470	2,310	2,120
19	2,100	2,000	2,140	2,710	2,760	2,320	2,600	4,990	2,780	2,440	2,330	2,060
20	2,080	2,000	2,140	2,740	2,760	2,320	3,610	4,830	2,760	2,400	2,330	2,020
21	2,080	2,000	2,110	2,790	2,670	2,290	3,310	4,660	2,750	2,400	2,330	141
22	2,060	2,000	2,790	2,710	2,640	2,320	3,040	4,700	2,740	2,340	2,330	451
23	2,050	2,050	7,870	2,620	2,550	2,280	2,910	4,670	3,310	2,330	2,250	615
24	2,040	4,030	3,930	2,590	2,510	2,230	2,870	4,460	2,700	2,380	2,250	615
25	2,040	7,600	3,930	2,510	2,470	2,240	2,870	4,230	2,670	2,380	2,250	615
26	2,020	7;100	2,630	2,470	2,470	2,240	3,350	4,120	2,620	2,460	2,250	664
27	2,010	4,130	2,590	3,500	2,710	2,220	10,090	4,450	2,590	2,480	2,250	578
28	2,010	3,350	2,500	4,760	2,590	2,220	14,960	5,600	2,550	2,470	2,250	578
29	1,990	2,360	2,420	29,330	------	2,220	16,570	7,530	2,570	2,440	2,250	578
30	1,990	2,870	2,400	42,770	------	2,210	17,740	9,230	2,590	2,450	2,250	505
31	1,990	------	2,400	44,130	------	2,200	------	9,740	------	2,440	2,250	------
MAX	2,420	7,600	8,900	44,130	36,010	2,550	17,740	17,190	14,260	2,700	2,490	2,360
MIN	1,990	1,990	2,110	2,100	2,390	2,200	2,220	3,350	2,550	2,330	2,240	141
(†)	977.7	1,008.2	982.8	1,122.6	985.8	981.6	1,070.2	1,040.2	986.5	984.3	981.5	941.6
(‡)	-250	+2,720	-2,360	+37,810	-37,590	-310	+15,190	-7,730	-7,090	-170	-210	-1,850

CAL YR 1964.................... ‡ +240
WAT YR 1965.................... ‡ -1,840

† Elevation, in feet, at 2400 hours (estimated), on last day of month.
‡ Change in contents, in acre-feet.

12-0985. White River near Buckley, Wash.

Location.--Lat 47°09'05", long 121°57'00", in SW¼NW¼ sec.8, T.19 N., R.7 E., on right bank 0.7 mile upstream from Red Creek, 1 mile downstream from Mud Mountain Dam, 4 miles east of Buckley, and 8 miles downstream from Clearwater River.

Drainage area.--401 sq mi.

Records available.--October 1928 to November 1933, October 1938 to September 1965.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929 (Corps of Engineers bench mark). Oct. 26 to Dec. 9, 1928, staff gage and Dec. 9, 1928 , to Nov. 30, 1933, water-stage recorder, at site 3 miles upstream at different datum. Nov. 26, 1938, to Feb. 14, 1939, staff gage at present site and datum.

Average discharge.--32 years, 1,442 cfs (1,044,000 acre-ft per year), adjusted for storage since December 1943.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	8,740	806.39	Aug. 25, 1961	23	797.90
1962	Dec. 24, 1961	9,020	807.45	Sept.12, 1962	18	797.85
1963	Nov. 20, 21, 1962	8,090	806.95	Sept. 9, 1963	38	798.17
1964	Jan. 25, 1964	7,490	805.86	May 4, 1964	25	798.00
1965	Jan. 30, 1965	11,200	807.29	Feb. 10, 1965	128	798.79

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Sept.27, 1961	396	1964	Oct. 9, 1963	107
1962	Oct. 4, 1961	421	1965	Sept.29, 1965	472
1963	Sept. 9, 1963	337			

1928-33, 1938-65: Maximum discharge, 17,000 cfs Feb. 26, 1932 (gage height, 17.5 ft, site and datum then in use), from rating curve extended above 4,000 cfs; probably no flow for part of each day Oct. 1, 2, 7, 8, Nov. 14, Dec. 1, 5, 15, 1958, Jan. 3, Mar. 24, June 8, Aug. 19, 1959; minimum daily, 59 cfs June 25, 1957, Mar. 26, 1958.

Maximum stage known, 23.4 ft in December 1933, from floodmarks, at former site (discharge, 28,000 cfs, from rating curve extended above 3,000 cfs).

Remarks.--Records good. Diversion for some community use within basin. Flow regulated by Mud Mountain Reservoir for flood control (see station 12-0980). Storage is not retained, and observed annual runoff closely represents natural runoff of basin.

Cooperation.--Water-stage recorder inspected by employees of Corps of Engineers.

Revisions.--WSP 1246: Drainage area.

12-0985. White River near Buckley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	498	1,310	1,760	891	1,800	2,570	1,450	2,150	2,480	1,470	1,000	1,300
2	482	1,220	1,470	837	2,190	2,670	2,070	2,310	2,920	1,480	1,050	974
3	478	1,130	1,380	794	2,040	2,450	2,580	2,340	3,760	1,520	1,110	772
4	459	983	1,280	794	2,140	1,880	2,810	2,250	3,760	1,580	1,180	772
5	451	880	1,150	2,090	2,490	1,620	2,610	2,220	3,780	1,340	1,210	777
6	547	799	1,060	3,110	2,940	1,530	2,470	1,990	3,780	440	1,080	672
7	740	740	1,010	3,240	3,200	1,400	1,750	1,820	3,770	887	996	601
8	697	688	940	3,150	3,220	1,350	1,670	1,760	3,200	1,870	949	561
9	560	641	891	2,530	3,180	1,320	1,710	1,740	2,250	1,790	940	542
10	490	1,060	848	2,210	3,210	1,280	1,560	1,850	2,250	1,720	913	547
11	470	2,430	902	2,030	3,220	1,240	1,510	1,790	2,250	1,610	913	542
12	467	1,990	1,690	1,830	3,180	1,220	1,620	1,670	2,250	1,500	946	532
13	436	1,280	1,610	1,490	3,020	1,280	1,640	1,600	2,250	1,580	984	513
14	418	1,210	1,760	1,520	2,860	1,740	1,510	1,610	2,800	1,950	974	490
15	408	1,500	1,560	1,700	2,690	2,260	1,420	1,610	3,710	2,070	1,040	481
16	433	2,770	1,370	2,510	2,670	2,380	1,380	1,700	3,690	1,840	968	528
17	436	4,500	1,290	2,490	2,390	2,150	1,500	1,920	3,690	1,610	902	518
18	440	4,220	1,370	2,130	1,870	1,830	1,480	2,090	3,710	1,640	935	523
19	429	3,820	1,770	1,720	2,240	1,810	1,400	2,330	3,730	1,370	918	523
20	422	3,620	1,590	1,540	2,770	1,900	1,310	2,560	3,700	1,300	957	532
21	436	3,770	1,410	1,420	5,210	1,730	1,260	2,700	3,640	1,390	935	586
22	539	3,460	1,320	1,330	4,570	1,610	1,280	1,430	3,570	1,340	725	481
23	875	2,150	1,300	1,250	4,480	1,570	1,290	552	3,460	1,300	1,080	446
24	1,080	3,020	1,320	1,180	3,480	1,570	1,320	596	3,340	1,250	979	425
25	880	3,530	1,260	1,120	3,100	1,560	1,320	984	3,180	1,130	746	425
26	1,000	3,520	1,240	1,040	2,950	1,530	1,300	2,150	2,940	1,130	740	421
27	1,090	3,350	1,160	968	2,160	1,440	1,280	2,970	2,550	1,140	703	396
28	1,280	2,530	1,060	940	2,690	1,340	1,280	2,770	2,340	1,090	683	463
29	1,160	1,810	1,000	1,180	------	1,300	1,600	2,120	1,660	1,030	698	518
30	988	1,860	918	1,580	------	1,300	2,120	2,230	1,570	984	703	433
31	1,220	------	930	1,890	------	1,350	------	2,150	------	984	551	------
TOTAL	20,309	65,791	39,619	52,504	81,960	52,180	49,500	59,962	91,980	43,335	28,514	17,294
MEAN	655	2,193	1,278	1,694	2,927	1,683	1,650	1,934	3,066	1,398	920	575
MAX	1,280	4,500	1,770	3,240	5,210	2,670	2,810	2,970	3,780	2,070	1,210	1,300
MIN	408	641	848	794	1,800	1,220	1,260	552	1,570	440	551	396
AC-FT	40,280	130,500	78,580	104,100	162,600	103,500	98,180	118,900	182,400	85,950	56,560	34,300
(†)	-125	+1,480	-1,420	+39	+1,640	-1,620	+262	+21,400	-21,580	-128	+1,060	+570
MEAN ‡	653	2,218	1,255	1,694	2,957	1,657	1,654	2,282	2,702	1,396	937	586
CFSM ‡	1.63	5.53	3.13	4.22	7.37	4.13	4.12	5.69	6.74	3.48	2.34	1.46
IN ‡	1.88	6.17	3.61	4.87	7.68	4.76	4.60	6.56	7.52	4.01	2.69	1.63
AC-FT‡	40,160	132,000	77,160	104,100	164,200	101,900	98,440	140,300	160,800	85,820	57,620	34,870

OBSERVED

CAL YR 1960: TOTAL 497,558 MEAN 1,359 MAX 4,500 MIN 376 AC-FT 986,900
WAT YR 1961: TOTAL 602,948 MEAN 1,652 MAX 5,210 MIN 396 AC-FT 1,196,000

ADJUSTED ‡

CAL YR 1960: MEAN 1,342 CFSM 3.35 IN 45.55 AC-FT 974,200
WAT YR 1961: MEAN 1,655 CFSM 4.13 IN 55.98 AC-FT 1,198,000

† Change in contents, in acre-feet, in Mud Mountain Reservoir, furnished by Corps of Engineers.
‡ Adjusted for change in contents in Mud Mountain Reservoir.

12-0985. White River near Buckley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	449	918	1,030	1,930	1,170	690	1,180	1,500	1,580	1,750	1,120	740
2	429	870	924	1,920	1,250	685	1,230	1,680	1,710	1,520	1,060	720
3	425	852	906	5,040	1,430	675	1,160	1,810	1,720	1,400	1,100	700
4	421	740	966	4,940	1,430	685	1,220	1,800	1,650	1,420	1,180	685
5	433	655	1,160	2,480	1,330	770	1,510	1,630	1,620	1,410	1,150	685
6	590	605	990	2,860	1,250	786	2,010	1,560	1,550	1,410	1,020	690
7	625	575	948	5,140	1,200	780	3,080	1,450	1,530	1,360	1,010	685
8	545	555	852	5,570	1,160	804	3,210	1,450	1,660	1,440	978	635
9	512	560	770	3,500	1,120	786	2,430	1,540	1,840	1,540	906	605
10	1,110	725	680	2,670	1,090	745	1,960	1,620	1,860	1,540	876	775
11	882	888	640	3,090	1,060	720	1,900	1,580	1,750	1,500	876	858
12	775	780	640	2,610	1,010	685	1,840	1,530	1,740	1,470	924	602
13	1,160	710	640	1,940	978	680	1,760	1,480	1,690	1,410	966	630
14	918	924	625	1,770	1,040	690	1,670	1,390	1,610	1,330	900	635
15	798	834	610	1,710	984	710	1,780	1,350	1,670	1,290	900	585
16	735	730	610	1,660	942	750	1,900	1,290	1,980	1,260	536	550
17	670	680	816	1,580	936	780	1,820	1,290	2,090	1,220	876	565
18	590	645	720	2,080	942	786	1,760	1,320	2,080	1,140	870	590
19	540	610	1,030	1,140	900	798	1,800	1,280	2,050	1,090	828	635
20	498	560	2,140	743	870	816	2,240	1,230	2,030	1,140	888	645
21	490	580	1,990	710	834	786	2,800	1,180	2,070	1,190	930	650
22	469	2,100	1,780	942	840	775	2,220	1,220	2,070	1,280	822	655
23	605	2,110	3,370	924	816	745	1,550	1,380	2,090	1,310	770	600
24	650	1,300	6,060	1,160	740	900	1,660	1,500	2,190	1,340	780	565
25	580	1,010	4,660	1,060	715	1,150	1,650	1,800	2,270	1,300	834	580
26	690	888	2,090	1,110	655	1,220	1,530	1,890	2,290	1,260	810	595
27	1,180	870	1,940	1,180	665	1,260	1,680	1,910	1,950	1,230	720	605
28	829	1,050	1,880	1,160	710	1,120	1,620	2,010	1,660	1,210	834	805
29	725	1,210	1,830	1,090	------	1,060	1,500	2,010	1,680	1,180	775	775
30	670	1,100	2,160	1,070	------	1,020	1,420	1,840	1,840	1,170	735	615
31	675	------	2,220	1,140	------	1,060	------	1,710	------	1,170	725	------
TOTAL	20,668	26,634	47,677	65,919	28,067	25,917	55,090	48,230	55,520	41,280	28,099	19,660
MEAN	667	888	1,538	2,126	1,002	836	1,836	1,556	1,851	1,332	906	655
MAX	1,180	2,110	6,060	5,570	1,430	1,260	3,210	2,010	2,290	1,750	1,180	858
MIN	421	555	610	710	655	675	1,160	1,180	1,530	1,090	720	550
AC-FT	40,990	52,830	94,570	130,700	55,670	51,410	109,300	95,660	110,100	81,880	55,730	39,000
(†)	-1,700	0	+6,390	-6,310	0	0	+8	-1	+14	-7	0	-91
MEAN ‡	639	888	1,643	2,023	1,002	836	1,836	1,556	1,851	1,331	906	654
CFSM ‡	1.59	2.21	4.10	5.04	2.50	2.08	4.58	3.88	4.62	3.32	2.26	1.63
IN ‡	1.84	2.47	4.72	5.82	2.60	2.40	5.11	4.47	5.15	3.83	2.61	1.82
AC-FT‡	39,290	52,830	101,000	124,400	55,670	51,410	109,300	95,660	110,100	81,870	55,730	38,910

OBSERVED

CAL YR 1961: TOTAL 572,208 MEAN 1,568 MAX 6,060 MIN 396 AC-FT 1,135,000
WAT YR 1962: TOTAL 462,761 MEAN 1,268 MAX 6,060 MIN 421 AC-FT 917,900

ADJUSTED ‡

CAL YR 1961: MEAN 1,576 CFSM 3.93 IN 53.35 AC-FT 1,141,000
WAT YR 1962: MEAN 1,265 CFSM 3.15 IN 42.84 AC-FT 916,100

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† Change in contents, in acre-feet, in Mud Mountain Reservoir, furnished by Corps of Engineers.
‡ Adjusted for change in contents in Mud Mountain Reservoir.

12-0985. White River near Buckley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	575	560	2,140	2,400	777	1,570	1,160	1,270	1,820	1,070	788	800
2	590	560	2,060	2,440	848	1,460	1,080	1,280	1,790	1,130	806	735
3	695	550	1,960	2,210	4,350	1,330	1,100	1,210	1,670	1,150	836	680
4	610	550	2,310	2,220	5,910	1,220	1,470	1,150	1,550	1,200	860	690
5	535	775	2,000	1,940	3,790	1,150	1,870	1,270	1,650	1,140	878	720
6	508	760	2,770	1,720	2,820	1,100	2,350	1,550	1,580	1,100	872	700
7	570	655	2,590	1,560	3,360	1,050	2,510	1,630	1,460	1,100	866	690
8	750	822	3,060	1,480	1,670	1,020	2,380	1,550	1,550	1,290	866	788
9	978	786	2,980	1,400	2,350	983	1,830	1,440	1,640	1,250	908	337
10	948	735	2,810	1,250	2,050	976	1,580	1,360	1,530	1,350	872	758
11	870	786	2,650	1,010	1,680	983	1,470	1,320	1,600	1,380	962	764
12	888	834	2,150	990	1,500	955	1,410	1,250	1,680	1,280	1,090	730
13	1,010	786	1,820	980	1,420	908	1,370	1,190	1,710	1,280	1,130	1,190
14	858	730	2,100	970	1,340	908	1,580	1,160	1,690	1,280	997	690
15	780	705	2,570	1,010	1,260	872	2,030	1,210	1,660	1,190	648	590
16	695	685	2,860	1,040	1,250	860	1,770	1,230	1,660	1,100	800	558
17	650	665	2,890	957	1,190	848	1,580	1,270	1,960	1,100	806	525
18	640	635	2,790	924	1,300	842	1,490	1,460	2,010	1,040	800	489
19	685	1,220	2,580	853	1,450	941	1,440	1,810	2,000	1,050	842	477
20	640	6,590	2,090	837	1,540	1,000	1,430	2,040	1,580	1,050	818	477
21	660	4,240	1,850	804	1,410	1,040	1,390	2,230	1,430	1,030	764	493
22	665	3,460	2,080	777	1,300	1,140	1,430	2,380	1,310	1,110	710	550
23	645	3,150	1,850	751	1,230	1,110	1,450	2,420	1,210	997	788	595
24	630	4,530	1,630	730	1,120	1,040	1,390	2,320	1,190	983	776	525
25	615	3,600	1,520	709	1,120	1,040	1,310	2,040	1,190	914	710	509
26	625	4,980	1,440	688	1,490	1,040	1,280	1,860	1,170	896	695	525
27	625	3,380	1,400	677	1,370	1,090	1,220	1,720	1,100	908	422	576
28	595	2,680	1,560	657	1,390	1,270	1,150	1,710	1,050	955	704	635
29	590	2,010	1,570	576	------	1,270	1,200	1,800	1,120	914	848	685
30	610	1,320	2,410	509	------	1,320	1,240	1,910	1,080	860	710	580
31	580	------	2,560	698	------	1,250	------	1,920	------	836	740	------
TOTAL	21,315	53,739	69,050	35,767	52,285	33,586	45,960	49,960	45,640	33,933	25,512	19,061
MEAN	688	1,791	2,227	1,154	1,867	1,083	1,532	1,612	1,521	1,095	823	635
MAX	1,010	6,590	3,060	2,440	5,910	1,570	2,510	2,420	2,010	1,380	1,130	1,190
MIN	508	550	1,400	509	777	842	1,080	1,150	1,050	836	422	337
AC-FT	42,280	106,600	137,000	70,940	103,700	66,620	91,160	99,090	90,530	67,310	50,600	37,810
(†)	0	+2,610	-1,260	+450	-1,670	0	0	0	0	0	0	-44
MEAN ‡	688	1,835	2,207	1,161	1,837	1,083	1,532	1,612	1,521	1,095	823	635
CFSM ‡	1.72	4.58	5.50	2.90	4.58	2.70	3.82	4.02	3.79	2.73	2.05	1.58
IN ‡	1.98	5.11	6.35	3.34	4.77	3.12	4.26	4.63	4.23	3.15	2.37	1.77
AC-FT‡	42,280	109,200	135,700	71,390	102,000	66,620	91,160	99,090	90,530	67,310	50,600	37,770

OBSERVED

CAL YR 1962: TOTAL 511,886 MEAN 1,402 MAX 6,590 MIN 508 AC-FT 1,015,000
WAT YR 1963: TOTAL 485,808 MEAN 1,331 MAX 6,590 MIN 337 AC-FT 936,600

ADJUSTED ‡

CAL YR 1962: MEAN 1,395 CFSM 3.48 IN 47.25 AC-FT 1,010,000
WAT YR 1963: MEAN 1,331 CFSM 3.32 IN 45.08 AC-FT 963,600

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† Change in contents, in acre-feet, in Mud Mountain Reservoir, furnished by Corps of Engineers.
‡ Adjusted for change in contents in Mud Mountain Reservoir.

12-0985. White River near Buckley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	533	545	1,120	2,080	2,020	976	2,310	1,850	4,640	2,540	1,370	770
2	529	746	1,010	2,780	1,830	920	2,010	1,780	4,900	2,760	1,320	782
3	529	700	958	2,170	1,670	884	1,670	1,450	4,160	2,520	1,320	794
4	485	806	910	1,870	1,580	1,020	1,540	628	3,960	2,450	1,520	758
5	441	496	958	1,640	1,540	1,260	1,500	1,230	4,510	2,460	1,390	752
6	425	754	1,520	1,930	1,420	1,130	1,400	1,200	4,200	2,420	1,280	740
7	397	941	1,310	1,860	1,330	1,020	1,410	1,200	3,980	980	1,280	746
8	219	1,050	1,230	1,620	1,250	962	1,510	1,280	3,830	1,920	1,230	812
9	107	1,880	1,130	1,480	1,190	927	1,610	1,540	3,820	2,250	1,200	764
10	343	1,720	1,000	1,370	1,180	920	1,710	2,310	4,060	2,860	1,150	700
11	417	1,050	934	1,270	1,190	920	1,750	2,310	4,080	2,770	1,150	675
12	429	1,100	922	1,150	1,170	920	1,650	2,220	3,760	2,710	1,230	650
13	493	1,100	880	1,110	1,050	866	1,570	2,210	3,620	2,710	1,220	640
14	636	1,280	862	1,130	1,000	872	1,490	1,940	3,530	2,710	1,120	650
15	618	1,250	910	1,160	983	1,150	2,350	1,780	3,520	2,710	1,070	655
16	550	1,070	1,190	1,960	976	1,140	2,160	1,820	4,430	2,660	1,030	675
17	493	1,190	1,440	1,980	1,020	1,330	1,820	2,280	4,300	2,560	1,050	895
18	449	1,160	1,490	1,740	1,220	2,080	1,610	2,460	4,430	2,360	1,060	800
19	397	1,310	1,400	1,570	1,530	1,680	1,490	2,810	3,710	1,760	1,040	725
20	390	1,270	1,560	1,730	1,390	1,500	1,440	3,320	3,130	1,720	914	860
21	433	1,070	1,430	1,490	1,280	1,380	1,390	3,550	2,760	1,730	948	788
22	1,180	1,010	1,420	1,340	1,230	1,270	1,580	3,160	2,600	1,680	975	884
23	920	1,010	1,830	1,210	1,200	1,150	1,500	2,680	2,780	1,500	1,000	920
24	776	1,020	1,670	1,350	1,210	1,040	1,430	2,440	3,020	1,470	990	902
25	1,010	1,190	1,700	5,310	1,130	990	1,410	2,240	2,990	1,500	990	854
26	842	1,210	1,500	3,420	1,070	976	1,540	2,140	2,940	1,550	1,020	758
27	695	2,560	1,390	2,600	1,010	914	1,550	2,380	2,690	1,480	934	705
28	685	1,950	1,330	2,260	976	890	1,520	2,880	2,400	1,580	1,070	665
29	670	1,460	1,210	2,270	934	920	1,610	3,210	2,200	1,600	948	655
30	630	1,310	1,140	2,140	------	1,220	1,580	3,620	2,260	1,560	914	941
31	581	------	1,180	2,020	------	1,790	------	4,020	------	1,500	830	------
TOTAL	17,302	35,208	38,534	59,010	36,579	35,017	49,110	69,938	107,210	64,980	34,564	22,915
MEAN	558	1,174	1,243	1,904	1,261	1,130	1,637	2,256	3,574	2,096	1,115	764
MAX	1,180	2,560	1,830	5,310	2,020	2,080	2,350	4,020	4,900	2,860	1,520	941
MIN	107	496	862	1,110	934	866	1,390	628	2,200	980	830	640
AC-FT	34,320	69,830	76,430	117,000	72,550	69,460	97,410	138,700	212,600	128,900	68,560	45,450
(†)	+1,650	+140	+200	+360	-470	+470	-210	+1,160	-570	-580	-190	+160
MEAN‡	585	1,176	1,246	1,909	1,253	1,137	1,634	2,275	3,563	2,087	1,112	767
CFSM‡	1.46	2.93	3.11	4.76	3.12	2.84	4.07	5.67	8.89	5.20	2.77	1.91
IN ‡	1.68	3.27	3.58	5.49	3.37	3.27	4.54	6.54	9.91	6.00	3.20	2.13
AC-FT‡	35,970	69,970	76,630	117,400	72,080	69,930	97,200	139,900	212,000	128,300	68,370	45,610

OBSERVED

CAL YR 1963: TOTAL 432,748 MEAN 1,186 MAX 5,910 MIN 107 AC-FT 858,300
WAT YR 1964: TOTAL 570,368 MEAN 1,558 MAX 5,310 MIN 107 AC-FT 1,131,000

ADJUSTED ‡

CAL YR 1963: MEAN 1,187 CFSM 2.96 IN 40.17 AC-FT 859,000
WAT YR 1964: MEAN 1,561 CFSM 3.89 IN 52.98 AC-FT 1,133,000

† Change in contents, in acre-feet, in Mud Mountain Reservoir, furnished by Corps of Engineers.
‡ Adjusted for change in contents in Mud Mountain Reservoir.

12-0985. White River near Buckley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,430	590	3,750	1,190	10,400	1,710	957	2,650	2,180	1,710	1,150	606
2	1,560	640	5,400	1,200	9,760	1,570	984	2,340	2,180	1,800	1,170	616
3	1,760	665	4,850	1,160	7,980	1,460	918	1,860	2,190	1,800	1,070	611
4	1,310	1,160	2,560	1,070	2,460	1,380	918	2,060	2,220	1,790	1,020	586
5	1,090	1,060	2,010	1,050	3,630	1,340	930	2,310	2,240	1,760	968	561
6	983	884	1,710	1,030	2,810	1,300	908	2,260	2,260	1,670	974	537
7	914	818	1,490	968	2,470	1,310	896	2,210	2,930	1,680	946	518
8	1,010	758	1,540	940	2,440	1,320	864	2,120	3,510	1,680	990	528
9	1,100	746	1,680	913	2,170	1,340	880	2,030	1,900	1,450	1,010	537
10	1,110	746	1,690	902	1,890	1,400	886	1,930	3,900	1,320	1,070	556
11	976	705	1,620	886	1,770	1,480	853	1,860	3,780	1,280	1,040	552
12	920	670	1,480	858	1,680	1,490	848	1,830	3,480	1,150	1,100	537
13	884	680	1,400	858	2,210	1,420	886	1,880	2,340	1,150	1,070	532
14	878	640	1,320	1,010	2,160	1,340	908	1,910	2,080	1,200	913	648
15	1,050	600	1,250	1,590	1,990	1,280	957	1,930	1,880	1,280	869	1,050
16	1,060	590	1,090	2,300	1,940	1,240	1,220	1,970	1,730	1,280	886	935
17	983	595	880	2,330	2,550	1,180	1,280	2,000	1,880	1,250	869	683
18	884	586	900	2,140	2,620	1,110	1,180	2,000	2,140	1,200	902	571
19	848	563	900	2,190	2,640	1,060	1,760	1,970	2,110	1,120	979	528
20	800	550	910	2,250	2,550	1,030	3,960	1,950	2,070	1,090	1,030	1,130
21	752	537	940	2,310	2,260	996	3,530	1,930	2,070	1,070	913	712
22	735	545	3,220	2,030	2,090	1,010	2,790	1,940	1,990	974	858	662
23	695	675	7,960	1,830	1,780	968	2,400	1,930	1,910	974	875	621
24	675	2,110	3,200	1,710	1,610	908	2,250	1,920	1,930	1,010	902	596
25	655	2,740	3,500	1,520	1,530	896	2,260	1,900	1,830	1,060	837	581
26	625	2,690	2,250	1,530	1,600	891	1,240	1,900	1,670	1,150	772	552
27	586	2,520	1,960	4,320	2,210	869	532	1,920	1,540	1,180	735	513
28	563	1,570	1,670	7,360	1,970	864	1,210	2,000	1,480	1,150	652	477
29	558	1,430	1,500	9,330	------	864	2,260	2,100	1,520	1,070	611	472
30	572	2,250	1,370	10,800	------	842	2,470	2,150	1,570	1,100	581	486
31	568	------	1,280	10,700	------	837	------	2,180	------	1,100	581	------
TOTAL	28,534	31,313	67,280	80,275	83,170	36,705	43,935	62,940	66,510	40,498	28,343	18,494
MEAN	920	1,044	2,170	2,590	2,970	1,184	1,465	2,030	2,217	1,306	914	616
MAX	1,760	2,740	7,960	10,800	10,400	1,710	3,960	2,650	3,900	1,800	1,170	1,130
MIN	558	537	880	858	1,530	837	532	1,830	1,480	974	581	472
AC-FT	56,600	62,110	133,400	159,200	165,000	72,800	87,140	124,800	131,900	80,330	56,220	36,680
(†)	-250	+2,720	-2,360	+37,810	-37,590	-310	+15,190	-7,730	-7,090	-170	-210	-1,850
MEAN ‡	916	1,090	2,131	3,204	2,294	1,179	1,719	1,904	2,097	1,304	911	585
CFSM ‡	2.28	2.72	5.31	7.99	5.72	2.94	4.29	4.75	5.23	3.25	2.27	1.46
IN ‡	2.63	3.03	6.13	9.21	5.96	3.39	4.78	5.48	5.84	3.75	2.62	1.63
AC-FT‡	56,350	64,830	131,000	197,000	127,400	72,490	102,300	117,100	124,800	80,160	56,010	34,830

OBSERVED

CAL YR 1964: TOTAL 606,451 MEAN 1,657 MAX 7,960 MIN 537 AC-FT 1,203,000
WAT YR 1965:STOTAL 587,997 MEAN 1,611 MAX 10,800 MIN 472 AC-FT 1,166,000

ADJUSTED ‡

CAL YR 1964: MEAN 1,657 CFSM 4.13 IN 56.24 AC-FT 1,203,000
WAT YR 1965: MEAN 1,608 CFSM 4.01 IN 54.45 AC-FT 1,164,000

† Change in contents, in acre-feet, in Mud Mountain Reservoir, furnished by Corps of Engineers.
‡ Adjusted for change in contents in Mud Mountain Reservoir.

12-0993. Boise Creek above reservoir, near Enumclaw, Wash.

Location.--Lat 47°11'30", long 121°53'50", in SW¼NE¼ sec.27, T.20 N., R.7 E., on right bank 0.8 mile upstream from reservoir, 1.3 miles east of Weyerhaeuser Co. mill, and 4½ miles east of Enumclaw.

Drainage area.--4.60 sq mi.

Records available.--January 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,435 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (150 cfs), January 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 3, 1963	0730	* 151	2.92	June 17, 1964	1930	151	2.93	Jan. 29, 1965	0430	* 641	5.88
Jan. 25, 1964	0630	* 201	3.20	Nov. 24, 1964	0930	197	3.18				
Mar. 17, 1964	1730	165	2.94	Dec. 22, 1964	2200	188	3.13				

Annual minimum discharge, January 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Sept. 9,10, 27-30	3.5	1.76	1965	Sept. 4-13, 1965	1.0	a 1.92
1964	Oct. 9,10,11,17, 19, 20, 1963	2.9	1.74				

a Occurred Oct. 31, Nov. 1, 1964, Sept. 4-13, 1965.

1963-65: Maximum discharge, 641 cfs Jan. 29, 1965; minimum, 1.0 cfs Sept. 4-13, 1965; minimum gage height, 1.74 ft Oct. 9-11, 17, 19, 20, 1963.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				46	13	31	22	20	5.6	14	6.9	4.8
2				40	28	30	20	23	8.9	13	6.4	6.9
3				35	118	26	22	20	8.4	12	6.0	5.2
4				31	63	24	43	20	9.5	11	5.6	4.4
5				27	45	21	50	19	21	9.5	5.6	4.1
6				23	37	19	57	21	18	9.5	5.6	4.1
7				22	30	17	50	23	13	13	5.2	4.1
8				21	26	16	40	20	15	18	4.8	4.1
9				20	24	15	33	19	35	20	4.4	3.8
10				16	21	14	28	17	28	31	4.4	4.1
11				15	19	13	25	15	21	29	4.4	4.1
12				14	16	13	24	15	18	24	5.2	4.1
13				14	16	12	21	13	15	20	6.0	7.9
14				15	15	12	20	13	13	17	5.2	5.6
15				16	15	12	20	13	12	15	4.4	6.0
16				24	17	12	20	12	10	13	4.4	6.4
17				21	16	12	23	11	8.9	12	4.1	5.6
18				20	23	13	25	10	8.4	11	5.2	4.8
19				17	25	17	25	9.5	8.9	10	12	4.4
20				16	25	16	27	8.4	9.5	9.5	12	4.1
21				15	21	16	25	7.9	12	8.9	10	4.1
22				15	20	15	31	7.9	9.5	13	7.4	4.1
23				13	17	15	32	7.9	9.5	8.9	8.9	4.8
24				13	16	15	29	7.4	13	8.4	9.5	4.4
25				13	20	15	26	6.9	16	7.9	7.9	4.1
26				12	27	15	24	6.9	13	7.4	7.9	4.1
27				11	24	16	22	6.4	13	6.9	6.4	3.8
28				10	28	19	20	6.0	13	6.4	6.0	3.5
29				10	------	20	20	6.0	16	6.9	5.6	3.5
30				9.5	------	23	19	5.6	15	6.9	5.2	3.5
31		------		11	------	23	------	5.6	------	7.4	5.2	------
TOTAL				585.5	765	537	843	396.4	417.1	400.5	197.8	138.5
MEAN				18.9	27.3	17.3	28.1	12.8	13.9	12.9	6.38	4.62
MAX				46	118	31	57	23	35	31	12	7.9
MIN				9.5	13	12	19	5.6	5.6	6.4	4.1	3.5
CFSM				4.11	5.94	3.77	6.11	2.78	3.02	2.81	1.39	1.00
IN.				4.73	6.18	4.34	6.82	3.20	3.37	3.24	1.60	1.12
AC-FT				1,160	1,520	1,070	1,670	786	827	794	392	275

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0993. Boise Creek above reservoir, near Enumclaw, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.4	10	19	48	52	16	45	24	24	13	12	13
2	3.4	22	17	56	43	14	34	22	22	13	9.3	12
3	4.8	16	15	41	37	14	28	20	19	13	13	10
4	4.1	26	13	33	34	28	26	20	28	12	15	9.3
5	4.1	24	17	30	31	27	28	23	26	12	10	8.3
6	3.8	24	31	43	27	24	28	23	24	11	8.8	7.8
7	3.4	32	25	37	25	20	29	22	62	9.8	8.3	10
8	3.2	37	24	31	23	19	29	22	62	11	7.3	13
9	3.2	29	21	28	21	18	29	26	45	9.8	6.8	10
10	2.9	27	18	26	22	18	31	36	38	8.8	6.4	9.3
11	3.4	23	16	24	21	21	31	33	37	8.8	6.0	8.3
12	3.4	19	14	22	18	19	31	33	32	8.3	6.4	7.3
13	6.0	19	13	24	18	18	29	32	29	7.8	12	6.8
14	4.4	27	13	27	17	21	31	27	29	9.3	7.3	6.4
15	3.4	22	19	33	18	26	63	24	31	13	6.4	6.4
16	3.2	21	28	43	21	26	46	23	63	9.3	6.0	6.4
17	3.4	26	29	38	24	72	39	23	87	7.8	6.0	23
18	3.4	25	26	31	39	86	32	23	110	7.8	6.4	13
19	3.2	33	26	33	40	54	28	23	74	7.3	6.8	14
20	5.2	30	30	32	31	40	24	28	52	7.3	5.6	13
21	6.9	27	26	29	28	34	24	41	43	10	5.2	12
22	28	26	27	26	24	29	31	40	34	9.3	5.2	18
23	13	24	26	24	24	25	28	37	29	7.3	4.8	16
24	12	24	24	38	23	23	26	32	26	6.8	4.4	13
25	17	30	24	154	20	22	26	28	23	6.4	6.2	13
26	16	41	22	86	18	21	28	24	21	6.4	6.4	11
27	13	44	21	66	18	19	27	24	20	6.4	7.7	9.3
28	14	33	19	52	16	19	26	24	18	6.0	9.8	8.8
29	13	26	18	56	16	20	26	23	16	5.6	12	9.3
30	13	22	17	46	------	23	24	22	15	6.8	21	20
31	12	------	18	51	------	29	------	24	------	8.3	16	------
TOTAL	233.2	789	656	1,308	749	845	927	826	1,139	278.4	264.5	337.7
MEAN	7.52	26.3	21.2	42.2	25.8	27.3	30.9	26.6	38.0	8.98	8.53	11.3
MAX	28	44	31	154	52	86	63	41	110	13	21	23
MIN	2.9	10	13	22	16	14	24	20	15	5.6	4.4	6.4
CFSM	1.64	5.72	4.60	9.17	5.61	5.93	6.72	5.79	8.25	1.95	1.85	2.45
IN.	1.89	6.38	5.30	10.6	6.06	6.83	7.49	6.68	9.21	2.25	2.14	2.73
AC-FT	463	1,560	1,300	2,590	1,490	1,680	1,840	1,640	2,260	552	525	670

CAL YR 1963: TOTAL 5,959.0 MEAN 16.3 MAX 118 MIN 2.9 CFSM 3.55 IN 48.18 AC-FT 11,820
WAT YR 1964: TOTAL 8,352.8 MEAN 22.8 MAX 154 MIN 2.9 CFSM 4.96 IN 67.53 AC-FT 16,570

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	19	8.6	119	22	100	35	17	20	10	3.9	1.4	1.1
2	25	7.7	118	22	60	30	17	19	8.9	3.9	1.6	1.1
3	22	17	82	20	40	30	17	19	7.7	3.9	1.6	1.1
4	18	25	56	18	45	30	16	19	7.7	3.9	1.8	1.0
5	14	20	43	18	50	25	15	18	6.4	3.5	1.7	1.0
6	12	16	33	16	45	25	14	17	6.4	3.5	1.7	1.0
7	10	16	28	14	40	25	13	16	5.7	3.2	1.6	1.0
8	16	12	29	14	45	25	13	15	5.7	3.2	1.4	1.0
9	17	14	27	14	40	22	14	14	6.4	2.9	1.6	1.0
10	17	13	29	14	35	20	16	13	5.7	4.3	3.8	1.0
11	14	12	27	12	35	23	14	13	8.9	15	1.8	1.0
12	12	12	25	12	35	20	12	12	8.3	5.1	4.3	1.0
13	12	13	24	13	45	20	12	11	5.7	3.5	4.3	1.2
14	12	12	21	21	40	20	12	10	5.7	3.2	1.7	13
15	17	11	19	41	40	18	12	10	10	2.4	1.4	26
16	15	11	15	54	40	17	12	19	8.3	2.4	1.3	12
17	14	11	12	48	45	16	13	16	6.4	2.2	1.2	5.1
18	12	12	13	41	40	16	14	12	5.1	2.0	1.2	3.2
19	10	11	14	38	40	16	40	16	5.1	1.8	6.8	2.4
20	9.5	11	15	38	40	16	60	21	5.1	3.2	15	2.0
21	8.5	11	22	43	45	16	45	22	5.1	2.9	2.2	1.7
22	8.2	15	136	33	35	15	35	22	4.7	2.2	1.6	1.7
23	7.7	26	140	30	35	15	30	23	4.7	2.0	6.4	1.7
24	9.0	146	87	27	30	15	26	21	5.1	1.8	6.4	1.7
25	9.0	98	57	23	35	15	24	19	4.7	1.8	2.4	1.7
26	7.2	64	56	40	40	15	23	17	5.1	1.8	2.2	1.7
27	6.8	48	46	127	45	14	22	15	4.7	1.7	1.8	1.6
28	6.8	34	38	278	40	13	21	14	4.7	1.6	1.6	1.6
29	6.8	40	32	484	------	12	20	13	4.7	1.6	1.4	1.6
30	7.2	84	28	316	------	12	20	12	4.3	1.6	1.2	1.6
31	5.9	------	25	207	------	13	------	11	------	1.6	1.2	------
TOTAL	380.7	839.3	1,416	2,098	1,200	604	619	499	187.0	97.6	85.6	93.8
MEAN	12.3	28.0	45.7	67.7	42.9	19.5	20.6	16.1	6.23	3.15	2.76	3.13
MAX	25	146	140	484	100	35	60	23	10	15	15	26
MIN	5.9	7.7	12	12	30	12	12	10	4.3	1.6	1.2	1.0
CFSM	2.67	6.08	9.93	14.7	9.32	4.24	4.49	3.50	1.36	.68	.60	.68
IN.	3.08	6.79	11.4	17.0	9.70	4.88	5.01	4.03	1.51	.79	.69	.76
AC-FT	755	1,660	2,810	4,160	2,380	1,200	1,230	990	371	194	170	186

CAL YR 1964: TOTAL 9,310.6 MEAN 25.4 MAX 154 MIN 4.4 CFSM 5.53 IN 75.27 AC-FT 18,470
WAT YR 1965: TOTAL 8,120.0 MEAN 22.2 MAX 484 MIN 1.0 CFSM 4.84 IN 65.65 AC-FT 16,110

Note.--No gage-height record Feb. 1 to May 14.

12-0994. Boise Creek below millpond, near Enumclaw, Wash.

Location.--Lat 47°11'45", long 121°55'47", in NW¼SW¼ sec.28, T.20 N., R.7 E., on right bank just upstream from U.S. Highway 410, 700 ft downstream from millpond and 3 miles southwest of Enumclaw.

Drainage area.--8.27 sq mi.

Records available.--January 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,000 ft (from topographic map).

Extremes.--Maximum and minimum discharges for January 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	Feb. 3, 1963	182	3.58	Mar. 9, Aug, 20, Sept.16, 1963	1.0	1.47
1964	Jan. 25, 1964	309	4.42	Mar. 29, 1964	.70	a 1.46
1965	Jan. 29, 1965	923	11.01	Sept. 4, 1965	.70	b 1.70

a Occurred Oct. 7, 23, 1963.
b Occurred Jan. 11, 1965.

1963-65: Maximum discharge, 923 cfs Jan. 29, 1965 (gage height, 11.01 ft), from rating curve extended above 230 cfs on basis of peak flow through culvert; minimum, 0.70 cfs Mar. 29, 1964, Sept. 4, 1965; minimum gage height, 1.46 ft Oct. 7, 23, 1963.

Remarks.--Records good except those above 300 cfs, which are fair. Diversions above station for domestic and industrial use. Interbasin diversion from Scatter Creek of about 2 cfs during low flow enters Boise Creek 2 miles above station. Flow partly regulated by White River Lumber Co. millpond 700 ft above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				65	23	41	27	27	13	22	14	12
2				55	33	36	26	30	21	20	14	13
3				48	141	33	27	26	19	19	13	11
4				45	79	29	54	25	15	17	12	9.4
5				40	57	25	60	27	32	17	12	9.1
6				34	44	25	70	30	28	17	5.4	8.3
7				33	36	24	60	30	22	20	12	8.3
8				32	33	24	51	27	26	28	11	8.3
9				30	30	17	36	26	48	29	14	7.9
10				28	25	21	34	24	34	47	8.2	8.3
11				22	26	21	31	22	31	40	11	8.7
12				22	24	19	29	20	27	29	12	8.3
13				22	23	18	24	19	24	29	16	13
14				22	22	18	27	18	14	27	13	12
15				30	22	18	27	18	21	26	12	11
16				30	26	17	27	18	17	24	12	11
17				28	24	16	29	18	14	22	10	6.5
18				28	29	19	35	15	18	21	19	8.3
19				25	31	22	33	8.6	16	19	25	7.5
20				19	30	21	36	13	16	18	17	7.5
21				19	28	20	29	14	19	18	19	7.5
22				21	26	20	39	16	18	20	14	7.5
23				19	24	19	38	16	18	19	17	8.3
24				18	22	19	36	17	21	11	19	7.5
25				17	30	19	33	13	25	13	15	7.5
26				18	36	19	27	14	22	19	13	6.7
27				18	29	21	27	14	20	18	14	6.7
28				18	33	24	26	14	20	11	13	5.5
29				15	------	32	26	14	24	11	12	6.3
30				7.9	------	30	25	13	23	12	10	6.3
31		------		19	------	32	------	13	------	14	11	------
TOTAL				850.4	986	721	1,049	604.1	668	661	426.6	260.2
MEAN				27.4	35.2	23.3	35.0	19.5	22.3	21.3	13.8	8.67
MAX				65	141	41	70	30	48	47	25	13
MIN				7.9	22	16	24	8.6	13	11	5.4	5.5
AC-FT				1,690	1,960	1,430	2,080	1,200	1,320	1,310	846	516

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0994. Boise Creek below millpond, near Enumclaw, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.9	12	31	78	72	30	50	34	29	17	14	13
2	5.9	34	26	88	65	19	40	23	18	17	16	10
3	6.7	17	21	62	50	17	35	21	14	17	16	9.8
4	8.0	38	22	48	54	40	30	19	32	17	23	9.4
5	9.9	28	30	48	48	38	32	27	30	15	13	9.4
6	8.5	29	56	68	48	30	33	26	25	13	12	9.8
7	3.3	40	44	50	40	32	35	26	67	18	11	9.8
8	6.7	52	40	49	40	24	35	26	65	12	11	12
9	5.9	41	33	44	37	19	36	25	49	16	11	9.4
10	8.5	37	30	42	37	24	38	41	33	15	11	9.4
11	4.8	27	28	39	34	28	39	37	37	16	11	9.4
12	6.3	27	27	28	36	20	37	37	36	14	11	9.4
13	9.9	27	26	40	33	20	37	41	28	11	12	9.8
14	9.4	40	26	39	29	23	39	30	30	17	11	9.8
15	6.7	27	33	55	30	28	76	29	28	20	9.8	9.4
16	6.3	27	48	70	35	24	54	26	70	17	9.4	9.8
17	6.3	35	46	57	42	76	47	24	97	14	9.8	29
18	7.6	32	44	57	48	80	38	25	144	15	9.8	11
19	7.6	48	44	51	54	48	32	25	89	13	10	11
20	9.9	37	53	53	47	44	32	34	64	13	9.4	9.8
21	13	34	50	47	41	43	29	49	45	17	9.4	10
22	48	34	42	43	37	33	42	47	43	14	9.4	16
23	12	30	47	33	35	22	29	43	39	13	9.4	17
24	18	30	34	62	34	24	38	39	32	13	8.6	11
25	25	42	44	208	25	28	37	31	24	13	10	11
26	22	60	34	117	28	15	17	28	27	13	13	10
27	17	67	34	86	29	27	33	24	26	15	11	10
28	19	52	28	71	20	23	30	25	24	11	11	14
29	19	44	28	75	22	13	30	24	21	11	10	9.4
30	17	34	44	70	------	25	26	22	19	14	22	24
31	14	------	22	71	------	33	------	22	------	20	22	------
TOTAL	368.1	1,082	1,115	1,949	1,150	950	1,106	930	1,285	461	377.0	352.8
MEAN	11.9	36.1	36.0	62.9	39.7	30.6	36.9	30.0	42.8	14.9	12.2	11.8
MAX	48	67	56	208	72	80	76	49	144	20	23	29
MIN	3.3	12	21	28	20	13	17	19	14	11	8.6	9.4
AC-FT	730	2,150	2,210	3,870	2,280	1,880	2,190	1,840	2,550	914	748	700

CAL YR 1963: TOTAL 8,791.9 MEAN 24.1 MAX 141 MIN 3.3 AC-FT 17,440
WAT YR 1964: TOTAL 11,125.9 MEAN 30.4 MAX 208 MIN 3.3 AC-FT 22,070

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	15	116	36	101	41	25	29	14	8.8	6.5	6.8
2	26	21	127	30	74	41	25	27	14	11	6.8	7.2
3	23	28	79	30	55	39	25	27	9.9	11	7.2	7.0
4	17	25	54	23	61	37	20	27	13	9.6	7.5	4.8
5	13	24	46	29	65	32	21	26	14	5.8	7.2	5.6
6	15	23	38	23	54	34	20	26	13	8.6	6.8	5.4
7	14	22	30	27	57	33	18	24	11	5.2	6.0	6.2
8	17	25	31	29	61	32	17	20	13	7.8	6.0	5.8
9	18	19	35	21	52	25	18	19	14	8.5	7.0	5.4
10	20	22	34	27	49	28	22	24	12	11	9.6	5.2
11	17	22	33	19	47	30	13	15	14	16	7.8	4.8
12	15	22	31	12	52	28	12	23	15	10	11	5.4
13	10	28	31	21	61	26	17	16	14	8.0	10	6.0
14	14	19	32	26	56	26	17	20	12	8.0	8.2	14
15	24	18	18	26	52	19	16	24	15	8.2	6.8	13
16	14	22	16	57	54	27	24	32	13	7.8	7.2	12
17	16	22	15	51	61	22	20	24	13	7.8	7.0	8.5
18	15	23	16	44	54	23	17	25	12	7.8	7.0	7.8
19	17	23	17	45	52	17	44	18	15	8.5	8.8	8.0
20	15	24	18	44	52	18	63	26	12	9.2	15	7.8
21	14	24	30	49	49	28	52	25	6.0	11	8.0	7.0
22	14	32	145	43	48	19	45	25	12	8.6	7.5	6.5
23	14	38	137	44	44	21	37	24	11	9.2	12	6.2
24	16	171	81	30	38	21	34	26	11	4.8	13	6.0
25	16	99	53	35	44	20	32	21	11	4.3	9.6	5.4
26	14	59	56	52	44	25	30	18	14	7.0	8.5	5.8
27	14	46	48	120	55	17	29	17	6.9	7.1	7.8	6.5
28	14	30	43	244	51	23	28	20	10	7.0	7.0	6.5
29	15	40	36	688	------	20	26	22	11	7.0	7.0	5.8
30	19	74	36	328	------	18	29	17	10	6.5	7.2	5.6
31	16	------	29	185	------	21	------	14	------	6.0	6.5	------
TOTAL	512	1,060	1,511	2,438	1,543	811	796	701	365.8	257.1	253.5	208.0
MEAN	16.5	35.3	48.7	78.6	55.1	26.2	26.5	22.6	12.2	8.29	8.18	6.93
MAX	26	171	145	688	101	41	63	32	15	16	15	14
MIN	10	15	15	12	38	17	12	14	6.0	4.3	6.0	4.8
AC-FT	1,020	2,100	3,000	4,840	3,060	1,610	1,580	1,390	726	510	503	413

CAL YR 1964: TOTAL 11,643.8 MEAN 31.8 MAX 208 MIN 8.6 AC-FT 23,100
WAT YR 1965: TOTAL 10,456.4 MEAN 28.6 MAX 688 MIN 4.3 AC-FT 20,740

12-0995. Boise Creek near Enumclaw, Wash.

Location.--Lat 47°11'20", long 121°58'20", on west line of SW¼ sec.30, T.20 N., R.7 E., 1½ miles south of Enumclaw and 2½ miles upstream from mouth.

Drainage area.--12.3 sq mi (revised).

Records available.--July 1945 to September 1946, December 1962 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 740 ft (from topographic map). Prior to Aug. 19, 1965, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for December 1962 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	Feb. 3, 1963	268	3.74	Aug. 6,10, Sept. 5,	3.0	a 0.83
1964	Jan. 25, 1964	432	5.15	Oct. 7, 1963	2.2	.78
1965	Jan. 29, 1965	1,700	7.64	July 25, 1965	2.0	.80

a Occurred Aug. 6, 10, 1963.

1945-46, 1962-65: Maximum discharge, 1,700 cfs Jan. 29, 1965 (gage height, 7.64 ft, from high watermark in well), from rating curve extended above 300 cfs on basis of slope-area measurement of peak flow; minimum, 1.6 cfs July 29, Aug. 30, 1945 (gage height, 0.59 ft).

Remarks.--Records good. Diversions above station for domestic and industrial use. Interbasin diversion from Scatter Creek of about 2 cfs during low flow enters Boise Creek 3¾ miles above station. Flow partly regulated by White River Lumber Co.'s millpond 3 miles upstream. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			-	85	34	53	44	34	13	24	15	12
2			-	70	55	45	38	41	22	22	14	14
3			-	63	202	41	37	33	22	20	13	11
4			-	58	113	37	72	31	16	20	12	11
5			-	50	76	30	83	36	36	18	12	10
6			-	43	59	30	100	41	31	17	6.3	8.0
7			-	40	49	28	85	42	24	20	11	8.8
8			-	39	43	27	69	36	27	31	10	8.0
9			-	37	37	22	51	32	54	30	12	8.0
10			-	33	31	25	46	29	39	53	8.4	8.4
11			-	29	31	24	41	26	34	47	10	9.2
12			-	30	28	23	36	25	29	33	10	8.0
13			34	30	27	22	33	24	26	31	13	13
14			47	29	27	22	36	22	14	29	11	12
15			44	40	25	22	36	22	22	27	10	11
16			43	40	30	20	35	22	18	25	9.6	15
17			47	36	28	20	38	20	15	23	8.8	7.2
18			37	34	36	21	47	20	18	21	9.2	9.2
19			47	30	39	26	43	12	17	20	22	9.6
20			32	24	37	24	50	15	18	19	20	8.8
21			68	25	34	23	40	17	22	18	21	8.8
22			60	27	31	24	51	18	20	23	15	8.8
23			50	24	28	24	51	18	20	20	16	9.6
24			43	24	27	23	47	20	22	14	23	6.8
25			39	23	36	24	43	15	26	13	16	8.4
26			24	22	48	24	35	15	24	20	15	8.0
27			29	20	37	27	34	15	22	19	14	8.0
28			94	20	43	33	31	15	22	12	13	7.5
29			89	17	------	49	32	14	25	12	12	7.2
30			126	16	------	56	31	14	24	13	11	7.0
31		------	100	27	------	57	------	14	------	14	11	------
TOTAL			-	1,085	1,291	926	1,415	742	725	713	411.3	287.9
MEAN			-	35.0	46.1	29.9	47.2	24.0	24.2	23.0	13.3	9.60
MAX			-	85	202	57	100	42	54	53	23	15
MIN			-	16	25	20	31	12	13	12	6.3	7.2
AC-FT			-	2,150	2,560	1,840	2,810	1,470	1,440	1,420	816	571

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-0995. Boise Creek near Enumclaw, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	14	33	113	91	33	59	37	35	24	16	22
2	6.8	39	28	119	76	23	46	29	30	24	19	20
3	8.0	21	23	77	58	22	40	27	24	23	22	14
4	8.8	43	23	57	61	48	36	27	39	22	28	16
5	10	33	38	53	53	44	43	34	37	21	22	15
6	8.8	36	84	82	52	36	43	30	33	20	20	14
7	4.1	51	55	58	44	36	40	30	105	23	19	16
8	7.2	66	51	51	44	30	39	29	100	18	17	22
9	6.8	47	41	47	39	24	39	30	65	21	16	17
10	7.6	45	34	46	43	32	40	47	37	20	16	16
11	5.2	32	31	44	40	36	42	40	40	20	14	14
12	6.8	29	28	32	39	30	41	39	39	19	16	13
13	10	31	27	44	36	28	40	45	32	15	18	13
14	10	52	26	50	32	32	43	33	33	21	16	14
15	7.6	31	34	72	34	37	96	31	33	24	14	12
16	7.6	28	57	100	37	32	66	30	100	20	12	14
17	6.8	44	53	81	44	116	55	28	140	18	12	34
18	7.2	38	49	81	50	126	46	28	230	17	14	22
19	6.8	62	51	76	58	78	39	28	105	16	15	21
20	9.2	45	67	79	50	66	36	36	75	16	14	19
21	12	39	57	66	43	63	34	58	54	21	11	17
22	55	37	51	59	39	51	50	53	45	18	12	24
23	20	35	57	45	36	37	37	48	40	16	12	25
24	19	34	41	94	36	36	42	43	36	14	11	21
25	29	51	54	307	29	39	43	37	31	13	12	19
26	24	72	42	166	30	28	26	34	32	13	15	18
27	19	84	43	111	30	37	37	30	31	15	14	17
28	22	50	34	87	25	34	35	30	30	11	17	20
29	22	49	34	95	24	23	33	30	28	10	17	16
30	20	37	39	83	------	33	32	29	26	13	28	29
31	17	------	29	90	------	40	------	29	------	20	28	------
TOTAL	411.5	1,285	1,314	2,565	1,273	1,330	1,298	1,079	1,685	566	517	554
MEAN	13.3	42.8	42.4	82.7	43.9	42.9	43.3	34.8	56.2	18.3	16.7	16.5
MAX	55	84	84	307	91	126	96	58	230	24	28	34
MIN	4.1	14	23	32	24	22	26	27	24	10	11	12
AC-FT	816	2,550	2,610	5,090	2,520	2,640	2,570	2,140	3,340	1,120	1,030	1,100

CAL YR 1963: TOTAL 10,608.2 MEAN 29.1 MAX 202 MIN 4.1 AC-FT 21,040
WAT YR 1964: TOTAL 13,877.5 MEAN 37.9 MAX 307 MIN 4.1 AC-FT 27,530

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	12	170	52	146	53	28	39	17	9.1	6.6	7.4
2	30	20	173	48	109	54	28	33	16	11	7.0	7.4
3	28	32	110	46	93	49	29	32	12	11	7.6	7.3
4	23	33	76	36	88	46	21	32	13	11	7.6	6.5
5	13	29	63	48	97	41	23	31	16	5.4	7.6	6.0
6	16	25	52	39	78	42	22	29	15	8.7	7.3	6.0
7	14	22	44	38	78	40	20	28	12	5.4	6.6	6.8
8	21	24	46	40	91	40	19	24	14	7.3	6.6	6.6
9	23	19	49	31	77	33	21	21	16	8.4	7.6	6.3
10	24	22	47	36	74	34	26	27	13	10	11	6.1
11	20	23	44	34	68	36	16	16	16	17	8.4	5.8
12	17	21	42	23	80	34	14	24	18	11	11	6.0
13	12	30	40	32	113	33	21	19	16	8.4	11	6.6
14	17	21	47	35	100	30	21	21	14	8.4	8.7	13
15	30	17	30	52	96	23	19	25	16	8.4	7.3	13
16	17	20	25	66	92	31	29	30	15	7.6	8.4	13
17	19	19	24	60	104	28	25	26	15	7.6	7.6	8.9
18	17	20	24	53	88	28	20	26	14	7.3	8.0	8.4
19	18	19	26	52	83	21	70	22	16	8.7	10	7.9
20	16	19	30	52	74	24	109	31	13	10	19	8.0
21	14	18	65	65	77	34	85	27	7.8	12	9.7	7.8
22	14	29	233	57	71	23	64	28	12	8.7	8.6	7.5
23	13	36	211	64	62	26	52	28	11	8.4	12	7.2
24	14	225	135	49	49	24	48	28	13	5.8	14	6.9
25	17	144	83	46	57	25	41	25	11	3.6	9.9	6.8
26	13	101	95	72	65	31	39	19	13	7.3	8.9	6.8
27	12	74	82	177	87	16	36	18	7.8	6.6	8.1	7.2
28	11	53	65	345	68	27	36	21	9.3	7.0	7.4	7.5
29	12	73	53	700	------	23	34	24	10	7.0	7.3	6.9
30	17	111	51	360	------	22	34	20	8.9	7.0	7.4	6.7
31	15	------	43	217	------	23	------	16	------	7.3	7.2	------
TOTAL	557	1,311	2,278	3,025	2,365	994	1,050	790	400.8	262.4	275.4	228.3
MEAN	18.0	43.7	73.5	97.6	84.5	32.1	35.0	25.5	13.4	8.46	8.88	7.61
MAX	30	225	233	700	146	54	109	39	18	17	19	13
MIN	11	12	24	23	49	16	14	16	7.8	3.6	6.6	5.8
AC-FT	1,100	2,600	4,520	6,000	4,690	1,970	2,080	1,570	795	520	546	453

CAL YR 1964: TOTAL 15,013 MEAN 41.0 MAX 307 MIN 10 AC-FT 29,780
WAT YR 1965: TOTAL 13,536.9 MEAN 37.1 MAX 700 MIN 3.6 AC-FT 26,850

Note.--No gage-height record Jan. 29.

12-1005. White River near Sumner, Wash.

Location.--Lat 47°14'55", long 122°14'35", in NE¼SW¼ sec.1, T.20 N., R.4 E., on right bank 300 ft downstream from county bridge, 3 miles north of Sumner, and 4½ miles upstream from mouth.

Drainage area.--470 sq mi.

Records available.--January 1945 to September 1965. Prior to October 1959, published as Stuck River near Sumner.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (Intercounty River Improvement Commission bench mark).

Average discharge.--20 years, 638 cfs (461,900 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 22, 1961	6,600	58.00	Aug. 6, 1961	42	52.52
1962	Dec. 25, 1961	6,660	58.03	Aug. 22, 1962	46	52.45
1963	Nov. 21, 1962	7,420	58.38	Oct. 31, 1962	55	52.50
1964	Jan. 25, 1964	6,180	57.85	Oct. 11, 1963	61	a 52.78
1965	Jan. 30, 1965	14,100	61.00	Apr. 16, 1965	58	b 52.81

a Occurred Sept. 16, 1964.
b Occurred Oct. 29, 30, 1964.

1945-64: Maximum discharge, 15,100 cfs Dec. 12, 1955 (elevation, 61.40 ft); minimum, 28 cfs Nov. 1, 1958; minimum elevation, 48.48 ft Feb. 1, 1945 (channel affected by dredging).

Remarks.--Records good. An average of 1,000 to 1,200 cfs diverted above station into Lake Tapps for Dieringer powerplant of Puget Sound Power & Light Co. High flow influenced by regulation in Mud Mountain Reservoir (see station 12-0980).

Revisions (water years).--WSP 1216: Drainage area. WSP 1716: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	68	137	1,020	127	229	1,800	143	522	766	140	58	81
2	94	146	295	121	922	1,830	315	706	1,160	118	58	69
3	90	149	241	121	2,020	2,530	917	776	1,940	107	56	71
4	88	128	212	121	463	643	1,660	678	1,950	96	58	69
5	90	122	186	553	643	350	2,110	736	1,550	168	58	67
6	96	114	178	1,500	1,900	360	2,040	463	2,000	601	45	67
7	99	106	174	1,630	3,400	286	919	286	2,020	420	54	65
8	106	104	157	1,520	3,400	254	182	212	1,780	104	67	63
9	99	102	147	1,130	3,330	229	178	208	476	86	58	63
10	99	131	130	498	3,040	216	153	263	450	78	65	60
11	102	429	153	268	1,510	224	143	229	444	88	58	60
12	99	446	237	432	1,450	224	178	193	438	81	60	60
13	90	163	197	208	1,450	237	186	171	414	78	67	56
14	90	170	224	208	1,220	290	150	171	672	94	71	56
15	84	188	189	204	1,240	554	143	167	1,920	204	78	60
16	86	531	164	643	1,160	776	136	150	1,930	96	83	63
17	86	1,480	171	827	2,210	699	143	143	1,930	86	78	63
18	84	2,110	208	587	489	594	140	216	1,950	81	69	69
19	81	3,440	281	1,510	496	496	140	489	1,980	74	60	71
20	81	4,180	220	250	1,150	2,060	133	752	1,960	76	60	69
21	86	3,810	186	193	3,270	2,050	133	962	1,930	71	65	81
22	88	2,160	164	164	4,370	1,920	140	1,900	1,840	74	65	69
23	131	1,680	164	157	3,430	1,880	147	678	1,720	69	145	67
24	137	2,410	157	150	3,320	1,700	147	678	1,570	71	81	67
25	114	2,480	157	143	2,870	310	150	845	1,430	67	65	69
26	131	2,120	174	130	2,590	237	136	1,510	1,200	65	69	67
27	146	1,830	160	127	1,910	204	127	1,280	760	65	60	65
28	128	1,310	140	127	1,700	204	118	1,140	574	69	63	65
29	131	482	124	164	------	182	153	579	281	71	58	67
30	116	385	130	216	------	150	370	456	200	63	56	65
31	143	------	127	241	------	143	------	429	------	58	76	------
TOTAL	3,163	33,043	6,467	14,270	55,182	23,632	11,730	17,988	39,635	3,619	2,064	1,984
MEAN	102	1,101	209	460	1,971	762	391	580	1,321	117	66.6	66.1
MAX	146	4,180	1,020	1,630	4,370	2,530	2,110	1,900	2,020	601	145	81
MIN	68	102	124	121	229	143	118	143	200	58	45	56
AC-FT	6,270	65,540	12,830	28,300	109,500	46,870	23,270	35,680	78,610	7,180	4,090	3,940

CAL YR 1960: TOTAL 152,706 MEAN 417 MAX 4,180 MIN 41 AC-FT 302,900
WAT YR 1961: TOTAL 212,777 MEAN 583 MAX 4,370 MIN 45 AC-FT 422,000

12-1005. White River near Sumner, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	58	83	94	444	110	107	121	153	1,640	131	815	63
2	63	83	86	390	110	104	118	171	216	104	95	61
3	63	83	83	2,700	104	104	107	174	167	93	79	59
4	58	81	91	4,330	104	124	118	268	136	95	99	57
5	60	76	94	2,850	104	251	153	832	130	97	109	57
6	65	76	86	1,620	104	268	321	1,600	121	99	95	57
7	74	71	94	2,910	104	327	1,590	1,710	415	93	86	55
8	65	69	86	4,750	104	251	1,870	1,690	1,840	88	180	55
9	69	76	83	3,710	107	157	1,250	1,870	2,070	84	931	55
10	110	91	81	1,110	124	160	335	1,940	2,120	84	121	79
11	86	96	78	1,860	113	171	281	1,570	2,040	79	84	95
12	81	86	74	1,560	118	153	189	204	1,710	79	73	71
13	83	86	86	674	124	143	340	157	517	75	79	69
14	78	91	88	315	219	140	643	124	1,880	97	71	71
15	74	94	88	263	200	140	664	124	1,690	75	61	69
16	74	91	96	182	157	143	660	113	263	59	63	61
17	69	86	140	1,430	150	143	1,770	104	375	67	67	67
18	69	88	121	2,110	143	140	2,040	99	722	79	77	67
19	63	83	153	1,500	133	150	2,040	99	2,310	71	71	67
20	60	71	212	216	127	136	1,980	96	2,310	73	69	63
21	69	78	182	153	121	140	1,460	94	2,350	69	69	63
22	63	263	174	124	124	140	971	91	2,350	69	69	61
23	71	503	718	113	127	136	1,540	113	2,370	63	67	61
24	69	124	2,810	116	116	133	1,950	477	2,480	63	61	61
25	69	99	4,670	136	104	220	1,950	1,740	2,580	61	61	57
26	88	91	2,100	136	99	208	1,820	355	2,660	59	67	57
27	96	86	1,300	136	96	212	1,680	325	2,410	57	67	61
28	86	96	1,140	130	110	186	224	360	1,800	57	69	99
29	78	104	800	121	------	153	160	525	208	57	75	102
30	78	91	950	116	------	133	127	2,140	159	57	67	75
31	81	------	1,290	113	------	118	------	2,040	------	417	61	------
TOTAL	2,270	3,196	18,148	36,318	3,456	5,091	28,472	21,358	42,039	2,751	4,058	1,995
MEAN	73.2	107	585	1,172	123	164	949	689	1,401	88.7	131	66.5
MAX	110	503	4,670	4,750	219	327	2,040	2,140	2,660	417	931	102
MIN	58	69	74	113	96	104	107	91	121	57	61	55
AC-FT	4,500	6,340	36,000	72,040	6,850	10,100	56,470	42,360	83,380	5,460	8,050	3,960

CAL YR 1961: TOTAL 193,718 MEAN 531 MAX 4,670 MIN 45 AC-FT 384,200
WAT YR 1962: TOTAL 169,152 MEAN 463 MAX 4,750 MIN 55 AC-FT 335,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	67	61	1,620	1,810	192	325	278	221	2,120	119	103	106
2	71	65	1,180	1,710	268	235	230	217	2,060	122	100	106
3	77	61	768	1,480	2,680	213	213	221	1,240	112	97	97
4	69	65	938	1,400	6,020	204	244	196	226	116	97	92
5	65	84	1,780	1,150	4,470	183	411	204	244	139	97	92
6	63	90	3,140	717	1,950	175	1,130	729	235	742	103	97
7	79	71	2,570	240	4,540	172	1,360	1,760	1,080	766	100	97
8	119	77	2,500	208	1,870	168	1,130	1,770	1,780	634	100	100
9	165	82	2,440	192	1,570	164	633	1,500	1,920	196	103	94
10	139	102	2,330	168	1,280	160	358	249	1,440	696	100	80
11	114	119	2,140	140	906	564	1,000	217	774	806	103	103
12	99	116	1,770	130	640	1,110	1,300	187	830	668	109	94
13	136	109	1,620	153	507	722	254	172	897	647	467	119
14	314	97	2,550	146	353	208	235	160	942	682	1,170	119
15	216	97	3,020	149	325	160	521	160	1,150	626	1,030	103
16	147	95	3,070	172	283	157	1,150	473	1,140	494	803	106
17	84	97	1,840	160	217	175	1,750	1,340	1,250	454	153	100
18	77	93	1,720	157	249	149	1,410	1,550	1,650	399	119	94
19	77	156	1,640	146	381	157	294	1,940	1,460	381	126	94
20	69	4,070	2,240	135	1,140	157	268	2,280	1,180	381	126	92
21	69	4,860	2,210	129	1,270	142	249	2,300	897	358	119	86
22	69	2,720	1,720	129	294	142	1,260	1,420	521	435	109	92
23	69	2,760	468	126	192	142	1,560	1,460	164	442	116	94
24	65	3,440	240	119	183	139	1,510	1,370	146	347	129	92
25	69	3,760	187	122	1,150	139	2,760	1,090	139	309	119	86
26	67	4,930	192	116	1,810	153	1,230	790	126	249	106	86
27	69	3,330	187	116	1,480	164	244	591	122	235	103	92
28	65	2,800	325	252	341	244	204	514	122	254	106	92
29	61	2,360	353	130	------	341	204	1,220	122	196	116	92
30	63	2,090	1,080	95	------	423	192	2,140	122	109	106	89
31	63	------	1,580	126	------	353	------	2,200	------	106	106	------
TOTAL	2,976	38,857	49,418	12,023	36,561	7,940	23,582	30,641	26,099	12,220	6,441	2,886
MEAN	96.0	1,295	1,594	388	1,306	256	786	988	870	394	208	96.2
MAX	314	4,930	3,140	1,810	6,020	1,110	2,760	2,300	2,120	806	1,170	119
MIN	61	61	187	95	183	139	192	160	122	106	97	80
AC-FT	5,900	77,070	98,020	23,850	72,520	15,750	46,770	60,780	51,770	24,240	12,780	5,720

CAL YR 1962: TOTAL 236,789 MEAN 649 MAX 4,930 MIN 55 AC-FT 469,700
WAT YR 1963: TOTAL 249,644 MEAN 684 MAX 6,020 MIN 61 AC-FT 495,200

12-1005. White River near Sumner, Wash.--Continued

DISCHARGE, IN CUBIC FEET PEP SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	80	112	240	1,030	651	160	361	182	4,010	2,470	892	100
2	80	142	187	2,700	440	142	325	267	4,460	2,750	844	87
3	86	132	149	792	370	142	157	706	3,820	2,570	780	84
4	80	142	132	369	335	170	148	215	3,340	2,420	1,030	77
5	83	142	157	268	305	211	157	151	4,010	2,440	916	77
6	83	180	468	336	276	174	148	145	3,910	2,400	772	74
7	83	172	288	299	556	160	139	142	3,910	1,510	724	82
8	80	208	268	230	280	160	136	139	3,830	1,140	693	95
9	83	1,260	249	240	235	142	145	133	3,680	2,190	651	84
10	102	1,990	196	240	227	154	145	257	3,910	2,240	616	77
11	68	1,040	168	200	266	167	145	2,150	3,950	2,440	567	77
12	102	187	160	179	235	167	148	2,280	3,750	2,370	630	74
13	94	179	146	200	522	154	112	2,310	3,580	2,340	658	74
14	86	283	146	319	1,040	148	115	2,100	3,520	2,310	581	74
15	83	226	160	294	253	154	450	1,650	3,510	2,370	488	74
16	83	183	204	468	231	139	558	207	4,650	2,090	440	74
17	86	240	240	417	253	273	217	825	5,150	1,720	440	97
18	86	221	226	381	258	765	167	2,110	5,450	1,500	476	90
19	86	325	244	393	888	315	148	2,810	4,460	672	518	82
20	94	325	399	454	1,550	244	142	3,320	3,360	360	365	82
21	103	244	294	319	290	240	139	3,680	2,920	295	350	77
22	217	226	268	268	215	203	154	3,200	2,680	192	375	82
23	153	226	288	254	195	174	151	1,800	2,760	154	416	84
24	112	226	221	400	188	164	145	1,460	3,000	813	410	84
25	142	254	244	4,170	170	154	145	1,840	3,020	1,600	398	77
26	139	1,050	221	3,170	154	157	145	2,150	2,960	1,640	440	74
27	119	2,660	221	1,760	154	139	133	2,310	2,760	1,140	118	74
28	135	1,920	208	1,230	151	148	133	2,700	2,470	219	118	77
29	135	1,120	179	1,090	148	133	133	2,470	2,220	145	106	77
30	129	288	179	1,000	------	133	133	2,890	2,240	515	103	97
31	119	------	183	844	------	139	------	3,420	------	1,020	100	------
TOTAL	3,211	15,903	6,933	24,314	10,836	5,925	5,474	50,019	107,290	48,035	16,015	2,438
MEAN	104	530	224	784	374	191	182	1,614	3,576	1,550	517	81.3
MAX	217	2,660	468	4,170	1,550	765	558	3,680	5,450	2,750	1,030	100
MIN	68	112	132	179	148	133	112	133	2,220	145	100	74
AC-FT	6,370	31,540	13,750	48,230	21,490	11,750	10,860	99,210	212,800	95,280	31,770	4,840

CAL YR 1963: TOTAL 184,440 MEAN 505 MAX 6,020 MIN 68 AC-FT 365,800
WAT YR 1964: TOTAL 296,393 MEAN 810 MAX 5,450 MIN 68 AC-FT 587,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	693	84	2,950	240	12,600	700	1,010	1,310	674	167	156	97
2	799	90	5,090	220	11,700	505	960	1,010	649	303	160	100
3	1,400	109	4,610	210	9,930	384	188	528	658	607	152	100
4	852	496	2,440	180	3,080	339	156	425	674	607	131	97
5	874	592	1,890	180	3,160	286	497	808	700	615	127	94
6	434	142	1,650	211	2,170	269	425	754	861	520	234	94
7	402	121	1,290	164	1,740	280	464	692	2,740	453	761	92
8	375	112	530	142	2,210	286	437	632	4,110	520	145	94
9	476	115	440	130	2,430	286	160	567	1,820	286	127	94
10	567	109	375	118	2,110	286	148	498	4,380	193	156	97
11	404	106	325	109	2,250	286	131	432	4,360	210	152	97
12	340	106	290	140	1,810	286	111	397	4,070	184	152	97
13	295	145	276	103	1,610	269	137	425	2,960	148	152	97
14	262	145	325	106	1,620	259	102	460	2,510	141	124	108
15	376	115	350	163	1,910	239	102	490	2,270	152	121	137
16	506	112	230	890	1,330	239	102	535	2,130	156	118	131
17	416	106	150	1,060	1,810	239	108	551	2,180	171	118	124
18	325	103	130	836	1,880	229	97	543	2,460	164	115	118
19	258	100	140	772	1,800	219	427	543	2,480	164	131	118
20	211	97	150	860	1,700	215	3,010	535	2,400	160	164	366
21	167	97	200	1,020	1,340	219	2,640	505	2,210	167	127	763
22	130	97	2,800	796	1,180	219	1,730	505	1,390	160	124	683
23	97	130	8,200	1,410	817	206	1,050	505	1,080	145	134	674
24	87	1,350	3,300	398	607	193	890	498	528	134	148	666
25	90	1,880	2,600	195	490	201	826	468	280	127	131	658
26	87	1,540	1,600	248	475	201	655	460	234	205	121	649
27	84	1,310	1,200	3,170	1,280	184	493	460	197	1,340	118	607
28	82	779	850	6,680	1,070	160	901	505	167	559	108	567
29	79	330	650	11,600	------	164	920	575	167	171	102	559
30	79	1,170	450	13,500	------	118	871	658	160	156	97	543
31	84	------	260	13,300	------	500	------	674	------	156	94	------
TOTAL	11,331	11,788	45,741	59,151	76,109	8,466	19,748	17,948	51,499	9,241	4,800	8,721
MEAN	366	393	1,476	1,908	2,718	273	658	579	1,717	298	155	291
MAX	1,400	1,880	8,200	13,500	12,600	700	3,010	1,310	4,380	1,340	761	763
MIN	79	84	130	103	475	118	97	397	160	127	94	92
AC-FT	22,470	23,380	90,730	117,300	151,000	16,790	39,170	35,600	102,100	18,330	9,520	17,300

CAL YR 1964: TOTAL 339,206 MEAN 927 MAX 8,200 MIN 74 AC-FT 672,800
WAT YR 1965: TOTAL 324,543 MEAN 889 MAX 13,500 MIN 79 AC-FT 643,700

12-1010. Lake Tapps near Sumner, Wash.

Location.--Lat 47°14'30", long 122°11'30", in NE¼NE¼ sec.8, T.20 N., R.5 E., 1½ miles east of Dieringer and 3 miles northeast of Sumner.

Records available.--November 1911 to September 1965. October 1934 to October 1950 change in contents published with records for Puyallup River at Puyallup. Month-end contents only November 1911 to September 1950, published in WSP 1316.

Gage.--Staff gage read hourly. Datum of gage is 0.7 ft above mean sea level (levels by Puget Sound Power & Light Co.).

Extremes.--Maximums and minimums (contents in acre-feet, gage height in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum observed			Minimum observed		
	Date	Contents	Gage height	Date	Contents	Gage height
1961	Feb. 6, 1961	46,580	542.97	Mar. 31, 1961	26,060	534.02
1962	July 19, 1962	46,660	543.00	Mar. 27, 1962	17,450	529.32
1963	Sept.29, 1963	46,630	542.99	Feb. 2, 1963	21,880	531.87
1964	Sept.21, 1964	46,660	543.00	Mar. 27, 1964	11,520	525.42
1965	Aug. 31, Sept.1,1965	46,660	543.00	Apr. 29, 1965	9,040	523.60

1911-65: Maximum contents observed, 51,710 acre-ft June 30, 1958 (gage height, 541.57 ft, capacity table dated Jan. 19, 1920); maximum gage height, 543.00 ft Oct. 17, 1959, July 19, 1962, Sept. 21, 1964, Aug. 31, Sept. 1, 1965; minimum contents observed, 458 acre-ft June 24, 1912 (gage height, 505.70 ft).

Remarks.--Reservoir is formed on natural lake into which a great part of the low-water flow of White River is diverted. Usable capacity, 46,660 acre-ft between elevations 515 and 543 ft, from capacity table dated July 28, 1959. Storage used for power.

Cooperation.--*Gage-height record and contents curve furnished by Puget Sound Power & Light Co.*

MONTH-END GAGE HEIGHTS AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	542.40	45,140	+2,030
Nov. 30	541.65	43,280	-1,860
Dec. 31	539.21	37,460	-5,820
Calendar year 1960	-	-	+3,020
Jan. 31, 1961	542.14	44,490	+7,030
Feb. 28	542.41	45,170	+680
Mar. 31	534.10	26,220	-18,950
Apr. 30	541.65	43,280	+17,060
May 31	537.31	33,110	-10,170
June 30	541.77	43,580	+10,470
July 31	541.43	42,740	-840
Aug. 31	539.36	37,810	-4,930
Sept.30	539.86	38,980	+1,170
Water year 1961	-	-	-4,130
Oct. 31	538.56	35,950	-3,030
Nov. 30	539.35	37,790	+1,840
Dec. 31	540.06	39,450	+1,660
Calendar year 1961	-	-	+1,990
Jan. 31, 1962	542.10	44,390	+4,940
Feb. 28	539.48	38,090	-6,300
Mar. 31	530.32	19,130	-18,960
Apr. 30	542.34	44,990	+25,860
May 31	541.06	41,840	-3,150
June 30	540.43	40,330	-1,510
July 31	542.28	44,840	+4,510
Aug. 31	541.10	41,940	-2,900
Sept.30	542.42	45,190	+3,250
Water year 1962	-	-	+6,210
Oct. 31	541.59	43,140	-2,050
Nov. 30	540.76	41,120	-2,020
Dec. 31	542.35	45,020	+3,900
Calendar year 1962	-	-	+5,570
Jan. 31, 1963	532.36	22,810	-22,210
Feb. 28	540.98	41,650	+18,840
Mar. 31	539.73	38,680	-2,970
Apr. 30	542.30	44,890	+6,210
May 31	541.67	43,330	-1,560
June 30	542.65	45,770	+2,440
July 31	542.37	45,070	-700
Aug. 31	541.93	43,970	-1,100
Sept.30	542.80	46,150	+2,180
Water year 1963	-	-	+960
Oct. 31, 1963	542.27	44,820	-1,330
Nov. 30	542.22	44,690	-130
Dec. 31	538.93	36,810	-7,880
Calendar year 1963	-	-	-8,210
Jan. 31, 1964	537.88	34,400	-2,410
Feb. 29	534.48	27,010	-7,390
Mar. 31	527.15	14,040	-12,970
Apr. 30	540.13	39,620	+25,580
May 31	542.21	44,670	+5,050
June 30	540.51	40,520	-4,150
July 31	542.20	44,640	+4,120
Aug. 31	542.60	45,650	+1,010
Sept.30	542.76	46,050	+400
Water year 1964	-	-	-100
Oct. 31	542.47	45,320	-730
Nov. 30	542.77	46,080	+760
Dec. 31	541.57	54,090	-2,990
Calendar year 1964	-	-	+6,280
Jan. 31, 1965	540.78	41,170	-1,920
Feb. 28	541.44	42,770	+1,600
Mar. 31	532.11	22,330	-20,440
Apr. 30	525.11	11,080	-11,250
May 31	540.92	41,500	+30,420
June 30	542.76	46,050	+4,550
July 31	542.07	44,310	-1,740
Aug. 31	543.00	46,660	+2,350
Sept.30	541.28	42,380	-4,280
Water year 1965	-	-	-3,670

† Gage height at 2400 hours.

12-1011. Lake Tapps diversion at Dieringer, Wash.

Location.--Lat 47°14'20", long 122°13'40", in NW¼ sec.7, T.20 N., R.5 E., on right bank 900 ft downstream from Dieringer powerplant, 1,200 ft upstream from mouth, and 2½ miles north of Sumner.

Records available.--April 1958 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 60 ft (from topographic map). Prior to Dec. 13, 1962, graphic water-stage recorder at same site and datum.

Average discharge.--7 years, 1,032 cfs (747,100 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Oct. 23, 1960	2,220	5.81	Aug. 25, 26, 1961	21	0.52
1962	May 3, 1962	a 2,160	-	Sept.30, 1962	b 30	-
1963	Aug. 29, 1963	2,210	5.83	Apr. 20, 22, 23	27	.55
1964	July 30, 1964	2,240	c 5.84	Sept. 4, 1964	27	.54
1965	Jan. 29, 1965	2,530	6.23	Sept.22, 1965	27	.56

a Maximum daily.
b Minimum daily.
c Occurred Oct. 17, 1963.

1958-65: Maximum discharge, 2,530 cfs Jan. 29, 1965 (gage height, 6.23 ft); minimum daily, 20 cfs Aug. 22, 23, 1959.

Remarks.--Records excellent. Flow regulated by White River powerplant.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	584	1,540	1,210	287	1,180	1,400	1,260	1,520	1,960	1,450	808	219
2	220	1,630	1,500	594	1,360	1,690	881	1,330	1,860	1,160	974	82
3	751	1,020	866	1,090	1,310	1,780	501	1,770	1,280	1,500	1,000	35
4	371	886	1,270	856	1,310	1,450	1,110	1,940	1,150	834	602	35
5	631	1,090	1,450	956	1,270	1,360	1,620	2,120	1,450	1,200	486	1,150
6	479	684	1,700	1,260	1,760	1,490	1,480	2,120	1,470	1,620	604	1,220
7	504	1,460	1,280	1,440	1,440	1,470	1,040	2,120	1,550	1,640	1,000	1,300
8	158	1,360	1,340	1,390	1,550	1,490	942	2,120	1,540	1,730	922	1,140
9	88	1,410	1,250	1,640	1,130	1,490	736	1,590	1,540	202	1,110	778
10	370	1,390	1,580	2,140	1,380	1,490	1,120	1,900	1,130	1,250	930	37
11	576	594	1,480	2,150	1,470	1,350	822	2,060	1,060	1,010	1,130	169
12	161	1,010	1,420	1,660	1,400	1,220	742	1,920	1,410	954	1,200	54
13	628	1,060	1,400	2,170	1,470	1,490	676	2,040	1,890	1,280	194	124
14	343	1,460	1,220	1,560	1,530	1,470	614	1,880	1,880	2,010	1,070	37
15	306	1,400	1,310	1,350	1,520	1,120	212	1,950	1,790	1,820	1,060	38
16	44	1,500	1,080	1,490	1,470	1,660	76	1,910	1,750	1,880	948	39
17	236	1,500	1,010	1,720	1,300	1,850	1,130	1,830	1,600	1,560	938	39
18	318	1,590	1,030	1,950	1,310	2,120	1,420	1,830	1,530	1,550	1,040	693
19	71	1,250	1,410	1,660	1,360	2,120	1,520	1,450	1,910	1,590	991	885
20	311	1,090	1,610	1,130	1,500	2,100	1,780	1,300	1,860	1,580	706	820
21	333	1,250	1,480	1,690	1,480	2,040	1,740	940	1,910	1,540	1,210	859
22	710	1,380	1,500	918	1,650	2,030	1,590	1,480	1,770	1,040	1,160	878
23	896	1,520	1,580	1,830	1,530	1,500	842	1,360	1,710	1,040	1,170	416
24	1,300	1,490	1,440	1,190	1,510	1,430	1,330	1,570	1,960	1,320	1,120	419
25	901	1,590	1,090	1,060	1,550	1,250	1,160	2,080	1,980	1,310	1,050	1,050
26	1,120	1,900	1,080	936	1,350	1,180	1,360	2,060	1,920	1,440	597	638
27	1,300	1,920	1,510	1,020	1,230	1,380	1,580	1,560	1,680	1,230	25	574
28	1,060	1,630	1,510	1,180	1,340	1,420	1,470	1,420	1,740	1,200	1,050	592
29	1,050	2,160	1,520	173	------	1,400	1,170	1,550	1,960	1,080	1,090	286
30	828	2,060	1,580	1,080	------	1,320	1,100	844	1,990	964	1,060	320
31	1,070	------	982	1,310	------	1,350	------	1,590	------	366	984	------
TOTAL	17,718	41,824	41,688	40,880	39,660	47,910	33,024	53,154	50,230	40,350	28,229	14,926
MEAN	572	1,394	1,345	1,319	1,416	1,545	1,101	1,715	1,674	1,302	911	498
MAX	1,300	2,160	1,700	2,170	1,760	2,120	1,780	2,120	1,990	2,010	1,210	1,300
MIN	44	594	866	173	1,130	1,120	76	844	1,060	202	25	35
AC-FT	35,140	82,960	82,690	81,080	78,660	95,030	65,500	105,400	99,630	80,030	55,990	29,610

CAL YR 1960: TOTAL 414,377 MEAN 1,132 MAX 2,180 MIN 32 AC-FT 821,900
WAT YR 1961: TOTAL 449,593 MEAN 1,232 MAX 2,170 MIN 25 AC-FT 891,800

12-1011. Lake Tapps diversion at Dieringer, Wash.--Continued

DISCHARGE, IN CUBIC FFET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	199	826	682	1,710	515	892	549	926	1,200	37	1,180	60
2	590	579	618	1,740	912	1,190	615	1,580	1,190	550	782	36
3	544	733	566	1,040	1,480	1,430	615	2,160	1,030	1,360	894	38
4	509	877	782	1,300	1,470	1,050	688	1,680	1,200	1,300	982	378
5	630	848	818	1,560	1,680	1,200	659	1,230	1,140	1,440	350	796
6	634	1,040	931	1,880	1,480	994	473	1,180	1,100	1,470	950	856
7	763	582	954	776	1,750	809	386	884	726	1,250	1,030	703
8	484	629	988	485	2,020	886	224	814	440	1,190	696	416
9	668	609	1,180	822	2,020	910	558	689	465	1,390	1,120	418
10	691	248	1,550	1,550	1,090	976	644	574	386	1,650	658	895
11	1,060	258	1,810	1,680	805	824	586	522	562	1,430	922	782
12	811	34	1,580	1,720	804	1,000	565	699	492	1,330	895	715
13	126	686	1,750	1,750	386	1,470	587	431	420	1,450	920	592
14	34	672	1,830	1,830	502	1,370	782	714	393	1,520	822	547
15	34	964	1,780	1,400	492	1,220	647	758	576	1,250	699	39
16	297	912	1,190	488	980	1,300	986	850	628	970	1,030	39
17	250	1,210	780	448	794	1,100	502	1,130	850	1,040	980	285
18	338	1,190	1,100	577	877	1,380	471	1,270	1,090	825	688	485
19	601	406	1,140	1,340	1,060	1,190	545	1,230	690	1,550	159	716
20	543	1,110	1,130	1,080	542	1,200	836	1,430	572	850	958	854
21	1,110	955	1,240	1,470	538	859	1,170	1,200	558	812	790	806
22	1,030	982	946	2,040	582	1,160	585	1,080	394	1,370	1,430	623
23	450	608	34	1,370	726	979	493	970	598	1,160	1,070	380
24	261	1,000	127	761	1,010	1,080	914	1,190	573	1,400	452	589
25	1,180	764	333	417	1,180	1,010	694	1,110	478	1,240	33	542
26	1,250	593	969	362	1,490	1,460	930	1,100	678	1,200	33	637
27	1,210	878	1,270	367	1,170	1,200	742	587	489	1,260	1,110	795
28	741	800	1,060	220	1,060	980	290	1,160	524	1,110	1,020	931
29	644	724	347	669	------	872	206	1,100	352	998	1,020	706
30	980	1,070	555	487	------	816	1,250	1,360	37	1,020	1,220	30
31	1,010	------	1,610	672	------	710	------	1,230	------	1,310	930	------
TOTAL	19,681	22,787	31,650	34,011	29,415	33,517	19,192	32,838	19,831	36,732	26,023	15,689
MEAN	63	760	1,021	1,097	1,051	1,081	640	1,059	661	1,185	839	523
MAX	1,250	1,210	1,830	2,040	2,020	1,470	1,250	2,160	1,200	1,650	1,430	931
MIN	34	34	34	220	386	710	206	431	37	37	33	30
AC-FT	39,040	45,200	62,780	67,460	58,340	66,480	38,070	65,130	39,330	72,860	51,620	31,120

CAL YR 1961: TOTAL 422,481 MEAN 1,157 MAX 2,170 MIN 25 AC-FT 838,000
WAT YR 1962: TOTAL 321,366 MEAN 880 MAX 2,160 MIN 30 AC-FT 637,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,170	592	502	1,420	949	879	905	1,100	32	1,390	1,130	36
2	847	450	424	1,450	1,170	828	913	1,090	32	1,140	753	36
3	701	125	1,090	1,790	294	857	1,580	1,030	1,140	1,180	656	901
4	770	30	1,500	1,950	657	884	567	1,080	1,310	937	401	475
5	645	894	1,460	977	626	794	583	1,340	1,380	1,140	1,010	445
6	236	776	298	962	368	1,400	1,110	1,160	1,060	939	592	1,120
7	316	837	685	1,260	490	1,060	1,920	838	753	77	758	792
8	670	648	952	1,470	584	1,170	1,740	896	417	861	928	285
9	465	737	925	1,850	42	1,100	1,960	1,080	33	815	993	759
10	544	498	913	1,910	42	788	1,390	937	573	950	809	866
11	787	336	937	1,790	599	519	1,140	992	728	849	37	746
12	815	954	838	1,220	505	413	1,090	622	590	935	753	627
13	628	974	1,100	1,020	534	605	961	1,080	636	508	1,310	604
14	962	1,020	651	898	413	533	699	1,030	853	436	1,880	349
15	650	1,080	304	930	361	712	1,230	881	1,300	1,120	1,640	425
16	711	722	263	1,040	313	764	1,130	966	1,190	700	1,210	620
17	702	196	630	892	42	605	893	808	816	806	654	620
18	828	156	982	1,070	568	1,300	942	253	635	829	286	329
19	732	1,290	1,380	1,460	524	1,880	479	32	873	804	280	305
20	548	1,250	810	1,290	529	1,600	1,060	808	991	545	123	327
21	399	990	1,230	1,150	540	1,700	909	587	750	434	78	511
22	892	468	1,210	1,040	855	1,870	650	636	684	751	72	478
23	1,190	1,300	819	1,430	1,020	1,680	580	579	644	787	73	472
24	746	1,280	1,370	1,280	533	1,140	857	512	452	557	37	533
25	713	1,190	586	1,040	1,100	1,600	715	650	682	693	37	547
26	675	1,400	1,640	1,100	532	1,550	530	1,240	984	903	830	259
27	127	1,110	1,510	1,340	448	1,410	38	1,210	1,640	1,190	1,080	434
28	56	952	1,430	1,540	371	1,510	37	1,070	1,030	396	360	563
29	558	766	1,590	1,990	------	1,000	809	1,160	623	462	1,080	609
30	866	649	1,810	1,730	------	296	1,070	33	419	549	788	652
31	689	------	1,690	1,290	------	234	------	316	------	836	72	------
TOTAL	20,638	23,670	31,529	41,579	15,029	32,681	28,487	26,016	23,250	24,519	20,710	15,725
MEAN	666	789	1,017	1,341	537	1,054	950	839	775	791	668	524
MAX	1,190	1,400	1,810	1,990	1,170	1,880	1,960	1,340	1,640	1,390	1,880	1,120
MIN	56	30	263	892	42	234	37	32	32	77	37	36
AC-FT	40,930	46,950	62,540	82,470	29,810	64,820	56,500	51,600	46,120	48,630	41,080	31,190

CAL YR 1962: TOTAL 323,085 MEAN 885 MAX 2,160 MIN 30 AC-FT 640,800
WAT YR 1963: TOTAL 303,833 MEAN 832 MAX 1,990 MIN 30 AC-FT 602,600

12-1011. Lake Tapps diversion at Dieringer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	605	656	639	1,080	1,950	1,820	938	985	668	40	596	576
2	644	213	949	1,010	1,920	1,920	1,260	990	1,160	93	319	752
3	598	356	1,280	1,010	1,980	1,850	1,250	1,090	1,120	82	423	803
4	585	881	1,530	1,170	1,570	1,700	1,580	1,030	816	41	565	568
5	383	630	957	762	1,520	1,120	1,420	812	789	41	565	664
6	877	746	1,200	1,590	1,550	1,120	798	924	704	95	720	616
7	836	607	1,080	2,000	1,100	1,210	1,070	798	37	156	696	648
8	493	877	1,330	1,980	1,180	1,380	1,240	970	843	86	29	1,200
9	503	597	1,490	2,210	624	1,600	1,390	839	444	84	616	1,760
10	303	239	1,820	2,050	1,080	1,690	1,300	879	458	413	490	1,240
11	338	1,320	1,800	1,920	1,120	1,440	1,420	789	476	980	612	490
12	85	1,490	1,750	2,150	1,570	1,560	1,500	164	568	1,090	852	30
13	38	893	1,700	1,550	906	1,290	1,190	97	37	1,220	748	30
14	461	929	1,470	1,470	920	1,420	1,030	137	260	1,130	700	329
15	327	1,420	1,260	1,410	441	629	780	176	902	1,220	271	402
16	562	958	788	1,410	451	1,070	888	752	640	1,230	292	536
17	733	951	893	1,260	1,110	1,160	486	956	540	1,270	708	684
18	487	1,240	1,150	1,510	839	1,360	652	624	752	1,210	704	536
19	336	1,150	1,650	1,690	965	1,490	664	322	644	1,140	548	648
20	37	997	1,430	1,220	1,410	1,530	995	268	38	520	990	772
21	594	1,260	1,650	1,150	1,260	1,150	1,300	301	38	65	938	1,020
22	801	1,130	1,580	1,680	1,210	965	1,260	434	220	744	668	692
23	559	929	1,520	1,720	1,160	1,330	1,090	744	409	866	30	866
24	1,040	816	1,160	1,570	1,200	1,330	975	933	241	1,250	1,030	938
25	690	678	1,240	1,560	1,250	1,440	1,050	879	161	1,020	576	700
26	389	1,070	1,580	2,030	1,310	1,200	970	420	124	31	965	924
27	771	940	1,940	1,990	1,420	1,370	794	413	39	225	1,130	756
28	745	542	1,390	2,020	1,530	748	870	310	40	612	1,050	564
29	657	923	1,820	1,940	1,400	708	924	319	105	1,230	951	528
30	633	832	1,510	1,890	------	740	857	38	93	1,390	283	975
31	402	------	1,170	1,970	------	875	------	38	------	843	437	------
TOTAL	16,572	26,272	42,726	49,972	35,746	40,214	31,941	18,431	13,366	20,417	20,302	21,547
MEAN	535	876	1,378	1,612	1,240	1,297	1,065	595	446	659	655	718
MAX	1,040	1,490	1,940	2,210	1,980	1,920	1,580	1,090	1,160	1,390	1,130	1,760
MIN	37	213	639	762	441	628	486	38	37	31	29	30
AC-FT	32,870	52,110	84,750	99,120	71,300	79,760	63,350	36,560	26,510	40,500	40,270	42,740

CAL YR 1963: TOTAL 313,566 MEAN 859 MAX 1,990 MIN 32 AC-FT 621,900
WAT YR 1964: TOTAL 337,706 MEAN 923 MAX 2,210 MIN 29 AC-FT 669,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	784	156	1,200	400	1,330	1,790	632	1,340	793	1,500	1,120	612
2	971	558	1,690	948	975	1,910	721	1,530	1,040	1,680	1,300	748
3	595	684	1,150	1,360	640	1,700	220	1,550	1,710	1,880	1,140	815
4	39	807	868	1,260	471	1,580	652	1,810	1,790	1,160	833	612
5	484	846	771	739	387	1,190	419	1,800	793	975	175	471
6	665	980	896	757	32	1,410	489	1,780	443	1,110	1,040	471
7	495	566	1,010	1,290	32	1,190	344	1,750	584	1,150	1,210	624
8	729	658	1,090	1,650	496	1,450	450	1,790	572	1,490	824	248
9	779	807	1,270	1,180	556	1,310	712	1,780	195	1,070	1,000	489
10	574	1,200	1,610	904	482	1,280	281	1,210	198	1,530	937	475
11	917	1,240	1,070	1,280	482	1,220	398	919	198	1,370	923	680
12	476	1,230	1,870	1,020	450	1,230	1,210	1,130	195	1,050	1,180	218
13	511	864	2,190	736	218	1,090	1,960	1,070	193	1,180	1,060	517
14	980	1,080	1,930	731	32	1,090	2,040	1,080	213	1,490	743	464
15	399	1,090	1,430	707	572	1,320	1,980	1,150	210	1,120	716	928
16	809	1,140	1,610	1,300	596	1,380	1,540	1,220	205	1,270	779	865
17	587	793	1,700	1,410	568	1,470	1,350	1,060	281	1,160	965	945
18	620	561	1,330	1,900	1,370	1,020	1,440	1,610	208	811	311	198
19	517	607	729	1,810	1,490	1,390	1,370	1,230	198	308	287	35
20	727	547	612	2,080	1,330	1,360	1,040	503	37	761	990	320
21	784	499	795	2,180	932	1,300	1,750	548	228	797	829	341
22	921	409	1,440	2,020	1,250	1,440	1,720	323	510	1,370	611	320
23	964	469	1,880	1,980	1,460	1,760	1,760	33	552	648	793	302
24	887	506	1,940	2,190	1,320	1,860	1,700	887	1,210	616	775	193
25	38	574	529	2,190	1,360	1,700	1,610	604	1,270	833	824	38
26	707	670	399	1,750	1,750	1,720	1,690	506	218	1,260	640	39
27	1,050	1,500	342	1,660	1,850	2,090	1,730	510	820	1,470	752	203
28	464	1,680	682	1,760	1,840	2,110	1,690	802	1,590	568	616	239
29	492	1,500	660	1,370	------	1,800	1,300	784	1,070	612	36	168
30	436	1,260	651	1,060	------	1,010	1,240	604	1,230	990	57	230
31	187	------	817	838	------	757	------	552	------	734	87	------
TOTAL	19,588	25,531	36,161	42,460	24,271	44,927	35,438	33,465	18,754	33,963	23,753	12,809
MEAN	632	851	1,166	1,370	867	1,449	1,181	1,080	625	1,096	766	427
MAX	1,050	1,680	2,190	2,190	1,850	2,110	2,040	1,810	1,790	1,880	1,300	946
MIN	38	156	342	400	32	757	220	33	37	308	36	35
AC-FT	38,850	50,640	71,720	84,220	48,140	89,110	70,290	66,380	37,200	67,360	47,110	25,410

CAL YR 1964: TOTAL 333,416 MEAN 911 MAX 2,210 MIN 29 AC-FT 661,300
WAT YR 1965: TOTAL 351,120 MEAN 962 MAX 2,190 MIN 32 AC-FT 696,400

12-1015. Puyallup River at Puyallup, Wash.

Location.--Lat 47°12'30", long 122°19'35", in SE¼NW¼ sec.20, T.20 N., R.4 E., on left bank 0.8 mile upstream from bridge at Clark Creek, 1 mile northwest of Puyallup, and 7 miles upstream from mouth.

Drainage area.--948 sq mi.

Records available.--May 1914 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Prior to Dec. 3, 1919, graphic water-stage recorders at sites 1¼ miles upstream and 900 ft upstream at different datums. Dec. 3, 1919, to Nov. 9, 1935, graphic water-stage recorder at site 500 ft upstream at datum 9.61 ft higher than present datum. Nov. 9, 1935, to May 26, 1964, graphic water-stage recorder at present site and datum.

Average discharge.--51 years, 3,364 cfs (2,435,000 acre-ft per year), adjusted for storage in Lake Tapps since October 1934 and in Mud Mountain Reservoir October 1944 to September 1947.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Elevation (feet)	Date	Discharge (cfs)	Elevation (feet)
1961	Feb. 21, 1961	22,300	20.28	Sept.24, 1961	673	8.56
1962	Dec. 24, 1961	15,400	17.54	Sept.16, 1962	537	8.54
1963	Nov. 20, 1962	22,900	20.54	Nov. 3, 4, 1962	590	8.60
1964	Jan. 25, 1964	22,200	20.27	Oct. 8, 1963	628	8.55
1965	Jan. 29, 1965	41,500	26.84	Aug. 31, Sept.12	688	8.63

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Sept.17, 1961	830	1964	Oct. 20, 1963	738
1962	Sept.16, 1962	710	1965	Aug. 31, 1965	812
1963	Nov. 4, 1962	718			

1914-65: Maximum discharge, 57,000 cfs Dec. 10, 1933 (elevation, 31.0 ft, present datum); minimum, 306 cfs Sept. 25, 1955 (elevation, 8.23 ft); minimum daily, 400 cfs Nov. 30, 1952.

Remarks.--Records good. All diverted water returned to river above gage. Large part of flow of White River (a tributary) diverted through Lake Tapps (see station 12-1010). Flood flow regulated by Mud Mountain Reservoir on White River (see station 12-0980). Some pondage on tributaries and upper Puyallup River. Diurnal fluctuations caused by powerplants and glacial melts above station. Since 1912, the city of Tacoma pipeline diversion from Green River has spilled into the Puyallup River at south line of sec.7, T.19 N., R.5 E., half a mile east of McMillin. Since 1957, the spillage has been as much as 118 cfs and has averaged 36 cfs. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions.--WSP 832: Drainage area.

Monthly mean diversion, in cubic feet year second, from Green River, water years 1961-65

October 1960....	69.5	January 1962....	44.1	April 1963......	19.9	July 1964.......	2.71
November........	71.8	February........	22.5	May.............	8.37	August..........	1.36
December........	42.6	March...........	34.5	June............	11.0	September.......	4.90
January 1961....	69.9	April...........	58.4	July............	15.9	October.........	8.43
February........	86.3	May.............	35.6	August..........	3.51	November........	23.2
March...........	80.1	June............	6.95	September.......	3.99	December........	40.6
April...........	61.3	July............	12.0	October.........	3.40	January 1965....	11.2
May.............	59.6	August..........	17.0	November........	22.8	February........	99.8
June............	24.1	September.......	17.3	December........	22.7	March...........	47.6
July............	11.4	October.........	28.2	January 1964....	24.4	April...........	57.1
August..........	17.1	November........	47.1	February........	8.37	May.............	12.0
September.......	28.5	December........	48.7	March...........	10.1	June............	1.79
October.........	54.8	January 1963....	21.3	April...........	13.4	July............	1.25
November........	32.5	February........	32.5	May.............	41.3	August..........	.91
December........	62.7	March...........	12.4	June............	47.4	September.......	6.25

12-1015. Puyallup River at Puyallup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,470	4,350	3,890	1,560	4,180	7,600	2,810	5,010	5,070	2,860	2,050	2,850
2	982	4,380	3,620	1,750	5,100	7,630	3,580	5,370	6,200	2,610	2,330	1,860
3	1,530	3,720	3,030	2,170	6,150	7,770	5,060	5,640	6,680	2,950	2,520	1,220
4	1,090	3,100	3,100	1,970	4,420	4,910	5,800	5,510	6,520	2,390	2,250	1,120
5	1,490	2,830	3,130	4,530	5,630	4,140	6,400	6,020	6,490	3,170	2,150	2,120
6	1,530	2,250	3,310	7,960	9,610	4,320	5,810	5,240	6,580	4,050	2,080	2,160
7	1,830	2,980	2,740	6,930	10,800	4,040	4,160	4,760	7,170	3,640	2,290	2,090
8	1,720	2,760	2,770	6,410	9,430	3,820	2,990	4,620	6,080	3,240	2,190	1,900
9	1,290	2,720	2,620	5,590	8,420	3,810	2,800	4,040	4,450	1,780	2,440	1,640
10	1,330	3,730	2,930	4,960	8,810	3,680	3,020	4,790	3,700	2,650	2,170	864
11	1,500	7,270	2,890	4,580	6,380	3,430	2,540	4,720	3,580	2,590	2,290	1,060
12	1,190	4,960	4,000	4,190	5,900	3,480	2,760	4,190	3,860	3,090	2,560	926
13	1,600	4,140	3,790	4,150	5,600	3,610	2,910	4,170	4,350	3,410	1,650	950
14	1,320	4,640	3,850	3,640	5,410	4,480	2,610	3,950	4,520	4,460	2,480	831
15	1,230	4,750	3,570	4,020	6,120	4,930	1,950	4,020	6,260	4,160	2,690	883
16	1,050	10,600	2,980	6,320	6,220	5,290	1,730	4,010	6,600	3,850	2,590	890
17	1,180	9,780	2,740	6,100	6,580	4,950	3,030	3,970	7,040	3,110	2,320	830
18	1,220	11,400	3,240	5,430	4,240	4,990	3,310	4,500	7,180	3,020	2,400	1,490
19	1,020	10,600	4,660	5,660	4,870	4,660	3,460	4,520	7,290	3,010	2,250	1,700
20	1,180	12,200	4,350	3,460	6,980	6,330	3,570	4,830	6,580	3,070	2,100	1,740
21	1,200	12,800	3,770	3,680	14,800	6,140	3,400	4,510	6,110	3,160	2,520	1,780
22	1,920	8,840	3,530	2,790	14,800	5,920	3,430	5,890	5,700	2,830	2,620	1,620
23	2,430	8,080	3,430	3,680	10,100	5,340	2,760	4,600	5,410	2,690	2,820	1,100
24	4,130	12,500	3,220	2,890	9,480	5,190	3,170	4,290	5,600	2,930	2,550	998
25	3,030	13,600	2,820	2,670	9,100	3,610	3,160	4,970	5,490	2,710	2,220	1,660
26	3,360	9,820	2,880	2,390	7,750	3,420	3,140	5,970	5,260	2,850	1,610	1,420
27	4,100	7,840	3,280	2,330	6,700	3,340	3,300	5,370	4,340	2,690	1,060	1,260
28	4,560	5,880	3,040	2,460	6,910	3,270	3,170	4,910	3,870	2,660	1,940	1,360
29	3,990	4,870	2,940	1,860	------	3,210	3,400	4,170	3,710	2,380	2,090	1,220
30	2,820	4,390	2,890	3,550	------	3,040	4,550	3,480	3,760	2,230	2,140	1,060
31	4,090	------	2,380	4,840	------	2,880	------	3,840	------	1,660	2,920	------
TOTAL	62,382	201,780	101,390	124,520	210,490	143,230	103,780	145,880	165,450	91,900	70,290	42,602
MEAN	2,012	6,726	3,271	4,017	7,518	4,620	3,459	4,706	5,515	2,965	2,267	1,420
MAX	4,560	13,600	4,660	7,960	14,800	7,770	6,400	6,020	7,290	4,460	2,920	2,850
MIN	982	2,250	2,380	1,560	4,180	2,880	1,730	3,480	3,580	1,660	1,060	830
AC-FT	123,700	400,200	201,100	247,000	417,500	284,100	205,800	289,300	328,200	182,300	139,400	84,500
(†)	+2,030	-1,860	-5,820	+7,030	+680	-18,950	+17,060	-10,170	+10,470	-840	-4,930	+1,170
MEAN ‡	2,044	6,694	3,176	4,131	7,530	4,313	3,746	4,539	5,692	2,952	2,187	1,440
AC-FT‡	125,700	398,300	195,300	254,000	418,200	265,200	222,900	279,100	338,700	181,500	134,500	85,670

CAL YR 1960: TOTAL 1,587,002 MEAN 4,336 MAX 13,600 MIN 982 AC-FT 3,148,000 MEAN ‡ 4,341 AC-FT ‡ 3,151,000
WAT YR 1961: TOTAL 1,463,694 MEAN 4,010 MAX 14,800 MIN 830 AC-FT 2,903,000 MEAN ‡ 4,004 AC-FT ‡ 2,899,000

† Change in contents, in acre-feet, in Lake Tapps, from information by Puget Sound Power & Light Co.
‡ Adjusted for change in contents in Lake Tapps.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	915	2,130	2,130	4,480	1,960	1,820	1,910	2,880	4,450	1,570	3,580	1,080
2	1,160	1,980	1,690	4,480	2,230	2,070	2,050	3,550	3,250	1,880	2,220	1,020
3	1,190	2,020	1,790	9,390	3,370	2,320	1,920	4,420	3,220	2,550	2,400	992
4	1,090	2,060	2,030	10,400	3,350	2,080	2,080	4,250	3,430	2,600	2,660	1,330
5	1,240	1,870	2,500	8,310	3,360	2,760	2,930	3,850	3,400	2,770	2,420	1,810
6	1,590	2,020	2,320	7,790	2,840	2,840	4,390	4,510	3,360	2,990	2,560	1,820
7	1,890	1,460	2,240	9,880	3,200	2,540	9,190	4,240	2,920	2,780	2,460	1,680
8	1,340	1,450	2,210	11,300	3,400	2,510	6,130	4,010	4,110	2,700	2,240	1,260
9	1,500	1,480	2,310	9,320	3,350	2,360	4,800	4,480	4,440	3,000	3,180	1,240
10	2,980	1,490	2,610	5,830	2,520	2,330	3,290	4,390	4,300	3,150	1,900	1,920
11	2,690	1,930	2,790	6,150	2,090	2,210	2,840	4,000	4,160	2,920	2,010	2,250
12	2,180	1,380	2,570	5,460	2,040	2,150	2,570	2,590	3,920	2,900	2,060	1,730
13	2,710	1,720	2,760	4,360	1,570	2,700	2,560	2,240	2,300	2,910	2,280	1,450
14	1,730	1,930	2,940	3,920	2,060	2,620	3,320	2,440	3,730	2,990	2,000	1,490
15	1,430	2,140	2,820	3,420	2,040	2,400	3,520	2,400	3,820	2,580	1,810	812
16	1,560	1,950	2,320	2,090	2,320	2,560	3,640	2,360	2,700	2,420	2,310	710
17	1,370	2,160	2,440	3,040	2,050	2,390	3,820	2,580	3,040	2,310	2,190	984
18	1,240	2,080	2,530	3,750	2,020	2,580	4,090	2,820	3,450	2,010	1,800	1,270
19	1,510	1,310	2,920	3,980	2,390	2,440	4,320	2,670	4,670	2,510	1,300	1,500
20	1,330	1,910	4,450	2,310	1,670	2,500	4,630	2,950	4,620	2,050	2,210	1,810
21	1,770	1,790	4,830	2,540	1,580	2,120	4,180	2,600	4,680	2,000	2,100	1,780
22	1,670	4,440	3,700	3,150	1,620	2,360	3,230	2,490	4,480	2,870	2,350	1,630
23	1,380	3,670	5,300	2,600	1,770	2,350	3,450	2,700	4,740	2,660	2,200	1,240
24	1,200	2,960	11,500	2,010	2,010	2,290	4,530	3,460	4,980	3,100	1,500	1,420
25	1,930	2,230	11,300	1,740	2,240	2,810	4,280	5,130	5,110	2,950	1,020	1,370
26	2,430	1,860	6,980	1,940	2,440	3,180	4,100	3,720	5,440	2,950	1,040	1,530
27	2,590	2,220	5,260	2,080	2,170	3,000	4,250	3,060	4,470	2,910	1,970	1,670
28	1,970	2,230	4,840	1,740	2,050	2,700	2,570	3,590	3,760	2,610	2,110	2,210
29	1,660	2,430	3,840	2,060	------	2,410	2,250	3,520	2,040	2,640	2,200	2,170
30	1,890	2,540	4,330	1,850	------	2,170	2,900	5,240	1,740	2,560	2,200	1,010
31	2,010	------	5,260	2,130	------	2,150	------	4,750	------	3,030	2,030	------
TOTAL	53,145	62,840	117,710	143,500	65,710	75,720	109,740	107,890	114,730	81,870	66,310	44,188
MEAN	1,714	2,095	3,797	4,629	2,347	2,443	3,658	3,480	3,824	2,641	2,139	1,473
MAX	2,980	4,440	11,500	11,300	3,400	3,180	9,190	5,240	5,440	3,150	3,580	2,250
MIN	915	1,310	1,790	1,740	1,570	1,820	1,910	2,240	1,740	1,570	1,020	710
AC-FT	105,400	124,600	233,500	284,600	130,300	150,200	217,700	214,000	227,600	162,400	131,500	87,650
(†)	-3,030	+1,840	+1,660	+4,940	-6,300	-18,960	+25,860	-3,150	-1,510	+4,510	-2,900	+3,250
MEAN ‡	1,665	2,124	3,825	4,708	2,233	2,134	4,094	3,428	3,800	2,714	2,091	1,528
AC-FT‡	102,400	126,400	235,200	289,500	124,000	131,200	243,600	210,800	226,100	166,900	128,600	90,900

CAL YR 1961: TOTAL 1,331,837 MEAN 3,649 MAX 14,800 MIN 830 AC-FT 2,642,000 MEAN ‡ 3,652 AC-FT ‡ 2,644,000
WAT YR 1962: TOTAL 1,043,353 MEAN 2,859 MAX 11,500 MIN 710 AC-FT 2,069,000 MEAN ‡ 2,866 AC-FT ‡ 2,075,000

† Change in contents, in acre-feet, in Lake Tapps, from information by Puget Sound Power & Light Co.
‡ Adjusted for change in contents in Lake Tapps.

12-1015. Puyallup River at Puyallup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,610	1,310	4,480	5,840	2,770	3,090	3,060	2,790	3,580	2,910	2,360	1,220
2	1,900	1,230	3,980	6,610	3,230	3,000	2,930	2,910	3,510	2,610	2,020	1,170
3	1,960	831	3,940	6,760	12,900	2,750	3,350	2,860	3,900	2,690	1,700	1,840
4	1,820	718	4,180	6,240	13,800	2,580	3,080	2,740	2,980	2,520	1,490	1,700
5	1,600	1,850	5,470	4,730	11,000	2,370	3,340	3,200	3,500	2,640	2,390	1,620
6	1,090	1,880	8,460	3,920	6,080	2,940	5,680	4,080	3,190	2,960	1,910	2,250
7	1,120	1,770	6,690	3,220	8,560	2,510	6,830	4,940	3,380	2,220	1,930	1,880
8	2,050	1,750	6,330	3,420	5,390	2,520	5,680	4,780	3,690	3,190	2,310	1,540
9	2,520	1,810	5,820	3,770	3,880	2,540	5,070	4,470	3,530	2,570	2,470	1,990
10	2,500	1,600	5,340	3,600	3,350	2,230	4,080	2,960	3,510	3,220	2,370	2,330
11	2,310	1,480	4,910	3,240	3,200	2,070	4,020	2,750	3,010	4,010	1,530	2,160
12	2,350	2,200	4,330	2,540	2,670	2,730	4,410	2,270	2,970	3,480	2,380	1,800
13	2,100	2,180	4,320	2,540	2,550	2,660	3,050	2,540	3,060	3,000	3,300	1,900
14	2,500	2,040	5,560	2,280	2,210	1,800	3,030	2,520	3,160	2,950	4,520	1,690
15	1,970	2,110	6,820	2,160	2,090	1,960	4,410	2,330	3,990	3,340	3,860	1,530
16	1,730	1,680	6,580	2,320	1,960	1,880	4,590	2,760	4,100	2,600	3,200	1,850
17	1,590	1,160	4,710	2,150	1,630	1,770	4,900	3,510	3,960	2,580	1,880	1,720
18	1,720	994	4,440	2,280	2,340	2,240	4,590	3,370	3,990	2,530	1,520	1,220
19	1,740	3,750	4,580	2,620	2,650	3,060	2,630	3,960	3,750	2,500	1,470	1,140
20	1,440	20,200	4,770	2,470	3,710	3,130	3,000	5,210	3,610	2,210	1,310	1,120
21	1,360	13,600	5,060	2,420	3,850	3,180	3,080	5,260	3,050	2,080	1,160	1,370
22	1,780	6,630	5,090	2,030	2,760	3,350	3,580	4,530	2,740	2,730	1,040	1,390
23	2,040	6,590	2,940	2,670	2,720	3,180	3,970	4,090	2,080	2,620	1,000	1,620
24	1,780	6,540	3,040	2,310	2,170	2,720	3,990	3,600	1,780	2,120	1,050	1,540
25	1,450	10,000	2,210	1,980	3,380	2,820	3,840	3,010	1,990	2,260	922	1,440
26	1,590	13,600	3,230	2,100	4,700	2,890	3,470	3,530	2,270	2,150	1,570	1,210
27	896	9,430	3,020	2,390	4,140	2,970	1,690	3,180	2,930	2,520	2,050	1,490
28	776	6,930	3,190	2,540	2,620	3,450	1,470	3,000	2,400	1,980	1,290	1,830
29	1,300	5,600	3,370	3,000	------	3,460	2,310	3,690	2,130	1,750	1,900	2,080
30	1,650	5,420	5,630	2,720	------	3,170	2,650	3,760	2,180	1,630	2,000	1,820
31	1,450	------	5,890	2,460	------	2,930	------	4,000	------	1,800	1,220	------
TOTAL	53,692	136,883	148,380	99,330	122,310	83,950	111,780	108,600	93,920	80,370	61,122	49,460
MEAN	1,732	4,563	4,786	3,204	4,368	2,708	3,726	3,503	3,131	2,593	1,972	1,649
MAX	2,520	20,200	8,460	6,760	13,800	3,460	6,830	5,260	4,100	4,010	4,520	2,330
MIN	776	718	2,210	1,980	1,630	1,770	1,470	2,270	1,780	1,630	922	1,120
AC-FT	106,500	271,500	294,300	197,000	242,600	166,500	221,700	215,400	186,300	159,400	121,200	98,100
(†)	-2,050	-2,020	+3,900	-22,210	+18,840	-2,970	+6,210	-1,560	+2,440	-700	-1,100	+2,180
MEAN ‡	1,698	4,529	4,850	2,843	4,707	2,659	3,830	3,477	3,171	2,581	1,953	1,686
AC-FT‡	104,400	269,500	298,200	174,800	261,400	163,500	227,900	213,800	188,700	158,700	120,100	100,300

CAL YR 1962: TOTAL 1,148,613 MEAN 3,147 MAX 20,200 MIN 710 AC-FT 2,278,000 MEAN ‡ 3,155 AC-FT ‡ 2,284,000
WAT YR 1963: TOTAL 1,149,797 MEAN 3,150 MAX 20,200 MIN 718 AC-FT 2,281,000 MEAN ‡ 3,151 AC-FT ‡ 2,281,000

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† Change in contents, in acre-feet, in Lake Tapps, from information by Puget Sound Power & Light Co.
‡ Adjusted for change in contents in Lake Tapps.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,650	1,600	2,490	5,600	5,850	3,310	3,450	2,620	9,000	4,910	3,150	1,670
2	1,610	1,630	2,560	8,590	5,080	3,260	3,590	2,710	9,790	5,370	2,940	1,770
3	1,520	1,550	2,580	5,120	4,770	3,140	3,150	3,280	8,200	5,040	2,860	2,100
4	1,430	2,090	3,070	4,160	4,250	3,270	3,300	2,580	7,870	4,750	4,030	1,610
5	1,060	2,030	2,500	3,190	3,980	3,210	3,320	2,300	9,270	4,880	3,740	1,770
6	1,420	2,160	4,100	4,620	3,800	2,690	2,610	2,250	8,470	4,790	3,110	1,510
7	1,710	2,100	3,400	4,680	3,410	2,670	2,750	2,130	8,100	4,300	3,030	1,880
8	1,120	3,390	3,470	4,260	3,160	2,850	2,940	2,260	9,190	4,030	2,260	2,260
9	1,210	3,540	3,580	4,420	2,560	3,040	3,070	2,300	8,190	5,250	2,770	3,000
10	1,010	3,840	3,600	4,160	2,840	3,140	3,310	3,010	8,490	4,910	2,640	2,430
11	1,060	3,740	3,360	3,830	2,930	3,100	3,400	5,080	8,220	5,880	2,630	1,440
12	807	3,060	3,340	3,980	3,350	3,270	3,460	4,560	7,630	6,640	3,060	850
13	798	2,620	3,160	3,440	2,880	2,850	3,260	4,540	6,700	6,810	3,060	830
14	1,450	3,140	2,890	3,770	3,320	2,840	2,850	4,110	6,730	6,690	2,710	1,150
15	1,470	3,560	2,700	3,710	2,090	2,600	3,950	3,560	7,220	7,290	2,060	1,260
16	1,560	2,850	2,490	5,450	2,000	2,800	4,310	2,400	9,700	6,320	1,950	1,440
17	1,690	3,240	2,680	5,020	2,830	3,120	3,080	3,600	10,300	5,290	2,390	2,460
18	1,300	3,570	2,950	4,800	2,690	4,790	2,690	4,920	12,400	4,760	2,520	2,000
19	1,130	3,570	3,480	4,930	3,430	3,790	2,560	5,620	9,800	3,720	2,370	1,810
20	738	3,380	4,060	5,140	4,430	3,610	2,790	6,500	6,810	2,870	2,460	2,390
21	1,300	3,090	3,820	4,080	3,090	3,180	2,980	7,670	5,720	2,340	2,380	2,450
22	2,970	3,020	3,780	4,130	2,880	2,780	3,160	6,870	5,270	2,900	2,230	2,050
23	2,420	2,820	4,400	3,980	2,790	2,870	2,990	5,060	5,790	2,620	1,760	2,460
24	2,340	2,720	3,560	4,460	2,800	2,950	2,650	4,530	6,010	3,420	2,770	2,460
25	2,510	2,640	3,690	16,400	2,750	2,750	2,610	4,620	5,820	4,480	2,290	2,070
26	1,870	4,620	3,740	12,400	2,710	2,650	2,820	4,400	5,710	3,570	2,950	2,060
27	1,860	7,340	4,120	8,540	2,760	2,760	2,660	4,740	5,250	3,350	2,770	1,850
28	2,020	5,280	3,480	7,260	2,930	2,020	2,590	5,500	4,720	2,850	3,040	1,600
29	1,940	4,160	3,720	6,870	2,600	2,010	2,680	5,460	4,270	3,470	2,640	1,450
30	1,770	3,020	3,320	6,220	------	2,180	2,600	5,950	4,380	4,020	1,730	2,220
31	1,450	------	3,070	5,960	------	2,690	------	7,150	------	3,740	1,720	------
TOTAL	48,193	95,370	103,160	173,170	94,960	92,190	91,580	132,280	225,020	141,260	82,020	56,320
MEAN	1,555	3,179	3,328	5,586	3,274	2,974	3,053	4,267	7,501	4,557	2,646	1,877
MAX	2,970	7,340	4,400	16,400	5,850	4,790	4,310	7,670	12,400	7,290	4,030	3,000
MIN	738	1,550	2,490	3,190	2,000	2,010	2,560	2,130	4,270	2,340	1,720	830
AC-FT	95,590	189,200	204,600	343,500	188,400	182,900	181,600	262,400	446,300	280,200	162,700	111,700
(†)	-1,330	-130	-7,880	-2,410	-7,390	-12,970	+25,580	+5,050	-4,150	+4,120	+1,010	+400
MEAN‡	1,533	3,178	3,199	5,547	3,147	2,763	3,482	4,349	7,431	4,624	2,662	1,884
AC-FT‡	94,260	189,100	196,700	341,100	181,000	169,900	207,200	267,400	442,200	284,300	163,700	112,100

CAL YR 1963: TOTAL 1,057,565 MEAN 2,897 MAX 13,800 MIN 738 AC-FT 2,098,000 MEAN ‡ 2,887 AC-FT ‡ 2,090,000
WAT YR 1964: TOTAL 1,335,523 MEAN 3,649 MAX 16,400 MIN 738 AC-FT 2,649,000 MEAN ‡ 3,649 AC-FT ‡ 2,649,000

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† Change in contents, in acre-feet, in Lake Tapps, from information by Puget Sound Power & Light Co.
‡ Adjusted for change in contents in Lake Tapps.

12-1015. Puyallup River at Puyallup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,550	1,040	12,500	2,610	18,700	4,510	2,780	4,400	2,850	3,140	2,840	1,490
2	3,870	1,560	16,100	2,950	15,800	4,290	3,080	4,250	3,050	3,490	3,150	1,630
3	4,480	1,690	11,800	3,530	13,700	3,920	1,450	3,610	4,090	4,170	2,870	1,720
4	2,750	2,990	7,580	3,130	7,700	3,690	1,730	3,710	4,290	3,470	2,440	1,520
5	2,830	3,100	5,780	2,550	7,720	3,170	1,800	4,080	3,420	3,180	1,570	1,270
6	2,430	2,440	5,030	2,810	6,060	3,250	1,870	3,910	3,120	3,200	2,310	1,220
7	2,120	1,840	4,400	2,690	5,020	2,990	1,780	3,780	5,150	3,170	3,450	1,420
8	2,680	1,830	3,780	3,150	5,790	3,220	1,840	3,760	6,640	3,640	2,410	1,060
9	2,930	1,990	4,300	2,420	5,770	3,050	1,740	3,650	3,950	2,710	2,710	1,260
10	3,220	2,370	4,430	2,300	4,980	3,010	1,440	3,140	6,310	2,880	3,010	1,280
11	2,820	2,480	3,790	2,200	5,020	2,930	1,410	2,730	6,440	2,930	3,000	1,570
12	2,410	2,410	4,040	2,100	4,500	2,960	2,080	3,010	6,180	2,400	3,130	923
13	2,170	2,110	4,390	2,100	4,870	2,740	3,080	3,090	4,620	2,410	3,150	1,270
14	2,540	2,200	4,260	2,400	4,630	2,710	3,190	3,050	3,940	2,910	2,260	1,550
15	2,390	2,160	3,690	3,500	5,110	2,860	3,140	3,070	3,680	2,730	2,120	3,390
16	3,100	2,140	3,370	4,800	4,440	2,910	2,960	3,540	3,350	2,890	2,170	3,220
17	2,540	1,800	3,220	5,000	5,540	3,000	2,820	3,460	3,570	2,780	2,330	2,420
18	2,240	1,450	3,030	4,500	6,260	2,350	2,720	3,590	3,910	2,500	1,780	1,340
19	1,980	1,430	2,330	4,700	6,310	2,690	3,750	3,340	3,860	1,620	1,650	1,010
20	2,020	1,410	2,040	5,000	5,960	2,610	9,870	2,840	3,680	1,990	3,000	1,350
21	2,070	1,260	2,690	5,000	4,920	2,570	8,970	2,750	3,760	1,930	2,410	1,790
22	2,070	1,250	11,900	4,500	4,900	2,690	6,780	2,320	3,160	2,590	2,260	1,820
23	2,010	1,570	23,800	5,000	4,530	3,140	5,430	1,950	2,950	1,840	2,180	1,850
24	2,000	7,250	14,600	5,400	3,990	3,120	4,810	2,610	3,090	1,770	2,320	1,710
25	931	7,910	8,810	4,000	3,750	3,010	4,710	2,480	2,810	2,180	2,190	1,570
26	1,540	6,050	7,310	5,000	4,050	3,040	4,560	2,450	1,610	2,810	1,900	1,470
27	1,900	5,550	6,390	11,500	5,840	3,410	4,510	2,630	1,990	4,410	1,910	1,530
28	1,270	4,810	5,190	25,000	5,430	3,360	4,950	3,250	2,650	2,820	1,640	1,470
29	1,260	4,360	4,270	35,000	------	3,130	4,790	3,520	2,420	2,170	939	1,380
30	1,260	7,450	3,580	29,800	------	2,300	4,040	3,110	2,530	2,630	846	1,480
31	1,020	------	3,240	23,000	------	2,210	------	2,850	------	2,470	812	------
TOTAL	72,401	87,900	201,640	217,640	181,290	94,840	108,080	99,930	113,070	85,830	70,997	47,983
MEAN	2,336	2,930	6,505	7,021	6,475	3,059	3,603	3,224	3,769	2,769	2,290	1,599
MAX	4,480	7,910	23,800	35,000	18,700	4,510	9,870	4,400	6,640	4,410	3,450	3,390
MIN	931	1,040	2,040	2,100	3,750	2,210	1,410	1,950	1,610	1,620	812	923
AC-FT	143,600	174,300	399,900	431,700	359,600	188,100	214,400	198,200	224,300	170,200	140,800	95,170
(†)	-730	+760	-2,990	-1,920	+1,600	-20,440	-11,250	+30,420	+4,550	-1,740	+2,350	-4,280
MEAN ‡	2,324	2,943	6,455	6,990	6,504	2,727	3,415	3,718	3,845	2,740	2,329	1,527
AC-FT‡	142,900	175,100	396,900	429,800	361,200	167,700	203,200	228,600	228,800	168,500	143,200	90,890

CAL YR 1964: TOTAL 1,450,741 MEAN 3,964 MAX 23,800 MIN 830 AC-FT 2,878,000 MEAN ‡ 3,973 AC-FT ‡ 2,884,000
WAT YR 1965: TOTAL 1,381,601 MEAN 3,785 MAX 35,000 MIN 812 AC-FT 2,740,000 MEAN ‡ 3,779 AC-FT ‡ 2,736,000

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† Change in contents, in acre-feet, in Lake Tapps, from information by Puget Sound Power & Light Co.
‡ Adjusted for change in contents in Lake Tapps.

12-1035. Snow Creek near Lester, Wash.

Location.--Lat 47°15'10", long 121°24'10", in SW¼NW¼ sec.3, T.20 N., R.11 E., on left bank 15 ft downstream from bridge, a quarter of a mile upstream from mouth, and 5½ miles northeast of Lester.

Drainage area.--11.5 sq mi (revised).

Records available.--October 1945 to September 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,950 ft (from topographic map). Prior to July 12, 1962, at several sites within 200 ft upstream at various datums. July 12 to Nov. 19, 1962, at present site at datum 4.04 ft higher.

Average discharge.--20 years, 68.9 cfs (49,880 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (350 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	-	-	-	Jan. 3, 1963	0300	378	5.73	May 31, 1964	2130	* 748	6.43
Feb. 21, 1961	-	a 600	-	Feb. 3, 1963	0800	906	6.07				
Dec. 24, 1961	0600	360	6.81					Nov. 24, 1964	1030	396	6.03
Apr. 6, 1962	1700	* 1,240	7.20	Nov. 26, 1963	1830	665	6.35	Dec. 1, 1964	2000	552	6.53
				Jan. 1, 1964	1700	424	6.07	Jan. 29, 1965	0430	* 1,630	7.16
Nov. 19, 1962	1930	* 1,500	b 8.24	May 19, 1964	2200	453	6.11	Apr. 20, 1965	0500	466	6.01

a Maximum daily.
b Present datum.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 27-31, 1961	5.3	a 5.39	1964	Oct. 10-13, 16, 17, 19, 20, 1963	6.3	3.43
1962	Sept. 8, 9, 1962	5.0	1.71				
1963	Sept.28-30, 1963	6.5	b 3.45	1965	Sept. 7, 12, 13, 30	5.6	3.84

a Occurred Oct. 5, 6, 1960.
b Present datum.

1945-65: Maximum discharge, 3,400 cfs Nov. 23, 1959 (gage height, 8.0 ft, site and datum then in use), from rating curve extended above 1,300 cfs; minimum, 3.0 cfs Nov. 29, 30, 1952.

Remarks.--Records good except those for period of no gage-height record and those for winter periods, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1636: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.2	200	41	27	110	122	108	132	155	20	8.0	36
2	8.2	151	42	25	142	108	162	132	168	19	8.0	39
3	7.7	106	45	23	125	91	207	122	168	19	8.0	21
4	7.7	80	43	22	119	79	173	102	155	17	8.0	16
5	7.7	60	38	107	166	69	129	88	140	32	8.0	15
6	8.2	48	36	157	187	63	108	79	135	22	8.0	13
7	11	41	34	115	177	56	96	71	120	20	7.5	12
8	20	35	31	96	142	50	102	74	105	19	7.6	11
9	15	29	29	94	135	46	119	81	94	17	7.2	10
10	13	87	27	86	138	42	105	99	84	17	7.2	9.8
11	13	186	27	86	119	41	93	102	77	16	6.8	8.9
12	19	125	30	92	99	38	102	93	70	15	6.8	8.5
13	20	90	32	86	91	42	113	91	64	15	6.3	8.0
14	19	72	46	130	76	79	96	93	71	14	6.3	8.0
15	18	67	42	270	71	93	86	105	74	13	7.2	8.0
16	17	220	40	400	61	93	93	122	75	13	7.2	8.0
17	16	199	38	170	52	83	116	138	76	12	6.3	7.2
18	15	196	37	122	46	86	105	160	65	12	5.9	7.6
19	13	160	50	99	92	96	91	180	56	12	5.9	7.2
20	13	157	46	83	240	102	79	190	47	12	5.9	9.8
21	13	131	41	71	600	88	71	175	40	11	5.9	10
22	22	99	40	65	290	83	71	160	35	11	5.9	8.5
23	37	82	38	56	162	83	69	180	33	10	5.9	7.6
24	84	103	38	48	135	86	67	155	32	10	5.9	7.2
25	65	101	40	46	110	86	69	155	31	9.8	5.9	7.2
26	67	82	40	41	93	83	74	170	27	9.8	5.9	6.8
27	99	67	36	38	81	76	74	152	24	9.3	5.6	6.8
28	169	56	34	38	71	74	86	140	22	8.9	5.3	12
29	154	49	31	38	------	74	122	140	23	8.9	5.3	15
30	106	45	30	58	------	81	135	132	22	8.5	5.3	12
31	139	------	29	105	------	91	------	129	------	8.5	8.0	------
TOTAL	1,224.7	3,114	1,151	2,894	3,930	2,384	3,121	3,942	2,288	441.7	207.1	357.1
MEAN	39.5	104	37.1	93.4	140	76.9	104	127	76.3	14.2	6.68	11.9
MAX	169	220	50	400	600	122	207	190	168	32	8.0	39
MIN	7.7	29	27	22	46	38	67	71	22	8.5	5.3	6.8
CFSM	3.44	9.03	3.23	8.12	12.2	6.69	9.05	11.1	6.63	1.24	.58	1.04
IN.	3.96	10.1	3.72	9.36	12.7	7.71	10.1	12.7	7.40	1.43	.67	1.15
AC-FT	2,430	6,180	2,280	5,740	7,800	4,730	6,190	7,820	4,540	876	411	708

CAL YR 1960: TOTAL 20,355.5 MEAN 55.6 MAX 254 MIN 6.5 CFSM 4.84 IN 65.83 AC-FT 40,370
WAT YR 1961: TOTAL 25,054.6 MEAN 68.6 MAX 600 MIN 5.3 CFSM 5.97 IN 81.02 AC-FT 49,700

Note.--No gage-height record Jan. 15-17, Feb. 20-22. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1035. Snow Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	98	42	113	99	22	86	106	76	31	9.6	5.8
2	12	86	41	110	129	22	86	122	83	30	9.3	5.8
3	11	79	41	210	169	21	79	126	88	26	9.8	5.6
4	10	65	73	218	180	20	91	116	86	26	13	5.6
5	13	56	88	173	148	19	102	98	84	26	19	5.6
6	20	48	69	173	113	19	530	87	83	30	13	5.3
7	41	44	58	262	91	19	598	78	84	26	13	5.3
8	31	42	47	276	76	21	313	78	92	26	11	5.3
9	60	41	41	222	65	20	152	84	92	25	11	5.0
10	116	61	35	155	58	19	106	90	81	23	9.6	9.7
11	79	83	33	110	52	19	92	88	71	22	9.0	16
12	92	74	31	88	48	18	92	84	66	21	9.3	11
13	135	65	28	71	47	18	109	81	64	20	9.6	11
14	88	67	26	65	50	18	157	80	60	19	8.6	9.9
15	65	61	24	54	47	19	174	78	68	19	8.0	9.3
16	50	54	24	47	44	22	131	82	73	18	7.6	8.6
17	41	47	23	42	44	24	124	88	68	19	7.6	8.0
18	34	44	22	36	42	26	149	88	62	18	9.3	7.3
19	32	40	31	32	41	30	166	78	57	17	8.3	7.0
20	27	35	56	30	38	32	137	76	56	16	7.6	7.0
21	25	33	47	28	35	31	129	72	55	15	7.6	7.0
22	24	135	46	26	35	28	131	74	50	15	7.2	6.8
23	35	105	108	28	33	26	141	82	52	14	6.8	6.6
24	34	79	286	30	31	32	163	87	54	14	6.6	6.3
25	33	63	203	58	28	38	135	94	52	13	6.3	6.0
26	36	52	129	102	25	42	108	99	46	13	6.6	5.8
27	44	46	88	110	25	41	99	99	38	12	6.6	5.8
28	46	46	93	102	23	36	90	102	35	11	8.3	17
29	42	44	174	91	------	36	83	93	34	11	7.3	15
30	40	42	210	88	------	44	80	83	32	11	6.6	13
31	41	------	148	93	------	61	------	77	------	9.9	6.0	------
TOTAL	1,370	1,835	2,365	3,243	1,816	843	4,633	2,770	1,942	596.9	279.1	243.4
MEAN	44.2	61.2	76.3	105	64.9	27.2	154	89.4	64.7	19.3	9.00	8.11
MAX	135	135	286	276	180	61	598	126	92	31	19	17
MIN	10	33	22	26	23	18	79	72	32	9.9	6.0	5.0
CFSM	3.84	5.32	6.63	9.10	5.64	2.36	13.4	7.77	5.63	1.67	.78	.71
IN.	4.43	5.93	7.65	10.5	5.87	2.73	15.0	8.96	6.28	1.93	.90	.79
AC-FT	2,720	3,640	4,690	6,430	3,600	1,670	9,190	5,490	3,850	1,180	554	483

CAL YR 1961: TOTAL 25,134.9 MEAN 68.9 MAX 600 MIN 5.3 CFSM 5.99 IN 81.28 AC-FT 49,850
WAT YR 1962: TOTAL 21,936.4 MEAN 60.1 MAX 598 MIN 5.0 CFSM 5.23 IN 70.94 AC-FT 43,510

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	15	74	148	26	87	48	74	40	16	9.8	7.1
2	12	15	66	266	39	78	47	74	38	16	9.3	7.2
3	14	14	60	290	417	68	47	70	35	16	8.9	7.0
4	11	15	56	161	238	60	66	67	33	15	8.6	6.9
5	10	20	70	91	205	54	94	73	35	15	8.4	6.8
6	11	27	170	68	151	52	168	85	33	15	8.2	6.8
7	14	24	150	58	145	48	124	83	31	15	8.0	6.7
8	22	37	170	53	141	47	95	77	30	17	8.0	6.7
9	42	36	180	49	129	45	81	73	31	17	7.8	6.6
10	40	35	158	45	108	44	72	71	30	16	7.3	6.6
11	38	40	126	40	92	45	67	67	29	17	7.8	6.6
12	36	41	106	39	81	43	65	61	28	16	7.7	6.8
13	36	39	97	39	73	41	66	60	26	16	7.8	7.6
14	34	35	100	37	71	40	79	61	24	16	7.3	8.2
15	40	33	115	36	65	39	92	66	23	18	7.7	7.6
16	38	31	117	34	63	38	80	66	22	16	7.6	7.3
17	34	29	106	34	62	36	68	72	21	15	7.4	7.1
18	33	27	99	32	66	36	65	86	20	14	7.4	6.9
19	29	382	97	31	82	39	64	95	19	14	7.8	6.7
20	27	954	92	31	99	41	62	97	19	13	8.4	6.6
21	26	340	102	30	85	43	62	97	18	12	7.8	6.6
22	26	200	109	30	76	48	67	90	18	14	7.6	6.8
23	23	150	99	30	69	49	73	75	18	12	8.0	6.8
24	22	120	91	29	64	48	71	62	17	13	8.2	6.7
25	21	140	83	29	64	47	67	56	17	12	8.0	6.6
26	20	200	80	28	86	48	65	53	17	11	7.8	6.6
27	19	140	79	28	82	51	63	50	16	11	7.5	6.6
28	17	110	99	27	80	54	62	47	16	10	7.3	6.6
29	17	95	114	26	------	53	70	46	19	9.9	7.2	6.5
30	16	82	226	26	------	52	75	45	17	9.8	7.1	6.5
31	16	------	183	26	------	50	------	43	------	9.9	7.0	------
TOTAL	756	3,426	3,474	1,891	2,959	1,524	2,225	2,142	740	437.6	245.7	206.1
MEAN	24.4	114	112	61.0	106	49.2	74.2	69.1	24.7	14.1	7.93	6.87
MAX	42	954	226	290	417	87	168	97	40	18	9.8	8.2
MIN	10	14	56	26	26	36	47	43	16	9.8	7.0	6.5
CFSM	2.12	9.93	9.74	5.30	9.19	4.27	6.45	6.01	2.14	1.23	.69	.60
IN.	2.44	11.1	11.2	6.12	9.57	4.93	7.20	6.93	2.39	1.42	.79	.67
AC-FT	1,500	6,800	6,890	3,750	5,870	3,020	4,410	4,250	1,470	868	487	409

CAL YR 1962: TOTAL 24,022.4 MEAN 65.8 MAX 954 MIN 5.0 CFSM 5.72 IN 77.69 AC-FT 47,650
WAT YR 1963: TOTAL 20,026.4 MEAN 54.9 MAX 954 MIN 6.5 CFSM 4.77 IN 64.76 AC-FT 39,720

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1035. Snow Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.5	24	61	276	33	33	112	92	570	154	35	40
2	6.5	30	53	203	32	30	90	82	403	154	32	40
3	6.5	30	47	112	28	30	76	72	290	122	32	36
4	6.6	37	42	83	30	44	72	71	327	114	30	32
5	6.6	36	44	70	30	46	68	77	375	118	29	31
6	6.6	36	51	78	29	39	67	76	345	110	28	30
7	6.5	41	46	68	28	34	77	85	280	135	28	29
8	6.4	48	44	58	27	33	90	106	250	140	27	31
9	6.4	47	39	54	26	31	102	163	295	108	25	28
10	6.3	43	36	50	27	30	125	290	351	90	25	27
11	6.3	40	33	44	27	28	122	217	285	95	24	26
12	6.3	40	32	40	26	28	104	211	240	114	23	25
13	6.7	41	30	36	25	27	92	187	230	106	23	24
14	6.6	61	30	35	25	38	92	135	250	93	22	24
15	6.5	70	30	36	24	80	154	130	260	83	21	23
16	6.4	71	32	44	26	66	118	183	417	70	21	23
17	6.4	98	31	41	28	71	97	300	300	62	20	28
18	6.5	85	30	37	48	76	85	327	315	57	21	25
19	6.3	77	29	34	68	63	83	403	220	52	20	25
20	7.2	61	28	33	54	53	85	389	166	52	19	49
21	9.6	51	27	31	48	48	83	327	138	51	19	44
22	26	43	30	30	46	43	98	215	145	46	19	43
23	19	44	37	28	44	37	83	154	220	43	18	39
24	35	49	48	27	44	34	80	145	220	43	19	35
25	67	88	71	39	41	33	93	130	187	44	19	34
26	42	348	62	33	37	32	118	157	179	43	25	30
27	32	351	54	30	34	30	108	250	140	42	26	29
28	30	145	51	30	34	33	106	345	110	42	39	28
29	28	93	48	28	33	42	116	396	104	40	37	31
30	26	74	44	28	------	70	102	469	128	36	46	116
31	24	------	52	27	------	95	------	588	------	37	43	------
TOTAL	468.7	2,302	1,292	1,763	1,002	1,377	2,898	6,772	7,740	2,496	815	1,025
MEAN	15.1	76.7	41.7	56.9	34.6	44.4	96.6	218	258	80.5	26.3	34.2
MAX	67	351	71	276	68	95	154	588	570	154	46	116
MIN	6.3	24	27	27	24	27	67	71	104	36	18	23
CFSM	1.31	6.67	3.62	4.95	3.00	3.86	8.40	19.0	22.4	7.00	2.29	2.97
IN.	1.52	7.44	4.18	5.70	3.24	4.45	9.37	21.9	25.0	8.07	2.64	3.31
AC-FT	930	4,570	2,560	3,500	1,990	2,730	5,750	13,430	15,350	4,950	1,620	2,030

CAL YR 1963: TOTAL 16,433.1 MEAN 45.0 MAX 417 MIN 6.3 CFSM 3.92 IN 53.14 AC-FT 32,590
WAT YR 1964: TOTAL 29,950.7 MEAN 81.8 MAX 588 MIN 6.3 CFSM 7.12 IN 96.86 AC-FT 59,410

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	230	25	405	40	239	77	69	120	94	31	8.9	6.7
2	239	26	478	38	152	66	65	96	105	31	9.2	6.7
3	163	28	243	36	115	61	60	85	116	30	9.2	6.7
4	94	30	130	33	113	59	66	80	110	28	8.6	6.2
5	68	32	92	31	142	60	75	70	112	27	8.4	6.2
6	57	30	72	30	129	64	68	62	107	25	8.1	6.0
7	49	30	63	29	108	73	61	57	97	24	8.1	5.6
8	47	28	94	28	107	82	60	61	94	22	7.8	5.8
9	44	26	145	26	89	91	69	76	89	20	7.5	5.8
10	41	25	122	25	80	108	70	105	82	20	9.2	5.8
11	37	23	100	24	69	120	70	133	82	19	8.1	5.8
12	34	22	78	23	65	120	79	160	69	18	8.1	5.8
13	33	22	68	23	95	110	94	160	56	17	10	5.0
14	34	21	61	30	91	105	96	148	50	17	8.1	14
15	42	20	53	56	82	101	136	131	47	16	7.5	17
16	44	19	45	62	112	96	182	133	45	16	7.2	16
17	48	18	38	62	187	83	152	120	49	15	6.9	11
18	47	18	35	54	182	73	122	107	49	14	6.7	9.2
19	44	18	33	47	182	65	198	103	47	14	7.8	8.4
20	42	17	31	36	171	59	412	114	44	14	9.8	7.8
21	40	17	38	36	133	57	280	118	42	14	8.1	7.5
22	36	17	95	34	107	60	206	112	40	13	7.5	7.2
23	33	21	180	33	86	56	176	107	39	12	11	6.7
24	32	260	140	32	76	52	179	96	39	12	9.8	6.5
25	30	131	100	30	68	47	190	99	35	11	8.4	6.5
26	29	86	80	46	80	45	219	118	26	11	8.1	6.2
27	27	67	68	539	114	40	250	152	28	11	7.5	6.2
28	26	55	60	959	93	39	260	185	27	10	8.1	6.0
29	26	53	53	1,150	------	37	206	155	27	9.8	8.6	5.8
30	26	148	48	982	------	37	158	129	28	9.2	7.5	5.6
31	25	------	43	583	------	47	------	107	------	9.2	6.9	------
TOTAL	1,767	1,333	3,291	5,157	3,267	2,190	4,328	3,499	1,875	540.2	256.7	226.9
MEAN	57.0	44.4	106	166	117	70.6	144	113	62.5	17.4	8.28	7.56
MAX	239	260	478	1,150	239	120	412	185	116	31	11	17
MIN	25	17	31	23	65	37	60	57	26	9.2	6.7	5.6
CFSM	4.96	3.86	9.23	14.5	10.1	6.14	12.5	9.81	5.43	1.52	.72	.66
IN.	5.71	4.31	10.6	16.7	10.6	7.08	14.0	11.3	6.06	1.75	.83	.73
AC-FT	3,500	2,640	6,530	10,230	6,480	4,340	8,580	6,940	3,720	1,070	509	450

CAL YR 1964: TOTAL 32,279 MEAN 88.2 MAX 588 MIN 17 CFSM 7.67 IN 104.39 AC-FT 64,020
WAT YR 1965: TOTAL 27,730.8 MEAN 76.0 MAX 1,150 MIN 5.6 CFSM 6.61 IN 89.68 AC-FT 55,000

Note.--No gage-height record Dec. 16 to Jan. 19.

12-1040. Friday Creek near Lester, Wash.

Location.--Lat 47°13'10", long 121°27'10", in SE$\frac{1}{4}$NW$\frac{1}{4}$ sec.18, T.20 N., R.11 E., on left bank 0.4 mile upstream from mouth and 2 miles northeast of Lester.

Drainage area.--4.67 sq mi (revised).

Records available.--October 1945 to September 1965.

Gage.--Water-stage recorder. Concrete control Aug. 9, 1951, to Nov. 22, 1959. Altitude of gage is 1,760 ft (from topographic map).

Average discharge.--20 years, 27.6 cfs (19,980 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (120 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0830	134	3.28	Apr. 6, 1962	2300	* 270	3.85	May 31, 1964	1900	* 158	3.23
Feb. 21, 1961	1000	* 230	3.70					June 16, 1964	0500	142	3.15
				Nov. 20, 1962	0130	* 370	4.10				
Dec. 24, 1961	0830	185	3.39	Feb. 3, 1963	0930	169	3.28	Dec. 1, 1964	2200	171	3.38
Jan. 3, 1962	1700	120	3.07					Dec. 23, 1964	-	221	3.60
Jan. 7, 1962	2400	129	3.12	Jan. 1, 1964	-	126	3.00	Jan. 29, 1965	0430	* 459	4.36
								Apr. 20, 1965	0600	131	3.17

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	2.3	1.56	1964	Oct. 16, 1963	3.2	1.59
1962	Sept. 9, 1962	3.1	1.55	1965	Sept. 6-13, 1965	3.2	1.59
1963	Sept.20,21,22,24-30	3.5	1.62				

1945-65: Maximum discharge, 1,370 cfs Nov. 22, 1959 (gage height, 6.04 ft, from high watermark in well), from rating curve extended above 230 cfs on basis of slope-area measurement of peak flow; minimum, 1.2 cfs Sept. 6, 1958; minimum gage height, 1.55 ft Sept. 9, 1962.

Revisions.--Figures of minimum discharge for the water years 1949-50 have been revised to "not determined" (probably occurred sometime during period of doubtful gage-height record Sept. 18-30, 1949); minimum recorded, 3.2 cfs Sept. 22, 23, 24, 1950 (gage height, 3.09 ft), superseding figures published in WSP 1152, 1182, and 1316.

Remarks.--Records good except those for period Oct. 1, 1963, to Mar. 11, 1964, which are fair. Small diversion above gage of about 1,000 gpd for domestic use. No regulation.

Revisions (water years).--Revised figures of discharge, in cubic feet per second, for low-water periods in the water years 1949-50, superseding those published in WSP 1152, 1182, and 1316, are given herewith:

Sept.18, 1949	3.5	Sept.22, 1949	3.5	Sept.26, 1949	3.5	Sept.30, 1949	3.5
19	3.5	23	3.5	27	3.5	Oct. 1	3.5
20	3.5	24	3.5	28	3.5	2	3.5
21	3.5	25	3.5	29	3.5	3	3.5

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
September 1949	124.6	10.5	-	4.15	0.889	0.99	247
Water year 1948-49	10,102.4	166	-	27.7	5.93	80.46	20,040
October 1949	711.4	83	-	22.9	4.90	5.67	1,410
Calendar year 1949	11,241.9	209	-	30.8	6.60	89.53	22,300
Water year 1949-50	11,623.0	209	3.4	31.8	6.81	92.55	23,040

12-1040. Friday Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	56	18	14	41	50	34	55	69	9.9	4.1	15
2	3.5	48	20	12	57	40	54	56	82	9.2	4.1	14
3	3.5	39	22	11	46	37	96	52	80	8.7	4.0	5.6
4	3.5	32	22	12	46	31	76	46	74	8.7	4.0	4.3
5	3.5	27	19	66	62	28	55	41	66	16	3.8	4.3
6	4.0	22	17	84	77	24	44	37	61	11	3.8	3.8
7	4.9	19	15	60	72	22	37	34	55	9.5	3.8	3.7
8	9.9	17	14	46	56	20	41	34	47	8.7	3.7	3.5
9	6.8	15	13	46	53	18	50	34	42	7.8	3.7	3.3
10	5.5	36	12	42	58	15	42	42	38	7.6	3.5	3.2
11	5.5	62	12	39	52	16	38	44	36	7.3	3.3	3.0
12	6.6	43	18	40	44	17	42	41	32	6.8	3.3	2.7
13	5.9	34	19	36	41	20	50	39	32	6.5	3.2	2.6
14	5.5	30	26	48	36	30	43	39	32	6.5	3.0	2.5
15	5.0	31	22	65	34	36	39	42	34	6.1	3.3	2.6
16	4.6	95	20	90	31	36	40	49	34	6.1	3.3	2.7
17	4.4	74	19	65	27	34	44	59	32	5.8	2.9	2.6
18	4.1	75	18	50	25	34	38	69	29	5.6	2.7	2.7
19	3.8	63	28	40	48	35	34	80	25	5.4	2.7	2.7
20	3.5	68	25	34	100	36	31	85	22	5.4	2.6	4.1
21	4.1	52	21	31	192	33	29	82	20	5.2	2.5	4.1
22	6.5	37	20	27	105	31	28	70	18	5.4	2.6	3.0
23	11	32	20	25	67	30	27	79	17	5.2	2.5	2.9
24	18	50	20	22	54	29	28	70	16	5.2	2.6	2.6
25	12	46	25	20	45	28	28	66	15	5.0	2.5	2.6
26	15	32	23	19	38	27	28	75	14	4.7	2.5	2.5
27	26	27	20	17	32	25	28	75	12	4.5	2.4	2.5
28	41	24	19	18	29	24	30	67	11	4.5	2.4	5.2
29	38	21	17	20	------	24	43	64	13	4.5	2.4	5.6
30	31	19	16	28	------	25	54	61	12	4.3	2.4	4.1
31	40	------	15	42	------	28	------	58	------	4.3	3.8	------
TOTAL	340.1	1,226	595	1,169	1,568	884	1,251	1,745	1,070	211.4	97.4	124.0
MEAN	11.0	40.9	19.2	37.7	56.0	28.5	41.7	56.3	35.7	6.82	3.14	4.13
MAX	41	95	28	90	192	50	96	85	82	16	4.1	15
MIN	3.5	15	12	11	25	16	27	34	11	4.3	2.4	2.5
CFSM	2.35	8.75	4.11	8.07	12.0	6.11	8.93	12.1	7.64	1.46	.67	.89
IN.	2.71	9.76	4.74	9.31	12.5	7.04	9.96	13.9	8.52	1.68	.78	.99
AC-FT	675	2,430	1,180	2,320	3,110	1,750	2,480	3,460	2,120	419	193	246

CAL YR 1960: TOTAL 8,094.3 MEAN 22.1 MAX 96 MIN 3.5 CFSM 4.74 IN 64.46 AC-FT 16,050
WAT YR 1961: TOTAL 10,280.9 MEAN 28.2 MAX 192 MIN 2.4 CFSM 6.03 IN 81.87 AC-FT 20,390

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.1	32	20	55	40	12	23	39	33	12	4.5	4.1
2	3.5	26	18	57	46	11	24	40	37	12	4.5	4.1
3	3.2	25	18	103	59	11	21	46	41	11	4.6	3.8
4	3.3	21	29	89	67	11	24	44	44	11	7.2	3.7
5	4.4	19	33	76	57	11	30	39	42	10	9.6	3.7
6	6.2	16	24	76	46	10	125	33	40	11	6.4	3.5
7	13	15	20	108	37	11	154	31	39	9.5	6.0	3.4
8	7.6	13	18	118	32	12	72	30	41	9.0	5.5	3.2
9	11	13	16	86	28	11	51	33	41	8.7	5.2	3.2
10	20	19	14	78	26	10	39	33	37	8.1	4.8	6.0
11	15	22	12	55	24	9.8	33	33	33	7.8	4.6	7.7
12	22	21	12	46	22	9.5	32	32	32	7.3	5.2	4.8
13	28	19	11	40	22	9.5	35	32	30	7.3	4.8	5.0
14	20	24	11	37	21	9.8	46	30	29	7.3	4.5	4.8
15	16	21	10	32	21	11	54	29	29	7.1	4.5	4.5
16	13	19	9.5	30	20	13	47	29	30	6.9	4.3	4.3
17	11	17	12	28	19	13	45	32	28	7.6	4.3	4.1
18	9.2	16	9.5	25	19	14	46	33	26	6.9	5.0	3.8
19	8.4	14	15	22	18	13	57	31	25	6.2	4.5	3.8
20	7.8	12	29	20	17	13	52	29	24	6.0	4.3	3.8
21	7.3	13	25	19	16	12	52	28	22	6.0	4.3	3.8
22	7.0	56	23	18	16	11	51	28	22	5.7	4.1	3.7
23	14	34	56	18	15	11	54	32	20	5.5	4.0	3.5
24	11	27	154	20	14	25	60	37	20	5.3	3.8	3.4
25	10	22	88	35	13	26	54	44	20	5.2	3.8	3.4
26	12	20	60	40	12	22	46	44	18	5.0	4.5	3.4
27	14	18	46	40	12	20	43	43	17	4.8	4.3	3.4
28	13	19	47	37	12	21	37	43	15	4.8	5.5	8.2
29	11	19	68	35	------	16	33	42	13	4.6	4.5	6.6
30	9.5	19	77	35	------	17	32	37	13	4.6	4.3	5.2
31	10	------	64	37	------	20	------	35	------	4.6	4.1	------
TOTAL	345.5	631	1,049.0	1,515	751	426.6	1,472	1,091	861	228.8	151.5	129.9
MEAN	11.1	21.0	33.8	48.9	26.8	13.8	49.1	35.2	28.7	7.38	4.89	4.33
MAX	28	56	154	118	67	26	154	46	44	12	9.6	8.2
MIN	3.2	12	9.5	18	12	9.5	21	28	13	4.6	3.8	3.2
CFSM	2.39	4.50	7.25	10.5	5.74	2.95	10.5	7.54	6.15	1.58	1.05	.93
IN.	2.75	5.03	8.35	12.1	5.98	3.40	11.7	8.69	6.86	1.82	1.21	1.03
AC-FT	685	1,250	2,080	3,000	1,490	846	2,920	2,160	1,710	454	301	258

CAL YR 1961: TOTAL 10,145.3 MEAN 27.8 MAX 192 MIN 2.4 CFSM 5.95 IN 80.79 AC-FT 20,120
WAT YR 1962: TOTAL 8,652.3 MEAN 23.7 MAX 154 MIN 3.2 CFSM 5.08 IN 68.90 AC-FT 17,160

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1040. Friday Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.6	5.5	20	60	10	46	20	33	15	9.7	6.1	4.2
2	4.8	5.3	19	73	14	40	19	33	15	9.4	6.1	4.3
3	5.3	5.2	18	90	118	33	20	30	13	9.2	5.9	4.2
4	4.6	5.5	16	68	74	28	34	26	13	8.6	5.7	4.2
5	4.3	8.5	30	50	61	24	47	30	16	8.3	5.4	4.2
6	4.5	13	63	39	50	22	63	34	14	8.3	5.2	4.0
7	6.2	9.2	48	30	47	21	52	34	13	8.3	5.2	4.0
8	9.2	17	54	29	47	20	42	32	13	9.7	5.0	4.0
9	19	14	58	26	45	19	34	29	14	9.2	5.0	4.0
10	17	13	50	22	40	19	30	29	13	9.2	5.0	4.2
11	14	16	39	20	34	19	28	29	13	9.2	4.8	4.0
12	12	16	30	19	29	18	28	26	13	8.6	4.8	3.8
13	11	14	26	19	26	17	28	25	12	8.3	5.7	4.3
14	10	13	30	19	24	17	35	25	11	8.3	4.8	4.2
15	13	13	39	18	22	16	42	26	11	13	4.7	3.8
16	12	12	38	18	21	15	36	26	11	11	4.7	3.8
17	11	11	32	16	20	14	31	29	9.7	10	4.5	3.8
18	9.8	11	28	15	26	14	29	33	9.4	9.4	4.5	3.6
19	9.2	76	27	13	40	17	28	38	9.2	9.2	5.0	3.6
20	8.7	241	24	13	46	20	26	40	8.6	8.9	5.7	3.5
21	9.0	121	36	12	39	21	26	38	8.9	8.6	4.8	3.6
22	9.0	66	41	12	34	23	29	34	8.9	8.9	4.7	3.6
23	8.4	44	31	11	29	24	33	29	8.3	7.8	5.2	3.8
24	7.8	33	26	11	26	22	31	24	8.3	8.0	5.0	3.5
25	7.6	49	22	10	26	22	28	22	8.9	7.5	4.8	3.5
26	7.3	62	20	9.7	47	21	26	20	8.0	7.2	4.7	3.5
27	6.9	40	20	9.2	43	22	26	18	7.8	7.0	4.5	3.5
28	6.4	29	32	8.6	42	25	25	17	8.0	6.8	4.3	3.5
29	6.4	24	42	8.0	------	24	29	17	13	6.5	4.3	3.5
30	6.2	22	94	7.5	------	22	33	17	11	6.3	4.2	3.5
31	5.7	------	73	9.0	------	21	------	16	------	6.3	4.2	------
TOTAL	270.9	1,009.2	1,126	765.0	1,080	686	958	859	338.0	266.7	154.5	115.2
MEAN	8.74	33.6	36.3	24.7	38.6	22.1	31.9	27.7	11.3	8.60	4.98	3.84
MAX	19	241	94	90	118	46	63	40	16	13	6.1	4.3
MIN	4.3	5.2	16	7.5	10	14	19	16	7.8	6.3	4.2	3.5
CFSM	1.87	7.20	7.78	5.28	8.26	4.74	6.84	5.93	2.41	1.84	1.07	.82
IN.	2.16	8.04	8.97	6.09	8.60	5.46	7.63	6.84	2.69	2.12	1.23	.92
AC-FT	537	2,000	2,230	1,520	2,140	1,360	1,900	1,700	670	529	306	229

CAL YR 1962: TOTAL 9,032.9 MEAN 24.7 MAX 241 MIN 3.2 CFSM 5.30 IN 71.93 AC-FT 17,920
WAT YR 1963: TOTAL 7,628.5 MEAN 20.9 MAX 241 MIN 3.5 CFSM 4.48 IN 60.75 AC-FT 15,130

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	10	29	103	20	14	52	32	142	61	16	19
2	3.5	13	24	76	19	13	37	26	119	61	14	19
3	3.6	13	18	54	16	11	29	23	96	54	14	17
4	3.6	16	17	44	16	19	30	22	105	50	13	16
5	3.6	15	20	36	16	21	29	24	115	48	13	14
6	3.6	13	26	42	14	16	28	22	113	47	12	13
7	3.5	17	23	36	13	15	33	26	101	52	12	13
8	3.5	22	21	31	13	14	38	32	96	54	11	15
9	3.5	19	19	28	13	13	42	50	103	47	11	13
10	3.5	17	17	24	14	12	52	78	112	42	11	12
11	3.5	16	16	21	13	14	47	65	100	42	10	11
12	3.5	16	16	18	13	12	39	62	90	46	10	11
13	4.2	17	14	17	12	11	36	54	86	44	10	10
14	3.6	23	14	16	11	16	37	44	90	39	9.4	10
15	3.5	24	15	17	11	29	63	44	95	37	9.2	10
16	3.5	26	18	25	11	26	44	56	131	31	8.9	9.7
17	3.6	35	19	24	13	33	35	71	117	26	8.6	14
18	3.5	29	17	21	36	40	29	79	124	24	9.4	12
19	3.3	29	17	18	48	28	29	92	92	22	8.9	13
20	4.5	22	16	18	31	22	30	96	74	22	8.3	32
21	4.7	19	14	16	25	19	29	88	63	21	8.0	24
22	14	16	18	16	22	17	36	71	64	20	7.8	24
23	9.7	19	26	14	20	16	31	61	76	18	7.5	21
24	14	20	27	17	17	14	29	56	78	18	7.2	20
25	21	47	46	36	15	14	34	52	73	18	7.8	18
26	15	75	33	21	13	13	45	61	68	17	11	17
27	12	98	27	19	12	13	38	76	61	16	12	16
28	11	68	26	17	12	15	41	89	52	16	20	14
29	12	50	24	16	13	22	43	98	48	16	18	16
30	11	38	22	15	------	40	36	115	54	15	24	53
31	10	------	34	15	------	48	------	135	------	16	21	------
TOTAL	206.5	842	673	871	502	610	1,121	1,900	2,738	1,040	364.0	506.7
MEAN	6.66	28.1	21.7	28.1	17.3	19.7	37.4	61.3	91.3	33.5	11.7	16.9
MAX	21	98	46	103	48	48	63	135	142	61	24	53
MIN	3.3	10	14	14	11	11	28	22	48	15	7.2	9.7
CFSM	1.43	6.01	4.65	6.02	3.71	4.21	8.00	13.1	19.5	7.18	2.51	3.62
IN.	1.64	6.71	5.36	6.94	4.00	4.86	8.93	15.1	21.8	8.28	2.90	4.04
AC-FT	410	1,670	1,330	1,730	996	1,210	2,220	3,770	5,430	2,060	722	1,010

CAL YR 1963: TOTAL 6,943.9 MEAN 19.0 MAX 118 MIN 3.3 CFSM 4.07 IN 55.30 AC-FT 13,770
WAT YR 1964: TOTAL 11,374.2 MEAN 31.1 MAX 142 MIN 3.3 CFSM 6.65 IN 90.58 AC-FT 22,560

12-1040. Friday Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	64	9.5	132	16	79	25	22	54	43	12	4.3	3.6
2	63	9.8	131	15	54	22	20	42	46	12	4.3	3.6
3	52	11	75	14	41	20	18	37	50	11	4.2	3.6
4	37	14	50	14	44	19	20	35	49	11	4.2	3.5
5	29	13	39	13	60	20	22	31	50	10	4.0	3.3
6	24	12	32	12	50	21	20	27	48	9.8	3.8	3.2
7	22	11	27	12	41	24	19	25	46	9.5	3.8	3.2
8	22	10	37	11	41	26	18	26	44	9.3	3.8	3.2
9	20	10	50	11	34	27	20	32	41	8.8	3.8	3.2
10	18	10	48	10	29	32	21	42	38	8.5	4.2	3.2
11	17	9.5	39	10	25	35	20	56	37	8.2	4.0	3.2
12	15	9.3	34	10	23	35	23	68	32	8.0	4.0	3.2
13	15	9.3	29	10	37	32	26	68	27	7.5	4.7	3.3
14	16	8.8	26	15	34	31	27	60	24	7.2	4.0	10
15	18	8.8	23	22	29	30	37	56	22	7.2	3.8	12
16	19	8.5	19	25	43	28	54	59	21	6.5	3.8	10
17	21	8.5	16	25	72	24	46	54	21	6.5	3.6	7.7
18	20	8.0	15	23	64	20	37	48	21	6.3	3.5	6.3
19	18	7.7	14	20	66	20	60	47	20	6.3	4.3	5.9
20	17	7.5	14	18	61	18	123	50	18	6.1	5.2	5.4
21	15	7.2	15	20	48	17	93	52	18	6.1	4.0	5.0
22	14	7.7	35	18	37	18	70	49	17	5.9	4.0	5.0
23	13	11	74	17	30	16	60	46	17	5.9	5.0	4.7
24	13	70	56	15	26	15	59	41	16	5.7	4.5	4.5
25	12	44	38	15	23	14	64	42	15	5.2	4.2	4.5
26	11	32	32	20	30	13	73	49	14	4.8	4.0	4.3
27	11	26	27	152	44	12	87	60	13	5.0	3.8	4.3
28	10	21	24	250	32	12	99	73	12	4.7	4.7	4.2
29	10	22	21	284	------	12	82	68	12	4.7	4.5	4.2
30	11	60	19	226	------	13	68	58	12	4.5	4.0	4.2
31	10	------	17	152	------	16	------	48	------	4.5	3.8	------
TOTAL	657	497.1	1,208	1,475	1,197	667	1,408	1,503	844	228.7	127.8	145.5
MEAN	21.2	16.6	39.0	47.6	42.8	21.5	46.9	48.5	28.1	7.38	4.12	4.85
MAX	64	70	132	284	79	35	123	73	50	12	5.2	12
MIN	10	7.2	14	10	23	12	18	25	12	4.5	3.5	3.2
CFSM	4.54	3.55	8.34	10.2	9.15	4.61	10.0	10.4	6.02	1.58	.88	1.04
IN.	5.23	3.96	9.62	11.7	9.53	5.31	11.2	12.0	6.72	1.82	1.02	1.16
AC-FT	1,300	986	2,400	2,930	2,370	1,320	2,790	2,980	1,670	454	253	289

CAL YR 1964: TOTAL 12,014.8 MEAN 32.8 MAX 142 MIN 7.2 CFSM 7.03 IN 95.68 AC-FT 23,830
WAT YR 1965: TOTAL 9,958.1 MEAN 27.3 MAX 284 MIN 3.2 CFSM 5.84 IN 79.30 AC-FT 19,750

Note.--No gage-height record Dec. 16 to Jan. 19.

12-1045. Green River near Lester, Wash.

Location.--Lat 47°12'25", long 121°33'15", in NE¼SE¼ sec.20, T.20 N., R.10 E., on left bank 0.3 mile upstream from Champion Creek, 1¼ miles downstream from McCain Creek, and 3 miles west of Lester.

Drainage area.--96.2 sq mi (revised).

Records available.--October 1945 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 1,480 ft (from river-profile map). Prior to Nov. 22, 1959, graphic water-stage recorder at site 300 ft upstream at different datum (gage destroyed by flood of Nov. 22, 1959). Dec. 28, 1959, to Sept. 21, 1960, staff gage at site 400 ft downstream at different datum. Sept. 22, 1960, to Sept. 10, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--20 years, 423 cfs (306,200 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	1600	* 3,620	6.02	Apr. 6, 1962	2230	* 4,980	6.64	June 1, 1964	0130	* 2,350	4.87
Dec. 24, 1961	1330	2,540	5.05	Nov. 20, 1962	0500	* 6,550	7.35	Nov. 24, 1964	1430	2,060	4.65
Jan. 8, 1962	0330	2,300	4.87	Feb. 3, 1963	1100	2,500	5.05	Dec. 1, 1965	2400	2,700	5.12
								Jan. 29, 1965	0700	* 9,110	8.41

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28, 29, 30, 1961	37	1.40	1964	Oct. 19, 20, 1963	27	1.41
1962	Sept.25,26,27,1962	34	a 1.45	1965	Sept.12, 1965	40	1.32
1963	Sept.29, 30, 1963	30	1.44				

a Occurred Oct. 4, 5, 1961.

1945-65: Maximum discharge, 22,000 cfs Nov. 22, 1959 (gage height, about 16.0 ft, from floodmarks, site and datum then in use), result of slope-area measurement of peak flow; minimum, 22 cfs Nov. 20, 1952.

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1947(M). WSP 1316: 1948(M). Revised figures of discharge, in cubic feet per second, for the water year 1960, superseding those published in WSP 1716, are given herewith:

Sept. 9, 1960	58	Sept.15, 1960	50	Sept.21, 1960	52	Sept.27, 1960	53
10	56	16	49	22	49	28	50
11	55	17	48	23	50	29	49
12	54	18	48	24	59	30	49
13	53	19	50	25	70		
14	52	20	55	26	60		

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
September 1960	1,807	100	48	60.2	0.626	0.70	3,580
Water year 1959-60	186,059	15,000	46	508	5.28	71.95	369,000

12-1045. Green River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	46	572	322	223	620	851	606	970	802	131	59	109
2	45	520	335	206	851	788	956	1,020	963	124	57	180
3	44	435	358	190	770	654	1,510	942	970	119	56	96
4	44	353	353	190	746	552	1,260	809	893	113	55	77
5	43	286	317	758	970	488	921	697	788	171	54	68
6	46	248	286	1,440	1,320	445	739	618	711	149	54	62
7	50	216	263	1,050	1,270	395	630	558	636	131	52	56
8	77	194	248	824	977	375	606	534	534	119	51	54
9	77	172	230	752	872	365	636	546	477	111	50	51
10	64	312	216	680	970	355	582	654	430	106	48	48
11	60	812	210	632	886	330	546	666	395	102	47	47
12	64	608	240	638	764	330	588	624	360	98	46	45
13	66	480	251	602	710	360	690	594	342	94	46	42
14	64	400	353	680	644	570	624	594	350	92	46	41
15	60	420	353	991	608	740	558	642	375	88	48	41
16	59	1,340	322	1,520	578	732	558	767	400	86	51	42
17	58	1,180	299	1,110	520	654	660	921	400	85	47	40
18	54	1,190	290	818	465	618	624	1,030	365	79	45	40
19	52	1,030	362	680	740	678	546	1,200	314	77	43	40
20	50	1,160	362	584	1,300	718	477	1,280	274	75	42	42
21	52	1,000	326	515	2,980	630	445	1,100	244	72	41	55
22	68	728	308	455	2,020	564	466	960	219	70	40	47
23	115	590	312	415	1,220	546	445	998	202	72	40	44
24	172	824	317	380	970	546	450	914	187	70	40	42
25	155	935	344	344	823	534	466	830	174	68	40	41
26	164	680	330	317	672	522	477	963	165	67	40	40
27	255	536	308	290	612	482	466	900	157	63	39	39
28	420	450	282	282	552	445	510	795	149	63	39	45
29	415	390	263	286	------	445	746	760	149	62	38	57
30	312	348	244	344	------	472	1,000	725	152	60	39	51
31	390	------	237	530	------	534	------	690	------	59	48	------
TOTAL	3,641	18,409	9,241	18,726	26,430	16,718	19,788	25,301	12,577	2,876	1,441	1,682
MEAN	117	614	298	604	944	539	660	816	419	92.8	46.5	56.1
MAX	420	1,340	362	1,520	2,980	851	1,510	1,280	970	171	59	180
MIN	43	172	210	190	465	330	445	534	149	59	38	39
CFSM	1.22	6.38	3.10	6.28	9.81	5.61	6.86	8.48	4.36	.96	.48	.58
IN.	1.41	7.12	3.57	7.24	10.2	6.46	7.65	9.78	4.86	1.11	.56	.65
AC-FT	7,220	36,510	18,330	37,140	52,420	33,160	39,250	50,180	24,950	5,700	2,860	3,340

CAL YR 1960: TOTAL 119,084 MEAN 325 MAX 1,400 MIN 43 CFSM 3.38 IN 46.04 AC-FT 236,200
WAT YR 1961: TOTAL 156,830 MEAN 430 MAX 2,980 MIN 38 CFSM 4.47 IN 60.63 AC-FT 311,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	292	259	710	594	170	450	498	374	163	60	46
2	47	319	252	647	718	165	476	588	388	163	60	45
3	45	298	255	1,350	959	165	415	654	420	150	63	44
4	43	263	305	1,460	1,000	160	435	640	420	146	74	42
5	43	230	477	1,080	841	160	551	557	406	143	102	41
6	60	202	375	1,110	700	155	2,080	488	396	148	83	40
7	102	187	328	1,700	550	160	3,140	430	388	133	81	40
8	88	171	278	2,160	475	170	1,480	410	406	126	78	38
9	94	163	244	1,600	425	160	959	410	430	124	70	38
10	259	184	216	1,100	400	155	710	425	420	119	65	55
11	196	240	199	801	375	150	569	420	374	115	62	83
12	199	252	187	640	350	145	515	406	344	110	63	63
13	332	206	177	527	330	140	545	383	331	108	70	58
14	244	259	165	460	320	138	710	365	307	108	62	56
15	190	255	157	396	310	146	874	344	311	102	58	52
16	157	233	157	348	300	166	740	336	336	100	56	48
17	136	213	157	315	290	185	654	361	344	100	60	46
18	124	199	152	280	280	200	696	370	323	97	67	42
19	115	184	171	241	270	215	809	352	304	89	62	41
20	104	168	370	232	260	225	725	323	284	87	58	41
21	98	163	395	228	250	215	647	307	273	83	58	41
22	96	732	335	228	240	200	634	311	259	80	56	41
23	171	630	740	218	220	191	668	357	248	78	53	40
24	165	450	2,160	215	210	312	762	420	245	74	52	38
25	146	355	1,430	292	200	430	718	510	241	72	50	37
26	154	302	857	450	190	420	608	545	235	72	50	35
27	190	263	620	533	185	392	551	539	212	68	52	35
28	199	252	527	533	175	336	488	551	191	66	56	64
29	174	255	748	498	------	304	440	527	180	65	55	83
30	157	255	1,100	504	------	307	420	455	172	63	50	65
31	154	------	857	545	------	361	------	406	------	62	48	------
TOTAL	4,333	8,175	14,650	21,401	11,417	6,798	23,469	13,688	9,562	3,214	1,934	1,439
MEAN	140	273	473	690	408	219	782	442	319	104	62.4	48.0
MAX	332	732	2,160	2,160	1,000	430	3,140	654	430	163	102	83
MIN	43	163	152	215	175	138	415	307	172	62	48	35
CFSM	1.45	2.83	4.91	7.18	4.24	2.28	8.13	4.59	3.31	1.08	.65	.50
IN.	1.68	3.16	5.66	8.27	4.41	2.63	9.07	5.29	3.70	1.24	.75	.56
AC-FT	8,590	16,210	29,060	42,450	22,650	13,480	46,550	27,150	18,970	6,370	3,840	2,850

CAL YR 1961: TOTAL 152,697 MEAN 418 MAX 2,980 MIN 38 CFSM 4.35 IN 59.03 AC-FT 302,900
WAT YR 1962: TOTAL 120,080 MEAN 329 MAX 3,140 MIN 35 CFSM 3.42 IN 46.42 AC-FT 238,200

Note.--No gage-height record Feb. 6 to Mar. 12.

12-1045. Green River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	78	403	988	136	583	340	426	256	110	75	47
2	53	76	362	1,370	160	535	316	440	249	106	70	50
3	65	72	324	1,480	1,630	480	308	412	227	104	66	47
4	58	72	292	1,120	1,310	426	416	380	210	102	65	44
5	53	89	378	842	1,100	385	601	403	223	97	65	44
6	52	117	1,010	668	925	354	918	480	206	97	63	43
7	63	108	835	553	835	328	842	502	197	97	61	41
8	97	148	910	486	790	308	674	475	190	108	61	43
9	146	150	988	450	734	292	565	440	193	108	60	43
10	163	148	865	385	643	280	491	412	187	116	60	41
11	143	163	707	320	559	284	440	385	181	118	58	41
12	146	174	583	310	486	264	416	358	181	116	58	40
13	156	169	502	315	435	249	398	340	172	113	63	46
14	138	158	518	292	398	242	450	340	160	110	61	50
15	150	150	613	276	367	227	571	349	152	120	58	47
16	148	140	662	260	344	216	518	349	146	116	56	44
17	136	140	595	242	328	203	460	376	138	113	53	43
18	128	136	524	227	367	197	430	440	130	108	55	40
19	122	1,060	502	206	480	216	412	513	126	104	58	38
20	115	4,610	465	200	607	249	403	559	120	99	61	36
21	110	2,200	518	190	553	268	403	571	120	97	60	36
22	112	1,100	655	178	486	328	421	547	118	102	58	36
23	106	734	571	172	435	349	460	480	116	97	61	38
24	102	583	480	163	394	336	445	416	110	97	65	37
25	97	681	421	157	376	320	412	367	113	95	60	35
26	97	1,080	376	149	480	308	385	336	106	86	58	35
27	93	783	349	144	502	324	372	316	104	83	55	32
28	87	595	426	138	491	372	358	296	102	79	52	31
29	85	502	541	125	------	385	380	292	120	77	50	31
30	81	460	1,260	115	------	390	408	288	118	75	49	30
31	80	------	1,100	125	------	362	------	280	------	74	46	------
TOTAL	3,238	16,676	18,735	12,646	16,351	10,060	14,013	12,568	4,771	3,124	1,841	1,209
MEAN	104	556	604	408	584	325	467	405	159	101	59.4	40.3
MAX	163	4,610	1,260	1,480	1,630	583	918	571	256	120	75	50
MIN	52	72	292	115	136	197	308	280	102	74	46	30
CFSM	1.09	5.78	6.28	4.24	6.07	3.37	4.86	4.21	1.65	1.05	.62	.42
IN.	1.25	6.45	7.24	4.89	6.32	3.89	5.42	4.86	1.84	1.21	.71	.47
AC-FT	6,420	33,080	37,160	25,080	32,430	19,950	27,790	24,930	9,460	6,200	3,650	2,400

CAL YR 1962: TOTAL 131,571 MEAN 360 MAX 4,610 MIN 35 CFSM 3.75 IN 50.86 AC-FT 261,000
WAT YR 1963: TOTAL 115,232 MEAN 316 MAX 4,610 MIN 30 CFSM 3.28 IN 44.55 AC-FT 228,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	81	331	1,020	299	252	908	566	2,210	644	149	149
2	30	107	283	1,270	315	238	685	486	1,850	664	146	149
3	30	111	248	811	267	225	542	430	1,420	584	141	144
4	30	116	225	596	255	303	514	407	1,440	536	144	136
5	30	121	229	486	252	366	480	412	1,580	524	141	131
6	30	119	291	602	235	315	460	389	1,520	486	131	128
7	30	149	283	542	222	271	524	425	1,370	508	126	123
8	30	248	267	445	209	252	608	497	1,300	548	123	133
9	29	219	245	389	200	238	671	698	1,300	486	119	126
10	29	190	222	353	206	229	762	1,170	1,460	420	114	116
11	28	166	206	307	219	225	769	1,070	1,320	407	109	109
12	28	155	193	275	206	222	685	1,030	1,160	435	107	105
13	32	149	181	252	200	206	626	964	1,120	425	105	100
14	33	187	175	238	187	222	590	790	1,110	394	102	98
15	30	229	184	235	184	412	876	720	1,150	376	98	96
16	29	232	219	311	187	416	755	839	1,590	327	96	94
17	29	327	248	327	225	460	596	1,150	1,350	287	91	119
18	28	323	242	303	336	620	508	1,240	1,390	263	98	107
19	28	303	229	279	554	502	486	1,490	1,150	238	100	105
20	32	267	222	263	455	416	497	1,620	932	229	89	215
21	43	222	206	242	389	362	470	1,540	797	225	85	193
22	89	193	216	222	362	319	566	1,220	762	212	81	190
23	89	190	315	206	353	283	514	964	892	193	79	184
24	100	216	380	209	353	252	486	868	924	184	76	175
25	169	299	524	405	331	238	524	783	853	178	76	166
26	126	708	486	362	303	229	620	818	804	172	96	155
27	109	1,100	416	315	275	219	620	1,060	713	163	102	144
28	98	699	384	291	259	229	620	1,390	602	160	155	136
29	94	508	362	271	248	291	699	1,500	542	155	144	136
30	94	398	331	259	------	519	632	1,730	572	149	163	372
31	87	------	348	255	------	762	------	2,020	------	157	160	------
TOTAL	1,693	8,332	8,691	12,341	8,086	10,093	18,293	30,286	35,183	10,729	3,546	4,334
MEAN	54.6	278	280	398	279	326	610	977	1,173	346	114	144
MAX	169	1,100	524	1,270	554	762	908	2,020	2,210	664	163	372
MIN	28	81	175	206	184	206	460	389	542	149	76	94
CFSM	.57	2.89	2.91	4.14	2.90	3.38	6.34	10.2	12.2	3.60	1.19	1.50
IN.	.65	3.22	3.36	4.77	3.13	3.90	7.07	11.7	13.6	4.15	1.37	1.68
AC-FT	3,360	16,530	17,240	24,480	16,040	20,020	36,280	60,070	69,780	21,280	7,030	8,600

CAL YR 1963: TOTAL 95,299 MEAN 261 MAX 1,630 MIN 28 CFSM 2.71 IN 36.84 AC-FT 189,000
WAT YR 1964: TOTAL 151,607 MEAN 414 MAX 2,210 MIN 28 CFSM 4.31 IN 58.61 AC-FT 300,700

12-1045. Green River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	713	114	2,010	252	1,660	542	355	746	532	177	61	52
2	776	116	2,200	242	1,120	475	355	622	552	174	63	50
3	762	126	1,340	229	847	431	328	547	628	174	66	50
4	497	144	916	206	752	410	336	508	633	165	63	49
5	398	144	678	196	950	410	366	452	628	157	63	48
6	323	138	542	187	910	423	351	419	616	152	57	46
7	275	136	455	181	758	466	324	390	584	146	56	44
8	259	131	492	175	746	503	310	382	547	143	52	44
9	242	128	706	160	662	537	336	410	527	133	52	43
10	225	126	741	155	568	616	339	498	488	130	63	43
11	203	123	657	152	503	686	336	628	488	128	59	42
12	187	121	548	146	462	686	347	770	444	120	61	41
13	175	121	492	146	594	622	398	777	382	116	65	42
14	178	116	435	184	639	573	406	752	343	108	61	70
15	209	111	380	335	563	542	527	698	314	106	54	97
16	219	109	300	486	656	518	791	698	289	102	52	101
17	235	109	255	486	1,130	457	746	656	292	97	49	81
18	225	107	260	425	1,180	406	633	584	299	95	48	71
19	209	102	265	371	1,180	370	859	558	289	95	50	66
20	196	100	245	344	1,120	343	1,710	589	278	95	72	62
21	181	96	235	344	910	332	1,390	611	265	95	59	60
22	166	98	726	327	758	328	1,090	611	251	92	56	58
23	155	116	1,420	311	616	314	918	594	242	84	72	54
24	146	1,410	868	287	532	292	882	563	235	80	78	52
25	138	1,030	632	263	480	285	958	547	225	78	66	51
26	133	678	514	298	508	268	1,070	605	213	76	61	51
27	128	502	430	2,220	752	251	1,240	772	197	76	57	51
28	121	398	371	4,140	656	245	1,310	882	188	72	59	49
29	119	366	331	7,070	------	238	1,120	875	182	68	68	47
30	119	796	299	5,170	------	235	918	734	177	63	59	47
31	116	------	271	3,320	------	255	------	622	------	63	54	------
TOTAL	8,028	7,912	20,014	28,808	22,212	13,059	21,049	19,100	11,328	3,460	1,856	1,662
MEAN	259	264	646	929	793	421	702	616	378	112	59.9	55.4
MAX	776	1,410	2,200	7,070	1,660	686	1,710	882	633	177	78	101
MIN	116	96	235	146	462	235	310	382	177	63	48	41
CFSM	2.69	2.74	6.71	9.66	8.25	4.38	7.29	6.40	3.93	1.16	.62	.58
IN.	3.10	3.06	7.74	11.1	8.59	5.05	8.14	7.38	4.38	1.34	.72	.64
AC-FT	15,920	15,690	39,700	57,140	44,060	25,900	41,750	37,880	22,470	6,860	3,680	3,300

CAL YR 1964: TOTAL 168,845 MEAN 461 MAX 2,210 MIN 76 CFSM 4.80 IN 65.27 AC-FT 334,900
WAT YR 1965: TOTAL 158,488 MEAN 434 MAX 7,070 MIN 41 CFSM 4.51 IN 61.27 AC-FT 314,400

12-1047. Green Canyon Creek near Lester, Wash.

Location.--Lat 47°13'10", long 121°34'30", in NE¼SE¼ sec.18, T.20 N., R.10 E., on left bank a quarter of a mile upstream from mouth and 4 miles west of Lester.

Drainage area.--3.23 sq mi.

Records available.--April 1960 to September 1965.

Gage.--Water-stage recorder. Concrete control since Sept. 11, 1964. Altitude of gage is 1,480 ft (from topographic map).

Average discharge.--5 years, 13.0 cfs (9,410 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (80 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960a	-	83	2.00	Jan. 3, 1962	0700	103	2.04	Sept.30, 1964	-	-	b 2.11
Nov. 20, 1960a	-	-	-	Apr. 6, 1962	2330	100	2.02				
Jan. 5, 1961	2200	84	2.01	Nov. 20, 1962	0400	* 177	2.53	Nov. 24, 1964	1300	102	2.55
Feb. 21, 1961	1530	* 108	2.17	Dec. 30, 1962	1300	90	1.95	Dec. 1, 1964	1300	116	2.61
				Feb. 3, 1963	-	153	2.38	Dec. 22, 1964	2200	124	2.64
Nov. 22, 1961	0730	104	2.05					Jan. 28, 1965	2400	* 284	3.11
Dec. 24, 1961	1130	* 123	2.18	Jan. 1, 1964	-	95	1.99				

a About.
b Result of concrete control.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.19, 1961	1.4	0.81	1964	Oct. 1,2,18-20,1963	1.8	0.87
1962	Sept.24,25,26,1962	1.5	.84	1965	Sept.22-30, 1965	1.8	a 1.35
1963	Sept.27-30, 1963	1.8	.87				

a Occurred Sept. 23, 24, 25, 1965.

1960-65: Maximum discharge, 284 cfs Jan. 28, 1965 (gage height, 3.11 ft); minimum, 1.4 cfs Sept. 19, 1961 (gage height, 0.81 ft).

Maximum stage known, 3.36 ft Nov. 22, 1959, from floodmarks (discharge, 359 cfs, result of culvert measurement of peak flow).

Remarks.--Records good except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.5	15	15	9.8	34	42	15	18	8.8	4.6	3.0	5.1
2	2.5	12	16	9.4	50	34	21	17	9.2	4.6	2.9	3.8
3	2.5	10	17	8.5	34	25	42	16	8.8	4.3	2.9	2.9
4	2.5	9.0	15	9.4	32	20	32	14	8.4	4.0	2.9	2.6
5	2.5	7.0	14	49	43	18	23	15	8.0	6.0	2.9	2.8
6	2.5	6.0	13	59	52	17	18	14	8.0	4.6	2.9	2.6
7	3.0	5.5	12	43	47	16	17	14	7.6	4.3	2.9	2.4
8	4.5	5.8	11	32	34	17	16	13	7.2	4.3	2.8	2.4
9	3.2	4.5	9.8	45	39	17	15	13	7.2	4.3	2.8	2.4
10	3.0	6.0	9.0	32	49	15	15	14	6.9	4.0	2.8	2.4
11	2.8	15	9.4	25	36	15	14	15	6.6	3.8	2.6	2.3
12	3.0	10	16	23	29	14	16	14	6.3	3.8	2.6	2.0
13	3.0	9.0	20	21	29	17	18	14	6.0	3.6	2.6	1.8
14	3.0	8.0	24	28	28	36	17	13	5.7	3.6	2.6	1.8
15	3.0	15	20	39	28	47	15	13	6.0	3.6	2.9	1.8
16	2.7	70	16	54	28	39	15	13	6.0	3.6	2.8	1.7
17	2.7	70	14	37	24	28	18	13	6.0	3.6	2.6	1.6
18	2.7	65	15	28	20	24	17	13	5.7	3.4	2.4	1.6
19	2.7	60	23	24	47	31	14	14	5.4	3.4	2.4	1.5
20	2.7	65	21	21	60	29	14	14	5.4	3.2	2.4	1.7
21	2.8	45	17	18	94	21	13	13	5.1	3.2	2.4	2.0
22	3.1	35	15	17	60	18	12	12	5.1	3.2	2.4	1.6
23	3.5	30	14	16	38	18	12	12	4.8	3.2	2.4	1.6
24	3.8	40	15	15	39	18	12	11	4.8	3.2	2.4	1.7
25	2.6	35	15	14	36	17	12	10	4.8	3.2	2.4	1.7
26	3.8	25	15	13	28	16	12	10	4.6	3.2	2.4	1.8
27	7.6	22	13	12	24	14	12	11	4.6	3.0	2.4	2.0
28	12	20	13	12	24	13	12	9.6	4.6	3.0	2.4	2.4
29	7.6	18	12	13	------	13	15	9.2	4.8	3.0	2.4	2.2
30	6.8	16	11	18	------	14	18	9.2	4.8	3.0	2.4	2.0
31	15	------	11	33	------	14	------	9.2	------	3.0	3.0	------
TOTAL	125.6	753.8	461.2	778.1	1,086	677	502	400.2	187.2	114.8	81.7	66.2
MEAN	4.05	25.1	14.9	25.1	38.8	21.8	16.7	12.9	6.24	3.70	2.64	2.21
MAX	15	70	24	59	94	47	42	18	9.2	6.0	3.0	5.1
MIN	2.5	4.5	9.0	8.5	20	13	12	9.2	4.6	3.0	2.4	1.5
CFSM	1.25	7.78	4.61	7.77	12.0	6.76	5.18	4.00	1.93	1.15	.82	.68
IN.	1.45	8.68	5.31	8.96	12.5	7.79	5.78	4.61	2.16	1.32	.94	.76
AC-FT	249	1,500	915	1,540	2,150	1,340	996	794	371	228	162	131

CAL YR 1960: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 5,233.8 MEAN 14.3 MAX 94 MIN 1.5 CFSM 4.44 IN 60.26 AC-FT 10,380

Note.--No gage-height record Nov. 3 to Dec. 6. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1047. Green Canyon Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.9	5.0	12	29	20	7.2	28	18	9.1	4.7	3.0	2.0
2	1.9	6.0	11	37	21	7.2	25	22	9.6	4.7	3.0	2.0
3	1.9	6.8	10	87	23	6.8	20	24	10	4.7	3.2	1.8
4	1.9	6.0	13	54	21	6.8	20	24	12	4.7	3.7	1.8
5	2.0	5.0	17	39	20	6.8	23	21	12	4.7	3.5	1.8
6	2.2	4.5	14	36	17	6.8	54	18	13	4.7	3.3	1.8
7	2.6	4.0	12	44	15	7.6	68	15	12	4.5	3.5	1.9
8	2.2	3.5	9.6	49	14	10	36	14	10	4.5	3.5	1.9
9	2.8	3.5	8.1	39	13	9.6	26	14	9.1	4.2	3.0	1.8
10	3.5	4.2	6.8	28	12	8.6	22	13	9.1	4.2	2.8	3.0
11	2.6	5.3	6.4	24	12	8.1	20	13	8.6	4.2	2.6	2.8
12	3.3	6.0	6.0	21	11	7.2	18	13	8.1	4.2	3.2	2.0
13	3.3	5.3	5.6	20	10	8.1	18	12	7.2	4.2	3.2	2.0
14	2.5	6.4	5.0	19	12	9.1	20	12	6.8	4.0	2.8	1.9
15	2.4	6.4	4.7	16	11	12	21	11	6.0	4.0	2.6	1.9
16	2.2	5.6	5.0	15	9.6	15	18	9.6	6.0	3.7	2.8	1.8
17	2.0	4.7	6.0	14	9.6	16	16	9.1	5.6	3.7	3.0	1.8
18	1.9	4.2	5.3	13	9.6	18	16	9.1	5.3	3.7	3.2	1.8
19	2.0	4.0	13	13	9.6	17	16	9.1	5.3	3.7	3.0	1.8
20	2.0	3.7	26	13	9.6	16	15	8.6	4.2	3.5	2.8	1.8
21	2.0	4.2	25	13	9.1	14	13	8.6	4.0	3.5	2.6	1.8
22	2.4	63	22	12	9.6	13	13	8.6	4.2	3.3	2.6	1.8
23	8.4	23	55	12	9.1	13	13	9.1	4.2	3.3	2.0	1.8
24	4.2	14	105	15	8.6	40	13	10	4.5	3.3	2.2	1.6
25	3.7	10	48	20	8.1	41	13	14	5.0	3.3	2.2	1.6
26	4.0	8.1	26	20	7.6	29	12	14	5.0	3.3	2.6	1.6
27	6.4	6.8	21	20	7.6	26	16	13	5.0	3.3	2.6	1.6
28	6.4	8.1	20	20	7.2	21	14	12	5.0	3.2	2.8	4.3
29	4.7	10	38	20	------	20	15	12	4.7	3.2	2.8	3.2
30	4.2	11	47	20	------	22	15	10	4.7	3.0	2.6	1.9
31	3.7	------	33	20	------	26	------	9.6	------	3.0	2.4	------
TOTAL	97.2	258.3	636.5	801	346.9	468.9	637	410.4	215.3	120.2	89.1	60.6
MEAN	3.14	9.61	20.5	25.8	12.4	15.1	21.2	13.2	7.18	3.88	2.87	2.02
MAX	8.4	63	105	87	23	41	68	24	13	4.7	3.7	4.3
MIN	1.9	3.5	4.7	12	7.2	6.8	12	8.6	4.0	3.0	2.0	1.6
CFSM	.97	2.67	6.36	8.00	3.84	4.68	6.57	4.10	2.22	1.20	.89	.63
IN.	1.12	2.97	7.33	9.22	3.99	5.40	7.33	4.73	2.48	1.38	1.03	.70
AC-FT	193	512	1,260	1,590	688	930	1,260	814	427	238	177	120

CAL YR 1961: TOTAL 4,885.2 MEAN 13.4 MAX 105 MIN 1.5 CFSM 4.14 IN 56.25 AC-FT 9,690
WAT YR 1962: TOTAL 4,141.4 MEAN 11.3 MAX 105 MIN 1.6 CFSM 3.51 IN 47.68 AC-FT 8,210

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.2	2.4	14	38	7.0	22	14	14	6.4	5.2	3.0	2.4
2	2.4	2.2	13	36	10	21	13	17	6.8	5.2	3.0	2.6
3	2.5	2.2	13	42	90	18	13	18	6.1	4.8	2.8	2.4
4	2.2	2.4	12	35	45	16	20	16	6.4	4.8	2.8	2.3
5	2.2	3.0	24	27	35	14	33	15	6.8	4.8	2.8	2.3
6	2.4	3.5	48	23	30	13	39	17	6.4	4.8	2.8	2.3
7	4.2	3.3	36	20	26	13	30	18	6.1	4.8	2.6	2.3
8	4.2	5.6	38	18	22	12	22	16	6.1	5.4	2.6	2.3
9	6.8	4.7	38	18	20	12	20	14	6.1	5.2	2.6	2.3
10	5.0	4.7	30	16	18	11	16	13	6.1	5.2	2.6	2.3
11	4.0	6.4	24	14	16	11	15	12	6.1	5.2	2.6	2.3
12	3.7	7.2	20	14	14	11	14	11	6.1	4.8	3.2	2.3
13	3.3	6.0	17	13	13	10	13	11	5.8	4.6	3.0	2.6
14	3.2	5.3	19	12	12	10	14	9.6	5.4	4.2	2.8	2.4
15	4.2	5.0	26	12	12	9.6	15	9.2	5.2	4.2	2.6	2.3
16	4.2	4.5	25	12	11	9.6	15	8.9	5.2	4.0	2.6	2.3
17	3.7	4.5	21	11	11	9.2	14	8.2	4.8	3.7	2.4	2.2
18	3.3	5.0	17	10	14	9.2	15	7.8	4.8	3.7	3.0	2.2
19	3.2	39	17	9.1	17	11	15	7.5	4.6	3.4	3.4	2.2
20	3.0	118	15	8.6	19	12	16	7.5	4.6	3.4	3.4	2.2
21	3.0	52	16	8.4	16	13	17	7.2	4.6	3.4	2.8	2.0
22	2.8	26	20	8.2	14	14	18	7.2	4.6	3.4	2.6	2.2
23	2.8	18	18	8.0	13	13	20	6.8	4.6	3.7	3.2	2.2
24	2.6	14	16	7.8	11	11	18	6.8	4.2	3.7	2.8	2.2
25	2.6	29	14	7.4	11	11	16	6.4	4.6	3.4	2.6	2.2
26	2.5	45	13	7.0	14	10	15	6.4	4.6	3.2	2.6	2.0
27	2.4	26	12	6.6	14	10	14	6.4	4.6	3.2	2.4	2.0
28	2.4	19	18	6.4	16	12	13	6.4	4.6	3.2	2.4	1.8
29	2.4	16	32	6.0	------	13	13	6.4	5.8	3.2	2.4	1.8
30	2.4	15	82	6.0	------	14	13	6.4	5.4	3.2	2.4	1.8
31	2.2	------	52	6.5	------	15	------	6.1	------	3.2	2.4	------
TOTAL	98.0	494.9	760	467.0	551.0	390.6	523	323.2	163.5	128.2	85.2	66.7
MEAN	3.16	16.5	24.5	15.1	19.7	12.6	17.4	10.4	5.45	4.14	2.75	2.22
MAX	6.8	118	82	42	90	22	39	18	6.8	5.4	3.4	2.6
MIN	2.2	2.2	12	6.0	7.0	9.2	13	6.1	4.2	3.2	2.4	1.8
CFSM	.98	5.11	7.59	4.66	6.09	3.90	5.40	3.23	1.69	1.28	.85	.69
IN.	1.13	5.70	8.75	5.38	6.34	4.50	6.02	3.72	1.88	1.48	.98	.77
AC-FT	194	982	1,510	926	1,090	775	1,040	641	324	254	169	132

CAL YR 1962: TOTAL 4,502.3 MEAN 12.3 MAX 118 MIN 1.6 CFSM 3.82 IN 51.84 AC-FT 8,930
WAT YR 1963: TOTAL 4,051.3 MEAN 11.1 MAX 118 MIN 1.8 CFSM 3.44 IN 46.65 AC-FT 8,040

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1047. Green Canyon Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.0	3.2	10	65	19	18	44	19	36	12	6.8	5.2
2	2.0	6.1	9.2	80	21	16	28	16	30	12	6.1	5.2
3	2.0	6.1	8.2	60	17	15	21	14	23	12	6.4	4.8
4	2.0	8.2	7.5	40	16	26	22	13	24	11	6.1	4.6
5	2.0	8.6	8.2	25	15	30	21	13	23	11	5.4	4.2
6	2.0	7.2	13	33	14	21	21	12	21	10	5.2	4.2
7	2.0	19	14	28	13	16	22	13	21	10	5.2	4.2
8	2.0	28	12	24	12	16	26	14	23	10	5.2	4.8
9	2.0	14	11	21	12	15	26	14	22	10	5.2	4.2
10	2.0	11	10	19	13	16	28	31	22	9.6	4.8	4.0
11	2.0	9.6	9.3	17	14	16	26	28	20	9.2	4.8	3.6
12	2.0	8.9	9.0	16	12	14	25	28	18	9.2	4.8	3.2
13	2.4	8.2	8.5	15	12	13	25	23	17	9.2	4.8	3.2
14	2.2	8.2	8.2	14	11	18	23	19	16	9.2	4.6	3.2
15	2.0	8.6	8.7	13	11	26	38	20	17	8.9	4.6	3.2
16	2.0	8.6	10	19	12	25	30	26	25	8.6	4.2	3.2
17	2.0	13	12	23	15	30	23	27	31	8.2	4.2	5.0
18	1.8	15	11	20	25	39	21	26	40	7.8	4.8	3.8
19	1.8	18	10	18	50	26	22	30	31	7.5	4.6	4.5
20	2.4	16	9.5	16	26	22	23	30	25	7.5	4.2	14
21	2.6	12	8.6	14	24	19	19	28	21	7.5	4.0	11
22	7.5	10	9.5	13	23	16	20	26	18	7.5	4.0	8.5
23	3.2	12	13	12	23	14	18	22	17	7.2	4.0	7.3
24	6.4	13	17	20	22	13	18	22	16	6.8	4.0	6.7
25	7.8	18	30	35	20	12	18	20	14	6.8	4.2	5.8
26	5.4	30	26	25	18	12	21	21	14	6.8	4.6	5.2
27	4.4	38	24	21	16	12	20	26	13	6.4	4.6	4.8
28	4.6	22	22	18	16	13	22	28	12	6.1	6.4	4.5
29	4.2	15	20	17	16	23	24	27	11	6.1	4.8	5.0
30	4.0	12	18	16	------	44	20	31	11	6.4	5.8	19
31	3.2	------	21	17	------	45	------	35	------	6.8	5.2	------
TOTAL	93.9	407.5	408.4	774	518	641	715	702	632	267.3	153.6	170.1
MEAN	3.03	13.6	13.2	25.0	17.9	20.7	23.8	22.6	21.1	8.62	4.95	5.67
MAX	7.8	38	30	80	50	45	44	35	40	12	6.8	19
MIN	1.8	3.2	7.5	12	11	12	18	12	11	6.1	4.0	3.2
CFSM	.94	4.21	4.08	7.73	5.53	6.40	7.38	7.01	6.52	2.67	1.53	1.76
IN.	1.08	4.69	4.70	8.91	5.96	7.38	8.23	8.08	7.28	3.08	1.77	1.96
AC-FT	186	808	810	1,540	1,030	1,270	1,420	1,390	1,250	530	305	337

CAL YR 1963: TOTAL 3,608.2 MEAN 9.89 MAX 90 MIN 1.8 CFSM 3.06 IN 41.54 AC-FT 7,160
WAT YR 1964: TOTAL 5,482.8 MEAN 15.0 MAX 80 MIN 1.8 CFSM 4.64 IN 63.13 AC-FT 10,870

Note.--No gage-height record Dec. 10 to Feb. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	4.2	106	12	45	22	12	12	7.4	4.2	2.8	2.2
2	22	4.2	70	11	33	19	12	11	7.0	4.2	3.0	2.2
3	21	5.2	42	11	28	18	11	11	6.8	4.0	3.0	2.2
4	14	5.5	27	10	28	19	12	11	6.8	4.0	3.0	2.1
5	10	5.2	19	10	38	20	12	10	7.6	4.0	3.0	2.1
6	8.9	5.0	16	10	35	21	11	11	7.6	4.0	2.8	2.1
7	7.9	4.8	14	9.6	28	22	9.6	10	6.8	4.0	2.8	2.0
8	7.6	4.5	16	9.2	30	22	9.2	10	7.0	4.0	2.6	2.1
9	7.3	4.5	25	8.9	27	22	9.6	10	6.8	4.0	2.4	2.2
10	6.7	4.5	28	8.9	24	23	8.9	10	6.8	4.0	2.6	2.2
11	5.8	4.2	23	8.4	21	22	8.6	10	6.8	4.0	2.4	2.1
12	5.5	4.2	18	8.0	20	21	8.2	10	6.4	3.8	2.8	2.1
13	5.2	4.2	18	8.0	26	18	8.9	10	6.0	3.8	2.4	2.2
14	5.8	4.0	16	10	27	17	8.6	10	6.0	3.6	2.2	2.7
15	6.7	4.0	14	17	24	16	9.6	10	5.8	3.6	2.2	3.0
16	7.0	4.0	12	23	26	15	13	10	5.6	3.4	2.2	2.6
17	7.3	4.0	11	22	35	14	12	10	5.6	3.4	2.2	2.2
18	7.3	4.0	10	20	35	12	10	10	5.6	3.4	2.1	2.1
19	7.0	4.0	10	18	35	12	20	10	5.6	3.4	2.6	2.0
20	6.4	3.8	11	19	32	11	40	9.6	5.4	3.6	2.6	2.0
21	6.1	3.8	20	20	27	11	25	10	5.4	3.4	2.2	2.0
22	5.8	4.2	56	20	24	11	20	10	5.2	3.4	2.2	1.8
23	5.5	8.1	67	18	21	10	16	10	5.0	3.2	3.0	1.8
24	5.2	82	30	16	19	10	15	10	5.0	3.2	2.6	1.8
25	5.0	38	22	14	18	9.6	14	9.6	5.0	3.0	2.6	1.8
26	5.0	23	19	16	23	9.2	14	9.2	4.7	3.0	2.6	1.8
27	4.8	17	17	78	35	8.9	16	8.9	4.7	3.2	2.4	1.8
28	4.5	13	16	163	26	8.9	15	8.9	4.4	3.0	2.7	1.8
29	4.2	14	14	205	------	8.9	14	8.9	4.4	2.8	2.6	1.8
30	4.2	73	13	184	------	8.9	13	8.6	4.2	2.8	2.4	1.8
31	4.2	------	12	94	------	9.6	------	8.2	------	2.8	2.2	------
TOTAL	253.9	364.1	792	1,082.0	790	472.0	408.2	307.9	177.4	110.2	79.2	62.6
MEAN	8.19	12.1	25.5	34.9	28.2	15.2	13.6	9.93	5.91	3.55	2.55	2.09
MAX	30	82	106	205	45	23	40	12	7.6	4.2	3.0	3.0
MIN	4.2	3.8	10	8.0	18	8.9	8.2	8.2	4.2	2.8	2.1	1.8
CFSM	2.54	3.76	7.91	10.8	8.74	4.71	4.21	3.08	1.83	1.10	.79	.65
IN.	2.92	4.19	9.12	12.5	9.10	5.43	4.70	3.55	2.04	1.27	.91	.72
AC-FT	504	722	1,570	2,150	1,570	936	810	611	352	219	157	124

CAL YR 1964: TOTAL 5,983.0 MEAN 16.3 MAX 106 MIN 3.2 CFSM 5.06 IN 68.89 AC-FT 11,870
WAT YR 1965: TOTAL 4,899.5 MEAN 13.4 MAX 205 MIN 1.8 CFSM 4.16 IN 56.41 AC-FT 9,720

12-1050. Smay Creek near Lester, Wash.

Location.--Lat 47°15'40", long 121°33'50", in SW¼ sec.32, T.21 N., R.10 E., on right bank 3½ miles upstream from mouth and 4½ miles northwest of Lester.

Drainage area.--8.56 sq mi (revised).

Records available.--September 1946 to September 1965.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 1,900 ft (from topographic map). Prior to Dec. 11, 1946, water-stage recorder at site 200 ft upstream at datum 4.28 ft higher (destroyed by high water of Dec. 11, 1946).

Average discharge.--19 years, 52.2 cfs (37,790 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (200 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	1500	224	5.66	Jan. 3, 1962	1900	223	5.83	Dec. 2, 1964	0100	295	6.30
Nov. 20, 1960	1430	212	5.63	Apr. 6, 1962	2330	* 506	6.46	Jan. 29, 1965	-	* 951	11.59
Jan. 16, 1961	1030	200	5.60								
Feb. 21, 1961	1700	* 564	6.18	Nov. 20, 1962	0330	* 475	6.67				
Dec. 24, 1961	1430	342	6.15	June 1, 1964	1300	* 211	6.02				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 28, 1961	6.5	4.15	1964	Oct. 19, 20, 1963	6.3	4.57
1962	Oct. 2-5, 1961	7.4	4.17	1965	Sept.11-13, 1965	7.5	4.77
1963	Sept.27-30, 1963	7.2	a 4.59				

a Occurred Oct. 5, 6, 1962.

1946-65: Maximum discharge, 2,380 cfs Nov. 23, 1959 (gage height, 8.14 ft), from rating curve extended above 310 cfs on basis of slope-area measurement of peak flow; maximum gage height, 11.59 ft Jan. 29, 1965 (from floodmarks, backwater from logjam); minimum discharge, 4.2 cfs Nov. 21 to Dec. 1, 1952.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1946-48, 1950(P), 1951. WSP 1516: 1946(M), 1947-48(P), 1950-51(M), 1953-54(P), 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.6	80	53	35	97	95	52	90	81	20	9.3	14
2	8.2	79	51	34	120	92	74	90	98	19	9.6	16
3	8.2	68	50	31	112	83	154	85	102	19	11	10
4	8.2	59	47	34	104	74	150	74	90	17	11	8.4
5	8.2	50	42	94	117	66	110	70	81	22	11	8.4
6	8.2	44	40	165	153	61	85	62	79	19	11	8.0
7	8.9	39	38	146	159	56	72	57	72	17	11	7.7
8	12	35	35	120	126	50	72	56	64	17	10	7.4
9	9.3	32	33	128	120	46	83	56	57	15	10	7.7
10	8.9	52	33	117	134	43	77	64	52	15	9.6	7.4
11	8.6	81	33	104	120	40	72	70	50	15	9.2	7.4
12	9.7	75	42	99	104	39	74	68	47	14	9.2	7.4
13	9.7	66	40	94	94	41	85	62	44	14	9.2	7.4
14	9.3	57	48	106	81	56	81	61	44	13	9.2	7.1
15	9.3	57	51	140	77	64	72	62	46	13	9.2	7.4
16	8.9	176	51	193	70	68	68	66	47	13	9.2	7.1
17	8.9	190	47	153	64	66	70	74	47	12	8.8	7.1
18	8.9	196	50	114	59	64	70	88	43	12	8.4	7.1
19	8.6	172	62	97	83	66	66	102	40	12	8.4	7.4
20	8.6	190	59	83	143	68	61	116	36	11	7.7	8.4
21	9.3	156	53	75	401	64	56	108	33	11	7.7	8.4
22	11	114	48	68	320	61	54	90	31	11	7.4	7.7
23	15	94	48	62	172	56	50	95	30	11	7.4	7.4
24	21	143	51	58	144	56	47	90	28	11	7.1	6.8
25	18	143	58	53	119	54	47	81	26	10	7.1	6.8
26	25	106	58	48	98	52	47	88	25	10	7.1	6.8
27	36	88	51	45	85	49	47	90	23	9.9	7.1	6.5
28	57	74	47	44	77	46	47	85	22	9.6	7.1	7.7
29	61	64	44	48	------	44	64	81	22	9.6	6.8	7.7
30	55	58	42	61	------	44	83	79	21	9.6	6.8	7.1
31	60	------	39	85	------	46	------	74	------	9.3	8.0	------
TOTAL	547.5	2,838	1,444	2,734	3,553	1,810	2,190	2,434	1,481	421.0	271.6	241.7
MEAN	17.7	94.6	46.6	88.2	127	58.4	73.0	78.5	49.4	13.6	8.76	8.06
MAX	61	196	62	193	401	95	154	116	102	22	11	16
MIN	8.2	32	33	31	59	39	47	56	21	9.3	6.8	6.5
CFSM	2.06	11.1	5.44	10.3	14.8	6.82	8.53	9.17	5.77	1.59	1.02	.94
IN.	2.38	12.3	6.27	11.9	15.4	7.86	9.51	10.6	6.43	1.83	1.18	1.05
AC-FT	1,090	5,630	2,860	5,420	7,050	3,590	4,340	4,830	2,940	835	539	479

CAL YR 1960: TOTAL 16,215.8 MEAN 44.3 MAX 196 MIN 8.2 CFSM 5.18 IN 70.45 AC-FT 32,160
WAT YR 1961: TOTAL 19,965.8 MEAN 54.7 MAX 401 MIN 6.5 CFSM 6.39 IN 86.74 AC-FT 39,600

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1050. Smay Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.9	46	36	105	75	26	38	70	50	27	13	10
2	7.4	47	35	102	81	25	42	77	54	25	13	10
3	7.4	47	36	183	97	25	41	84	57	24	13	10
4	7.4	41	44	189	105	25	44	84	57	24	16	9.8
5	7.9	37	57	148	97	24	48	78	61	24	18	9.8
6	9.6	35	52	137	81	24	104	71	61	24	15	9.5
7	15	32	47	160	71	24	359	64	60	22	15	9.5
8	10	29	43	181	61	24	181	61	60	22	14	9.5
9	14	28	39	151	55	23	121	60	61	21	14	9.5
10	22	33	34	121	52	22	92	61	57	20	13	13
11	22	38	32	102	48	22	76	60	55	20	13	13
12	39	37	31	88	46	21	67	57	51	19	14	11
13	43	38	29	76	44	20	66	56	48	19	13	11
14	37	39	26	70	45	20	77	52	47	19	13	11
15	29	38	26	60	43	20	92	51	46	18	12	10
16	24	36	25	56	41	20	84	48	47	17	12	9.8
17	21	32	25	51	40	20	77	48	48	18	12	9.8
18	19	29	24	46	39	20	77	48	46	17	13	9.5
19	18	26	30	41	39	21	86	48	45	17	12	9.5
20	17	25	50	40	37	22	82	46	43	16	12	9.5
21	16	25	53	39	35	21	78	44	42	15	12	9.5
22	17	74	52	37	35	21	78	44	39	15	11	9.5
23	28	70	95	35	33	21	78	48	39	15	11	9.1
24	22	55	288	36	31	34	84	54	39	14	10	9.1
25	23	46	210	43	29	39	82	60	37	14	10	9.1
26	24	40	128	53	29	39	73	63	36	14	10	9.1
27	30	36	100	59	28	37	77	61	34	14	11	9.1
28	30	36	90	60	27	35	67	63	30	14	12	17
29	28	35	107	60	------	32	64	61	30	13	11	14
30	26	34	135	62	------	32	63	57	27	13	11	12
31	26	------	123	68	------	33	------	54	------	13	10	------
TOTAL	647.6	1,164	2,102	2,659	1,444	792	2,688	1,833	1,407	567	389	312.2
MEAN	20.9	38.8	67.8	85.8	51.6	25.5	89.6	59.1	46.9	18.3	12.5	10.4
MAX	43	74	288	189	105	39	359	84	61	27	18	17
MIN	7.4	25	24	35	27	20	38	44	27	13	10	9.1
CFSM	2.44	4.53	7.92	10.0	6.02	2.98	10.5	6.91	5.48	2.14	1.47	1.22
IN.	2.81	5.06	9.13	11.6	6.27	3.44	11.7	7.96	6.11	2.46	1.69	1.36
AC-FT	1,280	2,310	4,170	5,270	2,860	1,570	5,330	3,640	2,790	1,120	772	619

CAL YR 1961: TOTAL 19,049.9 MEAN 52.2 MAX 401 MIN 6.5 CFSM 6.10 IN 82.76 AC-FT 37,780
WAT YR 1962: TOTAL 16,004.8 MEAN 43.8 MAX 359 MIN 7.4 CFSM 5.12 IN 69.53 AC-FT 31,750

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	14	67	131	22	68	42	52	31	19	16	9.2
2	11	14	60	127	34	65	40	56	31	19	16	9.6
3	11	14	55	144	142	58	39	52	29	19	15	8.8
4	10	14	50	125	118	50	52	50	29	19	14	8.8
5	10	17	68	101	98	47	80	53	31	18	13	8.8
6	10	18	116	86	87	42	105	57	29	18	13	8.8
7	16	17	110	76	77	40	92	58	28	18	13	8.4
8	18	21	116	68	74	37	80	57	28	20	12	8.4
9	30	20	123	64	70	35	68	53	28	19	12	8.4
10	29	21	116	55	64	34	61	50	28	18	12	8.4
11	28	24	98	51	57	35	56	48	27	18	12	8.4
12	25	25	86	47	50	34	52	44	27	18	12	8.4
13	23	25	80	48	46	33	48	42	26	18	12	9.6
14	22	24	82	45	43	32	54	41	25	18	12	9.6
15	22	24	91	41	40	30	62	41	25	23	11	8.8
16	20	23	89	38	40	30	61	41	23	21	11	9.2
17	19	22	86	37	38	28	57	43	22	21	11	8.8
18	19	22	78	35	46	28	54	48	22	21	12	8.4
19	18	88	77	34	53	31	52	56	21	20	13	8.4
20	18	371	70	32	62	34	49	60	21	20	13	8.0
21	18	217	74	31	61	38	48	60	21	19	12	8.0
22	18	140	74	30	56	43	52	58	21	20	11	8.0
23	17	103	71	30	49	45	56	52	20	19	12	8.0
24	17	88	66	29	44	43	56	47	20	19	11	8.0
25	17	99	59	27	44	41	54	42	20	18	11	7.6
26	17	125	54	26	56	39	50	39	20	17	10	7.6
27	17	104	52	24	54	43	49	38	18	17	10	7.2
28	16	89	63	24	60	48	47	35	18	16	9.6	7.2
29	15	80	86	22	------	50	48	34	20	16	9.6	7.2
30	15	76	174	22	------	48	49	33	19	16	9.6	7.2
31	14	------	162	22	------	46	------	32	------	17	9.2	------
TOTAL	551	1,939	2,653	1,672	1,685	1,275	1,713	1,472	728	579	370.0	251.2
MEAN	17.8	64.6	85.6	53.9	60.2	41.1	57.1	47.5	24.3	18.7	11.9	8.37
MAX	30	371	174	144	142	68	105	60	31	23	16	9.6
MIN	10	14	50	22	22	28	39	32	18	16	9.2	7.2
CFSM	2.08	7.55	10.0	6.30	7.03	4.80	6.67	5.55	2.83	2.18	1.39	.98
IN.	2.39	8.42	11.5	7.26	7.32	5.54	7.44	6.40	3.16	2.52	1.61	1.09
AC-FT	1,090	3,850	5,260	3,320	3,340	2,530	3,400	2,920	1,440	1,150	734	498

CAL YR 1962: TOTAL 17,234.2 MEAN 47.2 MAX 371 MIN 9.1 CFSM 5.52 IN 74.88 AC-FT 34,180
WAT YR 1963: TOTAL 14,888.2 MEAN 40.8 MAX 371 MIN 7.2 CFSM 4.77 IN 64.68 AC-FT 29,530

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1050. Smay Creek near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	19	54	138	51	34	67	63	208	101	34	39
2	7.2	24	47	154	48	32	65	58	180	105	32	37
3	7.2	24	42	112	42	31	60	51	165	94	31	33
4	7.2	31	38	86	41	39	56	49	167	89	30	31
5	7.2	31	40	71	39	40	51	47	180	87	29	29
6	6.9	31	44	81	36	38	49	44	180	82	28	28
7	6.9	39	42	71	34	36	50	44	169	86	27	27
8	6.6	63	41	62	32	34	56	45	162	92	26	28
9	6.6	59	38	56	32	32	62	56	154	86	25	26
10	6.6	53	34	51	31	31	71	87	165	78	24	25
11	6.6	45	32	47	31	30	76	98	158	78	23	24
12	6.6	40	31	42	29	29	73	96	148	84	22	23
13	7.5	36	29	39	28	27	70	91	138	81	21	22
14	7.2	39	29	36	27	32	67	82	136	76	20	22
15	6.6	40	34	36	26	44	89	74	142	73	20	21
16	6.6	40	42	47	27	45	84	76	176	65	19	21
17	6.6	50	49	48	29	53	74	91	178	59	18	26
18	6.6	51	50	45	45	59	65	103	190	54	20	24
19	6.3	58	49	42	64	54	60	121	162	49	19	23
20	7.5	51	48	41	58	49	55	138	140	48	18	48
21	8.6	45	44	39	51	45	53	144	123	47	17	45
22	18	41	48	36	45	41	59	134	114	44	16	41
23	14	42	55	34	43	38	54	115	125	42	16	38
24	17	43	62	34	41	34	53	105	128	41	15	35
25	25	58	84	63	39	32	56	94	123	40	16	32
26	21	101	78	56	36	32	63	92	119	38	21	28
27	19	136	68	51	34	30	63	108	108	37	24	27
28	20	101	62	47	34	31	65	132	96	36	40	26
29	19	76	56	44	32	32	67	138	87	36	36	25
30	19	63	53	42	------	39	65	158	89	34	40	85
31	18	------	54	42	------	53	------	182	------	36	44	------
TOTAL	336.3	1,530	1,477	1,793	1,105	1,176	1,898	2,916	4,410	1,938	771	939
MEAN	10.8	51.0	47.6	57.8	38.1	37.9	63.3	94.1	147	64.5	24.9	31.3
MAX	25	136	84	154	64	59	89	182	208	105	44	85
MIN	6.3	19	29	34	26	27	49	44	87	34	15	21
CFSM	1.27	5.96	5.57	6.76	4.45	4.43	7.39	11.0	17.2	7.53	2.91	3.66
IN.	1.46	6.65	6.42	7.79	4.80	5.11	8.25	12.7	19.2	8.68	3.35	4.08
AC-FT	667	3,030	2,930	3,560	2,190	2,330	3,760	5,780	8,750	3,960	1,530	1,860

CAL YR 1963: TOTAL 13,088.5 MEAN 35.9 MAX 144 MIN 6.3 CFSM 4.19 IN 56.86 AC-FT 25,960
WAT YR 1964: TOTAL 20,349.3 MEAN 55.6 MAX 208 MIN 6.3 CFSM 6.50 IN 88.41 AC-FT 40,360

Note.--No gage-height record Jan. 29 to Feb. 15, July 23 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	86	21	241	38	260	69	36	84	63	27	12	9.4
2	98	21	259	36	160	63	33	72	63	27	12	8.5
3	99	27	173	33	100	60	33	65	68	26	12	8.2
4	79	28	123	31	90	55	34	63	69	26	12	8.5
5	63	26	94	30	110	54	34	56	69	25	12	8.2
6	53	25	78	29	95	50	33	52	68	24	11	7.8
7	45	25	68	28	85	48	33	50	65	23	11	7.8
8	44	24	76	26	92	48	33	47	63	21	11	7.8
9	41	24	92	25	76	50	34	46	60	20	11	7.8
10	38	24	105	24	71	54	34	47	56	20	12	7.8
11	36	23	96	24	67	58	33	52	55	20	11	7.5
12	32	22	84	23	65	63	33	63	51	19	12	7.5
13	31	21	73	24	80	69	34	72	48	18	13	7.8
14	32	20	65	25	76	68	35	72	45	18	11	14
15	34	20	56	32	74	63	38	69	43	18	10	14
16	34	20	45	43	87	60	54	71	41	17	10	13
17	36	20	40	50	132	56	56	70	40	16	9.9	11
18	36	19	36	50	147	51	52	68	40	16	9.4	10
19	36	18	34	49	147	48	92	66	39	16	11	9.4
20	34	18	39	49	144	46	171	69	39	16	12	9.4
21	32	18	57	50	123	43	144	71	37	16	10	9.0
22	31	18	110	49	106	41	114	69	37	16	10	9.0
23	29	24	125	48	87	41	96	66	36	14	13	8.5
24	28	89	100	44	74	38	87	63	35	14	11	8.5
25	26	87	85	41	66	36	87	60	34	14	10	8.5
26	25	71	71	47	62	36	92	62	33	13	9.9	8.5
27	24	56	62	196	78	35	110	71	32	14	9.9	8.5
28	24	48	54	392	78	33	123	91	30	13	11	8.2
29	23	49	49	850	------	32	116	91	29	13	10	7.8
30	23	127	45	700	------	31	100	78	28	12	9.4	7.8
31	21	------	42	450	------	33	------	71	------	12	9.4	------
TOTAL	1,273	1,033	2,677	3,536	2,832	1,532	2,004	2,047	1,416	564	338.9	269.7
MEAN	41.1	34.4	86.4	114	101	49.4	66.8	66.0	47.2	18.2	10.9	8.99
MAX	99	127	259	850	260	69	171	91	69	27	13	14
MIN	21	18	34	23	62	31	33	46	28	12	9.4	7.5
CFSM	4.80	4.02	10.1	13.3	11.8	5.77	7.80	7.71	5.51	2.13	1.28	1.05
IN.	5.53	4.49	11.6	15.4	12.3	6.66	8.71	8.89	6.15	2.45	1.47	1.17
AC-FT	2,520	2,050	5,310	7,010	5,620	3,040	3,970	4,060	2,810	1,120	672	535

CAL YR 1964: TOTAL 21,989 MEAN 60.1 MAX 259 MIN 15 CFSM 7.02 IN 95.53 AC-FT 43,610
WAT YR 1965: TOTAL 19,522.6 MEAN 53.5 MAX 850 MIN 7.5 CFSM 6.25 IN 84.82 AC-FT 38,720

12-1057. North Fork Green River near Palmer, Wash.
(Formerly published as North Fork Green River near Eagle Gorge)

Location (revised).--Lat 47°18'30", long 121°46'20", in SW¼NW¼ sec.15, T.21 N., R.8 E., on right bank 2.4 miles upstream from mouth and 5½ miles east of Palmer.

Drainage area.--16.5 sq mi.

Records available.--September 1956 to January 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,280 ft, corrected (from topographic map). Prior to June 25, 1959, at site 1,000 ft upstream at different datum.

Average discharge.--8 years, 90.4 cfs (65,450 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (500 cfs), October 1960 to January 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0800	688	4.45	Jan. 3, 1962a	-	-	-	Jan. 25, 1964	0530	* 496	4.97
Nov. 20, 1960	0100	535	4.10	Apr. 6, 1962	2200	* 1,140	5.43				
Nov. 24, 1960	1700	551	4.14					Nov. 24, 1964	0900	592	5.22
Feb. 21, 1961	1230	* 920	4.96	Nov. 19, 1962	2230	* 1,360	6.12	Dec. 1, 1964	2130	944	5.63
				Dec. 5, 1962	2330	621	5.07	Dec. 22, 1964	1930	550	5.10
Dec. 24, 1961a	-	604	4.36	Feb. 3, 1963	0800	875	5.50	Jan. 28, 1965	a2200	* 2,400	7.28

a About.

Annual minimum discharge, October 1960 to January 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28,29,30,1961	1.2	a 1.98	1964	Oct. 11, 1963	4.7	2.53
1962	Oct. 5, 1961	5.8	2.13	1965	Oct. 29, 1964	33	3.27
1963	Sept.30, 1963	5.7	2.57				

a Occurred Oct. 6, 1960.

1956-65: Maximum discharge, 2,400 cfs Jan. 28, 1965 (gage height, 7.28 ft, from floodmarks), from rating curve extended above 1,400 cfs on basis of slope-area measurement of peak flow; minimum, 1.2 cfs Aug. 28, 29, 30, 1961; minimum gage height, 1.18 ft Aug. 25, 26, 1959.

Remarks.--Records good except those for Nov. 24, 1961, to Jan. 23, 1962, Nov. 21, 1962, to Feb. 26, 1963, and May 21 to July 17, 1964, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.8	165	105	60	160	244	98	120	60	22	4.7	14
2	6.8	150	117	54	250	189	152	127	60	21	4.7	12
3	6.4	126	125	50	210	147	300	120	59	20	4.7	5.9
4	5.6	100	115	55	204	125	207	110	53	20	4.7	4.4
5	5.3	83	98	255	234	108	160	108	50	35	4.7	4.7
6	8.8	69	87	324	282	101	130	103	59	26	4.7	3.8
7	14	60	78	264	258	89	113	96	60	22	4.1	2.9
8	27	56	73	219	222	82	127	92	50	20	4.1	2.7
9	18	49	66	244	234	78	152	94	50	19	4.1	2.6
10	14	126	60	219	240	73	132	103	44	18	3.5	2.4
11	13	202	73	189	207	73	127	94	42	16	3.2	2.2
12	18	142	147	174	177	78	142	85	37	16	2.9	1.9
13	14	118	137	160	180	108	140	80	35	14	2.7	1.7
14	12	102	186	207	160	172	122	87	34	14	2.6	1.9
15	10	147	147	247	169	198	105	85	33	13	2.7	1.9
16	9.3	466	125	324	150	189	103	87	31	13	3.2	2.0
17	8.9	455	108	268	134	160	105	89	32	13	2.9	1.5
18	8.1	443	144	225	120	152	92	92	29	13	2.6	2.4
19	8.1	384	177	186	290	160	82	98	27	11	2.2	2.4
20	8.1	467	152	155	467	155	75	94	24	11	2.0	6.3
21	11	317	130	132	777	127	75	81	23	9.6	1.7	9.6
22	22	228	115	115	456	125	76	76	23	10	1.5	5.6
23	48	198	105	101	264	120	71	92	23	10	1.5	4.4
24	80	444	105	89	240	110	78	73	22	10	1.7	3.8
25	54	380	108	76	198	100	75	69	22	9.2	1.7	3.2
26	80	258	98	67	160	95	73	67	21	8.0	1.7	3.2
27	110	195	85	62	150	90	69	82	21	7.5	1.7	2.9
28	175	152	76	62	134	87	73	66	20	6.7	1.4	8.4
29	142	130	69	98	------	82	117	62	24	6.7	1.2	9.2
30	112	113	64	140	------	82	120	59	25	5.9	1.2	8.0
31	142	------	62	172	------	82	------	59	------	5.3	8.4	------
TOTAL	1,198.2	6,325	3,337	4,993	6,727	3,781	3,491	2,750	1,093	445.9	94.7	138.3
MEAN	38.7	211	108	161	240	122	116	88.7	36.4	14.4	3.05	4.61
MAX	175	467	186	324	777	244	300	127	60	35	8.4	14
MIN	5.3	49	60	50	120	73	69	59	20	5.3	1.2	1.7
CFSM	2.34	12.8	6.52	9.76	14.6	7.39	7.05	5.38	2.21	.87	.19	.28
IN.	2.70	14.3	7.52	11.3	15.2	8.52	7.87	6.20	2.46	1.01	.21	.31
AC-FT	2,380	12,550	6,620	9,900	13,340	7,500	6,920	5,450	2,170	884	188	274

CAL YR 1960: TOTAL 29,377.4 MEAN 80.3 MAX 467 MIN 3.4 CFSM 4.86 IN 66.21 AC-FT 58,270
WAT YR 1961: TOTAL 34,374.1 MEAN 94.2 MAX 777 MIN 1.2 CFSM 5.71 IN 77.48 AC-FT 68,180

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1057. North Fork Green River near Palmer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	127	85	140	118	30	113	142	64	22	7.0	14
2	9.2	99	75	180	138	30	110	154	74	24	7.0	13
3	7.0	103	80	500	129	35	100	160	72	19	12	12
4	6.4	88	145	400	102	30	116	138	80	20	28	10
5	13	76	145	320	89	35	138	119	101	25	66	8.6
6	29	69	110	272	81	40	512	111	90	45	35	8.2
7	46	62	95	356	80	40	462	97	83	29	28	7.9
8	29	55	85	340	80	40	230	101	78	25	27	7.6
9	51	55	80	257	75	35	172	111	72	22	21	7.0
10	97	94	75	220	75	35	142	111	65	20	18	27
11	64	93	65	200	70	30	130	97	59	18	16	40
12	82	84	60	180	60	30	120	88	53	17	17	20
13	117	80	60	170	55	30	125	88	50	18	19	18
14	76	90	55	155	68	29	130	80	46	17	14	16
15	59	76	55	145	62	33	135	74	45	15	13	14
16	49	69	65	135	57	38	120	72	44	14	12	13
17	41	66	90	120	57	42	115	72	43	15	13	12
18	37	62	50	110	58	46	110	71	40	14	16	12
19	34	57	170	100	52	46	120	65	37	13	14	11
20	30	50	290	90	51	48	110	59	35	12	13	11
21	28	55	260	85	46	44	110	59	34	11	16	11
22	28	227	190	80	49	44	105	60	31	11	13	11
23	64	114	400	85	45	44	100	76	29	10	12	10
24	47	105	580	121	41	82	113	94	27	8.9	10	9.6
25	46	80	400	169	37	118	97	103	34	8.6	11	8.9
26	54	75	250	166	35	113	88	94	36	8.2	17	8.6
27	69	70	150	140	30	105	153	88	29	7.9	13	12
28	73	90	200	124	30	86	136	92	23	7.6	35	49
29	64	85	265	116	------	81	123	82	22	7.3	20	36
30	59	85	255	110	------	86	115	72	21	7.0	17	22
31	57	------	185	108	------	100	------	68	------	7.0	16	------
TOTAL	1,478.6	2,541	5,070	5,694	1,870	1,625	4,450	2,898	1,517	498.5	576.0	460.4
MEAN	47.7	84.7	164	184	66.8	52.4	148	93.5	50.6	16.1	16.6	15.3
MAX	117	227	580	500	138	118	512	160	101	45	66	49
MIN	6.4	50	50	80	30	29	88	59	21	7.0	7.0	7.0
CFSM	2.89	5.13	9.91	11.1	4.05	3.18	8.99	5.67	3.06	.97	1.13	.93
IN.	3.33	5.73	11.4	12.8	4.21	3.66	10.0	6.53	3.42	1.12	1.30	1.04
AC-FT	2,930	5,040	10,060	11,290	3,710	3,220	8,830	5,750	3,010	989	1,140	913

CAL YR 1961: TOTAL 32,603.5 MEAN 89.3 MAX 777 MIN 1.2 CFSM 5.41 IN 73.49 AC-FT 64,670
WAT YR 1962: TOTAL 28,678.5 MEAN 78.6 MAX 580 MIN 6.4 CFSM 4.76 IN 64.64 AC-FT 56,880

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	20	209	355	28	157	73	103	28	48	21	12
2	18	20	191	400	79	137	66	118	41	42	19	14
3	24	20	155	445	526	122	69	106	35	38	17	12
4	19	22	133	330	303	106	167	100	37	35	15	11
5	17	36	255	243	225	95	194	111	85	33	15	10
6	19	48	487	188	180	87	243	115	63	31	15	9.7
7	39	34	375	148	160	79	202	106	50	31	14	9.1
8	67	56	345	129	135	73	194	97	48	46	13	9.1
9	184	50	315	116	109	68	142	89	71	47	13	8.8
10	132	64	259	92	97	66	124	82	62	49	13	6.6
11	96	82	239	85	88	68	111	77	54	47	12	8.0
12	73	86	169	78	79	62	101	71	51	41	14	8.3
13	59	73	157	71	74	58	97	67	45	38	13	14
14	50	67	202	64	71	57	105	65	41	38	12	16
15	53	64	255	67	66	54	98	64	37	48	11	12
16	47	60	194	60	71	51	85	62	34	39	11	13
17	42	59	162	52	67	48	81	62	31	37	9.7	12
18	40	56	131	47	100	49	89	63	29	34	12	10
19	39	360	131	41	140	67	94	65	28	32	31	9.1
20	35	805	109	38	131	73	92	62	28	30	34	8.3
21	36	517	133	35	110	82	92	58	31	28	22	6.0
22	39	330	131	34	90	84	127	53	31	34	18	8.0
23	35	225	109	32	80	80	142	47	29	28	16	9.4
24	31	191	91	30	72	70	127	43	30	27	22	6.3
25	29	340	80	29	68	71	120	40	38	26	17	7.8
26	30	427	71	28	100	70	116	37	31	23	16	7.5
27	28	311	76	26	127	79	109	34	30	22	15	6.7
28	26	222	182	26	131	92	98	33	30	20	14	6.2
29	24	188	243	21	------	89	105	31	70	19	13	6.2
30	22	263	517	20	------	87	103	29	55	19	12	5.9
31	21	------	410	24	------	80	------	28	------	21	12	------
TOTAL	1,392	5,096	6,516	3,354	3,507	2,461	3,566	2,118	1,273	1,051	493.7	289.0
MEAN	44.9	170	210	108	125	79.4	119	68.3	42.4	33.9	15.9	9.63
MAX	184	805	517	445	526	157	243	118	85	49	34	16
MIN	17	20	71	20	28	48	66	28	28	19	9.7	5.9
CFSM	2.72	10.3	12.7	6.56	7.59	4.81	7.20	4.14	2.57	2.05	.97	.58
IN.	3.14	11.5	14.7	7.56	7.90	5.55	8.04	4.77	2.87	2.37	1.11	.65
AC-FT	2,760	10,110	12,920	6,650	6,960	4,880	7,070	4,200	2,520	2,080	979	573

CAL YR 1962: TOTAL 32,592.9 MEAN 89.3 MAX 805 MIN 7.0 CFSM 5.41 IN 73.46 AC-FT 64,650
WAT YR 1963: TOTAL 31,116.7 MEAN 85.3 MAX 805 MIN 5.9 CFSM 5.17 IN 70.14 AC-FT 61,720

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1057. North Fork Green River near Palmer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.9	63	88	327	211	71	220	131	278	89	36	74
2	5.7	97	73	294	184	66	175	112	244	87	37	71
3	5.9	84	65	214	157	65	141	98	217	82	48	61
4	6.4	152	57	169	155	131	133	94	247	75	53	54
5	6.7	125	68	144	144	133	125	104	250	73	45	48
6	6.7	116	84	232	125	105	116	92	235	67	38	44
7	6.2	144	69	202	107	88	129	104	254	67	33	48
8	5.7	217	63	163	97	81	141	122	238	67	31	70
9	5.4	172	55	138	88	75	149	163	214	64	30	56
10	5.0	138	49	127	91	74	184	235	205	57	28	49
11	5.2	110	45	107	91	80	190	211	199	57	26	45
12	5.7	97	43	92	81	71	169	208	181	60	25	41
13	11	88	40	84	76	63	149	202	160	56	27	39
14	9.7	122	39	77	70	85	146	178	149	58	24	38
15	6.7	98	55	89	69	118	262	169	157	65	23	36
16	5.9	94	102	172	75	105	208	193	250	55	22	34
17	5.9	157	120	149	84	144	166	211	266	48	21	82
18	7.2	136	114	129	149	175	138	211	326	42	27	62
19	5.9	157	125	120	199	138	129	232	254	39	26	72
20	10	131	155	114	160	114	129	250	223	40	22	205
21	16	110	127	95	133	98	122	294	190	44	20	141
22	105	105	129	87	114	85	155	235	166	40	19	129
23	53	120	138	75	105	74	131	208	163	36	18	100
24	59	120	125	128	100	66	122	199	144	34	17	85
25	98	175	157	390	89	65	129	178	129	33	18	84
26	74	370	129	247	81	62	160	190	120	32	28	70
27	58	258	127	202	75	58	149	208	107	31	37	63
28	76	181	114	172	71	62	146	196	97	30	84	57
29	75	138	97	226	68	82	157	202	88	28	67	66
30	70	109	85	202	------	144	141	232	88	28	129	144
31	62	------	94	199	------	178	------	254	------	38	98	------
TOTAL	878.8	4,184	2,831	5,166	3,249	2,956	4,611	5,716	5,839	1,622	1,157	2,168
MEAN	28.3	139	91.3	167	112	95.4	154	184	195	52.3	37.3	72.3
MAX	105	370	157	390	211	178	262	294	326	89	129	205
MIN	5.0	63	39	75	68	58	116	92	88	28	17	34
CFSM	1.72	8.45	5.53	10.1	6.79	5.78	9.32	11.2	11.8	3.17	2.26	4.38
IN.	1.98	9.43	6.38	11.6	7.32	6.66	10.4	12.9	13.2	3.66	2.61	4.89
AC-FT	1,740	8,300	5,620	10,250	6,440	5,860	9,150	11,340	11,580	3,220	2,290	4,300

CAL YR 1963: TOTAL 26,006.5 MEAN 71.3 MAX 526 MIN 5.0 CFSM 4.32 IN 58.62 AC-FT 51,580
WAT YR 1964: TOTAL 40,377.8 MEAN 110 MAX 390 MIN 5.0 CFSM 6.69 IN 91.01 AC-FT 80,090

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1964 TO JANUARY 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	190	37	760	59								
2	208	42	725	58								
3	190	60	385	53								
4	141	100	247	48		† 88.0						
5	109	74	193	47								
6	91	64	152	44								
7	77	62	125	43								
8	87	56	157	42								
9	81	54	169	39								
10	75	51	211	38								
11	65	49	175	36								
12	59	47	149	34								
13	56	48	133	36								
14	58	43	114	56								
15	66	41	97	100		† 89.8						
16	68	41	70	157				† 87.1				
17	74	42	64	136								
18	65	41	61	118								
19	60	39	60	116								
20	56	38	62	116								
21	52	36	70	120								
22	48	38	295	102								
23	44	74	314	91								
24	44	430	190	82								
25	42	274	141	73								
26	39	208	118	123								
27	37	157	97	606								
28	35	116	84	1,440								
29	34	150	75	1,750	------							
30	42	400	68	1,530	------							
31	38	------	63	1,010	------		------		------			------
TOTAL	2,331	2,912	5,624	8,303								
MEAN	75.2	97.1	181	268								
MAX	208	430	760	1,750								
MIN	34	36	60	34								
CFSM	4.56	5.88	11.0	16.2								
IN.	5.25	6.56	12.7	18.7								
AC-FT	4,620	5,780	11,160	16,470								

CAL YR 1964: TOTAL 43,351 MEAN 118 MAX 760 MIN 17 CFSM 7.18 IN 97.71 AC-FT 85,990
WAT YR 1965: TOTAL MEAN MAX MIN CFSM IN AC-FT

† Result of discharge measurement.

12-1057.1. North Fork Green River near Lemolo, Wash.

Location.--Lat 47°18'20", long 121°46'20", in NE$\frac{1}{4}$SW$\frac{1}{4}$ sec.15, T.21 N., R.8 E., on left bank 1.8 miles northeast of Lemolo siding, 2.3 miles upstream from mouth, and 5$\frac{1}{2}$ miles east of Palmer.

Drainage area.--16.7 sq mi.

Records available.--June to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,250 ft (from topographic map).

Extremes.--Maximum discharge during period, 108 cfs Sept. 15 (gage height, 5.11 ft); no flow Aug. 8, 9, 18, Sept. 5-13.

Flood of Jan. 28, 1965, reached a stage of 9.50 ft, from floodmarks (discharge, 2,370 cfs, result of slope-area measurement).

Remarks.--Records good. No regulation or diversion above station. Considerable water goes underground a short distance above the gage and, at times during dry summers, the streambed at the gage may become completely dry.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1									-	12	.30	.60
2									-	12	.60	.40
3									-	11	1.1	.70
4									-	10	1.0	.30
5									-	9.0	.80	0
6									-	8.4	.30	0
7									-	7.6	.10	0
8									-	7.6	0	0
9									-	7.3	0	0
10									-	7.8	2.1	0
11									-	8.4	1.4	0
12									-	7.3	4.3	0
13									-	5.9	6.5	0
14						‡ 82.6			-	5.3	2.6	33
15									-	4.7	1.5	72
16								‡ 74.2	-	4.2	.90	45
17									-	3.9	.40	25
18									-	3.4	0	16
19									-	3.4	.90	13
20									-	4.7	2.8	11
21									-	5.5	3.2	9.2
22									-	3.9	2.0	8.1
23									18	3.0	6.2	6.8
24						‡ 49.8			18	2.5	8.7	5.7
25									17	2.0	4.9	5.1
26									16	1.8	4.0	4.7
27									15	1.6	3.2	4.4
28				† 2,370					14	1.4	2.7	4.0
29					------				13	1.2	2.6	3.6
30					------				13	.90	1.8	3.3
31		------			------		------		------	.50	1.2	------
TOTAL									-	168.80	68.10	271.90
MEAN									-	5.45	2.20	9.06
MAX									-	12	8.7	72
MIN									-	.50	0	0
CFSM									-	.326	.132	.543
IN									-	.38	.15	.61
AC-FT									-	335	135	539

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† Result of slope-area measurement at gage site.
‡ Result of discharge measurement.

12-1058. Howard A. Hanson Reservoir near Palmer, Wash.

Location.--Lat 47°16'40", long 121°47'05", in NE¼SE¼ sec.28, T.21 N., R.8 E., on left bank just upstream from Howard A. Hanson Dam on Green River, 1.4 miles upstream from Bear Creek and 5½ miles southeast of Palmer.

Drainage area.--220 sq mi, approximately.

Records available.--December 1961 to September 1965.

Gage.--Water-stage recorder or staff gage read once daily. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for December 1961 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1962	Apr. 7, 1962	28,730	1,144.8	Mar. 5, 6, 1962	55	1,039.0
1963	Apr. 6, 1963	26,430	1,142.0	Nov. 2, 1962	34	1,037.6
1964	July 9, 1964	22,280	1,136.3	Dec. 14, 1963	68	1,039.9
1965	Jan. 31, 1965	44,910	1,161.7	Nov. 21, 22, 1964	46	1,038.4

1961-65: Maximum contents observed, 44,910 acre-ft Jan. 31, 1965 (elevation, 1,161.7 ft); minimum observed, 34 acre-ft Nov. 2, 1962 (elevation, 1,037.6 ft).

Remarks.--Reservoir is formed by earthfill dam completed Mar. 31, 1962; storage began Dec. 5, 1961. Capacity, 61,570 acre-ft between elevations 1,035 (invert of outlet tunnel) and 1,176 ft (spillway crest). Storage is not retained but is dissipated as soon after a flood as is possible without creating damaging flows downstream in order to have the maximum capacity available for any following flood which might develop.

Cooperation.--Record of reservoir elevations and capacity table furnished by Corps of Engineers.

Capacity table, December 1961 to September 1965 (elevation, in feet, and contents, in acre-feet)

1,037	26	1,055	493	1,080	2,800	1,130	18,360
1,040	70	1,060	770	1,090	4,550	1,145	28,900
1,045	153	1,065	1,130	1,100	6,890	1,162	45,230
1,050	289	1,070	1,590	1,120	13,390		

CONTENTS, IN ACRE-FEET, AT 0800 HOURS, DECEMBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			-	23,720	126	60	2,630	14,970	21,100	23,860	17,200	15,510
2			-	17,470	131	58	4,430	17,040	22,210	23,790	17,150	15,310
3			-	8,860	135	58	6,220	19,360	23,440	23,580	17,150	15,120
4			0	2,180	149	56	7,760	21,880	24,740	23,370	17,260	14,930
5			889	558	155	55	9,620	23,720	24,670	23,230	17,690	14,640
6			1,450	4,090	133	55	11,970	25,190	25,040	23,090	17,860	14,500
7			1,630	10,100	117	58	25,570	26,360	25,570	22,950	18,020	14,360
8			1,460	10,630	107	61	28,480	23,940	25,650	22,750	18,190	14,270
9			1,170	2,890	98	66	25,190	25,190	25,570	22,480	18,360	14,140
10			802	225	87	61	19,240	25,880	25,500	22,210	18,480	14,050
11			673	176	85	56	11,400	25,420	25,420	21,940	18,480	14,230
12			1,120	149	84	56	3,420	19,480	25,120	21,620	18,540	14,360
13			1,530	128	133	56	126	11,440	25,040	21,290	18,590	14,360
14			1,530	117	88	56	135	3,450	24,890	20,840	18,540	14,410
15			2,150	114	84	60	144	99	24,890	20,720	18,310	14,320
16			2,180	101	80	237	149	654	25,190	20,280	18,140	14,180
17			2,730	96	79	289	135	1,640	25,340	19,970	17,970	14,050
18			2,830	90	78	234	133	2,760	25,570	19,600	17,860	13,910
19			2,820	82	76	181	2,000	3,950	25,570	19,240	17,750	13,730
20			3,880	76	74	203	329	5,030	25,420	18,830	17,580	13,600
21			4,550	76	72	222	209	6,000	25,270	18,540	17,420	13,430
22			3,920	76	72	470	130	6,920	25,190	18,250	17,260	13,260
23			5,720	70	72	770	128	7,840	25,190	17,640	17,100	13,090
24			7,840	70	70	1,080	1,720	9,010	24,960	17,470	16,940	12,920
25			9,720	82	64	2,700	3,990	10,430	24,740	17,420	16,730	12,760
26			10,330	124	61	4,470	6,000	12,040	24,740	17,200	16,620	12,560
27			12,680	124	58	4,170	7,870	13,730	24,520	17,200	16,370	12,360
28			15,560	122	61	196	9,970	15,410	24,220	17,200	16,210	12,360
29			18,940	122	------	104	11,700	17,100	24,080	17,200	16,110	12,240
30			24,300	119	------	170	13,300	18,710	24,010	17,200	15,910	11,770
31		------	26,360	122	------	1,200	------	19,970	------	17,200	15,710	------
MAX			26,360	23,720	155	4,470	28,480	26,360	25,650	23,860	18,590	15,510
MIN			0	70	58	55	126	99	21,100	17,200	15,710	11,770
(†)			1,139.6	1,043.4	1,039.3	1,074.5	1,122.3	1,133.9	1,138.7	1,127.9	1,124.7	1,116.1
(‡)			24,590	124	60	2,080	14,410	20,720	23,940	17,200	15,560	11,810
(††)			+24,590	-24,470	-60	+2,020	+12,330	+6,310	+3,220	-6,740	-1,640	-3,750

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† Month-end elevation, in feet, estimated.
‡ Month-end contents, in acre-feet, estimated.
†† Change in contents, in acre-feet.

12-1058. Howard A. Hanson Reservoir near Palmer, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 0800 HOURS, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11,850	36	131	234	55	155	25,040	20,210	24,300	25,040	20,150	16,780
2	11,890	34	121	286	58	146	25,960	21,810	24,440	25,040	20,090	16,730
3	11,930	37	114	329	166	133	26,040	23,160	24,670	25,040	19,970	16,620
4	11,970	40	103	265	344	122	25,880	23,650	24,740	24,960	19,910	16,520
5	12,000	42	111	214	255	114	26,040	24,010	25,120	24,810	19,780	16,420
6	12,080	48	325	172	203	106	26,430	24,590	25,570	24,670	19,660	16,310
7	11,970	43	231	139	176	98	25,650	25,270	25,730	25,520	19,480	16,160
8	11,700	54	225	124	161	600	24,590	25,270	25,650	24,440	19,360	16,060
9	12,080	54	212	119	148	-	24,670	25,190	25,650	24,520	19,240	15,960
10	12,720	55	196	107	135	-	24,590	24,960	25,810	24,520	19,060	15,810
11	12,280	58	166	93	124	2,560	24,300	24,960	25,880	24,520	18,880	15,710
12	10,060	62	142	87	114	3,420	23,720	24,890	25,880	24,590	18,770	15,560
13	9,720	67	128	93	106	4,110	19,540	24,740	25,880	24,440	18,710	15,460
14	4,660	62	135	87	101	4,720	11,630	24,960	25,650	24,220	18,650	15,310
15	3,080	60	139	85	95	5,320	6,590	25,340	25,420	24,010	18,590	15,170
16	1,460	60	142	84	95	-	1,150	25,650	25,190	23,860	18,540	14,970
17	109	60	146	79	85	-	121	25,810	24,960	23,650	18,480	14,780
18	80	60	131	76	103	7,460	678	25,810	24,960	23,370	18,360	14,600
19	78	60	128	72	115	8,230	2,050	25,810	25,120	23,090	18,310	14,360
20	76	5,190	119	70	142	9,340	3,420	26,120	25,190	22,820	18,420	14,180
21	73	7,790	114	68	133	10,430	4,680	26,120	25,500	22,480	18,480	13,960
22	72	1,590	111	67	117	11,550	5,980	26,040	25,500	22,140	18,480	13,730
23	70	179	107	64	109	12,880	7,790	25,880	25,420	21,880	18,250	13,520
24	42	170	104	62	103	14,180	9,780	25,500	25,340	21,550	18,020	13,300
25	40	246	101	61	96	15,410	11,590	25,270	25,270	21,230	17,800	13,090
26	40	355	101	60	130	16,470	13,260	24,890	25,270	21,030	17,640	12,880
27	40	234	96	60	130	17,640	14,640	24,520	25,120	20,780	17,420	12,640
28	39	170	135	58	122	18,880	16,010	24,590	25,040	20,590	17,200	12,480
29	37	139	188	52	------	20,340	17,310	24,740	24,960	20,400	17,100	12,320
30	36	140	262	48	------	-	18,710	24,010	25,040	20,280	16,990	12,120
31	36	------	359	54	------	23,580	------	24,080	------	20,210	16,890	------
MAX	12,720	7,790	359	329	344	-	26,430	26,120	25,880	25,520	20,150	16,780
MIN	36	34	96	48	55	-	121	20,210	24,300	20,210	16,890	12,120
(†)	1,037.7	1,044.0	1,049.5	1,039.0	1,044.5	1,139.5	1,132.3	1,139.1	1,140.2	1,133.0	1,127.2	1,116.7
(‡)	36	135	272	55	144	24,520	19,720	24,220	25,040	20,150	16,830	12,040
(††)	-11,770	+99	+137	-217	+89	+24,380	-4,800	+4,500	+820	-4,890	-3,320	-4,790

CAL YR 1962.................... †† -24,320
WAT YR 1963.................... †† +230

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† Month-end elevation, in feet, estimated.
‡ Month-end contents, in acre-feet, estimated.
†† Change in contents, in acre-feet.

CONTENTS, IN ACRE-FEET, AT 0800 HOURS, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12,000	2,720	109	188	153	93	209	479	1,530	17,970	16,370	17,530
2	11,810	1,580	98	388	146	87	170	-	1,630	19,120	16,470	17,530
3	11,700	-	88	231	126	85	139	-	6,890	20,090	16,570	17,580
4	11,510	1,130	82	184	114	96	128	225	5,440	-	16,830	17,470
5	11,400	518	78	146	117	135	126	237	3,390	-	16,940	17,370
6	11,300	79	109	209	107	114	121	-	1,860	21,810	17,040	17,150
7	11,120	78	101	191	99	103	124	212	1,080	22,010	17,040	16,940
8	10,970	176	96	151	93	96	137	-	939	22,140	17,040	16,780
9	10,940	135	90	137	88	93	146	-	300	22,280	16,990	16,680
10	10,940	114	85	122	85	95	161	889	246	21,880	16,940	16,470
11	10,940	96	78	114	95	93	174	1,710	228	21,680	16,830	16,260
12	10,840	88	73	104	88	91	161	1,720	206	21,360	16,730	16,010
13	10,660	80	70	96	85	85	155	1,620	193	21,030	16,620	15,660
14	10,490	96	68	93	82	87	142	1,260	188	21,030	16,470	15,310
15	10,490	93	73	88	79	117	237	822	191	21,030	16,310	14,970
16	10,490	90	115	128	79	121	206	-	262	20,970	16,110	14,640
17	10,490	114	121	130	96	119	209	876	262	20,720	15,910	14,360
18	10,490	126	119	122	111	168	-	1,360	352	20,280	15,710	14,460
19	10,360	126	111	111	174	155	-	1,790	262	19,780	15,560	14,270
20	10,160	117	124	114	146	133	176	2,560	203	19,180	15,460	14,460
21	10,130	104	112	104	126	124	214	1,810	172	19,120	15,310	15,170
22	10,000	96	104	98	115	107	279	939	155	19,120	15,210	15,560
23	10,390	95	128	88	109	101	255	605	1,920	19,120	15,020	15,510
24	10,490	99	-	84	111	91	234	-	4,510	19,120	14,930	15,210
25	10,230	111	166	209	103	88	-	355	7,100	-	14,880	14,640
26	-	159	153	188	98	73	-	-	9,590	-	14,880	14,050
27	-	329	139	149	91	82	542	-	11,740	16,370	14,930	13,300
28	10,390	206	128	137	88	82	537	600	13,690	16,210	15,210	12,480
29	8,520	153	117	153	84	88	594	-	15,310	16,210	15,810	11,930
30	6,690	128	109	140	------	114	594	720	16,520	16,160	16,310	11,590
31	4,600	------	111	130	------	161	------	1,080	------	16,210	17,150	-----
MAX	-	-	-	388	174	168	-	-	16,520	-	17,150	17,580
MAX	-	-	-	84	79	73	-	-	155	-	14,880	11,590
(†)	1,083.0	1,042.9	1,045.3	1,044.6	1,041.3	1,046.7	1,055.5	1,067.7	1,128.4	1,126.2	1,128.2	1,117.8
(‡)	3,260	115	159	146	90	191	518	1,370	17,470	16,310	17,370	12,480
(††)	-8,780	-3,140	+44	-13	-56	+101	+327	+852	+16,100	-1,160	+1,060	-4,890

CAL YR 1963.................. †† -113
WAT YR 1964.................. †† +440

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† Month-end elevation, in feet, estimated.
‡ Month-end contents, in acre-feet, estimated.
†† Change in contents, in acre-feet.

12-1058. Howard A. Hanson Reservoir near Palmer, Wash.--Continued

CONTENTS, IN ACRE-FEET, AT 0800 HOURS, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12,960	4,830	475	82	39,600	153	103	-	2,950	18,540	19,540	16,620
2	14,690	4,620	1,540	80	27,980	1,690	106	-	2,500	18,770	19,420	16,520
3	17,640	3,560	452	-	16,420	3,240	-	203	2,190	19,000	19,360	16,420
4	17,200	2,980	246	74	7,540	4,580	-	-	2,860	19,180	19,240	16,260
5	17,640	1,790	359	70	2,130	5,840	363	184	3,420	19,360	19,120	16,110
6	16,370	842	329	70	932	7,100	379	168	3,900	19,540	19,000	15,960
7	14,780	-	307	68	-	8,290	91	157	4,350	19,720	18,880	15,810
8	13,050	-	128	67	493	9,530	85	-	5,600	19,840	18,710	15,610
9	11,400	91	159	62	206	11,040	137	-	6,870	19,910	18,590	15,460
10	9,750	90	179	61	157	12,560	139	164	7,950	19,970	18,540	15,310
11	8,090	56	168	60	139	14,360	135	-	8,920	20,090	18,480	15,120
12	6,520	52	142	58	130	16,420	135	228	9,840	20,210	18,360	14,970
13	6,220	55	137	58	179	18,310	144	246	10,600	20,280	18,310	14,780
14	6,000	52	124	64	193	19,910	148	240	11,220	20,280	18,250	14,690
15	5,880	50	115	90	174	21,360	164	-	11,850	20,340	18,140	14,830
16	6,100	49	101	130	174	22,680	243	975	12,400	20,340	18,080	15,170
17	6,340	49	88	135	311	23,860	-	1,170	12,960	20,340	17,910	15,310
18	6,640	49	90	119	311	24,740	-	1,490	13,390	20,340	17,800	15,360
19	6,890	49	88	111	289	25,570	212	1,590	14,090	20,280	17,690	15,360
20	7,020	48	87	107	296	26,430	1,360	1,710	14,600	20,280	17,640	15,310
21	7,100	46	85	114	220	27,160	1,760	1,930	15,070	20,280	17,580	15,260
22	7,070	46	146	109	188	27,900	1,060	2,120	15,560	20,280	17,470	15,210
23	7,000	56	573	104	164	18,940	537	2,200	16,010	20,210	17,420	15,120
24	6,820	616	237	98	148	8,230	-	2,220	16,420	20,150	17,370	15,020
25	6,640	1,510	168	90	135	998	-	2,110	16,830	20,150	17,310	14,930
26	6,470	209	142	87	131	128	196	1,980	17,310	20,090	17,260	14,830
27	6,220	146	124	426	201	-	222	2,010	17,640	20,030	17,200	14,690
28	5,960	130	111	4,390	176	-	243	2,390	17,860	19,910	17,100	14,550
29	5,670	114	101	21,230	------	85	220	2,980	18,080	19,840	16,990	14,410
30	5,370	191	95	36,960	------	84	181	3,320	18,360	19,720	16,890	14,270
31	5,100	------	88	44,910	------	85	------	3,270	------	19,660	16,780	------
MAX	17,640	4,830	1,540	44,910	39,600	27,900	-	-	18,360	20,340	19,540	16,620
MIN	5,100	-	85	-	-	-	-	-	2,190	18,540	16,780	14,270
(†)	1,091.8	1,051.6	1,041.0	1,158.3	1,045.4	1,041.7	1,049.0	1,081.7	1,130.2	1,132.1	1,126.9	1,121.7
(‡)	4,940	348	85	41,320	161	96	255	3,050	18,480	19,600	16,680	14,140
(††)	-7,540	-4,590	-263	+41,240	-41,160	-65	+159	+2,800	+15,430	+1,120	-2,920	-2,540

CAL YR 1964.................... †† -74
WAT YR 1965.................... †† +1,660

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† Month-end elevation, in feet, estimated.
‡ Month-end contents, in acre-feet, estimated.
†† Change in contents, in acre-feet.

12-1059. Green River below Howard A. Hanson Dam, Wash.

Location.--Lat 47°17'00", long 121°47'45", in NE¼NW¼ sec.28, T.21 N., R.8 E., on right bank 0.6 mile upstream from Bear Creek, 0.8 mile downstream from Howard A. Hanson Dam, and 5 miles southeast of Palmer.

Drainage area.--221 sq mi.

Records available.--October 1960 to September 1965. Monthly discharge only October 1960.

Average discharge.--5 years, 1,077 cfs (779,700 acre-ft per year), adjusted for storage in Howard A. Hanson Reservoir since December 1961.

Gage.--Digital water-stage recorder. Altitude of gage is 990 ft (from topographic map). Prior to July 23, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	12,200	14.40	Sept.15, 1961	119	3.66
1962	Jan. 8, 1962	9,630	13.25	Dec. 29, 1961	87	3.49
1963	Nov. 20, 1962	8,850	12.86	Oct. 1, 1962	174	3.95
1964	Jan. 1, 1964	5,050	10.56	June 2, 3, 1964	106	3.60
1965	Feb. 1, 1965	10,600	13.78	(a)	215	4.14

a For all or part of each day Aug. 31 to Sept. 7, Sept. 12-15, 24-30, 1965.

1960-65: Maximum discharge, 12,200 cfs Feb. 21, 1961 (gage height, 14.40 ft); minimum, 87 cfs Dec. 29, 1961 (gage height, 3.49 ft).

Remarks.--Records excellent. Flow regulated by Howard A. Hanson Reservoir (see station 12-1058) for flood control and, during summer months, to augment the natural river flow. Minor diversions on upstream tributaries for domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			1,040	751	1,850	2,850	1,320	1,980	1,370	335	182	298
2			1,100	697	2,680	2,570	2,110	2,100	1,660	320	178	386
3			1,160	652	2,350	2,060	3,860	2,010	1,700	305	173	258
4			1,140	661	2,300	1,720	3,290	1,770	1,560	295	169	213
5			1,030	2,580	2,730	1,490	2,360	1,680	1,370	407	169	199
6			945	4,230	3,620	1,370	1,840	1,470	1,290	386	167	166
7			870	3,150	3,530	1,230	1,540	1,340	1,200	341	165	173
8			810	2,480	2,830	1,160	1,490	1,270	1,020	311	165	165
9			760	2,480	2,600	1,130	1,690	1,260	950	298	161	159
10			715	2,160	2,900	1,070	1,540	1,400	855	280	157	151
11		1,900	738	1,890	2,560	1,040	1,410	1,480	800	275	153	147
12			1,060	1,790	2,190	1,040	1,550	1,370	742	262	151	145
13			1,060	1,690	2,150	1,060	1,830	1,300	706	255	151	137
14			1,400	1,940	1,980	1,740	1,650	1,310	688	253	149	132
15	400		1,290	2,580	1,960	2,300	1,460	1,340	715	248	155	128
16			1,130	3,940	1,880	2,260	1,370	1,480	738	241	163	128
17			1,020	3,110	1,660	1,990	1,500	1,700	746	241	157	126
18			1,090	2,380	1,470	1,810	1,460	1,910	637	233	151	130
19			1,400	1,950	2,930	1,870	1,330	2,150	625	231	145	128
20			1,340	1,640	4,630	1,950	1,190	2,350	569	224	143	147
21			1,180	1,430	9,530	1,730	1,110	2,190	517	217	139	229
22			1,070	1,270	6,440	1,540	1,100	1,830	477	213	137	173
23		1,910	1,040	1,140	3,660	1,470	1,060	1,880	449	213	137	155
24		3,940	1,060	1,040	3,070	1,450	1,060	1,710	424	210	137	147
25		3,870	1,120	970	2,620	1,400	1,060	1,510	404	208	136	143
26		2,530	1,080	895	2,140	1,350	1,070	1,690	390	199	137	139
27		1,880	1,000	830	1,990	1,260	1,050	1,720	372	195	136	137
28		1,520	910	800	1,820	1,160	1,070	1,490	359	195	132	171
29		1,290	845	930	------	1,110	1,460	1,410	359	193	126	190
30		1,140	795	1,180	------	1,110	1,990	1,360	379	188	126	176
31		------	775	1,680	------	1,200	------	1,280	------	186	173	------
TOTAL	12,400	59,880	31,973	54,916	82,070	48,490	47,820	50,740	24,131	7,958	4,720	5,196
MEAN	400	1,996	1,031	1,771	2,931	1,564	1,594	1,637	804	257	152	173
MAX	-	-	1,400	4,230	9,530	2,850	3,860	2,350	1,700	407	182	386
MIN	-	-	715	652	1,470	1,040	1,050	1,260	359	186	126	126
CFSM	1.81	9.03	4.67	8.01	13.3	7.08	7.21	7.41	3.64	1.16	.688	.783
IN	2.09	10.08	5.38	9.24	13.81	8.16	8.05	8.54	4.06	1.34	.79	.87
AC-FT	24,600	118,800	63,420	108,900	162,800	96,180	94,850	100,600	47,860	15,780	9,360	10,310

CAL YR 1960: TOTAL· MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 430,294 MEAN 1,179 MAX 9,530 MIN 126 CFSM 5.33 IN 72.41 AC-FT 853,500

12-1059. Green River below Howard A. Hanson Dam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	169	909	850	5,240	1,390	504	430	395	315	476	202	288
2	161	970	800	6,290	1,490	493	385	398	321	476	202	288
3	149	955	820	8,820	1,870	486	382	409	324	472	202	288
4	145	835	696	6,660	2,040	486	402	548	806	472	204	299
5	157	725	835	2,270	1,760	476	388	674	979	472	202	265
6	227	638	935	218	1,450	486	452	674	730	476	202	229
7	326	580	995	1,710	1,250	500	2,620	1,780	875	476	202	229
8	294	536	995	8,820	1,110	552	4,900	1,290	1,000	476	202	229
9	330	508	910	6,950	1,000	568	5,290	611	1,000	472	202	229
10	750	674	855	2,690	940	524	5,840	1,390	1,000	472	211	229
11	608	815	522	2,080	880	504	6,100	3,280	1,000	472	213	227
12	641	825	299	1,700	795	476	4,730	4,920	915	472	215	227
13	1,080	750	299	1,430	810	486	1,440	5,470	845	472	256	227
14	795	820	412	1,270	880	472	1,680	4,310	740	468	332	251
15	596	770	392	1,120	850	423	2,010	780	624	465	307	266
16	496	735	437	1,020	790	515	1,750	420	629	462	296	266
17	430	656	444	950	770	647	1,530	326	629	462	296	263
18	385	608	492	855	775	656	906	304	674	462	296	263
19	359	564	562	745	740	683	1,920	294	740	462	296	260
20	332	520	664	674	710	710	2,030	310	735	458	294	260
21	312	536	732	638	670	620	1,500	304	674	458	294	260
22	310	2,690	1,420	665	725	508	1,450	304	638	458	294	258
23	588	2,070	2,560	670	670	493	914	312	638	369	294	258
24	548	1,420	3,460	674	605	532	434	304	638	291	288	258
25	493	1,100	4,520	895	575	624	409	304	634	273	291	256
26	548	945	2,510	1,400	525	804	402	301	634	224	291	256
27	683	835	304	1,550	520	3,810	420	307	634	204	291	256
28	740	875	186	1,460	510	1,590	434	304	564	204	291	335
29	638	900	122	1,330	------	1,030	451	304	496	204	291	365
30	568	845	685	1,290	------	679	420	307	479	202	291	385
31	532	------	2,860	1,340	------	444	------	312	------	202	291	------
TOTAL	14,390	26,609	32,573	73,424	27,100	21,781	52,019	31,946	20,910	12,484	8,039	7,991
MEAN	464	887	1,051	2,369	968	703	1,734	1,031	697	403	259	266
MAX	1,080	2,690	4,520	8,820	2,040	3,810	6,100	5,470	1,000	476	332	385
MIN	145	508	122	218	510	423	382	294	315	202	202	227
AC-FT	28,540	52,780	64,610	145,600	53,750	43,200	103,200	63,360	41,470	24,760	15,950	15,850
(†)	0	0	+24,590	-24,470	-60	+2,020	+12,330	+6,310	+3,220	-6,740	-1,640	-3,750
MEAN ‡	464	887	1,451	1,970	967	735	1,941	1,133	751	293	233	203
CFSM ‡	2.10	4.01	6.57	8.91	4.38	3.33	8.78	5.13	3.40	1.33	1.05	.919
IN ‡	2.42	4.48	7.57	10.27	4.56	3.84	9.80	5.91	3.79	1.53	1.21	1.03
AC-FT‡	28,540	52,780	89,200	121,100	53,690	45,220	115,500	69,670	44,690	18,020	14,310	12,100

OBSERVED

CAL YR 1961: TOTAL 399,613 MEAN 1,095 MAX 9,530 MIN 122 AC-FT 792,600
WAT YR 1962: TOTAL 329,266 MEAN 902 MAX 8,820 MIN 122 AC-FT 653,100

ADJUSTED ‡

CAL YR 1961: MEAN 1,129 CFSM 5.11 IN 69.33 AC-FT 817,200
WAT YR 1962: MEAN 918 CFSM 4.15 IN 56.41 AC-FT 664,900

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† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1059. Green River below Howard A. Hanson Dam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	268	256	1,430	2,970	462	1,750	388	341	500	402	283	229
2	199	248	1,340	3,290	624	1,620	745	468	500	402	283	229
3	202	239	1,190	3,640	4,900	1,420	1,100	790	508	398	283	227
4	202	248	1,100	2,970	3,780	1,260	1,390	915	437	398	283	227
5	202	315	1,380	2,300	2,910	1,120	1,950	915	398	398	281	227
6	276	375	3,400	1,820	2,360	1,040	2,800	920	454	398	281	227
7	385	338	2,720	1,530	2,050	748	3,120	1,130	568	398	281	227
8	385	440	2,610	1,350	1,840	532	2,130	1,260	568	398	281	224
9	465	468	2,610	1,250	1,670	458	1,620	1,200	564	402	283	224
10	850	500	2,260	1,090	1,460	496	1,540	1,060	560	402	286	224
11	1,430	584	1,840	925	1,300	426	1,540	1,020	560	402	286	222
12	1,890	656	1,560	900	1,150	382	3,290	1,020	564	465	288	222
13	1,760	608	1,390	915	1,050	402	4,640	810	560	500	258	253
14	1,620	576	1,480	850	950	406	4,200	674	560	500	243	270
15	1,420	540	1,710	835	920	335	4,350	674	560	500	243	270
16	1,310	520	1,780	810	910	273	2,670	745	560	496	243	270
17	622	508	1,620	760	880	278	1,010	885	454	496	241	268
18	416	500	1,430	710	1,000	283	526	940	338	496	241	266
19	392	2,180	1,380	656	1,250	294	382	935	307	496	241	263
20	365	7,390	1,280	624	1,500	299	430	1,060	278	496	239	263
21	353	7,990	1,390	604	1,350	299	458	1,120	323	496	241	260
22	356	5,430	1,680	584	1,200	276	378	1,120	402	496	307	258
23	338	2,060	1,500	556	1,100	268	304	1,110	402	493	341	256
24	326	1,650	1,300	540	1,000	270	299	1,020	402	490	338	256
25	310	2,360	1,150	528	950	270	304	925	402	425	338	253
26	310	3,710	1,040	500	1,300	273	315	915	402	388	338	253
27	299	2,640	1,010	476	1,350	278	324	715	402	388	335	231
28	283	1,960	1,550	465	1,370	281	329	560	402	388	273	224
29	278	1,580	1,890	426	------	286	335	770	402	341	231	224
30	266	1,620	4,480	375	------	294	338	798	402	288	231	215
31	260	------	3,820	434	------	296	------	528	------	286	229	------
TOTAL	18,038	48,489	56,320	35,683	42,586	16,913	43,205	27,343	13,739	13,322	8,550	7,262
MEAN	582	1,616	1,817	1,151	1,521	546	1,440	882	458	430	276	242
MAX	1,890	7,990	4,480	3,640	4,900	1,750	4,640	1,260	568	500	341	270
MIN	199	239	1,010	375	462	268	299	341	278	286	229	215
AC-FT	35,780	96,180	111,700	70,780	84,470	33,550	85,700	54,230	27,250	26,420	16,960	14,400
(†)	-11,770	+99	+137	-217	+89	+24,380	-4,800	+4,500	+820	-4,890	-3,320	-4,790
MEAN‡	390	1,618	1,818	1,148	1,523	942	1,360	955	472	350	222	162
CFSM‡	1.76	7.32	8.23	5.19	6.89	4.26	6.15	4.32	2.14	1.58	1.00	.733
IN ‡	2.04	8.17	9.49	5.99	7.17	4.91	6.86	4.98	2.38	1.83	1.16	.82
AC-FT‡	24,010	96,280	111,800	70,560	84,560	57,930	80,900	58,730	28,070	21,530	13,640	9,610

OBSERVED

CAL YR 1962: TOTAL 378,541 MEAN 1,037 MAX 8,820 MIN 199 AC-FT 750,800
WAT YR 1963: TOTAL 331,450 MEAN 908 MAX 7,990 MIN 199 AC-FT 657,400

ADJUSTED ‡

CAL YR 1962: MEAN 1,003 CFSM 4.54 IN 61.64 AC-FT 726,500
WAT YR 1963: MEAN 908 CFSM 4.11 IN 55.80 AC-FT 657,600

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† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1059. Green River below Howard A. Hanson Dam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	211	1,270	1,110	3,100	1,760	915	2,400	1,580	4,030	667	406	484
2	213	885	975	4,100	1,610	865	1,950	1,400	1,680	850	406	532
3	213	805	860	2,660	1,370	835	1,550	1,240	2,410	855	407	532
4	211	1,090	790	1,980	1,280	1,220	1,430	1,130	4,360	860	408	532
5	211	1,210	795	1,670	1,230	1,470	1,390	1,140	4,180	860	409	531
6	211	810	1,080	2,490	1,110	1,240	1,290	1,090	3,720	940	409	529
7	211	1,040	1,040	2,220	1,020	1,070	1,360	1,100	3,200	1,010	409	529
8	151	1,980	970	1,690	955	1,000	1,530	1,200	3,250	1,060	409	528
9	128	1,420	885	1,460	895	955	1,650	1,430	2,770	1,190	409	528
10	128	1,150	800	1,360	910	955	1,870	2,150	2,970	1,120	409	525
11	184	970	735	1,200	950	955	2,030	2,500	2,770	1,080	407	524
12	220	870	688	1,060	890	925	1,870	2,510	2,450	1,080	406	523
13	220	805	642	980	850	855	1,760	2,450	2,300	965	406	521
14	162	940	624	920	805	915	1,620	2,220	2,260	910	405	520
15	130	935	725	970	790	1,280	2,770	1,900	2,300	910	405	517
16	130	920	1,150	1,430	825	1,300	2,350	1,770	3,170	910	403	516
17	130	1,300	1,310	1,410	990	1,570	1,820	2,110	3,210	910	402	517
18	151	1,360	1,230	1,300	1,340	2,210	1,570	2,360	3,740	910	403	515
19	222	1,370	1,180	1,210	1,980	1,750	1,410	2,580	3,000	905	379	516
20	224	1,250	1,300	1,190	1,620	1,430	1,350	3,460	2,360	795	364	518
21	320	1,070	1,150	1,050	1,380	1,250	1,310	3,950	1,970	735	340	520
22	420	985	1,150	975	1,260	1,110	1,600	3,280	1,140	745	329	700
23	544	985	1,400	880	1,170	1,010	1,490	2,580	624	744	329	787
24	576	1,040	1,460	1,090	1,150	915	1,340	2,220	580	741	285	874
25	576	1,310	1,890	3,020	1,070	890	1,380	1,970	486	739	263	917
26	580	2,450	1,750	2,170	1,000	875	1,610	1,890	465	736	263	909
27	580	3,530	1,530	1,700	930	820	1,690	2,220	482	596	264	901
28	1,180	2,360	1,360	1,470	890	810	1,690	2,770	500	485	266	803
29	1,490	1,700	1,230	1,680	860	910	1,750	2,950	504	451	266	747
30	1,540	1,330	1,120	1,570	------	1,300	1,720	3,150	516	421	268	748
31	1,480	------	1,120	1,530	------	1,870	------	3,590	------	405	347	------
TOTAL	12,947	39,140	34,049	51,535	32,890	35,475	50,550	67,890	67,397	25,585	11,281	18,343
MEAN	418	1,305	1,098	1,662	1,134	1,144	1,685	2,190	2,247	825	364	611
MAX	1,540	3,530	1,890	4,100	1,980	2,210	2,770	3,950	4,360	1,190	409	917
MIN	128	805	624	880	790	810	1,290	1,090	465	405	263	484
AC-FT	25,680	77,630	67,540	102,200	65,240	70,360	100,300	134,700	133,700	50,750	22,380	36,380
(†)	-8,780	-3,140	+44	-13	-56	+101	+327	+852	+16,100	-1,160	+1,060	-4,890
MEAN‡	275	1,252	1,099	1,662	1,133	1,146	1,691	2,205	2,517	807	381	529
CFSM‡	1.24	5.67	4.97	7.52	5.13	5.19	7.65	9.98	11.4	3.65	1.72	2.39
IN ‡	1.43	6.32	5.73	8.67	5.53	5.98	8.54	11.50	12.71	4.21	1.99	2.67
AC-FT‡	16,900	74,490	67,580	102,200	65,180	70,460	100,600	135,600	149,800	49,590	23,440	31,490

OBSERVED

CAL YR 1963: TOTAL 294,739 MEAN 808 MAX 4,900 MIN 128 AC-FT 584,600
WAT YR 1964: TOTAL 447,082 MEAN 1,222 MAX 4,360 MIN 128 AC-FT 886,800

ADJUSTED ‡

CAL YR 1963: MEAN 807 CFSM 3.65 IN 49.58 AC-FT 584,500
WAT YR 1964: MEAN 1,222 CFSM 5.53 IN 75.28 AC-FT 887,300

† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1059. Green River below Howard A. Hanson Dam, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	735	534	6,260	820	10,400	1,020	845	1,650	1,300	222	222	218
2	1,010	771	7,660	785	9,960	534	749	1,390	1,250	222	222	215
3	1,180	940	4,470	744	7,870	498	780	1,230	920	222	222	215
4	1,190	1,140	2,860	686	5,790	494	790	1,200	810	224	222	215
5	1,520	1,150	2,110	662	3,860	494	810	1,090	840	224	222	215
6	1,710	1,150	1,670	634	2,820	514	970	990	865	224	222	215
7	1,680	570	1,400	614	2,240	534	771	930	550	224	222	218
8	1,640	514	1,500	602	2,430	506	717	895	339	224	222	218
9	1,600	498	1,870	566	2,100	494	762	900	353	224	222	218
10	1,540	494	2,160	546	1,770	506	771	1,000	362	224	222	218
11	1,480	466	1,970	522	1,540	502	744	1,180	374	224	222	218
12	980	452	1,680	506	1,430	502	749	1,410	380	224	222	218
13	674	469	1,560	510	2,210	514	825	1,490	386	224	220	215
14	670	435	1,370	618	2,260	522	840	1,240	337	224	220	218
15	598	415	1,220	990	1,970	526	970	1,180	304	224	220	218
16	558	405	1,010	1,450	2,120	534	1,420	1,290	278	224	220	218
17	562	408	850	1,460	3,270	538	1,480	1,190	263	224	220	218
18	566	405	870	1,300	3,240	542	1,290	1,130	263	224	220	218
19	570	392	875	1,200	3,130	487	1,670	1,120	266	224	220	218
20	570	383	825	1,150	3,040	448	3,300	1,150	268	224	220	218
21	570	374	790	1,220	2,530	448	3,460	1,180	241	224	218	218
22	570	392	2,670	1,160	2,140	3,610	2,880	1,210	224	224	218	218
23	570	550	4,730	1,080	1,760	6,570	2,340	1,220	227	224	220	218
24	566	3,500	2,800	990	1,520	5,670	1,940	1,220	229	224	218	218
25	566	4,360	1,980	905	1,360	2,240	1,960	1,200	229	224	218	218
26	562	2,390	1,620	1,200	1,440	749	2,100	1,180	229	224	218	218
27	558	1,740	1,360	5,450	2,140	678	2,370	1,190	231	224	218	215
28	554	1,340	1,180	7,800	1,890	670	2,540	1,250	253	224	218	215
29	546	1,310	1,040	8,110	------	666	2,260	1,320	220	224	218	215
30	542	2,930	950	8,970	------	642	1,840	1,350	222	224	218	227
31	538	------	875	9,520	------	662	------	1,340	------	222	218	------
TOTAL	27,175	30,877	64,185	62,770	88,230	33,314	44,943	37,315	13,013	6,936	6,824	6,522
MEAN	877	1,029	2,070	2,025	3,151	1,075	1,498	1,204	434	224	220	217
MAX	1,710	4,360	7,660	9,520	10,400	6,570	3,460	1,650	1,300	224	222	227
MIN	538	374	790	506	1,360	448	717	895	220	222	218	215
AC-FT	53,900	61,240	127,300	124,500	175,000	66,080	89,140	74,010	25,810	13,760	13,540	12,940
(†)	-7,540	-4,590	-263	+41,240	-41,160	-65	+159	+2,800	+15,430	+1,120	-2,920	-2,540
MEAN‡	754	952	2,065	2,695	2,409	1,074	1,501	1,249	693	242	173	175
CFSM‡	3.41	4.31	9.34	12.2	10.9	4.86	6.79	5.65	3.14	1.10	.783	.792
IN ‡	3.93	4.81	10.77	14.06	11.35	5.60	7.58	6.52	3.50	1.26	.90	.88
AC-FT‡	46,360	56,650	127,000	165,700	133,800	66,020	89,300	76,810	41,240	14,880	10,620	10,400

OBSERVED

CAL YR 1964: TOTAL 483,183 MEAN 1,320 MAX 7,660 MIN 263 AC-FT 958,400
WAT YR 1965: TOTAL 422,104 MEAN 1,156 MAX 10,400 MIN 215 AC-FT 837,200

ADJUSTED ‡

CAL YR 1964: MEAN 1,320 CFSM 5.97 IN 81.31 AC-FT 958,300
WAT YR 1965: MEAN 1,159 CFSM 5.24 IN 71.16 AC-FT 838,900

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† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1065. Green River near Palmer, Wash.

Location.--Lat 47°17'40", long 121°49'20", in SW¼NW¼ sec.20, T.21 N., R.8 E., on right bank 1½ miles upstream from diversion dam and intake of Tacoma water-supply system, 2½ miles downstream from North Fork, and 3½ miles southeast of Palmer.

Drainage area.--230 sq mi.

Records available.--October 1931 to June 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 912.6 ft above mean sea level (river-profile survey).

Average discharge.--31 years (1931-62), 1,095 cfs (792,700 acre-ft per year), adjusted for storage since December 1961.

Extremes.--Maximum and minimum discharges for October 1960 to June 1963 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	12,100	14.92	Aug. 30, 1961	134	4.23
1962	Jan. 3, 1962	9,100	13.37	Oct. 5, 1961	171	4.32
1963	Nov. 20, 1962	8,420	13.0	Oct. 1, 1962	191	4.39

1931-63: Maximum discharge, 27,800 cfs Nov. 23, 1959 (gage height, 21.00 ft); minimum, 81 cfs Sept. 4, 5, 1934; minimum gage height, 3.35 ft Sept. 2, 3, 1945.

Flood in December 1917 reached a stage of about 20 ft, from crest head over city of Tacoma diversion dam and gage-height relationship curve (discharge, about 25,000 cfs).

Remarks.--Records good. Flow regulated by Howard A. Hanson Reservoir since Dec. 5, 1961, for flood control and, during summer months, to augment the natural river flow. Minor diversions on upstream tributaries for domestic use.

Revisions (water years).--WSP 1062: 1932-34, 1935(M), 1938(M). WSP 1216: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	174	1,820	1,180	800	1,990	2,890	1,410	2,020	1,430	370	197	330
2	170	1,680	1,220	734	2,770	2,650	2,170	2,130	1,690	340	197	400
3	166	1,410	1,290	692	2,500	2,160	3,920	2,070	1,730	330	192	281
4	162	1,160	1,290	704	2,450	1,790	3,270	1,860	1,590	322	188	234
5	162	950	1,170	2,780	2,790	1,580	2,350	1,780	1,430	430	188	218
6	170	806	1,080	4,370	3,680	1,470	1,880	1,560	1,350	415	184	205
7	190	704	1,000	3,220	3,580	1,320	1,610	1,410	1,250	360	180	197
8	242	626	938	2,600	2,880	1,260	1,590	1,350	1,070	326	180	188
9	246	560	890	2,560	2,650	1,220	1,770	1,340	983	308	176	180
10	210	1,050	842	2,280	2,930	1,160	1,610	1,480	884	294	171	171
11	202	2,410	854	2,050	2,620	1,110	1,500	1,530	824	290	163	163
12	219	1,820	1,170	1,960	2,280	1,120	1,670	1,440	750	281	163	159
13	210	1,400	1,180	1,850	2,240	1,160	1,930	1,360	715	273	159	155
14	210	1,230	1,570	2,060	2,120	1,880	1,730	1,370	695	268	163	151
15	202	1,490	1,390	2,630	2,100	2,400	1,540	1,410	725	264	167	155
16	198	4,500	1,230	4,100	2,050	2,340	1,460	1,530	740	260	180	151
17	190	3,880	1,110	3,180	1,820	2,070	1,580	1,750	765	260	171	151
18	182	4,060	1,180	2,510	1,610	1,860	1,540	1,930	710	251	163	151
19	178	3,480	1,500	2,100	2,850	1,940	1,420	2,140	640	247	163	155
20	174	4,330	1,420	1,790	4,630	2,050	1,260	2,300	580	243	155	171
21	190	3,310	1,250	1,590	9,520	1,790	1,170	2,170	535	239	155	268
22	250	2,410	1,140	1,430	6,800	1,600	1,180	1,830	490	234	151	209
23	435	1,990	1,090	1,310	3,750	1,540	1,130	1,900	470	230	151	184
24	656	4,120	1,100	1,230	3,100	1,530	1,130	1,710	440	230	147	167
25	548	3,890	1,170	1,140	2,670	1,480	1,140	1,550	430	226	147	163
26	734	2,660	1,140	1,070	2,190	1,440	1,150	1,710	415	218	142	163
27	1,040	2,030	1,050	1,020	2,060	1,340	1,110	1,760	400	213	142	159
28	1,630	1,650	962	1,000	1,930	1,230	1,130	1,550	385	205	142	197
29	1,520	1,410	890	1,110	------	1,180	1,520	1,480	385	205	138	218
30	1,140	1,270	830	1,360	------	1,180	2,030	1,420	410	201	134	205
31	1,330	------	818	1,830	------	1,270	------	1,330	------	197	201	------
TOTAL	13,330	64,106	34,944	59,060	84,560	51,010	49,900	52,170	24,911	8,530	5,150	5,899
MEAN	430	2,137	1,127	1,905	3,020	1,645	1,663	1,683	830	275	166	197
MAX	1,630	4,500	1,570	4,370	9,520	2,890	3,920	2,300	1,730	430	201	400
MIN	162	560	818	692	1,610	1,110	1,110	1,330	385	197	134	151
CFSM	1.87	9.25	4.90	8.28	13.1	7.15	7.23	7.32	3.61	1.20	.72	.85
IN.	2.16	10.4	5.65	9.55	13.7	8.25	8.07	8.44	4.03	1.38	.83	.95
AC-FT	26,440	127,200	69,310	117,100	167,700	101,200	98,980	103,500	49,410	16,920	10,210	11,700

CAL YR 1960: TOTAL 370,051 MEAN 1,011 MAX 4,500 MIN 162 CFSM 4.40 IN 59.84 AC-FT 734,000
WAT YR 1961: TOTAL 453,570 MEAN 1,243 MAX 9,520 MIN 134 CFSM 5.40 IN 73.34 AC-FT 899,600

12-1065. Green River near Palmer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	205	972	856	5,100	1,500	530	481	440	325	486	203	296
2	192	1,030	812	5,960	1,630	505	432	458	338	486	203	296
3	180	1,010	840	8,530	1,990	495	414	472	342	486	206	292
4	176	895	750	6,330	2,130	490	445	595	815	486	225	300
5	188	760	884	2,370	1,890	481	445	723	1,060	486	252	272
6	268	675	972	378	1,580	495	615	723	756	486	229	229
7	375	620	1,040	1,520	1,370	515	2,730	1,860	904	481	229	229
8	335	565	1,040	8,130	1,190	585	4,790	1,230	1,030	476	229	225
9	385	540	950	6,640	1,070	590	5,130	655	1,040	476	225	225
10	846	730	884	2,830	982	540	5,560	1,460	1,040	476	233	241
11	670	890	563	2,240	904	515	5,840	3,320	1,040	476	229	249
12	715	884	335	1,860	822	490	4,590	4,840	948	476	233	241
13	1,190	780	335	1,560	836	481	1,550	5,260	877	472	264	237
14	840	856	435	1,390	904	500	1,760	4,000	756	472	342	264
15	635	790	430	1,250	872	450	2,080	790	640	468	316	276
16	525	770	470	1,120	816	535	1,840	432	640	468	308	276
17	465	685	500	1,010	794	690	1,620	342	640	468	308	272
18	415	635	535	904	800	690	984	316	680	463	308	272
19	385	585	652	789	762	718	1,860	312	745	458	308	268
20	355	540	1,010	718	734	756	2,140	321	745	458	308	268
21	335	575	1,580	712	690	655	1,610	312	680	454	308	264
22	335	2,760	1,900	706	745	530	1,550	316	645	454	304	264
23	635	2,110	2,760	701	690	510	1,310	325	640	368	304	264
24	575	1,480	3,970	701	625	580	476	316	640	296	300	260
25	520	1,160	4,730	956	595	734	427	325	650	276	300	260
26	595	961	2,860	1,580	545	903	427	321	645	233	304	260
27	765	846	470	1,720	540	3,790	458	325	645	203	300	264
28	796	890	370	1,620	530	1,650	490	321	580	203	304	355
29	685	928	375	1,460	------	1,080	500	316	510	203	304	404
30	605	862	843	1,420	------	758	454	321	486	203	300	400
31	565	------	2,950	1,460	------	495	------	321	------	203	296	------
TOTAL	15,756	27,784	37,101	73,665	28,536	22,736	53,008	32,068	21,482	12,600	8,482	8,223
MEAN	508	926	1,197	2,376	1,019	733	1,767	1,034	716	406	274	274
MAX	1,190	2,760	4,730	8,530	2,130	3,790	5,840	5,260	1,060	486	342	404
MIN	176	540	335	378	530	450	414	312	325	203	203	225
CFSM	2.21	4.03	5.20	10.3	4.43	3.19	7.68	4.50	3.11	1.77	1.19	1.19
IN.	2.55	4.49	6.00	11.9	4.61	3.68	8.57	5.19	3.47	2.04	1.37	1.33
AC-FT	31,250	55,110	73,590	146,100	56,600	45,100	105,100	63,610	42,610	24,990	16,820	16,310
(†)	0	0	+24,590	-24,470	-60	+2,020	+12,330	+6,310	+3,220	-6,740	-1,640	-3,750
MEAN ‡	508	926	1,597	1,978	1,020	766	1,973	1,137	770	297	247	211
CFSM ‡	2.21	4.03	6.94	8.60	4.43	3.33	8.58	4.94	3.35	1.29	1.07	.917
IN ‡	2.55	4.49	8.00	9.91	4.61	3.84	9.57	5.70	3.74	1.49	1.24	1.02
AC-FT‡	31,250	55,110	98,180	121,600	56,540	47,120	117,400	69,920	45,830	18,250	15,180	12,560

OBSERVED

CAL YR 1961: TOTAL 421,831 MEAN 1,156 MAX 9,520 MIN 134 CFSM 5.02 IN 68.21 AC-FT 836,700
WAT YR 1962: TOTAL 341,441 MEAN 935 MAX 8,530 MIN 176 CFSM 4.07 IN 55.21 AC-FT 677,200

ADJUSTED ‡

CAL YR 1961: MEAN 1,176 CFSM 5.11 IN 70.21 AC-FT 851,300
WAT YR 1962: MEAN 952 CFSM 4.14 IN 56.16 AC-FT 689,000

† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1065. Green River near Palmer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1962 TO JUNE 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	300	260	1,550	3,070	450	1,890	382	360	490			
2	206	252	1,420	3,370	581	1,720	762	495	490			
3	210	245	1,270	3,670	5,050	1,480	1,150	806	500			
4	206	249	1,150	3,050	3,790	1,320	1,450	932	427			
5	206	329	1,560	2,400	2,960	1,180	2,000	938	404			
6	276	396	3,470	1,950	2,450	1,070	2,900	948	450			
7	400	351	2,770	1,620	2,120	770	3,200	1,140	550			
8	432	468	2,650	1,440	1,940	520	2,250	1,300	555			
9	590	486	2,660	1,330	1,750	445	1,700	1,200	590			
10	954	525	2,340	1,160	1,540	486	1,600	1,100	575			
11	1,520	630	1,950	960	1,360	418	1,650	1,060	565			
12	1,980	690	1,630	904	1,200	360	3,400	1,040	560			
13	1,850	640	1,430	932	1,090	396	4,700	850	555			
14	1,690	590	1,520	855	1,010	396	4,300	680	555			
15	1,500	550	1,820	850	938	334	4,400	685	555			
16	1,420	540	1,890	816	926	276	2,700	728	550			
17	667	530	1,690	762	882	280	1,050	855	454			
18	432	515	1,480	712	1,090	284	550	910	342			
19	400	2,340	1,430	660	1,410	316	414	910	316			
20	378	7,330	1,320	635	1,610	321	458	1,040	288			
21	364	7,610	1,450	600	1,370	321	486	1,140	321			
22	360	5,370	1,770	585	1,250	300	414	1,140	404			
23	364	2,120	1,570	550	1,150	284	400	1,140	400			
24	342	1,770	1,340	540	1,050	284	342	1,010	404			
25	321	2,540	1,160	520	1,000	284	342	916	409			
26	321	3,820	1,030	495	1,200	288	342	910	409			
27	312	2,750	1,060	472	1,400	288	342	701	409			
28	300	2,060	1,730	454	1,490	304	342	545	414			
29	284	1,670	2,020	409	------	312	346	777	414			
30	276	1,760	4,460	360	------	327	351	773	414			
31	268	------	3,910	400	------	316	------	515	------			------
TOTAL	19,129	49,386	58,500	36,531	44,057	17,570	44,723	27,544	13,769			
MEAN	617	1,646	1,887	1,178	1,573	567	1,491	889	459			
MAX	1,980	7,610	4,460	3,670	5,050	1,890	4,700	1,300	590			
MIN	206	245	1,030	360	450	276	342	360	288			
CFSM	2.68	7.16	8.20	5.12	6.84	2.46	6.48	3.86	2.00			
IN.	3.09	7.99	9.46	5.91	7.12	2.84	7.23	4.45	2.23			
AC-FT	37,940	97,960	116,000	72,460	87,390	34,850	88,710	54,630	27,310			
(†)	-11,770	+99	+137	-217	+89	+24,380	-4,800	+4,500	+820			
MEAN‡	426	1,648	1,888	1,175	1,575	963	1,410	962	473			
CFSM‡	1.85	7.17	8.21	5.11	6.85	4.19	6.13	4.18	2.06			
IN ‡	2.13	7.99	9.46	5.89	7.13	4.83	6.84	4.82	2.29			
AC-FT‡	26,170	98,060	116,100	72,240	87,480	59,230	83,910	59,130	28,130			

OBSERVED

CAL YR 1962: TOTAL 387,815 MEAN 1,063 MAX 8,530 MIN 203 CFSM 4.62 IN 62.71 AC-FT 769,200
WAT YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT

ADJUSTED ‡

CAL YR 1962: MEAN 1,029 CFSM 4.47 IN 60.70 AC-FT 744,800
CAL YR 1963: MEAN CFSM IN AC-FT

† Change in contents, in acre-feet, in Howard A. Hanson Reservoir.
‡ Adjusted for change in contents in Howard A. Hanson Reservoir.

12-1067. Green River at purification plant, near Palmer, Wash.

Location.--Lat 47°18'20", long 121°51'00", in NE¼SE¼ sec.13, T.21 N., R.7 E., on left bank at city of Tacoma purification plant, three-quarters of a mile downstream from diversion dam and 2 miles southeast of Palmer.

Drainage area.--231 sq mi.

Records available.--July 1963 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 859.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximum and minimum discharges for July 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	Nov. 21, 1962	a 8,220	10.47	Aug. 20, 1963	102	4.28
1964	Jan. 2, 1964b	5,300	-	Oct. 18, 1963	c 110	-
1965	Feb. 1, 1965	9,430	10.81	Sept.28, 1965	91	4.54

a Result of discharge measurement.
b About.
c Minimum daily.

1963-65: Maximum discharge, 9,430 cfs Feb. 1, 1965 (gage height, 10.81 ft); minimum, 91 cfs Sept. 28, 1965 (gage height, 4.54 ft).

Remarks.--Records good except those for Oct. 7, 1963, to Apr. 16, 1964, which are fair. Since Dec. 5, 1961, flow regulated by Howard A. Hanson Reservoir (see station 12-1058) for flood control and, during summer months, to augment the natural river flow. City of Tacoma diverted an average of about 2,130 acre-ft per month above station for municipal supply. Minor diversions on upstream tributaries for domestic use.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1										290	190	128
2										290	184	130
3										290	184	128
4	† 110									290	184	128
5										290	184	128
6										290	184	128
7										295	184	126
8										295	181	126
9										300	181	125
10										300	184	125
11										350	178	125
12										400	181	125
13										400	148	157
14								† 587	† 453	410	130	181
15										410	128	175
16										405	125	172
17										405	122	169
18			† 1,360	† 625						410	128	172
19										410	138	169
20										405	132	172
21		† 8,220								395	128	172
22										415	208	172
23										410	240	172
24										410	236	166
25						† 187				336	233	166
26										296	233	163
27		† 2,790								296	230	145
28					† 1,300					296	169	130
29					------					244	128	130
30					------					187	128	120
31	† 154	------			------		------		------	190	125	------
TOTAL										10,410	5,308	4,429
MEAN										336	171	148
MAX										415	240	181
MIN										187	122	120
AC-FT										20,650	10,530	8,780

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† Result of discharge measurement.

12-1067. Green River at purification plant, near Palmer, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	114	1,140	1,130	2,650	1,850	850	2,400	1,500	3,960	540	304	394
2	116	898	975	4,230	1,650	800	1,840	1,320	1,680	730	304	440
3	112	770	828	2,700	1,350	760	1,510	1,160	2,200	730	308	440
4	112	1,100	752	2,000	1,260	1,170	1,390	1,070	4,250	736	320	440
5	112	1,220	764	1,660	1,210	1,430	1,350	1,100	4,060	742	320	436
6	112	788	1,070	2,540	1,090	1,190	1,240	1,050	3,570	820	316	436
7	180	983	1,040	2,250	975	1,010	1,320	1,040	3,100	886	312	440
8	160	1,870	975	1,730	904	940	1,500	1,120	3,160	940	312	444
9	135	1,450	849	1,480	844	890	1,620	1,350	2,660	1,060	308	440
10	135	1,190	758	1,360	856	890	1,850	2,070	2,800	1,000	308	436
11	195	1,000	692	1,210	886	890	2,020	2,380	2,600	954	304	432
12	230	933	656	1,050	820	860	1,850	2,370	2,350	947	304	428
13	230	919	602	975	780	790	1,740	2,310	2,170	844	304	428
14	170	947	578	928	740	850	1,590	2,100	2,130	784	304	420
15	135	919	686	934	720	1,230	2,800	1,820	2,140	790	300	420
16	135	905	1,190	1,440	760	1,250	2,390	1,690	3,010	790	300	420
17	135	1,260	1,340	1,460	930	1,540	1,810	1,980	3,190	784	300	472
18	110	1,500	1,280	1,340	1,300	2,210	1,540	2,210	3,720	784	296	454
19	120	1,380	1,170	1,240	1,970	1,730	1,370	2,450	2,890	778	280	462
20	125	1,290	1,320	1,240	1,600	1,390	1,300	3,280	2,280	684	264	480
21	225	1,070	1,210	1,080	1,340	1,200	1,260	3,750	1,860	630	248	467
22	330	996	1,150	975	1,210	1,050	1,550	3,190	1,090	635	232	605
23	460	968	1,370	856	1,120	950	1,460	2,540	555	625	232	686
24	500	1,020	1,410	1,040	1,100	850	1,290	2,130	486	620	168	755
25	500	1,240	1,650	3,450	1,000	620	1,290	1,880	410	620	142	796
26	500	2,260	1,710	2,320	940	810	1,510	1,810	385	620	142	790
27	500	3,540	1,530	1,780	860	750	1,620	2,100	401	495	153	779
28	1,100	2,360	1,480	1,600	820	740	1,640	2,680	418	377	184	694
29	1,440	1,710	1,250	1,720	790	740	1,680	2,830	423	353	176	645
30	1,480	1,330	1,150	1,620	------	1,250	1,660	3,090	423	316	208	670
31	1,420	------	1,130	1,610	------	1,850	------	3,550	------	304	272	------
TOTAL	11,328	38,956	33,695	52,468	31,675	33,680	49,390	64,920	64,371	21,918	8,225	15,649
MEAN	365	1,299	1,087	1,693	1,092	1,086	1,646	2,094	2,146	707	265	522
MAX	1,480	3,540	1,710	4,230	1,970	2,210	2,800	3,750	4,250	1,060	320	796
MIN	110	770	578	856	720	740	1,240	1,040	385	304	142	394
AC-FT	22,470	77,270	66,830	104,100	62,830	66,800	97,960	128,800	127,700	43,470	16,310	31,040

CAL YR 1963: TOTAL MEAN MAX MIN AC-FT
WAT YR 1964: TOTAL 426,275 MEAN 1,165 MAX 4,250 MIN 110 AC-FT 845,500

Note.--No gage-height record Feb. 13 to Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	686	480	5,610	735	9,310	1,000	748	1,580	1,210	116	116	120
2	959	660	6,800	713	8,680	467	645	1,330	1,160	116	116	120
3	1,130	878	4,460	665	6,980	440	681	1,150	851	116	116	116
4	1,120	1,070	2,890	605	5,450	430	687	1,130	711	112	116	116
5	1,460	1,120	2,140	580	3,920	422	711	1,030	735	112	116	116
6	1,650	1,110	1,660	550	2,900	444	871	940	754	112	116	112
7	1,620	535	1,350	530	2,240	458	681	870	495	112	116	112
8	1,580	472	1,350	521	2,460	430	615	828	252	112	116	112
9	1,540	444	1,770	485	2,090	422	657	814	256	112	112	112
10	1,490	449	2,110	462	1,780	430	681	912	269	116	112	112
11	1,420	428	1,960	444	1,500	426	657	1,070	277	124	112	112
12	953	404	1,650	432	1,410	426	645	1,300	282	124	120	112
13	610	428	1,520	436	2,380	435	711	1,390	286	124	129	112
14	610	396	1,350	530	2,370	440	735	1,150	239	124	129	129
15	545	372	1,170	948	2,010	444	863	1,070	200	124	129	137
16	516	360	920	1,500	2,150	453	1,300	1,200	175	120	120	141
17	521	360	760	1,510	3,430	453	1,370	1,110	162	120	116	137
18	521	360	775	1,280	3,320	453	1,190	1,060	162	120	116	133
19	516	356	780	1,150	3,170	408	1,600	1,030	162	120	120	129
20	512	348	735	1,090	3,070	377	3,460	1,060	162	120	133	124
21	512	328	691	1,170	2,520	377	3,550	1,090	145	120	129	120
22	503	336	2,560	1,150	2,100	3,220	2,950	1,100	133	120	124	120
23	503	485	4,540	1,070	1,700	5,850	2,380	1,110	133	120	129	120
24	503	3,560	2,800	976	1,470	5,220	1,930	1,110	133	120	133	116
25	498	4,290	1,970	857	1,300	2,190	1,950	1,110	137	120	129	116
26	494	2,450	1,600	1,050	1,350	675	2,060	1,090	137	120	129	120
27	490	1,740	1,330	4,990	2,100	598	2,370	1,090	137	120	129	120
28	485	1,320	1,090	7,330	1,850	582	2,540	1,140	166	116	124	116
29	485	1,240	962	8,260	------	593	2,250	1,200	116	116	124	116
30	485	2,890	857	8,460	------	560	1,780	1,230	116	116	124	124
31	485	------	790	8,540	------	576	------	1,230	------	116	120	------
TOTAL	25,402	29,669	60,950	59,019	85,010	29,699	43,268	34,524	10,153	3,660	3,770	3,602
MEAN	819	989	1,966	1,904	3,036	958	1,442	1,114	338	118	122	120
MAX	1,650	4,290	6,800	8,540	9,310	5,850	3,550	1,580	1,210	124	133	141
MIN	485	328	691	432	1,300	377	615	814	116	112	112	112
AC-FT	50,380	58,850	120,900	117,100	168,600	58,910	85,820	68,480	20,140	7,260	7,480	7,140

CAL YR 1964: TOTAL 458,317 MEAN 1,252 MAX 6,800 MIN 142 AC-FT 909,100
WAT YR 1965: TOTAL 388,726 MEAN 1,065 MAX 9,310 MIN 112 AC-FT 771,000

12-1073. Icy Creek near Black Diamond, Wash.

Location.--Lat 47°16'40", long 121°58'25", in NE¼SE¼ sec.25, T.21 N., R.6 E., near left bank 80 ft downstream from dam, 0.3 mile upstream from mouth, and 2½ miles southeast of Black Diamond.

Records available.--August 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 540 ft (from topographic map).

Extremes.--Maximum and minimum discharges for August 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Jan. 27, 1964	a 113	-	Oct. 25-28, 1963	b 3.6	-
1965	Jan. 30, 1965	200	2.74	Sept.26-30, 1965	2.9	-0.36

a Maximum daily.
b Minimum daily.

1963-65: Maximum discharge, 200 cfs Jan. 30, 1965 (gage height, 2.74 ft, from recorded range in stage), result of dam washout; minimum, 2.90 cfs Sept. 26-30, 1965 (gage height, -0.36 ft).

Remarks.--Records fair prior to Jan. 30, 1965, poor thereafter. The creek is a natural spring-fed stream. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	9.0
2											-	8.7
3							† 25.1				-	8.4
4											-	8.0
5											-	8.4
6											-	8.4
7		† 5.04							† 16.5		-	8.0
8	† 4.64					† 38.6					-	8.0
9											-	7.6
10											-	8.0
11											-	7.6
12			† 39.4								-	7.6
13								† 27.4			-	7.3
14											-	7.3
15											-	7.0
16				† 40.5						† 17.5	-	7.0
17											-	7.0
18											-	7.0
19											-	7.0
20									† 20.1		-	7.0
21					† 35.9						-	6.6
22											-	6.6
23											† 10.6	6.2
24							† 33.4				-	6.2
25						† 24.7					-	5.9
26											-	5.9
27											-	5.9
28											9.4	5.9
29					------						9.8	5.6
30					------					† 14.9	9.4	5.6
31		------			------		------		------		9.4	------
TOTAL											-	214.7
MEAN											-	7.16
MAX											-	9.0
MIN											-	5.6
AC-FT											-	426

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† Result of discharge measurement.

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1073. Icy Creek near Black Diamond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.6	4.3	24	31	89	41	38	35	32	36	15	12
2	5.6	4.5	25	36	86	40	38	35	31	35	15	12
3	5.6	5.6	26	38	82	40	38	35	30	34	15	12
4	5.3	5.6	25	40	76	38	38	34	29	34	15	11
5	5.3	5.9	25	42	73	37	38	33	29	34	15	11
6	5.3	6.6	25	43	66	37	38	32	28	34	15	11
7	5.0	7.0	25	44	60	38	38	32	27	33	14	11
8	4.8	7.3	25	45	59	38	38	32	26	32	14	11
9	4.8	7.6	26	46	54	38	38	32	25	32	14	11
10	4.8	8.0	28	46	52	38	38	32	26	32	14	11
11	4.5	8.7	30	45	50	39	38	32	26	31	14	11
12	4.5	9.4	31	45	50	39	38	32	26	30	14	11
13	4.3	9.8	31	45	49	39	38	33	26	29	14	11
14	4.3	11	29	44	47	39	38	33	26	28	14	11
15	4.3	11	28	43	46	38	38	33	26	27	14	11
16	4.3	12	27	45	46	38	39	34	26	26	14	11
17	4.0	12	26	46	46	38	41	33	26	25	14	11
18	4.0	12	26	47	46	38	41	32	27	24	14	11
19	3.8	13	27	50	46	39	41	32	33	24	13	11
20	3.8	13	28	52	47	44	42	32	43	22	13	11
21	3.8	13	29	55	48	47	41	31	44	22	13	11
22	3.8	14	30	55	49	46	40	30	43	21	13	11
23	3.8	16	30	54	49	47	39	30	41	20	13	11
24	3.8	16	30	53	49	47	38	32	41	20	13	11
25	3.6	17	30	56	48	48	38	33	41	19	12	11
26	3.6	17	30	74	46	47	37	34	40	18	12	12
27	3.6	18	30	113	44	45	37	34	38	17	12	12
28	3.6	19	30	101	44	44	37	34	37	17	12	12
29	3.8	21	29	97	42	43	36	34	37	16	12	12
30	3.8	23	28	93	------	40	36	33	37	16	12	12
31	4.0	------	28	93	------	39	------	32	------	15	12	------
TOTAL	135.1	348.3	861	1,717	1,589	1,269	1,153	1,015	967	803	420	338
MEAN	4.36	11.6	27.8	55.4	54.8	40.9	38.4	32.7	32.2	25.9	13.5	11.3
MAX	5.6	23	31	113	89	48	42	35	44	36	15	12
MIN	3.6	4.3	24	31	42	37	36	30	25	15	12	11
AC-FT	268	691	1,710	3,410	3,150	2,520	2,290	2,010	1,920	1,590	833	670

CAL YR 1963: TOTAL MEAN MAX MIN AC-FT
WAT YR 1964: TOTAL 10,615.4 MEAN 29.0 MAX 113 MIN 3.6 AC-FT 21,060

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	12	30	48	160	44	26	28	22	11	6.2	3.2
2	12	12	34	47	147	44	26	28	22	11	6.2	3.2
3	12	12	41	47	132	44	26	28	22	11	6.0	3.2
4	12	12	54	46	121	42	26	28	22	11	5.9	3.2
5	12	12	60	44	108	40	26	27	21	10	5.7	3.2
6	12	12	60	44	100	39	26	27	21	10	5.5	3.2
7	13	12	60	43	90	38	26	27	20	10	5.5	3.2
8	13	12	58	42	82	37	26	27	20	10	5.5	3.2
9	13	12	56	42	76	36	26	27	20	9.8	5.5	3.2
10	13	12	54	41	71	35	26	27	19	9.8	5.5	3.2
11	14	12	52	40	68	34	26	27	19	9.8	5.3	3.1
12	14	12	51	40	65	33	26	27	18	9.5	5.1	3.0
13	14	12	50	39	62	33	26	27	18	9.2	5.1	3.0
14	14	12	50	39	61	32	26	26	17	9.2	5.0	3.0
15	14	12	49	39	64	32	26	26	17	8.9	5.0	3.1
16	14	12	49	39	67	31	26	26	16	8.6	4.8	3.0
17	14	12	48	40	70	31	26	26	16	8.6	4.6	3.1
18	14	12	48	41	71	30	25	26	16	8.4	4.5	3.1
19	14	12	47	43	71	30	26	26	16	8.4	4.5	3.1
20	14	12	47	44	70	30	26	26	15	8.1	4.4	3.1
21	14	12	47	44	66	29	26	26	15	7.8	4.2	3.1
22	14	12	47	44	63	29	26	24	14	7.6	4.0	3.1
23	14	12	47	43	58	29	26	24	14	7.6	3.9	3.1
24	14	13	51	43	53	28	28	24	14	7.4	3.9	3.0
25	14	14	58	42	50	28	28	23	13	7.2	3.8	3.0
26	14	15	55	42	46	28	28	23	13	7.2	3.6	2.9
27	13	18	51	41	44	27	29	23	12	7.0	3.6	2.9
28	13	22	51	43	44	27	29	23	12	7.0	3.5	2.9
29	13	25	51	59	------	27	28	23	12	6.8	3.4	2.9
30	12	29	50	170	------	26	28	23	12	6.6	3.4	2.9
31	12	------	49	165	------	26	------	23	------	6.4	3.2	------
TOTAL	411	412	1,555	1,584	2,180	1,019	795	796	508	270.9	146.3	92.4
MEAN	13.3	13.7	50.2	51.1	77.9	32.9	26.5	25.7	16.9	8.74	4.72	3.08
MAX	14	29	60	170	160	44	29	28	22	11	6.2	3.2
MIN	12	12	30	39	44	26	25	23	12	6.4	3.2	2.9
AC-FT	815	817	3,080	3,140	4,320	2,020	1,580	1,580	1,010	537	290	183

CAL YR 1964: TOTAL 11,649 MEAN 31.8 MAX 113 MIN 11 AC-FT 23,110
WAT YR 1965: TOTAL 9,769.6 MEAN 26.8 MAX 170 MIN 2.9 AC-FT 19,380

12-1085. Newaukum Creek near Black Diamond, Wash.

Location.--Lat 47°16'30", long 122°03'30", in SW¼SW¼ sec.28, T.21 N., R.6 E., on right bank three-quarters of a mile upstream from mouth and 3½ miles southwest of Black Diamond.

Drainage area.--27.4 sq mi (revised).

Records available.--July 1944 to November 1950. Annual maximums, water years 1951-52. September 1952 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 310 ft (from topographic map). November 1950 to September 1952 stilling well with staff gage only.

Average discharge.--19 years (1944-50, 1952-65), 65.6 cfs (47,490 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (450 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1400	540	2.6	Dec. 24, 1961	1000	* 401	2.37	June 17, 1964	2300	480	2.48
Nov. 24, 1960	1400	690	2.8	Feb. 3, 1963	0400	* 707	2.80				
Jan. 5, 1961	1900	480	2.5					Nov. 24, 1964	1130	578	2.64
Feb. 21, 1961	1200	* 770	2.9	Jan. 1, 1964	2400	676	2.65	Dec. 22, 1964	1530	683	2.76
Feb. 24, 1961	1800	540	2.6	Jan. 25, 1964	0900	* 960	3.11	Jan. 29, 1965	1530	* 1,020	3.23
				Mar. 17, 1964	2200	641	2.73	Apr. 20, 1965	0130	524	2.63

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.29, 1961	17	a 0.71	1964	(b)	17	c 0.66
1962	Several days	14	.72	1965	(d)	16	e .77
1963	Oct. 5,6,20,21,1962	16	.75				

a Occurred Oct. 1-4, 15, 16, 18, 19, 20, 21, 1960.
b Oct. 17, 18, 19, 20, 1963.
c Occurred Oct. 18-20, 1963.
d All or part of each day Aug. 8, 9, 17-19, 31, Sept. 10, 11, 21-30, 1965.
e Occurred Aug. 18, 19, 1965.

1944-65: Maximum discharge, 1,820 cfs probably Feb. 17, 1949 (gage height, 3.54 ft, from recorded range in stage), from rating curve extended above 600 cfs.

1944-50, 1952-65: Minimum discharge, 8.0 cfs Oct. 13, 14, 1952; minimum gage height, 0.62 ft Aug. 26, 1958.

Remarks.--Records good except those for period of no gage-height record, which are fair. Many small diversions above station for irrigation and domestic use. No regulation.

Revisions (water years).--WSP 1396: 1946(M), 1949(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	58	76	65	107	252	80	95	47	30	21	29
2	18	63	74	61	152	212	110	119	45	30	23	22
3	18	60	74	58	117	199	200	123	44	30	20	22
4	18	44	74	61	152	170	150	120	43	32	20	21
5	19	38	67	265	167	151	110	140	44	38	21	22
6	22	34	62	229	345	199	90	111	51	34	20	22
7	21	32	61	186	202	142	80	95	51	32	20	21
8	22	31	59	142	170	119	90	89	45	31	20	21
9	20	29	58	113	165	119	100	94	47	31	20	20
10	20	69	56	99	149	109	95	119	45	30	20	20
11	20	88	67	86	123	127	90	100	45	29	20	20
12	21	54	113	83	117	137	109	86	43	29	20	20
13	20	63	85	81	201	152	99	82	41	27	20	18
14	19	86	99	83	167	199	85	80	39	27	20	19
15	19	110	79	91	276	178	80	80	38	27	20	20
16	18	174	70	168	226	144	75	75	38	26	22	20
17	19	139	81	156	196	119	75	70	37	27	22	20
18	18	260	95	119	167	102	70	70	37	25	21	20
19	18	132	121	94	187	97	70	70	37	24	20	19
20	18	429	88	83	248	107	65	65	37	24	20	20
21	20	320	78	75	510	89	65	65	37	24	20	25
22	22	212	73	70	320	89	60	65	34	24	19	20
23	48	303	68	68	233	90	60	70	33	24	20	19
24	54	596	68	69	341	90	65	60	32	24	20	19
25	33	374	76	65	395	90	65	55	33	24	20	19
26	54	178	86	61	276	85	65	55	33	22	20	18
27	54	121	79	58	260	85	70	65	33	23	22	18
28	46	102	70	56	240	80	69	55	31	22	21	18
29	42	92	67	85	------	75	80	50	31	22	20	18
30	38	83	63	113	------	75	90	50	31	22	20	18
31	49	------	63	117	------	75	------	50	------	22	24	------
TOTAL	846	4,374	2,350	3,160	6,209	3,957	2,612	2,523	1,182	836	635	608
MEAN	27.3	146	75.8	102	222	128	87.1	81.4	39.4	27.0	20.5	20.3
MAX	54	596	121	265	510	252	200	140	51	38	24	29
MIN	18	29	56	56	107	75	60	50	31	22	19	18
CFSM	1.00	5.32	2.77	3.72	8.09	4.66	3.18	2.97	1.44	.98	.75	.74
IN.	1.15	5.94	3.19	4.29	8.43	5.37	3.55	3.42	1.60	1.13	.86	.83
AC-FT	1,680	8,680	4,660	6,270	12,320	7,850	5,180	5,000	2,340	1,660	1,260	1,210

CAL YR 1960: TOTAL 23,887 MEAN 65.3 MAX 596 MIN 18 CFSM 2.38 IN 32.42 AC-FT 47,380
WAT YR 1961: TOTAL 29,293 MEAN 80.3 MAX 596 MIN 18 CFSM 2.93 IN 39.76 AC-FT 58,100

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1085. Newaukum Creek near Black Diamond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	20	29	59	44	39	55	52	43	25	16	15
2	18	21	27	75	43	38	52	62	51	25	16	16
3	16	22	27	130	43	38	51	62	52	24	20	16
4	16	21	27	95	42	58	60	54	51	24	25	15
5	16	19	30	117	40	150	70	47	54	24	30	15
6	18	19	27	129	42	104	99	45	49	26	24	15
7	18	19	31	127	44	76	88	46	43	25	22	15
8	17	19	32	106	45	68	77	49	40	24	22	15
9	18	21	30	97	45	71	68	64	38	24	21	15
10	27	30	27	81	56	77	60	58	36	24	19	22
11	18	32	25	72	51	84	55	51	35	24	19	24
12	18	26	24	70	64	74	52	47	34	23	19	19
13	19	24	29	68	64	66	50	50	35	24	20	19
14	17	25	36	65	137	62	49	44	33	23	19	18
15	16	24	33	62	86	60	50	44	32	22	18	18
16	16	23	40	59	65	62	49	42	30	22	17	16
17	16	22	80	64	60	60	45	39	30	22	19	16
18	15	22	60	56	59	58	43	38	30	22	22	16
19	15	22	95	51	54	65	43	39	29	19	19	16
20	15	22	82	42	51	65	42	37	29	19	19	16
21	16	22	79	40	47	65	40	36	27	19	19	16
22	17	54	96	40	51	68	39	36	26	19	19	16
23	19	36	179	42	52	62	38	62	26	19	18	16
24	18	30	269	43	47	62	40	95	24	18	18	16
25	19	27	138	49	43	106	40	125	25	18	16	16
26	25	25	110	50	39	104	40	88	27	17	17	16
27	30	24	89	51	38	116	52	71	27	16	17	16
28	25	33	82	50	39	91	56	59	25	16	18	28
29	22	42	86	47	------	74	52	52	24	16	17	24
30	21	31	82	46	------	66	47	49	24	16	17	19
31	19	------	70	45	------	58	------	45	------	16	15	------
TOTAL	578	777	2,071	2,128	1,491	2,247	1,602	1,688	1,029	655	597	520
MEAN	18.6	25.9	66.8	68.6	53.3	72.5	53.4	54.5	34.3	21.1	19.3	17.3
MAX	30	54	269	130	137	150	99	125	54	26	30	28
MIN	15	19	24	40	38	38	38	36	24	16	15	15
CFSM	.68	.95	2.44	2.51	1.94	2.65	1.95	1.99	1.25	.77	.70	.63
IN.	.78	1.05	2.81	2.89	2.02	3.05	2.17	2.29	1.40	.89	.81	.71
AC-FT	1,150	1,540	4,110	4,220	2,960	4,460	3,180	3,350	2,040	1,300	1,180	1,030

CAL YR 1961: TOTAL 25,149 MEAN 68.9 MAX 510 MIN 15 CFSM 2.51 IN 34.13 AC-FT 49,880
WAT YR 1962: TOTAL 15,383 MEAN 42.1 MAX 269 MIN 15 CFSM 1.54 IN 20.88 AC-FT 30,510

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBEP 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	17	17	192	194	97	127	112	49	27	28	25	22
2	17	17	143	166	287	106	91	58	26	28	25	22
3	17	16	114	141	519	86	86	62	26	27	25	22
4	16	18	93	112	249	74	110	58	26	26	24	22
5	16	23	105	99	174	68	117	65	28	26	24	22
6	16	24	123	89	143	64	185	84	28	26	24	21
7	21	21	88	84	112	60	160	76	28	26	24	21
8	28	24	76	81	95	58	110	65	28	29	24	21
9	55	28	70	77	86	56	93	58	33	39	24	21
10	40	30	65	71	77	55	79	54	38	41	24	21
11	29	39	62	62	71	55	70	52	35	44	24	21
12	24	40	59	60	68	55	66	50	33	43	24	21
13	22	35	66	65	66	52	66	47	32	40	24	21
14	20	30	130	80	66	52	68	45	31	37	24	22
15	19	29	178	95	65	51	65	44	30	35	24	22
16	18	28	127	88	76	51	59	43	29	32	23	22
17	18	28	108	82	74	50	66	41	28	31	22	22
18	18	26	88	76	91	50	66	41	28	30	21	22
19	17	98	91	66	102	56	68	39	28	30	22	21
20	16	189	77	64	88	54	71	38	28	29	23	21
21	16	114	105	60	74	51	72	36	29	28	23	21
22	17	76	112	60	68	50	65	34	28	29	24	21
23	17	60	84	58	64	54	64	34	28	30	24	21
24	17	74	71	56	62	51	60	33	28	29	25	21
25	16	350	65	56	93	52	59	33	28	28	25	21
26	18	267	60	54	152	55	56	32	27	28	24	21
27	18	150	66	52	93	64	54	32	27	28	24	20
28	17	110	231	52	102	89	51	31	27	27	23	20
29	17	84	203	47	------	174	50	30	27	26	23	20
30	17	213	335	47	------	206	49	28	28	26	22	20
31	17	------	179	74	------	163	------	28	------	25	22	------
TOTAL	631	2,258	3,566	2,468	3,314	2,289	2,388	1,420	867	951	733	636
MEAN	20.4	75.3	115	79.6	118	73.8	79.6	45.8	28.9	30.7	23.6	21.2
MAX	55	350	335	194	519	206	185	84	38	44	25	22
MIN	16	16	59	47	62	50	49	28	26	25	21	20
CFSM	.74	2.75	4.20	2.91	4.32	2.69	2.91	1.67	1.05	1.12	.86	.77
IN.	.86	3.06	4.84	3.35	4.50	3.11	3.24	1.93	1.18	1.29	.99	.86
AC-F7	1,250	4,480	7,070	4,900	6,570	4,540	4,740	2,820	1,720	1,890	1,450	1,260

CAL YR 1962: TOTAL 18,412 MEAN 50.4 MAX 350 MIN 15 CFSM 1.84 IN 24.99 AC-FT 36,520
WAT YR 1963: TOTAL 21,521 MEAN 59.0 MAX 519 MIN 16 CFSM 2.15 IN 29.21 AC-FT 42,690

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1085. Newaukum Creek near Black Diamond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	28	80	439	195	75	58	47	38	48	36	26
2	20	33	70	428	145	68	55	46	38	50	37	26
3	20	36	65	262	124	65	52	45	37	47	38	26
4	20	35	55	200	116	99	55	44	44	46	40	26
5	19	36	70	159	107	91	69	55	48	45	36	26
6	19	37	130	244	99	79	62	51	46	44	34	25
7	19	52	110	163	94	72	57	46	72	42	32	26
8	18	68	115	136	90	71	53	44	90	42	31	31
9	18	60	100	147	86	68	55	44	68	41	31	28
10	18	75	90	139	90	80	55	46	52	38	31	27
11	18	65	80	118	108	82	55	45	53	37	30	26
12	18	65	75	110	96	78	55	45	53	36	30	26
13	18	65	70	142	90	71	53	44	47	34	30	25
14	18	120	65	208	82	71	52	42	46	38	30	25
15	18	110	95	204	85	68	88	40	46	44	28	24
16	18	100	140	238	90	65	76	39	107	39	28	25
17	17	120	130	197	98	235	62	39	208	37	27	37
18	17	100	120	214	108	280	56	39	277	36	29	29
19	17	140	110	241	94	118	52	38	141	34	29	27
20	17	120	166	250	84	98	50	42	105	34	27	28
21	18	105	132	184	79	94	48	61	86	36	27	25
22	36	100	134	172	75	84	61	71	75	34	26	27
23	40	130	128	156	72	75	61	61	69	34	25	28
24	32	125	105	306	73	66	55	53	62	34	25	26
25	34	135	114	824	69	64	51	52	58	33	27	25
26	30	180	105	362	66	65	51	46	57	33	27	25
27	29	200	103	232	65	62	50	44	55	32	28	24
28	35	130	99	179	65	58	48	41	55	32	27	24
29	32	110	91	229	65	55	46	40	51	30	27	25
30	30	95	88	172	------	53	46	40	50	31	31	39
31	29	------	94	212	------	55	------	38	------	33	27	------
TOTAL	712	2,775	3,129	7,267	2,710	2,665	1,687	1,428	2,234	1,174	931	807
MEAN	23.0	92.5	101	234	93.4	86.0	56.2	46.1	74.5	37.9	30.0	26.9
MAX	40	200	166	824	195	280	88	71	277	50	40	39
MIN	17	28	55	110	65	53	46	38	37	30	25	24
CFSM	.84	3.38	3.68	8.56	3.41	3.14	2.05	1.68	2.72	1.38	1.10	.96
IN.	.97	3.77	4.25	9.86	3.68	3.62	2.29	1.94	3.03	1.59	1.26	1.10
AC-FT	1,410	5,500	6,210	14,410	5,380	5,290	3,350	2,830	4,430	2,330	1,850	1,600

CAL YR 1963: TOTAL 21,682 MEAN 59.4 MAX 519 MIN 17 CFSM 2.17 IN 29.43 AC-FT 43,010
WAT YR 1964: TOTAL 27,519 MEAN 75.2 MAX 824 MIN 17 CFSM 2.74 IN 37.35 AC-FT 54,580

Note.--No gage-height record Nov. 9 to Dec. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	44	32	277	108	227	98	63	63	35	27	19	18
2	39	34	197	120	169	94	61	63	34	26	20	20
3	34	50	134	112	146	85	55	58	34	26	21	19
4	32	101	108	94	172	77	52	60	34	25	20	19
5	30	72	94	107	220	73	50	61	33	26	21	19
6	29	57	84	118	166	70	48	59	33	25	20	18
7	28	60	80	101	126	68	48	53	32	25	19	18
8	33	55	92	91	172	67	47	49	32	25	18	18
9	36	61	92	88	133	66	49	47	32	24	18	18
10	37	61	92	85	106	63	48	46	32	26	22	18
11	33	60	80	82	98	61	46	45	32	30	21	18
12	31	55	72	78	116	59	45	43	33	26	26	18
13	30	94	71	76	227	58	49	43	32	24	22	18
14	31	79	107	78	160	56	50	42	33	23	19	20
15	40	62	101	79	149	55	49	43	33	22	18	21
16	41	56	70	82	124	54	55	49	32	22	18	21
17	37	52	60	78	115	54	50	46	33	22	16	18
18	33	48	50	75	100	53	49	43	32	22	16	18
19	31	47	48	72	94	52	202	44	32	22	18	18
20	29	46	45	69	90	52	378	53	31	24	25	17
21	28	44	180	94	98	53	205	45	31	24	19	16
22	27	48	566	96	146	54	122	43	29	22	18	16
23	27	76	435	119	102	52	90	42	29	22	20	16
24	29	449	285	110	92	50	85	41	29	21	22	16
25	30	283	176	90	87	52	80	40	28	21	21	16
26	28	218	238	125	110	55	73	39	29	21	21	16
27	27	136	223	314	220	54	67	37	28	21	19	16
28	27	110	152	321	133	54	64	36	28	21	19	16
29	26	145	126	834	------	56	60	36	27	20	18	16
30	26	200	112	648	------	53	60	36	27	19	18	16
31	27	------	99	370	------	50	------	36	------	19	18	------
TOTAL	980	2,831	4,546	4,914	3,898	1,898	2,400	1,441	939	723	610	532
MEAN	31.6	96.4	147	159	139	61.2	80.0	46.5	31.3	23.3	19.7	17.7
MAX	44	449	566	834	227	98	378	63	35	30	26	21
MIN	26	32	45	69	87	50	45	36	27	19	16	16
CFSM	1.15	3.52	5.35	5.79	5.08	2.23	2.92	1.70	1.14	.85	.72	.65
IN.	1.33	3.92	6.17	6.67	5.29	2.58	3.26	1.96	1.27	.98	.83	.72
AC-FT	1,940	5,730	9,020	9,750	7,730	3,760	4,760	2,860	1,860	1,430	1,210	1,060

CAL YR 1964: TOTAL 29,320 MEAN 80.1 MAX 824 MIN 24 CFSM 2.92 IN 39.80 AC-FT 58,160
WAT YR 1965: TOTAL 25,772 MEAN 70.6 MAX 834 MIN 16 CFSM 2.58 IN 34.98 AC-FT 51,120

12-1110. Lake Sawyer near Black Diamond, Wash.

Location.--Lat 47°20'00", long 122°02'15", in SE¼ sec.4, T.21 N., R.6 E., on west shore three-eighths of a mile south of lake outlet and 2 miles northwest of Black Diamond.

Drainage area.--13.0 sq mi (revised).

Records available.--April 1952 to September 1965.

Gage.--Staff gage read once daily. Datum of gage is 512.34 ft above mean sea level, datum of 1929, supplementary adjustment of 1947.

Extremes.--Maximums and minimums (gage height in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Nov. 26, 1960..............	7.30	Sept.30, 1961................	4.54
1962	Jan. 7, 8, 9, 1962.........	6.54	Nov. 20, 21, 1961...........	4.28
1963	Jan. 1, 2, 1963............	6.88	Oct. 6, 1962................	5.12
1964	Jan. 26, 1964..............	7.26	Oct. 19, 20, 1963...........	4.96
1965	Jan. 30, 1965..............	7.52	Sept.30, 1965................	4.28

1952-65: Maximum gage height observed, 7.52 ft Jan. 30, 1965; minimum observed, 3.04 ft Dec. 1, 2, 1952.

Remarks.--Lake controlled for elevation by concrete dam at outlet constructed during July and August 1952. Probably small diversions for domestic use.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.74	6.14	6.82	6.54	6.64	7.04	6.62	6.62	6.46	6.26	5.82	5.16
2	5.70	6.18	6.76	6.56	6.66	7.02	6.64	6.62	6.44	6.26	5.80	5.14
3	5.68	6.22	6.74	6.58	6.68	6.98	6.64	6.62	6.44	6.26	5.78	5.12
4	5.66	6.24	6.72	6.60	6.70	6.88	6.64	6.66	6.44	6.26	5.76	5.10
5	5.66	6.22	6.70	6.64	6.70	6.86	6.62	6.68	6.44	6.30	5.74	5.10
6	5.64	6.22	6.66	6.70	6.70	6.84	6.60	6.66	6.44	6.30	5.70	5.08
7	5.64	6.24	6.64	6.74	6.84	6.82	6.60	6.66	6.44	6.28	5.68	5.06
8	5.64	6.24	6.62	6.78	6.84	6.78	6.62	6.66	6.44	6.26	5.66	5.04
9	5.66	6.26	6.60	6.76	6.86	6.76	6.62	6.66	6.44	6.26	5.64	5.02
10	5.64	6.28	6.60	6.74	6.84	6.74	6.62	6.66	6.44	6.24	5.62	4.98
11	5.62	6.34	6.58	6.72	6.82	6.74	6.62	6.64	6.42	6.22	5.58	4.96
12	5.62	6.36	6.62	6.72	6.82	6.74	6.62	6.64	6.40	6.20	5.56	4.94
13	5.62	6.38	6.62	6.70	6.82	6.74	6.62	6.62	6.40	6.20	5.54	4.90
14	5.62	6.40	6.62	6.72	6.84	6.76	6.60	6.60	6.38	6.18	5.50	4.88
15	5.62	6.44	6.64	6.72	6.84	6.74	6.60	6.60	6.38	6.16	5.48	4.86
16	5.58	6.50	6.64	6.74	6.86	6.72	6.58	6.58	6.36	6.14	5.44	4.84
17	5.58	6.52	6.64	6.76	6.86	6.72	6.58	6.56	6.34	6.12	5.42	4.82
18	5.60	6.58	6.64	6.76	6.88	6.70	6.58	6.54	6.34	6.10	5.40	4.80
19	5.62	6.72	6.66	6.74	6.88	6.68	6.58	6.52	6.34	6.08	5.38	4.78
20	5.64	6.84	6.66	6.72	6.90	6.68	6.56	6.50	6.32	6.06	5.36	4.74
21	5.69	6.94	6.64	6.70	7.04	6.66	6.56	6.50	6.32	6.04	5.34	4.72
22	5.74	7.00	6.64	6.76	7.12	6.66	6.56	6.50	6.32	6.02	5.30	4.72
23	5.76	7.06	6.64	6.66	7.12	6.66	6.56	6.50	6.30	6.00	5.28	4.70
24	5.78	7.16	6.62	6.66	7.12	6.68	6.54	6.50	6.30	5.98	5.26	4.68
25	5.78	7.24	6.60	6.64	7.14	6.68	6.54	6.50	6.30	5.96	5.22	4.66
26	5.82	7.30	6.60	6.64	7.12	6.66	6.54	6.50	6.28	5.94	5.20	4.64
27	5.86	7.14	6.60	6.62	7.12	6.66	6.52	6.50	6.28	5.92	5.18	4.62
28	6.00	7.04	6.58	6.62	7.08	6.64	6.52	6.50	6.28	5.90	5.14	4.58
29	6.04	6.96	6.58	6.62	------	6.64	6.56	6.50	6.28	5.88	5.12	4.56
30	6.08	6.88	6.56	6.64	------	6.62	6.60	6.48	6.26	5.86	5.12	4.54
31	6.12	------	6.54	6.64	------	6.62	------	6.46	------	5.84	5.12	------
MAX	6.12	7.30	6.82	6.78	7.14	7.04	6.64	6.68	6.46	6.30	5.82	5.16
MIN	5.58	6.14	6.54	6.54	6.64	6.62	6.52	6.46	6.26	5.84	5.12	4.54

Note.--Gage usually read once daily between 0930 and 1130 hours.

12-1110. Lake Sawyer near Black Diamond, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.54	4.36	4.52	6.42	6.38	6.40	6.48	6.42	6.40	6.22	5.90	5.52
2	4.52	4.36	4.54	6.40	6.38	6.40	6.48	6.42	6.40	6.24	5.92	5.50
3	4.50	4.36	4.54	6.46	6.38	6.40	6.48	6.44	6.42	6.22	5.92	5.48
4	4.48	4.36	4.56	6.48	6.38	6.40	6.48	6.42	6.40	6.20	5.92	5.46
5	4.46	4.36	4.58	6.50	6.38	6.48	6.50	6.40	6.40	6.22	5.92	5.44
6	4.46	4.36	4.58	6.52	6.38	6.48	6.50	6.40	6.40	6.24	5.94	5.40
7	4.46	4.36	4.62	6.54	6.40	6.48	6.48	6.40	6.40	6.22	5.96	5.36
8	4.44	4.36	4.62	6.54	6.40	6.48	6.48	6.42	6.38	6.20	5.94	5.32
9	4.42	4.38	4.64	6.54	6.40	6.48	6.48	6.44	6.38	6.18	5.92	5.32
10	4.48	4.38	4.64	6.50	6.40	6.48	6.46	6.42	6.38	6.18	5.90	5.32
11	4.48	4.36	4.62	6.50	6.38	6.48	6.46	6.44	6.36	6.16	5.88	5.32
12	4.50	4.36	4.62	6.50	6.38	6.48	6.44	6.42	6.36	6.16	5.86	5.32
13	4.52	4.36	4.64	6.50	6.40	6.48	6.44	6.42	6.36	6.16	5.86	5.30
14	4.50	4.36	4.68	6.50	6.46	6.46	6.42	6.42	6.36	6.14	5.84	5.30
15	4.48	4.34	4.70	6.50	6.45	6.46	6.42	6.40	6.36	6.14	5.82	5.30
16	4.48	4.32	4.74	6.48	6.44	6.44	6.42	6.40	6.34	6.14	5.80	5.28
17	4.48	4.32	4.90	6.48	6.44	6.44	6.40	6.40	6.34	6.12	5.80	5.26
18	4.46	4.30	5.00	6.46	6.42	6.44	6.40	6.38	6.34	6.10	5.78	5.24
19	4.44	4.30	5.14	6.46	6.42	6.44	6.40	6.38	6.32	6.08	5.78	5.22
20	4.42	4.28	5.28	6.44	6.42	6.44	6.38	6.36	6.32	6.06	5.76	5.20
21	4.40	4.28	5.42	6.44	6.42	6.46	6.38	6.36	6.32	6.06	5.74	5.18
22	4.38	4.32	5.52	6.42	6.42	6.46	6.38	6.38	6.30	6.04	5.70	5.16
23	4.38	4.36	5.74	6.42	6.44	6.48	6.40	6.40	6.30	6.04	5.68	5.14
24	4.38	4.38	6.00	6.40	6.44	6.48	6.40	6.42	6.30	6.02	5.66	5.12
25	4.34	4.40	6.22	6.42	6.44	6.50	6.42	6.44	6.30	6.00	5.64	5.10
26	4.36	4.40	6.38	6.42	6.42	6.50	6.44	6.44	6.28	5.98	5.62	5.08
27	4.38	4.42	6.40	6.40	6.42	6.50	6.43	6.44	6.28	5.96	5.62	5.06
28	4.40	4.46	6.44	6.40	6.42	6.50	6.46	6.44	6.26	5.94	5.60	5.14
29	4.40	4.48	6.44	6.40	------	6.48	6.42	6.42	6.26	5.92	5.58	5.22
30	4.40	4.50	6.44	6.38	------	6.48	6.42	6.40	6.24	5.90	5.56	5.20
31	4.38	------	6.42	6.38	------	6.48	------	6.40	------	5.90	5.54	------
MAX	4.54	4.50	6.44	6.54	6.46	6.50	6.50	6.44	6.42	6.24	5.96	5.52
MIN	4.34	4.28	4.52	6.38	6.38	6.40	6.38	6.36	6.24	5.90	5.54	5.06

Note.--Gage usually read once daily between 0930 and 1130 hours.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.20	5.52	6.82	6.88	6.54	6.60	6.64	6.52	6.38	6.34	6.26	5.86
2	5.20	5.52	6.82	6.88	6.62	6.60	6.62	6.52	6.38	6.32	6.26	5.84
3	5.18	5.52	6.82	6.86	6.70	6.58	6.64	6.54	6.40	6.32	6.26	5.82
4	5.16	5.52	6.78	6.80	6.80	6.56	6.66	6.54	6.42	6.30	6.26	5.80
5	5.14	5.54	6.74	6.76	6.78	6.56	6.66	6.56	6.44	6.30	6.26	5.78
6	5.12	5.56	6.72	6.72	6.76	6.54	6.68	6.56	6.46	6.32	6.24	5.76
7	5.22	5.58	6.68	6.68	6.74	6.54	6.74	6.56	6.46	6.34	6.24	5.74
8	5.28	5.62	6.66	6.68	6.72	6.54	6.74	6.54	6.46	6.38	6.22	5.72
9	5.48	5.64	6.64	6.66	6.66	6.54	6.72	6.54	6.46	6.38	6.22	5.70
10	5.56	5.66	6.62	6.64	6.60	6.52	6.70	6.52	6.46	6.36	6.20	5.68
11	-	5.72	6.58	6.62	6.58	6.52	6.70	6.52	6.44	6.36	6.18	5.68
12	-	5.76	6.62	6.60	6.58	6.52	6.68	6.52	6.44	6.34	6.16	5.66
13	5.68	5.80	6.62	6.60	6.56	6.52	6.66	6.50	6.42	6.34	6.14	5.64
14	5.66	5.88	6.60	6.58	6.56	6.50	6.64	6.48	6.40	6.32	6.12	5.66
15	5.66	5.96	6.60	6.58	6.56	6.50	6.62	6.46	6.38	6.30	6.10	5.66
16	5.66	6.00	6.60	6.56	6.56	6.50	6.60	6.46	6.36	6.30	6.08	5.64
17	5.64	6.16	6.60	6.56	6.58	6.50	6.60	6.46	6.34	6.30	6.06	5.60
18	5.62	6.24	6.60	6.54	6.58	6.50	6.58	6.46	6.32	6.28	6.04	5.58
19	5.62	6.30	6.58	6.52	6.60	6.50	6.58	6.46	6.32	6.28	6.02	5.56
20	5.62	6.46	6.58	6.52	6.60	6.48	6.56	6.46	6.32	6.26	6.00	5.54
21	5.60	6.54	6.58	6.50	6.58	6.48	6.56	6.46	6.34	6.26	6.00	5.52
22	5.60	6.52	6.56	6.50	6.56	6.48	6.56	6.44	6.34	6.28	6.02	5.50
23	5.60	6.50	6.56	6.50	6.56	6.48	6.56	6.44	6.34	6.26	6.02	5.48
24	5.60	6.56	6.54	6.48	6.54	6.48	6.56	6.44	6.34	6.26	6.02	5.46
25	5.58	6.60	6.54	6.48	6.54	6.48	6.54	6.44	6.34	6.26	6.02	5.44
26	5.58	6.71	6.58	6.48	6.56	6.50	6.54	6.42	6.34	6.26	6.00	5.40
27	5.58	6.76	6.56	6.48	6.58	6.52	6.54	6.42	6.34	6.26	5.98	5.38
28	5.56	6.78	6.68	6.48	6.60	6.54	6.54	6.42	6.36	6.26	5.96	5.36
29	5.56	6.78	6.74	6.50	------	6.58	6.54	6.42	6.36	6.26	5.92	5.32
30	5.54	6.80	6.78	6.50	------	6.62	6.52	6.40	6.34	6.26	5.90	5.30
31	5.54	------	6.82	6.52	------	6.64	------	6.40	------	6.26	5.88	------
MAX	-	6.80	6.82	6.88	6.80	6.64	6.74	6.56	6.46	6.38	6.26	5.86
MIN	-	5.52	6.54	6.48	6.54	6.48	6.52	6.40	6.32	6.26	5.88	5.30

Note.--Gage usually read once daily between 0930 and 1130 hours.

12-1110. Lake Sawyer near Black Diamond, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.30	5.40	6.54	6.68	6.90	6.56	6.54	6.48	6.42	6.48	6.34	6.26
2	5.28	5.42	6.52	6.80	6.89	6.58	6.54	6.46	6.42	6.48	6.34	6.26
3	5.24	5.44	6.50	6.84	6.84	6.56	6.54	6.46	6.42	6.48	6.36	6.28
4	5.24	5.48	6.48	6.80	6.80	6.56	6.54	6.46	6.44	6.46	6.38	6.28
5	5.22	5.52	6.54	6.76	6.78	6.58	6.56	6.48	6.44	6.46	6.34	6.28
6	5.18	5.56	6.60	6.80	6.78	6.56	6.54	6.48	6.46	6.46	6.32	6.30
7	5.16	5.62	6.60	6.78	6.76	6.56	6.52	6.50	6.50	6.44	6.32	6.32
8	5.14	5.72	6.60	6.78	6.74	6.56	6.54	6.50	6.50	6.44	6.30	6.36
9	5.12	5.80	6.60	6.78	6.70	6.54	6.54	6.48	6.50	6.42	6.30	6.36
10	5.10	5.92	6.58	6.76	6.68	6.58	6.52	6.48	6.48	6.42	6.28	6.34
11	5.08	5.98	6.58	6.72	6.68	6.56	6.52	6.46	6.48	6.40	6.28	6.32
12	5.08	6.08	6.56	6.70	6.66	6.56	6.50	6.46	6.46	6.40	6.26	6.30
13	5.10	6.18	6.56	6.68	6.66	6.56	6.50	6.46	6.46	6.40	6.26	6.30
14	5.08	6.28	6.54	6.72	6.64	6.56	6.50	6.46	6.44	6.42	6.26	6.28
15	5.08	6.38	6.54	6.74	6.64	6.58	6.52	6.46	6.44	6.44	6.26	6.26
16	5.04	6.42	6.54	6.78	6.64	6.56	6.52	6.44	6.54	6.44	6.26	6.28
17	5.00	6.48	6.56	6.78	6.64	6.64	6.50	6.44	6.56	6.42	6.26	6.32
18	4.98	6.48	6.56	6.80	6.66	6.68	6.50	6.42	6.68	6.40	6.26	6.34
19	4.96	6.52	6.56	6.80	6.64	6.68	6.50	6.40	6.70	6.40	6.26	6.32
20	4.96	6.54	6.60	6.84	6.62	6.68	6.50	6.42	6.70	6.38	6.26	6.32
21	5.06	6.54	6.60	6.82	6.60	6.68	6.48	6.48	6.70	6.42	6.26	6.30
22	5.10	6.54	6.62	6.80	6.60	6.66	6.52	6.48	6.66	6.40	6.24	6.30
23	5.14	6.56	6.62	6.78	6.60	6.62	6.52	6.48	6.62	6.38	6.24	6.30
24	5.18	6.56	6.60	6.82	6.60	6.60	6.52	6.48	6.58	6.36	6.22	6.28
25	5.22	6.56	6.60	7.04	6.58	6.60	6.50	6.48	6.56	6.34	6.22	6.28
26	5.24	6.58	6.60	7.26	6.58	6.60	6.50	6.48	6.54	6.34	6.22	6.26
27	5.28	6.58	6.60	7.24	6.56	6.58	6.50	6.46	6.52	6.34	6.22	6.26
28	5.32	6.60	6.58	7.08	6.56	6.56	6.48	6.46	6.52	6.32	6.22	6.24
29	5.36	6.58	6.54	7.00	6.56	6.56	6.48	6.44	6.50	6.32	6.22	6.26
30	5.38	6.56	6.54	6.94	------	6.54	6.48	6.44	6.50	6.32	6.24	6.34
31	5.38	------	6.54	6.92	------	6.54	------	6.44	------	6.34	6.24	------
MAX	5.38	6.60	6.62	7.26	6.90	6.68	6.56	6.50	6.70	6.48	6.38	6.36
MIN	4.96	5.40	6.48	6.68	6.56	6.54	6.48	6.40	6.42	6.32	6.22	6.24

Note.--Gage usually read once daily between 0930 and 1130 hours.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.38	6.32	6.94	6.76	7.30	6.74	6.52	6.54	6.34	6.12	5.50	5.00
2	6.38	6.34	7.02	6.76	7.14	6.70	6.52	6.52	6.34	6.10	5.48	4.96
3	6.34	6.38	7.02	6.78	7.02	6.68	6.50	6.52	6.34	6.08	5.48	4.92
4	6.34	6.44	6.98	6.76	6.96	6.66	6.50	6.52	6.34	6.06	5.46	4.90
5	6.32	6.44	6.90	6.70	6.94	6.66	6.50	6.50	6.32	6.02	5.44	4.88
6	6.30	6.42	6.84	6.72	6.90	6.66	6.48	6.48	6.32	6.00	5.40	4.84
7	6.30	6.40	6.80	6.76	6.88	6.64	6.48	6.48	6.32	5.98	5.36	4.82
8	6.30	6.40	6.76	6.70	6.88	6.64	6.48	6.46	6.32	5.96	5.34	4.78
9	6.30	6.40	6.74	6.70	6.86	6.64	6.48	6.46	6.32	5.94	5.34	4.76
10	6.30	6.42	6.72	6.68	6.84	6.62	6.46	6.46	6.32	5.92	5.38	4.74
11	6.32	6.44	6.70	6.66	6.80	6.60	6.46	6.44	6.30	5.92	5.39	4.72
12	6.32	6.48	6.66	6.64	6.80	6.60	6.46	6.44	6.30	5.94	5.40	4.68
13	6.32	6.50	6.66	6.64	6.84	6.58	6.48	6.44	6.30	5.92	5.38	4.64
14	6.34	6.48	6.66	6.64	6.86	6.58	6.48	6.42	6.30	5.90	5.36	4.64
15	6.36	6.48	6.64	6.64	6.84	6.56	6.46	6.42	6.30	5.86	5.34	4.66
16	6.38	6.48	6.62	6.62	6.84	6.56	6.48	6.44	6.30	5.84	5.30	4.64
17	6.36	6.46	6.60	6.62	6.80	6.54	6.46	6.42	6.28	5.82	5.28	4.62
18	6.34	6.44	6.58	6.62	6.78	6.54	6.46	6.42	6.28	5.80	5.26	4.60
19	6.34	6.44	6.58	6.60	6.76	6.52	6.52	6.42	6.26	5.78	5.26	4.56
20	6.34	6.44	6.58	6.60	6.72	6.52	6.56	6.42	6.26	5.76	5.26	4.54
21	6.32	6.42	6.62	6.62	6.72	6.52	6.68	6.42	6.24	5.76	5.24	4.52
22	6.32	6.44	6.80	6.64	6.76	6.52	6.68	6.40	6.24	5.74	5.22	4.48
23	6.32	6.46	6.96	6.66	6.72	6.52	6.66	6.40	6.22	5.72	5.20	4.44
24	6.32	6.66	7.04	6.66	6.70	6.50	6.64	6.40	6.22	5.68	5.20	4.42
25	6.32	6.84	7.02	6.66	6.68	6.50	6.62	6.40	6.20	5.66	5.18	4.40
26	6.30	6.88	7.00	6.66	6.70	6.50	6.60	6.40	6.20	5.64	5.16	4.38
27	6.30	6.90	6.98	6.80	6.78	6.50	6.58	6.38	6.18	5.60	5.14	4.36
28	6.30	6.84	6.96	6.90	6.76	6.50	6.56	6.38	6.18	5.58	5.12	4.32
29	6.28	6.84	6.90	7.16	------	6.52	6.54	6.36	6.16	5.56	5.08	4.30
30	6.28	6.86	6.84	7.52	------	6.52	6.52	6.34	6.14	5.54	5.06	4.28
31	6.30	------	6.82	7.48	------	6.50	------	6.34	------	5.52	5.04	------
MAX	6.38	6.90	7.04	7.52	7.30	6.74	6.68	6.54	6.34	6.12	5.50	5.00
MIN	6.28	6.32	6.58	6.60	6.68	6.50	6.46	6.34	6.14	5.52	5.04	4.28

Note.--Gage usually read once daily between 0930 and 1130 hours.

12-1126. Big Soos Creek above hatchery, near Auburn, Wash.

Location.--Lat 47°18'45", long 122°09'50", on west line NW¼ sec.15, T.21 N., R.5 E., on left bank 0.2 mile upstream from fish hatchery, 0.8 mile upstream from mouth, and 2½ miles east of Auburn.

Drainage area.--66.7 sq mi, excludes 3.67 sq mi in vicinity of Youngs Lake, flow from which has been diverted to Cedar River since about 1935.

Records available.--August 1960 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map).

Average discharge.--5 years, 119 cfs (86,150 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (440 cfs, revised), August 1960 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept. 4,5,1960	-	a 38	1.63	Jan. 3, 1962	1300	* 244	3.10	Jan. 20, 1964	0830	501	4.17
								Jan. 25, 1964	1900	* 1,000	5.66
Nov. 25, 1960	0330	* 1,010	5.26	Jan. 2, 1963	0530	517	4.09				
Feb. 6, 1961	2130	530	4.17	Feb. 3, 1963	1830	* 610	4.37	Dec. 1, 1964	1300	655	4.95
Feb. 15, 1961	2030	498	4.08					Dec. 23, 1964	0600	740	5.23
Feb. 22, 1961	0400	920	5.08	Jan. 2, 1964	0200	633	4.61	Jan. 30, 1965	1330	* 916	5.73
Feb. 25, 1961	1300	945	5.13								

a Not previously published.

Annual maximum discharge, August 1960 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1960	Aug. 12, 1960	19	1.27	1963	Sept. 5, 1963	11	1.07
1961	Sept.13, 1961	13	.98	1964	Oct. 1, 2, 1963	18	1.21
1962	Oct. 3, 4, 5, 1961	14	a 1.13	1965	(b)	16	c 1.14

a Occurred Oct. 3, 4, 1961.
b Oct. 7, 1964, Sept. 24-28, 1965.
c Occurred July 16, 1965.

1960-65: Maximum discharge, 1,010 cfs Nov. 25, 1960 (gage height, 5.26 ft), from rating curve extended above 450 cfs; maximum gage height, 5.73 ft Jan. 30, 1965; minimum discharge, 11.cfs Sept. 5, 1963 (gage height, 1.07 ft).

Remarks.--Records good. City of Seattle diverts probably less than 2 cfs from Youngs Lake into Little Soos Creek, a tributary, during low flows. Fish hatchery diverts up to 19 cfs half a mile above station, which is returned below station. Records of chemical analyses for the water years 1963-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, 1960

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	24	6	-	29	11	20	22	16	24	22	21	24	24	26	31	22
2	-	24	7	-	25	12	20	22	17	23	22	22	26	22	27	30	21
3	-	23	8	-	24	13	20	22	18	22	22	23	28	23	28	26	21
4	-	35	9	-	22	14	20	22	19	22	22	24	30	23	29	25	21
5	-	35	10	-	22	15	22	22	20	21	23	25	29	23	30	24	20
															31	24	-
TOTAL																-	702
MEAN																-	23.4
MAX																-	35
MIN																-	20
AC-FT																-	1,390

12-1126. Big Soos Creek above hatchery, near Auburn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	37	251	133	275	574	192	203	92	42	28	28
2	20	46	231	126	308	505	226	240	85	42	28	22
3	20	51	215	122	290	454	234	226	82	41	26	20
4	20	40	206	132	288	404	220	238	80	40	26	20
5	19	35	187	285	278	381	199	286	82	48	26	22
6	23	33	171	395	455	386	188	263	83	47	26	20
7	24	32	159	362	470	343	179	228	88	44	25	19
8	29	30	151	353	395	314	179	214	80	42	24	19
9	24	29	145	350	368	299	183	226	81	40	24	19
10	22	50	139	312	338	281	172	232	78	38	24	19
11	23	72	150	282	300	302	166	220	76	37	23	19
12	29	54	202	275	271	314	190	195	72	36	23	17
13	25	59	189	255	353	340	194	183	68	34	22	16
14	24	90	191	271	386	388	171	178	67	33	22	17
15	22	87	171	312	455	409	164	167	64	34	22	17
16	22	108	155	380	455	356	159	153	61	33	22	18
17	22	106	158	395	431	309	154	142	58	34	22	17
18	22	129	200	386	383	279	146	133	57	33	21	18
19	21	122	298	318	377	261	139	126	56	32	20	18
20	21	315	253	273	419	299	134	120	55	32	20	17
21	21	452	213	245	721	266	145	116	54	31	19	18
22	24	395	191	227	827	251	146	114	52	33	19	17
23	42	437	178	211	630	281	144	122	50	33	19	17
24	61	828	171	200	678	290	142	115	48	33	19	17
25	45	945	175	187	920	279	133	109	49	32	19	17
26	58	706	187	173	776	263	127	107	48	30	19	17
27	53	516	170	161	692	244	125	122	46	30	21	16
28	45	401	158	155	606	226	125	110	44	31	19	17
29	36	328	148	192	------	210	167	104	44	30	18	16
30	35	278	140	257	------	201	183	99	44	29	18	16
31	38	------	138	295	------	192	------	98	------	28	28	------
TOTAL	910	6,811	5,691	8,020	13,145	9,901	5,026	5,189	1,944	1,102	696	554
MEAN	29.4	227	184	259	469	319	168	167	64.8	35.5	22.5	18.5
MAX	61	945	298	395	920	574	234	286	92	48	28	28
MIN	19	29	138	122	271	192	125	98	44	28	18	16
AC-FT	1,810	13,510	11,290	15,910	26,070	19,640	9,970	10,290	3,860	2,190	1,380	1,100

CAL YR 1960: TOTAL MEAN MAX MIN AC-FT
WAT YR 1961: TOTAL 58,990 MEAN 162 MAX 945 MIN 16 AC-FT 117,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	24	36	91	72	81	100	92	71	37	31	29
2	15	25	32	112	70	81	95	97	79	37	32	29
3	15	26	29	232	71	79	90	93	80	36	35	29
4	14	25	32	194	69	105	100	87	78	36	42	29
5	14	23	34	178	68	185	115	80	77	38	49	29
6	15	22	29	194	69	197	140	78	72	42	44	29
7	18	22	33	179	72	156	130	79	68	38	43	28
8	17	22	34	159	76	140	120	79	64	36	41	29
9	21	25	30	146	76	138	110	100	62	34	38	29
10	29	44	28	133	87	138	100	95	60	34	36	35
11	23	43	26	125	86	142	95	84	56	33	35	36
12	26	42	26	125	79	130	90	79	55	32	36	30
13	26	29	33	123	86	122	85	77	57	33	36	27
14	23	27	40	119	126	118	80	73	56	33	34	24
15	22	25	38	115	126	112	75	72	54	32	33	22
16	22	24	48	109	111	113	74	70	52	30	31	20
17	20	24	102	113	106	109	74	67	49	30	32	20
18	17	24	95	105	105	106	73	64	48	29	33	19
19	17	25	96	96	98	109	73	63	48	29	32	19
20	17	24	98	85	92	109	72	62	46	31	30	19
21	18	26	96	78	86	108	72	63	44	36	31	19
22	19	44	91	76	95	112	72	63	44	36	30	19
23	21	43	140	76	101	113	72	84	44	35	29	19
24	22	36	162	78	91	118	77	108	41	34	27	20
25	24	30	138	87	86	183	79	123	41	33	27	19
26	29	27	113	88	79	172	76	109	41	33	28	18
27	32	27	101	88	76	158	101	97	44	32	27	19
28	31	34	106	84	79	140	104	88	41	32	29	33
29	28	43	118	78	------	130	92	82	39	31	32	33
30	25	36	115	74	------	115	84	77	38	31	30	26
31	23	------	98	72	------	105	------	76	------	31	29	------
TOTAL	660	891	2,197	3,612	2,438	3,924	2,720	2,561	1,649	1,044	1,042	760
MEAN	21.3	29.7	70.9	117	87.1	127	90.7	82.6	55.0	33.7	33.6	25.4
MAX	32	44	162	232	126	197	140	123	80	42	49	36
MIN	14	22	26	72	68	79	72	62	38	29	27	18
AC-FT	1,310	1,770	4,360	7,160	4,840	7,780	5,400	5,080	3,270	2,070	2,070	1,510

CAL YR 1961: TOTAL 49,325 MEAN 135 MAX 920 MIN 14 AC-FT 97,840
WAT YR 1962: TOTAL 23,498 MEAN 64.4 MAX 232 MIN 14 AC-FT 46,610

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1126. Big Soos Creek above hatchery, near Auburn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	21	23	321	454	159	172	190	115	55	36	24	22
2	21	23	309	502	206	172	166	122	54	34	24	23
3	21	23	279	484	549	159	159	122	55	33	23	24
4	20	26	244	399	523	146	205	113	59	32	22	26
5	19	36	242	340	505	140	210	134	86	30	22	27
6	20	38	242	297	414	133	261	144	78	32	22	18
7	27	33	222	268	356	127	302	132	67	37	22	18
8	58	33	208	248	306	122	270	120	66	44	21	18
9	104	36	194	240	266	118	246	113	74	41	20	17
10	76	50	178	226	236	115	214	109	70	40	20	17
11	48	86	167	195	208	112	194	104	63	38	21	18
12	36	76	158	174	194	111	186	100	57	36	19	18
13	34	67	159	167	183	106	185	96	54	34	20	21
14	31	56	205	167	172	102	183	93	51	32	19	22
15	28	52	266	174	164	101	183	90	48	32	19	23
16	27	49	286	176	174	101	166	88	48	30	18	24
17	26	48	244	167	167	100	161	86	44	29	17	23
18	26	48	210	159	179	95	161	85	43	27	17	22
19	26	104	195	146	195	97	161	80	43	27	19	21
20	26	181	179	139	194	95	158	74	43	26	20	20
21	25	153	176	133	169	91	153	70	44	26	20	20
22	25	127	176	129	156	90	140	68	45	34	22	20
23	25	109	161	125	148	88	134	68	45	32	21	21
24	24	109	148	120	142	87	130	67	44	28	21	21
25	24	238	138	118	150	87	126	67	44	29	22	21
26	25	330	129	113	205	92	120	66	41	27	24	20
27	26	318	132	109	176	97	116	64	39	26	20	19
28	25	259	169	105	164	119	112	61	39	24	23	19
29	24	232	207	100	------	181	119	57	37	24	24	19
30	24	264	416	95	------	216	118	56	37	26	25	18
31	23	------	469	115	------	212	------	56	------	24	22	------
TOTAL	965	3,227	6,829	6,384	6,660	3,784	5,229	2,820	1,573	970	656	623
MEAN	31.1	108	220	206	238	122	174	91.0	52.4	31.3	21.2	20.8
MAX	104	330	469	502	549	216	302	144	86	44	25	27
MIN	19	23	129	95	142	87	112	56	37	24	17	17
AC-FT	1,910	6,400	13,550	12,660	13,210	7,510	10,370	5,590	3,120	1,920	1,300	1,240

CAL YR 1962: TOTAL 30,771 MEAN 84.3 MAX 469 MIN 18 AC-FT 61,030
WAT YR 1963: TOTAL 39,720 MEAN 109 MAX 549 MIN 17 AC-FT 78,780

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	36	150	423	448	159	139	79	53	69	38	24
2	19	40	138	600	388	158	134	77	54	68	41	24
3	20	38	129	476	351	153	125	76	53	67	42	23
4	20	39	120	391	321	174	126	73	61	63	45	23
5	21	40	136	344	292	191	151	86	68	61	41	22
6	21	44	248	400	272	166	139	85	67	60	35	22
7	21	56	226	398	250	153	127	78	73	58	32	23
8	21	59	227	345	237	148	120	76	81	56	30	38
9	22	49	235	351	226	144	122	73	74	53	28	32
10	22	67	205	334	218	148	126	74	63	48	28	27
11	24	70	179	294	233	156	125	70	62	48	27	25
12	22	80	162	264	216	153	119	68	62	46	26	23
13	29	87	150	272	207	145	112	67	58	44	26	22
14	30	125	145	313	195	144	108	64	57	48	25	22
15	27	113	162	309	203	146	118	60	56	65	25	22
16	26	101	191	379	212	136	112	58	90	61	24	22
17	25	120	202	379	214	201	105	57	129	54	23	37
18	25	109	195	430	216	276	98	57	184	51	23	39
19	24	165	207	438	200	227	95	56	159	47	23	31
20	31	195	270	483	184	216	93	60	138	44	21	29
21	42	161	264	435	171	216	92	70	123	47	21	26
22	77	142	258	383	164	202	111	72	113	49	20	25
23	58	159	266	351	158	200	113	71	100	44	20	23
24	44	159	235	421	154	179	98	68	91	39	19	22
25	41	171	235	904	146	169	92	73	86	37	20	23
26	41	196	220	882	142	167	91	67	81	34	21	23
27	36	239	214	725	136	158	87	63	77	32	23	23
28	50	211	209	582	134	150	86	58	74	31	24	23
29	53	183	191	555	136	145	84	56	74	30	24	24
30	45	166	179	480	------	138	80	54	73	33	26	36
31	38	------	186	455	------	134	------	53	------	37	25	------
TOTAL	993	3,420	6,134	13,796	6,424	5,252	3,328	2,099	2,534	1,524	846	778
MEAN	32.0	114	198	445	222	169	111	67.7	84.5	49.2	27.3	25.9
MAX	77	239	270	904	448	276	151	86	184	69	45	39
MIN	18	36	120	264	134	134	80	53	53	30	19	22
AC-FT	1,970	6,780	12,170	27,360	12,740	10,420	6,600	4,160	5,030	3,020	1,680	1,540

CAL YR 1963: TOTAL 39,246 MEAN 108 MAX 549 MIN 17 AC-FT 77,840
WAT YR 1964: TOTAL 47,128 MEAN 129 MAX 904 MIN 18 AC-FT 93,480

12-1126. Big Soos Creek above hatchery, near Auburn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	37	31	622	264	637	245	104	135	57	31	36	37
2	31	37	598	266	512	224	104	130	56	30	36	37
3	30	45	490	268	432	206	95	118	53	29	38	37
4	28	91	398	251	408	195	90	115	51	28	39	36
5	24	93	334	240	480	184	87	109	49	28	38	35
6	22	67	286	266	458	176	86	104	49	28	37	36
7	22	60	256	276	383	169	86	99	48	27	36	36
8	26	55	254	268	368	164	84	95	46	27	35	36
9	31	55	240	249	340	159	86	90	46	28	36	35
10	36	54	227	227	307	152	87	89	46	32	46	35
11	30	55	206	212	283	143	81	87	48	36	42	36
12	27	52	185	198	279	140	78	85	49	32	44	36
13	26	54	174	190	322	134	86	83	48	29	44	36
14	26	97	191	186	313	130	89	81	46	28	40	40
15	32	80	204	180	294	126	82	81	46	27	38	42
16	39	70	174	172	277	124	87	97	46	33	36	42
17	36	65	145	162	260	120	93	89	42	42	36	38
18	32	61	136	156	245	115	84	82	42	42	35	37
19	29	59	134	152	233	111	156	81	41	42	41	36
20	27	58	135	149	221	109	265	91	40	44	52	36
21	27	56	200	167	216	108	262	84	39	46	44	37
22	27	58	534	177	239	108	221	76	38	44	40	36
23	26	80	700	199	221	105	184	75	37	42	44	35
24	27	305	572	229	206	99	168	73	36	40	47	24
25	27	332	472	201	196	100	154	71	36	40	42	16
26	27	328	460	222	221	103	140	67	36	40	41	16
27	24	302	490	354	318	99	126	63	35	40	40	16
28	24	252	428	390	283	97	118	62	34	39	38	17
29	24	254	365	640	------	109	112	60	33	38	38	18
30	24	417	322	880	------	102	115	58	32	38	37	18
31	24	------	288	818	------	94	------	58	------	38	37	------
TOTAL	872	3,663	10,220	8,609	8,952	4,250	3,610	2,688	1,305	1,088	1,233	973
MEAN	28.1	122	330	278	320	137	120	86.7	43.5	35.1	39.8	32.4
MAX	39	417	700	880	637	245	265	135	57	46	52	42
MIN	22	31	134	149	196	94	78	58	32	27	35	16
AC-FT	1,730	7,270	20,270	17,080	17,760	8,430	7,160	5,330	2,590	2,160	2,450	1,930

CAL YR 1964: TOTAL 51,336 MEAN 140 MAX 904 MIN 19 AC-FT 101,800
WAT YR 1965: TOTAL 47,463 MEAN 130 MAX 880 MIN 16 AC-FT 94,140

12-1130. Green River near Auburn, Wash.

Location.--Lat 47°18'45", long 122°12'10", in NW¼NW¼ sec.17, T.21 N., R.5 E., on left bank 1½ miles east of Auburn and 2 miles downstream from Big Soos Creek.

Drainage area (revised).--399 sq mi, excludes 3.67 sq mi in vicinity of Youngs Lake, flow from which has been diverted to Cedar River basin since about 1935.

Records available.--August 1936 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is at mean sea level, datum of 1929. Prior to Oct. 19, 1936, staff gage and Oct. 19, 1936, to Mar. 30, 1965, graphic water-stage recorder, at same site and datum.

Average discharge.--29 years, 1,349 cfs (976,600 acre-ft per year), unadjusted.

Extremes.--Maximums and minimums (discharge in cubic feet per second, elevation in feet).

Annual maximum discharge (*) and peak discharges above base (6,000 cfs), water years 1961-65

Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation
Nov. 25, 1960	1300	7,280	61.13	Jan. 3, 1962	1600	* 9,510	62.16	Jan. 2, 1964	0430	* 6,250	59.84
Feb. 21, 1961	2100	* 13,000	64.70	Nov. 21, 1962	1900	* 8,020	61.06	Jan. 29, 1965	1000	* 11,400	63.20

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Elevation	Water year	Date	Discharge	Elevation
1961	Sept.13-15, 1961	151	53.84	1964	Oct. 5-8, 1963	240	53.85
1962	Oct. 5, 1961	164	53.89	1965	Sept.29, 1965	221	53.68
1963	Sept. 9-13, 1963	244	a 53.86				

a Occurred Sept. 12, 13, 1963.

1963-65: Maximum discharge, 28,100 cfs Nov. 23, 1959 (elevation, 69.75 ft); minimum, 81 cfs Sept. 23, 1952; minimum elevation, 53.68 ft Sept. 29, 1965.

Remarks.--Records excellent. Since Dec. 5, 1961, flow regulated by Howard A. Hanson Reservoir (see station 12-1058) for flood control and, during summer months, to augment the natural river flow. City of Tacoma diverts an average of about 2,130 acre-ft per month from river at headworks near Palmer, several miles above station, for municipal use. Minor diversions on upstream tributaries for domestic use. Records of chemical analyses and water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	189	1,810	1,740	1,190	2,400	4,500	1,780	2,570	1,560	485	240	273
2	185	1,820	1,690	1,110	3,280	4,300	2,470	2,780	1,800	465	234	372
3	182	1,590	1,730	1,050	3,130	3,600	4,120	2,800	1,910	435	230	368
4	172	1,330	1,750	1,040	3,090	3,100	4,250	2,570	1,810	425	230	281
5	168	1,100	1,620	2,490	3,310	2,800	3,180	2,660	1,660	470	227	240
6	178	954	1,480	5,140	4,520	2,500	2,560	2,280	1,540	588	223	230
7	193	856	1,370	4,100	4,710	2,240	2,160	2,030	1,500	495	220	207
8	229	761	1,280	3,480	3,880	2,040	2,040	1,900	1,280	450	210	197
9	273	711	1,220	3,250	3,420	1,990	2,260	1,860	1,200	425	204	191
10	257	866	1,170	2,990	3,770	1,890	2,110	2,000	1,110	405	200	179
11	233	2,470	1,160	2,620	3,420	1,860	1,960	2,090	1,040	390	194	173
12	237	2,080	1,590	2,480	2,990	1,870	2,070	1,940	973	372	191	167
13	257	1,650	1,570	2,320	3,010	2,050	2,470	1,810	910	350	188	159
14	241	1,520	1,980	2,430	3,010	2,660	2,280	1,780	882	345	191	151
15	229	1,600	1,890	3,010	3,090	3,320	2,030	1,790	889	345	191	151
16	221	4,400	1,670	4,680	3,100	3,330	1,890	1,850	903	341	194	154
17	217	4,240	1,560	4,080	2,740	2,990	1,940	2,040	910	337	197	154
18	209	4,760	1,620	3,390	2,440	2,720	1,970	2,210	889	337	194	154
19	197	4,090	2,060	2,790	3,320	2,680	1,850	2,440	822	321	185	154
20	189	5,480	1,980	2,390	5,300	2,880	1,680	2,660	774	309	176	154
21	189	4,930	1,760	2,090	9,580	2,630	1,580	2,570	720	305	167	200
22	233	3,570	1,630	1,860	9,000	2,400	1,570	2,190	666	297	164	237
23	420	3,100	1,540	1,710	7,000	2,310	1,540	2,180	636	297	164	197
24	735	5,010	1,520	1,600	5,600	2,330	1,510	2,070	594	297	164	179
25	699	6,140	1,600	1,470	5,100	2,190	1,510	1,820	576	289	164	170
26	742	4,120	1,590	1,360	4,500	2,070	1,490	1,900	552	277	164	164
27	1,020	3,110	1,470	1,270	4,000	1,970	1,450	2,060	535	265	164	162
28	1,450	2,530	1,400	1,220	3,800	1,800	1,440	1,870	515	265	162	154
29	1,620	2,170	1,300	1,370	------	1,700	1,770	1,730	495	262	159	191
30	1,290	1,920	1,220	1,660	------	1,660	2,430	1,660	525	258	156	200
31	1,290	------	1,200	2,140	------	1,680	------	1,570	------	244	191	------
TOTAL	13,944	80,688	48,360	73,780	116,510	78,060	63,360	65,680	30,176	11,146	5,938	5,963
MEAN	450	2,690	1,560	2,380	4,161	2,518	2,112	2,119	1,006	360	192	199
MAX	1,620	6,140	2,060	5,140	9,580	4,500	4,250	2,800	1,910	588	240	372
MIN	168	711	1,160	1,040	2,400	1,660	1,440	1,570	495	244	156	151
AC-FT	27,660	160,000	95,920	146,300	231,100	154,800	125,700	130,300	59,850	22,110	11,780	11,830

CAL YR 1960: TOTAL 479,066 MEAN 1,309 MAX 6,140 MIN 168 AC-FT 950,200
WAT YR 1961: TOTAL 593,605 MEAN 1,626 MAX 9,580 MIN 151 AC-FT 1,177,000

12-1130. Green River near Auburn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	197	690	938	5,100	1,660	737	877	730	510	588	230	350
2	191	1,020	910	5,860	1,730	702	828	758	546	588	230	350
3	179	973	903	9,140	2,010	682	765	758	570	576	251	350
4	170	931	875	8,480	2,280	751	807	772	687	570	281	346
5	167	816	861	4,320	2,120	942	863	958	1,310	588	336	360
6	185	726	987	1,370	1,780	972	950	965	988	600	314	301
7	265	666	1,060	1,140	1,600	884	1,910	1,450	988	582	293	269
8	345	618	1,110	8,000	1,430	877	4,930	2,170	1,180	564	285	265
9	321	594	1,040	8,390	1,290	950	5,160	793	1,170	564	273	262
10	673	672	973	3,850	1,240	905	5,600	1,650	1,160	564	265	289
11	732	854	875	2,890	1,160	891	6,090	2,670	1,160	558	265	328
12	642	896	485	2,400	1,080	828	5,690	4,670	1,130	552	265	310
13	1,030	834	410	2,060	1,080	793	2,050	5,410	1,040	558	269	283
14	938	828	495	1,790	1,250	779	1,980	5,220	980	552	323	289
15	720	840	552	1,660	1,250	779	2,220	1,520	821	546	380	310
16	594	780	564	1,490	1,130	702	2,120	807	786	528	346	318
17	510	756	756	1,400	1,070	958	1,860	606	779	534	346	318
18	450	684	750	1,280	1,070	958	1,600	546	779	522	350	314
19	405	642	875	1,140	1,030	1,000	1,090	504	849	516	350	314
20	381	600	1,040	1,020	980	1,030	2,920	504	856	510	346	310
21	350	570	1,530	950	935	1,050	1,800	504	835	504	332	310
22	341	2,290	2,120	958	972	884	1,740	477	772	504	346	310
23	475	2,550	3,280	965	988	835	1,540	558	772	499	346	305
24	636	1,680	4,350	958	891	835	800	643	772	380	346	305
25	552	1,290	5,230	1,060	835	1,170	709	730	772	332	346	305
26	606	1,080	4,330	1,580	772	1,190	688	650	779	310	355	305
27	714	952	994	1,960	730	3,340	751	612	779	262	355	310
28	816	938	780	1,910	744	2,870	786	576	744	237	360	375
29	762	1,040	726	1,740	------	1,520	793	546	636	237	360	499
30	878	959	720	1,640	------	1,420	765	534	594	234	350	466
31	612	------	2,800	1,640	------	920	------	522	------	230	350	------
TOTAL	15,837	28,769	43,319	88,141	35,107	33,154	60,682	39,813	25,744	14,889	9,844	9,732
MEAN	511	959	1,397	2,843	1,254	1,069	2,023	1,284	858	480	318	324
MAX	1,030	2,550	5,230	9,140	2,280	3,340	6,090	5,410	1,310	600	380	499
MIN	167	570	410	950	730	682	688	477	510	230	230	262
AC-FT	31,410	57,060	85,920	174,800	69,630	65,760	120,400	78,970	51,060	29,530	19,530	19,300

CAL YR 1961: TOTAL 538,538 MEAN 1,475 MAX 9,580 MIN 151 AC-FT 1,068,000
WAT YR 1962: TOTAL 405,031 MEAN 1,110 MAX 9,140 MIN 167 AC-FT 803,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	450	297	2,600	4,120	902	2,220	820	687	662	527	385	264
2	301	289	2,320	4,320	1,070	2,170	978	778	662	516	375	264
3	269	273	2,120	4,600	5,060	1,920	1,440	1,030	662	510	365	260
4	258	273	1,860	4,000	5,190	1,680	1,870	1,260	650	500	360	252
5	254	332	1,900	3,400	3,980	1,520	2,430	1,310	656	494	360	248
6	248	422	3,910	2,900	3,320	1,390	3,250	1,360	620	494	360	248
7	406	438	3,590	2,400	2,880	1,220	4,060	1,400	715	510	355	248
8	558	450	3,250	2,100	2,570	918	3,110	1,590	743	544	350	248
9	737	558	3,250	1,850	2,350	750	2,390	1,570	806	549	350	248
10	958	612	2,980	1,700	2,110	750	2,170	1,440	806	554	350	244
11	1,220	730	2,550	1,550	1,900	757	2,100	1,310	757	560	350	244
12	1,900	863	2,210	1,500	1,700	644	2,770	1,290	750	554	350	244
13	1,850	828	2,000	1,500	1,540	638	4,860	1,210	743	608	350	264
14	1,730	751	2,120	1,400	1,460	644	4,620	978	722	614	310	305
15	1,570	695	2,460	1,350	1,360	638	4,520	948	701	614	300	318
16	1,370	682	2,650	1,300	1,370	554	3,880	948	701	608	292	318
17	1,140	643	2,430	1,250	1,290	522	1,770	1,050	680	602	287	314
18	564	636	2,160	1,250	1,410	516	1,190	1,150	544	602	287	305
19	499	1,010	2,030	1,200	1,700	538	902	1,130	450	596	300	300
20	455	7,140	1,910	1,150	2,040	578	925	1,190	450	596	305	300
21	428	7,800	1,880	1,080	1,880	549	910	1,300	435	590	305	300
22	411	6,660	2,360	1,020	1,660	549	895	1,310	500	626	310	300
23	400	2,860	2,170	1,000	1,500	527	792	1,320	544	608	395	300
24	400	2,190	1,910	960	1,390	516	750	1,260	538	596	405	296
25	370	3,120	1,690	920	1,340	516	736	1,110	544	584	400	296
26	360	4,940	1,550	880	1,870	538	708	1,110	538	488	395	292
27	355	3,920	1,480	840	1,870	560	694	1,050	532	483	390	292
28	346	2,920	2,220	792	1,760	632	680	764	532	472	385	264
29	332	2,380	2,630	750	------	835	687	729	532	472	292	256
30	314	2,510	5,050	680	------	948	687	1,110	532	410	269	252
31	301	------	5,030	750	------	895	------	722	------	385	264	------
TOTAL	20,754	57,222	78,270	54,512	58,472	27,632	57,594	35,414	18,707	16,866	10,551	8,284
MEAN	669	1,907	2,525	1,758	2,088	891	1,920	1,142	624	544	340	276
MAX	1,900	7,800	5,050	4,600	5,190	2,220	4,860	1,590	806	626	405	318
MIN	248	273	1,480	680	902	516	680	687	435	385	264	244
AC-FT	41,160	113,500	155,200	108,100	116,000	54,810	114,200	70,240	37,100	33,450	20,930	16,430

CAL YR 1962: TOTAL 473,352 MEAN 1,297 MAX 9,140 MIN 230 AC-FT 938,900
WAT YR 1963: TOTAL 444,278 MEAN 1,217 MAX 7,800 MIN 244 AC-FT 881,200

12-1130. Green River near Auburn, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	248	1,510	1,620	3,340	3,090	1,370	2,700	1,960	4,070	771	527	505
2	244	1,200	1,410	5,630	2,890	1,320	2,490	1,760	3,130	1,040	527	596
3	244	1,000	1,260	4,000	2,490	1,250	2,050	1,570	1,350	1,070	544	620
4	244	1,130	1,150	3,060	2,270	1,560	1,850	1,440	4,460	1,070	566	608
5	244	1,550	1,150	2,540	2,200	2,140	1,890	1,490	4,340	1,070	538	602
6	248	1,080	1,860	3,240	2,010	1,810	1,750	1,440	4,090	1,100	522	596
7	244	1,070	1,690	3,340	1,830	1,560	1,710	1,390	3,570	1,180	510	614
8	300	2,250	1,610	2,670	1,690	1,440	1,880	1,440	3,650	1,210	505	644
9	274	1,850	1,480	2,400	1,600	1,380	2,020	1,610	3,060	1,330	505	644
10	260	1,550	1,340	2,200	1,560	1,400	2,200	2,270	3,140	1,330	505	620
11	260	1,290	1,210	2,010	1,670	1,420	2,440	2,720	3,060	1,230	500	614
12	336	1,140	1,130	1,760	1,560	1,410	2,330	2,780	2,750	1,220	483	602
13	370	1,090	1,050	1,700	1,480	1,290	2,260	2,720	2,530	1,150	488	590
14	365	1,320	1,010	1,760	1,410	1,260	2,060	2,560	2,460	1,080	483	590
15	296	1,310	1,090	1,690	1,380	1,590	3,020	2,260	2,510	1,110	478	578
16	269	1,220	1,560	2,310	1,400	1,740	3,010	2,050	3,330	1,070	472	578
17	264	1,600	1,890	2,460	1,590	2,090	2,420	2,240	3,800	1,060	472	668
18	269	1,900	1,860	2,390	1,840	3,250	2,060	2,520	4,670	1,060	472	650
19	264	1,960	1,750	2,280	2,550	2,580	1,830	2,720	3,790	1,040	466	632
20	264	1,950	2,060	2,410	2,330	2,190	1,710	3,360	3,040	986	445	674
21	300	1,610	1,910	2,110	1,990	1,950	1,660	4,280	2,560	895	425	668
22	644	1,440	1,760	1,880	1,800	1,740	1,920	3,840	2,040	888	405	680
23	674	1,430	2,040	1,720	1,670	1,580	1,990	3,110	1,110	872	400	880
24	674	1,480	2,050	1,970	1,650	1,440	1,760	2,590	963	842	390	888
25	715	1,660	2,360	5,280	1,560	1,350	1,680	2,360	880	835	336	978
26	722	2,550	2,410	4,380	1,540	1,340	1,880	2,150	792	820	328	986
27	694	4,420	2,190	3,370	1,470	1,260	2,040	2,330	785	743	332	970
28	912	3,260	1,990	2,940	1,340	1,200	2,050	2,840	799	620	355	932
29	1,650	2,400	1,800	3,110	1,260	1,250	2,060	3,080	778	554	365	813
30	1,650	1,920	1,660	2,990	------	1,530	2,090	3,260	764	544	385	872
31	1,650	------	1,650	2,870	------	2,160	------	3,650	------	516	400	------
TOTAL	15,792	51,140	51,000	85,810	53,120	50,850	62,810	75,790	78,271	30,306	14,129	20,892
MEAN	509	1,705	1,645	2,768	1,832	1,640	2,094	2,445	2,609	978	456	696
MAX	1,650	4,420	2,410	5,630	3,090	3,250	3,020	4,280	4,670	1,330	566	986
MIN	244	1,000	1,010	1,690	1,260	1,200	1,660	1,390	764	516	328	505
AC-FT	31,320	101,400	101,200	170,200	105,400	100,900	124,600	150,300	155,200	60,110	28,020	41,440

CAL YR 1963: TOTAL 405,964 MEAN 1,112 MAX 5,190 MIN 244 AC-FT 805,200
WAT YR 1964: TOTAL 589,910 MEAN 1,612 MAX 5,630 MIN 244 AC-FT 1,170,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	918	626	6,620	1,510	10,900	2,290	1,140	2,150	1,520	310	245	245
2	1,020	694	8,600	1,500	10,800	1,400	1,170	1,890	1,460	305	250	245
3	1,320	1,110	6,200	1,460	9,020	1,250	1,100	1,670	1,300	305	255	240
4	1,330	1,320	4,120	1,350	7,360	1,220	1,110	1,610	1,000	305	255	240
5	1,440	1,490	3,070	1,300	5,800	1,150	1,100	1,540	1,020	305	250	235
6	1,810	1,380	2,500	1,320	4,490	1,140	1,240	1,420	1,040	300	245	230
7	1,730	1,000	2,120	1,280	3,670	1,140	1,110	1,320	979	300	240	226
8	1,800	722	2,040	1,240	3,670	1,130	1,020	1,250	540	300	240	230
9	1,750	680	2,420	1,170	3,450	1,070	1,020	1,220	529	300	240	230
10	1,720	680	2,670	1,130	2,950	1,060	1,050	1,270	529	305	285	230
11	1,630	674	2,640	1,080	2,620	1,050	1,020	1,400	545	325	260	230
12	1,440	620	2,260	1,020	2,450	1,010	986	1,610	551	320	280	235
13	813	750	2,130	1,000	3,250	993	1,050	1,750	545	295	280	240
14	785	722	2,000	1,050	3,560	986	1,110	1,660	551	280	260	265
15	792	638	1,890	1,330	3,140	979	1,170	1,400	468	275	245	285
16	722	608	1,650	1,890	3,020	972	1,550	1,580	457	275	240	290
17	715	584	1,330	2,020	4,070	965	1,800	1,560	413	270	235	260
18	687	578	1,290	1,870	4,310	951	1,620	1,410	402	270	240	250
19	674	560	1,310	1,740	4,040	930	1,930	1,400	402	270	265	245
20	662	549	1,310	1,660	4,040	847	4,000	1,460	397	280	320	240
21	662	527	1,390	1,750	3,510	840	4,420	1,450	397	280	275	240
22	602	522	3,180	1,780	3,190	1,990	3,780	1,470	350	275	265	235
23	656	668	6,450	1,760	2,690	6,270	3,090	1,480	345	270	280	235
24	662	3,560	4,440	1,700	2,390	6,070	2,520	1,470	340	265	300	230
25	662	5,640	3,240	1,540	2,160	3,430	2,440	1,450	340	260	275	230
26	644	3,620	2,830	1,610	2,170	1,260	2,480	1,420	340	260	275	230
27	638	2,710	2,570	5,270	3,120	1,080	2,690	1,410	335	255	265	230
28	632	2,140	2,220	8,710	2,940	1,020	2,900	1,440	335	255	255	226
29	626	1,960	1,930	10,800	------	1,030	2,750	1,500	345	250	255	226
30	620	3,150	1,770	10,900	------	999	2,340	1,550	315	250	250	226
31	620	------	1,640	10,700	------	972	------	1,550	------	245	250	------
TOTAL	30,902	40,482	89,830	84,440	118,780	47,494	56,706	46,760	18,090	8,760	8,075	7,199
MEAN	997	1,349	2,898	2,724	4,242	1,532	1,890	1,508	603	283	260	240
MAX	1,810	5,640	8,600	10,900	10,900	6,270	4,420	2,150	1,520	325	320	290
MIN	620	522	1,290	1,000	2,160	840	986	1,220	315	245	235	226
AC-FT	61,290	80,290	178,200	167,500	235,600	94,200	112,500	92,750	35,880	17,380	16,020	14,280

CAL YR 1964: TOTAL 633,192 MEAN 1,730 MAX 8,600 MIN 328 AC-FT 1,256,000
WAT YR 1965: TOTAL 557,518 MEAN 1,527 MAX 10,900 MIN 226 AC-FT 1,106,000

12-1133.5. Green River at Tukwila, Wash.

Location.--Lat 47°27'55", long 122°14'50", in NW¼SW¼ sec.24, T.23 N., R.4 E., on right bank at highway bridge, three quarters of a mile southeast of Tukwila and 1 mile upstream from Black River.

Drainage area.--440 sq mi.

Records available.--October 1960 to September 1965.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark).

Extremes.--Maximums and minimums (discharge in cubic feet per second, elevation in feet).

Annual maximum discharge (*) and peak discharges above base (6,000 cfs), water years 1961-65

Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation
Nov. 20, 1960	1900	6,070	15.09	Jan. 4, 1962	1600	* 9,080	18.64	Jan. 2, 1964	-	a 6,000	-
Nov. 25, 1960	1300	7,080	16.35								
Feb. 22, 1961	1030	* 11,500	21.14	Nov. 21, 1962	2200	* 8,410	17.90	Jan. 31, 1965	0700	* 12,100	21.70

a Maximum daily.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Elevation	Water year	Date	Discharge	Elevation
1961	Sept.14, 15, 1961	195	2.68	1964	Oct. 2, 1963	a 251	-
1962	Oct. 5, 6, 1961	200	2.70	1965	Sept.30, 1965	a 260	-
1963	Sept.30, 1963	267	2.99				

a Minimum daily.

1960-65: Maximum discharge, 12,100 cfs Jan. 31, 1965 (elevation, 21.70 ft); minimum recorded, 195 cfs Sept. 14, 15, 1961 (elevation, 2.68 ft).
Maximum discharge known, 13,200 cfs Nov. 24, 1959 (elevation, 22.63 ft), from gage-height record of stages above 14.2 ft.

Remarks.--Records fair. Flow regulated by Howard A. Hanson Reservoir (see station 12-1058) for flood control and, during summer months, to augment the natural river flow. City of Tacoma diverts an average of about 2,130 acre-ft per month from river at headworks near Palmer, several miles above station, for municipal use. Minor diversions and regulation on upstream tributaries. Records of suspended-sediment loads and water temperatures for the water years 1964-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	230	1,570	2,100	1,260	2,580	4,640	1,750	2,510	1,700	616	308	268
2	225	1,820	1,970	1,220	3,140	4,630	2,500	2,740	1,800	592	300	352
3	220	1,710	1,950	1,170	3,390	3,960	4,000	3,000	1,900	571	288	433
4	210	1,420	1,980	1,140	3,210	3,430	4,500	2,900	1,850	550	280	355
5	210	1,220	1,850	1,790	3,270	3,020	3,520	2,700	1,710	562	275	310
6	220	1,060	1,710	4,960	4,450	2,920	2,780	2,800	1,600	658	278	285
7	230	949	1,600	4,650	5,170	2,660	2,360	2,400	1,600	625	265	270
8	270	871	1,520	3,930	4,450	2,460	2,130	2,200	1,420	562	252	252
9	310	802	1,430	3,540	3,810	2,360	2,260	2,100	1,290	526	245	240
10	300	811	1,350	3,360	4,020	2,240	2,260	2,100	1,220	499	240	230
11	270	1,850	1,320	2,970	3,780	2,180	2,080	2,200	1,160	484	240	222
12	280	2,220	1,660	2,780	3,360	2,220	2,080	2,100	1,110	463	230	212
13	300	1,780	1,740	2,610	3,250	2,350	2,500	2,000	1,060	439	225	200
14	280	1,610	1,920	2,580	3,400	2,720	2,600	1,900	1,020	427	225	198
15	270	1,510	2,020	3,020	3,450	3,500	2,140	1,900	1,000	418	228	198
16	260	3,050	1,820	4,410	3,530	3,640	1,990	2,000	1,010	412	230	200
17	260	4,840	1,680	4,800	3,150	3,350	1,980	2,100	1,000	409	238	200
18	250	4,690	1,720	4,100	2,830	3,000	2,020	2,300	994	400	240	200
19	240	4,480	2,110	3,300	2,970	2,870	1,940	2,500	949	388	225	200
20	230	5,120	2,220	2,810	5,000	3,050	1,820	2,700	895	378	220	200
21	230	5,680	1,950	2,460	7,840	2,920	1,720	2,900	847	370	210	208
22	270	4,340	1,760	2,190	11,000	2,660	1,690	2,500	802	368	205	285
23	500	3,710	1,640	2,000	7,880	2,600	1,660	2,130	763	365	202	258
24	800	4,500	1,580	1,870	5,790	2,570	1,620	2,120	730	355	200	230
25	750	6,830	1,640	1,740	5,720	2,450	1,610	1,920	706	352	202	215
26	900	5,200	1,690	1,630	4,890	2,300	1,590	1,870	682	348	205	202
27	1,100	3,920	1,640	1,500	4,300	2,150	1,560	2,040	658	342	208	200
28	1,400	3,110	1,510	1,440	4,080	2,000	1,520	1,970	643	332	202	200
29	1,630	2,680	1,410	1,550	------	1,900	1,680	1,830	622	325	198	208
30	1,400	2,340	1,290	1,850	------	1,800	2,220	1,750	628	325	198	240
31	1,250	------	1,280	2,240	------	1,750	------	1,700	------	315	220	------
TOTAL	15,295	85,693	53,060	80,870	123,710	86,300	66,080	69,880	33,369	13,776	7,282	7,271
MEAN	493	2,856	1,712	2,609	4,418	2,784	2,203	2,254	1,112	444	235	242
MAX	1,630	6,830	2,220	4,960	11,000	4,640	4,500	3,000	1,900	658	308	433
MIN	210	802	1,280	1,140	2,580	1,750	1,520	1,700	622	315	198	198
AC-FT	30,340	170,000	105,200	160,400	245,400	171,200	131,100	138,600	66,190	27,320	14,440	14,420

CAL YR 1960: TOTAL MEAN MAX MIN AC-FT
WAT YR 1961: TOTAL 642,586 MEAN 1,761 MAX 11,000 MIN 198 AC-FT 1,275,000

12-1133.5. Green River at Tukwila, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	238	676	1,020	4,120	1,830	908	935	905	685	668	299	352
2	225	1,030	988	5,510	1,860	887	890	914	692	660	299	352
3	218	1,020	970	7,680	2,080	860	833	908	720	645	311	355
4	208	1,000	976	8,820	2,390	911	836	896	720	645	348	348
5	200	910	937	5,850	2,350	1,070	887	995	1,190	645	388	342
6	202	823	1,030	2,760	2,020	1,190	899	1,040	1,160	660	392	330
7	268	757	1,090	1,700	1,750	1,060	1,110	1,090	1,040	645	368	300
8	355	700	1,140	5,140	1,630	1,010	4,300	2,360	1,180	628	355	300
9	365	673	1,100	8,120	1,490	1,050	4,880	1,150	1,210	622	340	300
10	511	745	1,030	5,440	1,420	1,020	5,430	1,250	1,200	615	328	330
11	820	910	982	3,530	1,360	1,000	6,050	1,960	1,190	612	323	360
12	724	970	709	2,880	1,290	956	6,000	4,000	1,190	608	321	350
13	874	934	568	2,500	1,240	908	3,400	5,000	1,100	605	323	340
14	1,070	892	577	2,200	1,370	893	2,180	5,500	1,060	602	330	340
15	850	934	652	1,980	1,490	887	2,350	2,150	947	600	408	340
16	703	844	688	1,780	1,310	848	2,370	1,260	878	592	385	340
17	610	838	889	1,690	1,230	953	2,080	995	860	588	386	340
18	538	775	913	1,570	1,210	995	1,920	881	854	585	395	340
19	490	736	991	1,430	1,180	1,020	1,190	827	893	575	398	340
20	454	694	1,170	1,280	1,150	1,040	2,820	785	914	568	390	340
21	430	670	1,680	1,220	1,100	1,070	2,010	767	902	560	390	340
22	400	1,280	2,040	1,180	1,080	992	1,840	740	842	552	390	340
23	430	2,780	2,760	1,170	1,130	914	1,170	764	824	545	385	340
24	658	1,840	3,960	1,160	1,050	902	1,190	845	815	495	375	340
25	640	1,400	5,200	1,200	995	1,110	980	893	809	432	375	340
26	661	1,170	5,100	1,560	950	1,230	920	866	815	400	372	340
27	745	1,050	2,140	2,060	911	2,140	944	797	818	375	380	350
28	859	1,000	1,260	2,100	902	3,630	977	767	800	328	380	450
29	850	1,110	1,100	2,000	------	1,760	965	730	730	314	382	550
30	763	1,060	1,060	1,830	------	1,480	941	712	688	309	370	500
31	688	------	2,130	1,800	------	1,070	------	700	------	304	360	------
TOTAL	17,047	30,221	46,850	93,260	39,768	35,764	63,297	43,447	27,726	16,982	11,248	10,629
MEAN	550	1,007	1,511	3,008	1,420	1,154	2,110	1,402	924	548	363	354
MAX	1,070	2,780	5,200	8,820	2,390	3,630	6,050	5,500	1,210	668	408	550
MIN	200	670	568	1,160	902	848	833	700	685	304	299	300
AC-FT	33,810	59,940	92,930	185,000	78,880	70,940	125,500	86,180	54,990	33,680	22,310	21,080

CAL YR 1961: TOTAL 582,656 MEAN 1,596 MAX 11,000 MIN 198 AC-FT 1,156,000
WAT YR 1962: TOTAL 436,239 MEAN 1,195 MAX 8,820 MIN 200 AC-FT 865,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	452	358	3,020	4,600	1,010	1,970	995	893	746	588	435	311
2	388	352	2,620	4,580	1,090	2,280	935	905	720	580	415	316
3	309	340	2,420	4,800	3,780	2,120	1,200	1,050	722	570	410	309
4	294	350	2,100	4,580	6,560	1,880	1,600	1,260	722	568	402	294
5	285	365	2,020	3,800	4,800	1,720	1,970	1,370	749	562	392	294
6	285	440	3,480	3,120	4,040	1,590	2,610	1,460	718	562	398	292
7	321	482	4,050	2,640	3,440	1,470	4,060	1,430	740	575	392	290
8	515	480	3,450	2,330	3,010	1,170	3,810	1,640	782	612	385	290
9	690	565	3,380	2,140	2,720	1,010	2,800	1,640	818	610	380	287
10	791	642	3,220	1,930	2,430	965	2,380	1,550	848	605	382	285
11	1,090	746	2,760	1,690	2,180	983	2,250	1,390	812	615	375	290
12	1,760	857	2,390	1,480	1,960	893	2,210	1,350	785	595	378	285
13	1,880	884	2,100	1,450	1,780	830	4,170	1,320	770	632	380	290
14	1,770	812	2,200	1,420	1,670	830	4,970	1,120	755	642	358	318
15	1,590	755	2,560	1,360	1,570	824	4,680	1,040	743	640	333	340
16	1,360	715	2,870	1,390	1,540	782	4,350	1,020	740	638	330	342
17	1,140	692	2,640	1,330	1,510	725	2,770	1,060	735	625	316	340
18	730	670	2,360	1,260	1,520	700	1,680	1,150	652	625	316	326
19	590	770	2,120	1,160	1,750	702	1,270	1,170	578	622	330	318
20	545	5,900	2,020	1,120	2,100	720	1,140	1,160	542	622	335	316
21	502	8,060	1,860	1,070	2,100	708	1,120	1,280	538	615	330	316
22	482	7,840	2,270	1,050	1,890	692	1,090	1,300	550	638	333	316
23	472	4,200	2,260	1,020	1,730	692	1,020	1,310	612	635	368	316
24	445	2,700	1,980	983	1,580	670	953	1,290	605	618	428	318
25	438	3,220	1,750	962	1,450	680	941	1,170	608	610	418	316
26	418	5,080	1,600	941	1,810	678	905	1,130	605	550	420	306
27	420	4,700	1,500	917	2,080	695	893	1,110	598	520	412	304
28	402	3,550	1,830	887	1,900	735	869	923	592	512	402	297
29	382	2,770	2,580	863	------	908	881	809	590	510	378	274
30	375	2,680	4,420	806	------	1,080	887	1,090	592	480	318	269
31	365	------	5,900	833	------	1,060	------	836	------	435	309	------
TOTAL	21,486	61,975	81,730	58,532	65,040	32,762	61,409	37,226	20,567	18,211	11,560	9,165
MEAN	693	2,066	2,636	1,888	2,323	1,057	2,047	1,201	686	587	373	306
MAX	1,880	8,060	5,900	4,800	6,560	2,280	4,970	1,640	848	642	435	342
MIN	285	340	1,500	806	1,010	670	869	809	538	435	309	269
AC-FT	42,620	122,900	162,100	116,100	129,000	64,980	121,800	73,840	40,790	36,120	22,930	18,180

CAL YR 1962: TOTAL 507,312 MEAN 1,390 MAX 8,820 MIN 285 AC-FT 1,006,000
WAT YR 1963: TOTAL 479,663 MEAN 1,314 MAX 8,060 MIN 269 AC-FT 951,400

12-1133.5. Green River at Tukwila, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	269	1,560	1,920	3,500	3,550	1,500	2,620	2,060	4,090	1,010	671	530
2	251	1,350	1,680	6,000	3,390	1,470	2,730	1,860	4,130	1,180	677	632
3	253	1,070	1,500	4,500	2,960	1,390	2,260	1,690	1,360	1,250	674	668
4	260	1,020	1,370	3,500	2,660	1,460	1,940	1,560	4,160	1,250	680	662
5	258	1,480	1,320	3,000	2,570	2,180	1,960	1,550	4,520	1,230	659	662
6	262	1,390	1,760	3,500	2,360	1,990	1,840	1,530	4,460	1,220	650	656
7	258	1,120	2,090	4,000	2,130	1,730	1,770	1,470	4,000	1,330	635	659
8	264	2,000	1,880	3,500	1,970	1,570	1,840	1,490	3,830	1,350	623	698
9	302	2,080	1,820	3,000	1,830	1,490	1,990	1,590	3,690	1,420	617	704
10	274	1,690	1,640	2,600	1,750	1,460	2,160	2,020	3,420	1,530	614	677
11	271	1,480	1,470	2,300	1,850	1,520	2,420	2,640	3,400	1,420	602	662
12	306	1,300	1,350	2,100	1,790	1,490	2,410	2,790	3,130	1,380	593	650
13	370	1,290	1,260	2,000	1,690	1,410	2,320	2,780	2,880	1,370	590	644
14	388	1,500	1,190	2,000	1,630	1,330	2,130	2,660	2,760	1,230	590	635
15	340	1,580	1,200	1,970	1,580	1,520	2,640	2,410	2,730	1,240	582	632
16	292	1,450	1,410	2,520	1,600	1,750	3,240	2,150	3,190	1,220	578	629
17	285	1,610	1,840	2,860	1,730	1,890	2,600	2,200	4,030	1,190	572	692
18	280	2,080	2,080	2,880	1,860	3,230	2,200	2,520	4,840	1,170	572	716
19	280	2,140	2,040	2,770	2,570	2,940	1,960	2,710	4,470	1,140	575	686
20	287	2,340	2,180	2,920	2,580	2,440	1,830	3,040	3,610	1,130	555	698
21	321	1,880	2,340	2,650	2,240	2,160	1,760	4,240	3,000	1,030	538	707
22	528	1,650	2,130	2,340	2,000	1,920	1,870	4,130	2,620	1,000	515	692
23	713	1,620	2,100	2,110	1,840	1,750	2,090	3,200	1,670	980	502	857
24	722	1,660	2,400	2,140	1,780	1,590	1,880	2,600	1,370	965	495	890
25	731	1,740	2,600	4,650	1,710	1,470	1,740	2,500	1,270	962	468	971
26	737	2,410	2,800	5,500	1,650	1,450	1,830	2,380	1,150	944	450	980
27	713	4,320	2,400	4,220	1,620	1,370	2,050	2,420	1,080	932	450	962
28	752	3,930	2,200	3,670	1,510	1,310	2,080	2,820	1,060	812	455	950
29	1,520	2,900	2,000	3,530	1,420	1,300	2,080	3,180	1,040	743	470	842
30	1,600	2,290	1,900	3,550	------	1,470	2,140	3,320	1,020	698	478	860
31	1,670	------	1,800	3,330	------	1,980	------	3,670	------	677	495	------
TOTAL	15,757	55,930	57,670	99,110	59,820	53,520	64,380	77,180	87,980	35,003	17,625	21,903
MEAN	508	1,864	1,860	3,197	2,063	1,726	2,146	2,490	2,933	1,129	569	730
MAX	1,670	4,320	2,800	6,000	3,550	3,230	3,240	4,240	4,840	1,530	680	980
MIN	251	1,020	1,190	1,970	1,420	1,300	1,740	1,470	1,020	677	450	530
AC-FT	31,250	110,900	114,400	196,600	118,700	106,200	127,700	153,100	174,500	69,430	34,960	43,440

CAL YR 1963: TOTAL 443,829 MEAN 1,216 MAX 6,560 MIN 251 AC-FT 880,300
WAT YR 1964: TOTAL 645,878 MEAN 1,765 MAX 6,000 MIN 251 AC-FT 1,281,000

Note.--No gage-height record Dec. 24 to Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	929	710	6,030	1,830	11,900	2,820	1,160	2,280	1,490	400	309	280
2	932	722	8,820	1,700	11,900	1,760	1,300	2,040	1,450	395	309	280
3	1,270	992	7,670	1,700	11,000	1,530	1,160	1,800	1,390	392	314	278
4	1,290	1,290	5,300	1,600	9,150	1,430	1,160	1,690	1,060	385	316	274
5	1,290	1,550	4,020	1,500	7,570	1,370	1,150	1,640	1,020	380	316	274
6	1,690	1,380	3,280	1,500	6,000	1,310	1,170	1,520	1,030	378	309	271
7	1,730	1,310	2,790	1,450	5,000	1,280	1,210	1,420	1,040	375	306	269
8	1,730	860	2,570	1,400	4,200	1,250	1,110	1,350	827	372	304	269
9	1,720	800	2,780	1,350	4,000	1,210	1,070	1,290	659	372	304	274
10	1,690	779	2,990	1,300	3,800	1,160	1,070	1,290	635	375	328	276
11	1,630	761	3,090	1,250	3,200	1,170	1,070	1,380	629	400	338	269
12	1,570	740	2,730	1,150	2,900	1,130	1,040	1,530	635	388	338	269
13	998	830	2,510	1,100	2,800	1,090	1,060	1,690	620	372	350	274
14	872	869	2,400	1,100	3,800	1,060	1,130	1,700	617	360	333	285
15	860	770	2,300	1,250	4,000	1,060	1,130	1,420	588	358	318	304
16	812	722	2,000	2,000	3,500	1,060	1,370	1,560	548	360	311	314
17	800	695	1,660	2,200	3,800	1,060	1,730	1,610	532	352	297	302
18	770	680	1,530	2,300	4,800	1,060	1,640	1,430	505	352	292	285
19	761	677	1,530	2,100	4,800	1,050	1,720	1,420	495	350	302	278
20	752	653	1,520	2,000	4,600	950	3,580	1,460	485	352	355	271
21	740	635	1,610	1,900	4,500	893	4,460	1,450	482	360	335	269
22	740	629	2,830	2,000	4,000	965	4,140	1,450	460	352	316	269
23	728	734	6,300	2,000	3,500	5,550	3,330	1,460	438	348	326	269
24	731	2,140	5,610	2,000	3,000	6,180	2,800	1,460	435	342	342	269
25	731	5,660	4,230	1,850	2,700	4,320	2,580	1,430	432	340	335	269
26	719	4,520	3,580	1,800	2,360	1,960	2,550	1,410	428	335	318	269
27	713	3,320	3,270	2,000	3,140	1,340	2,700	1,390	420	335	314	269
28	701	2,600	2,850	8,120	3,380	1,220	2,880	1,410	415	330	302	267
29	692	2,260	2,490	10,700	------	1,210	2,860	1,450	432	323	292	264
30	692	3,010	2,230	11,700	------	1,140	2,540	1,490	410	323	292	260
31	695	------	2,020	12,000	------	1,100	------	1,510	------	316	290	------
TOTAL	31,978	43,298	104,540	87,850	139,300	51,688	57,870	47,430	20,607	11,172	9,811	8,270
MEAN	1,032	1,443	3,372	2,834	4,975	1,667	1,929	1,530	687	360	316	276
MAX	1,730	5,660	8,820	12,000	11,900	6,180	4,460	2,280	1,490	400	355	314
MIN	692	629	1,520	1,100	2,360	893	1,040	1,290	410	316	290	260
AC-FT	63,430	85,880	207,400	174,200	276,300	102,500	114,800	94,080	40,870	22,160	19,460	16,400

CAL YR 1964: TOTAL 696,337 MEAN 1,903 MAX 8,820 MIN 450 AC-FT 1,381,000
WAT YR 1965: TOTAL 613,814 MEAN 1,682 MAX 12,000 MIN 260 AC-FT 1,217,000

12-1135. North Fork Cedar River near Lester, Wash.

Location.--Lat 47°19'10", long 121°30'05", in SW¼ sec.11, T.21 N., R.10 E., on left bank 400 ft upstream from falls, 1½ miles upstream from confluence with South Fork, and 7½ miles north of Lester.

Drainage area.--9.30 sq mi (revised).

Records available.--October 1944 to December 1963 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 2,360 ft (from topographic map). Oct. 12, 1944, to Nov. 30, 1951, at site 420 ft downstream at different datum. Dec. 1, 1951, to Sept. 23, 1953, at site 450 ft downstream at different datum. Sept. 24, 1953, to Nov. 22, 1959, at site 520 ft downstream at different datum (gage destroyed by flood of Nov. 22, 1959).

Average discharge.--19 years, 71.0 cfs (51,400 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (400 cfs), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2130	468	4.23	Apr. 6, 1962	2300	* 540	4.38	Feb. 3, 1963	0730	545	4.27
Feb. 21, 1961	1200	* 491	4.28	Nov. 19, 1962	2130	* 1,460	5.62	Nov. 26, 1963	2400	* 317	3.78

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 28, 1961	8.4	1.96	1964	Oct. 16, 17, 19, 20, 1963	8.9	1.94
1962	Oct. 4, 5, 1961	10	2.02				
1963	Sept.29, 30, 1963	9.2	1.96				

1944-63: Maximum discharge, 3,160 cfs Nov. 22, 1959 (gage height, about 8.4 ft, from floodmarks, site and datum then in use), result of slope-area measurement of peak flow; maximum gage height, 8.9 ft, site and datum then in use, probably Jan. 31, 1953 (from high watermark, backwater from logjam); minimum daily discharge, 5.4 cfs Nov. 27-30, 1952.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1945-47. WSP 1446: 1954-55.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	182	39	29	100	106	74	167	255	45	13	33
2	11	131	42	26	123	90	114	167	318	44	13	31
3	11	101	43	26	106	80	230	142	306	42	13	16
4	11	82	40	27	100	70	169	116	283	40	13	13
5	11	68	37	91	145	63	123	100	248	63	12	13
6	11	58	33	149	214	58	101	87	238	47	12	12
7	13	50	31	118	174	51	85	78	208	42	12	11
8	16	45	29	96	129	46	90	75	164	37	12	11
9	13	39	27	92	123	43	95	86	153	35	11	11
10	12	94	26	82	125	40	80	109	136	32	11	11
11	13	152	25	81	111	37	75	111	132	30	11	10
12	18	103	31	84	98	35	80	104	129	29	11	9.7
13	20	87	33	78	87	39	85	98	136	26	11	9.4
14	18	74	48	137	74	58	70	101	177	25	11	9.4
15	18	70	43	283	68	70	65	109	217	23	11	9.4
16	19	220	41	313	60	74	70	136	234	22	11	9.4
17	18	208	40	162	54	68	80	177	241	21	11	9.1
18	16	202	40	120	48	70	75	208	193	20	10	9.4
19	15	144	44	98	75	78	70	266	149	19	9.7	9.1
20	14	129	39	82	159	82	65	283	120	18	9.7	11
21	16	104	37	71	398	74	62	234	103	18	9.4	11
22	28	84	37	62	243	70	63	190	96	17	9.4	9.4
23	46	71	38	55	144	67	60	217	96	17	9.4	9.1
24	106	103	41	53	118	66	59	174	88	16	9.4	8.9
25	70	96	43	44	96	62	60	187	84	16	9.1	8.6
26	72	74	41	41	81	60	61	234	71	15	9.1	8.6
27	94	61	38	37	71	54	63	196	59	15	9.1	8.4
28	155	52	36	37	63	52	74	169	53	14	8.9	12
29	121	46	33	36	------	52	131	177	53	14	8.9	13
30	98	42	32	68	------	53	167	177	50	14	8.6	11
31	144	------	31	101	------	61	------	177	------	13	14	------
TOTAL	1,229	2,972	1,138	2,776	3,387	1,929	2,693	4,852	4,790	829	333.7	357.9
MEAN	39.6	99.1	36.7	89.5	121	62.2	89.8	157	160	26.7	10.8	11.9
MAX	155	220	48	313	398	106	230	283	318	63	14	33
MIN	11	39	25	26	48	35	59	75	50	13	8.6	8.4
CFSM	4.26	10.7	3.95	9.63	13.0	6.69	9.65	16.8	17.2	2.88	1.16	1.28
IN.	4.91	11.9	4.55	11.1	13.5	7.71	10.8	19.4	19.2	3.32	1.33	1.43
AC-FT	2,440	5,890	2,260	5,510	6,720	3,830	5,340	9,620	9,500	1,640	662	710

CAL YR 1960 : TOTAL 23,227 MEAN 63.5 MAX 350 MIN 11 CFSM 6.82 IN 92.89 AC-FT 46,070
WAT YR 1961: TOTAL 27,286.6 MEAN 74.8 MAX 398 MIN 8.4 CFSM 8.04 IN 109.12 AC-FT 54,120

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1135. North Fork Cedar River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	74	43	113	93	22	38	89	89	71	17	16
2	12	52	41	121	129	21	42	100	113	67	17	15
3	11	65	40	294	178	20	42	109	114	61	18	15
4	11	56	64	207	168	20	53	105	102	58	22	14
5	13	53	69	161	131	20	64	89	98	59	33	14
6	18	45	59	152	107	20	250	77	96	74	25	13
7	24	41	54	270	86	19	339	69	109	65	24	13
8	17	39	47	306	74	20	160	69	137	67	25	12
9	64	39	41	204	65	18	113	74	145	65	22	12
10	110	70	37	143	60	18	86	77	125	59	20	18
11	67	70	35	113	55	17	73	74	111	54	20	23
12	97	61	32	95	57	17	70	70	111	50	20	17
13	137	58	29	78	48	16	85	68	100	45	20	17
14	81	54	27	69	48	16	133	65	102	41	19	17
15	60	56	25	60	45	17	147	65	135	39	18	16
16	49	51	24	54	42	18	118	68	154	37	18	16
17	41	45	26	48	41	18	109	77	139	37	18	15
18	34	42	23	43	40	19	129	83	125	32	18	15
19	33	39	38	36	37	20	147	75	120	29	18	14
20	29	35	61	34	35	20	129	69	125	29	17	14
21	26	33	50	32	33	19	118	68	123	28	17	14
22	25	124	47	31	32	18	120	71	122	27	16	13
23	37	85	120	30	29	18	133	86	125	26	16	13
24	31	69	298	34	26	20	152	100	127	25	16	13
25	32	59	174	42	25	22	129	113	120	23	15	12
26	34	51	116	58	24	22	107	120	102	22	17	12
27	37	46	89	64	23	22	105	125	83	21	16	12
28	36	49	96	64	23	22	88	135	77	20	20	25
29	33	48	164	63	------	23	77	120	83	19	18	22
30	31	45	180	69	------	26	70	102	77	19	17	19
31	34	------	137	78	------	30	------	93	------	18	16	------
TOTAL	1,275	1,671	2,286	3,164	1,747	618	3,426	2,705	3,389	1,287	593	461
MEAN	41.1	55.7	73.7	102	62.4	19.9	114	87.3	113	41.5	19.1	15.4
MAX	137	124	298	306	178	30	339	135	154	74	33	25
MIN	11	33	23	30	23	16	38	65	77	18	15	12
CFSM	4.42	5.99	7.93	11.0	6.71	2.14	12.3	9.38	12.1	4.46	2.06	1.65
IN.	5.10	6.68	9.14	12.7	6.99	2.47	13.7	10.8	13.6	5.15	2.37	1.84
AC-FT	2,530	3,310	4,530	6,280	3,470	1,230	6,800	5,370	6,720	2,550	1,180	914

CAL YR 1961: TOTAL 27,179.6 MEAN 74.5 MAX 398 MIN 8.4 CFSM 8.01 IN 108.69 AC-FT 53,910
WAT YR 1962: TOTAL 22,622 MEAN 62.0 MAX 339 MIN 11 CFSM 6.66 IN 90.46 AC-FT 44,870

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	17	21	56	181	19	97	38	62	84	36	17	11
2	18	20	50	271	27	86	37	61	84	34	16	11
3	19	19	44	254	292	76	37	57	71	32	15	10
4	18	20	41	165	195	65	61	51	68	29	15	9.8
5	17	24	64	121	190	58	84	66	102	29	15	9.8
6	18	26	151	97	151	52	118	76	84	27	14	9.8
7	25	23	119	83	144	49	102	76	74	27	13	9.8
8	37	37	136	74	140	45	86	71	70	29	13	9.8
9	80	37	153	66	121	42	74	65	77	27	13	9.8
10	75	44	134	56	103	40	65	59	73	29	13	9.5
11	73	52	112	51	88	40	60	54	73	29	12	9.5
12	69	55	92	46	76	37	57	52	76	28	12	9.8
13	64	51	80	42	64	35	57	51	65	27	14	12
14	61	47	83	39	57	35	78	53	59	27	12	12
15	75	45	110	38	52	33	88	62	60	33	11	11
16	67	41	110	35	48	31	73	66	53	32	11	11
17	59	38	100	33	44	30	66	89	47	31	11	11
18	57	35	89	31	51	30	61	129	42	29	13	11
19	54	535	84	29	91	32	56	160	38	27	13	9.8
20	49	687	76	28	114	34	51	182	34	27	14	9.5
21	52	256	88	27	99	38	48	192	34	26	13	9.5
22	52	153	89	26	88	47	58	170	32	26	12	9.8
23	43	112	78	24	77	48	60	134	29	24	12	10
24	38	92	68	24	66	45	56	114	29	24	12	9.8
25	35	111	59	24	68	45	52	102	33	23	12	9.8
26	33	123	54	23	127	45	49	94	29	21	11	9.8
27	29	100	51	22	103	49	47	97	27	20	11	9.5
28	26	83	58	22	102	52	45	102	27	19	11	9.5
29	25	70	78	21	------	49	60	110	43	19	10	9.2
30	23	64	190	20	------	45	65	110	39	17	11	9.2
31	22	------	184	19	------	43	------	99	------	18	11	------
TOTAL	1,330	3,021	2,881	1,992	2,797	1,453	1,889	2,866	1,656	826	393	303.0
MEAN	42.9	101	92.9	64.3	99.9	46.9	63.0	92.5	55.2	26.6	12.7	10.1
MAX	80	687	190	271	292	97	118	192	102	36	17	12
MIN	17	19	41	19	19	30	37	51	27	17	10	9.2
CFSM	4.61	10.8	9.99	6.91	10.7	5.04	6.77	9.94	5.94	2.87	1.36	1.09
IN.	5.32	12.1	11.5	7.97	11.2	5.81	7.55	11.5	6.62	3.30	1.57	1.21
AC-FT	2,640	5,990	5,710	3,950	5,550	2,880	3,750	5,680	3,280	1,640	780	601

CAL YR 1962: TOTAL 24,622 MEAN 67.5 MAX 687 MIN 12 CFSM 7.25 IN 98.46 AC-FT 48,840
WAT YR 1963: TOTAL 21,407.0 MEAN 58.6 MAX 687 MIN 9.2 CFSM 6.31 IN 85.60 AC-FT 42,460

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1135. North Fork Cedar River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.5	31	66									
2	9.5	40	52									
3	9.5	39	45									
4	9.5	45	40									
5	9.8	41	45									
6	9.8	40	54									
7	9.2	40	45									
8	9.2	48	43									
9	9.2	51	39									
10	9.2	46	35									
11	9.2	43	32									
12	9.2	43	30									
13	10	43	29									
14	9.5	70	27									
15	9.2	69	27									
16	9.2	70	27									
17	9.2	88	26									
18	9.5	76	24									
19	9.2	71	26									
20	11	57	25									
21	13	48	23									
22	36	41	26									
23	27	42	43									
24	46	45	52									
25	59	84	69									
26	38	169	61									
27	31	223	57									
28	31	136	52									
29	31	110	48									
30	31	80	45		------							
31	29	------	64		------		------		------			------
TOTAL	561.6	2,029	1,277									
MEAN	18.1	67.6	41.2									
MAX	59	223	69									
MIN	9.2	31	23									
CFSM	1.95	7.27	4.43									
IN.	2.25	8.11	5.11									
AC-FT	1,110	4,020	2,530									

CAL YR 1963:	TOTAL 18,042.6	MEAN 49.4	MAX 292	MIN 9.2	CFSM 5.32	IN 72.15	AC-FT 35,790
WAT YR 1964:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1140. South Fork Cedar River near Lester, Wash.

Location.--Lat 47°18'30", long 121°31'00", in NE¼SE¼ sec.15, T.21 N., R.10 E., on left bank 0.6 mile upstream from confluence with North Fork and 7 miles northwest of Lester.

Drainage area.--6.00 sq mi.

Records available.--October 1944 to September 1965.

Gage.--Water-stage recorder. Concrete control Aug. 31, 1951, to Dec. 9, 1956, and since Oct. 8, 1957. Altitude of gage is 2,300 ft (from topographic map).

Average discharge.--21 years, 39.9 cfs (28,890 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (200 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2400	206	5.73	Apr. 6, 1962	2200	* 402	6.28	Jan. 1, 1964	1500	234	5.80
Feb. 21, 1961	1230	* 406	6.30	Nov. 20, 1962	0200	* 904	7.30	May 31, 1964	2100	* 264	5.92
Dec. 24, 1961	0800	264	5.89	Jan. 2, 1963	2330	212	5.69	Dec. 1, 1964	2100	372	6.20
Jan. 3, 1962	1600	225	5.77	Nov. 26, 1963	2300	209	5.72	Jan. 29, 1965	0400	* 512	6.55
								Apr. 20, 1965	0500	215	5.75

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28-30, 1961	3.6	a 4.33	1964	Oct. 16, 17, 1963	3.0	4.26
1962	Oct. 2-5, 1961	4.5	4.38	1965	Sept.11-13, 1965	3.5	4.34
1963	Sept.30, 1963	3.2	4.28				

a Occurred Oct. 4-6, 1960, Aug. 28-30, 1961.

1944-65: Maximum discharge, 2,340 cfs Dec. 9, 1956 (gage height, 10.41 ft, from floodmarks), from rating curve extended above 300 cfs on basis of slope-area measurement of peak flow; minimum, 1.9 cfs Nov. 27, 28, 1952 (gage height, 2.80 ft).

Remarks.--Records good. *No regulation or diversion above station.*

Revisions (water years).--WSP 1446: 1953-54.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.5	100	26	17	71	75	45	89	89	15	4.9	15
2	5.4	81	26	15	95	65	79	93	104	14	4.9	15
3	5.4	63	26	14	81	55	146	83	98	13	4.7	9.2
4	5.4	49	25	18	71	46	107	68	89	12	4.7	7.3
5	5.2	36	21	76	95	40	77	59	77	22	4.7	6.7
6	5.4	30	20	116	136	35	63	50	73	18	4.7	6.1
7	5.7	26	18	89	116	32	52	42	64	17	4.6	5.7
8	7.3	23	17	70	87	28	58	40	53	12	4.6	5.4
9	6.3	20	16	63	85	26	65	43	46	11	4.3	5.2
10	6.1	48	15	56	91	24	52	66	36	10	4.3	4.7
11	6.3	107	15	53	81	22	47	70	34	9.2	4.3	4.6
12	7.7	77	19	56	66	21	54	64	29	9.2	4.1	4.6
13	9.0	58	20	53	58	24	58	59	28	8.9	4.1	4.3
14	8.0	45	28	89	48	34	45	61	37	8.3	4.1	4.1
15	7.7	41	29	144	42	38	40	66	48	8.0	4.3	4.1
16	7.7	126	28	171	36	42	45	77	52	7.5	4.1	4.1
17	7.3	124	27	111	32	40	50	93	50	7.3	4.1	4.1
18	7.1	124	27	81	29	40	46	109	40	7.3	4.0	4.1
19	6.7	100	30	63	56	43	43	131	32	7.1	3.8	4.0
20	6.5	85	26	53	128	48	40	136	30	7.1	3.8	4.6
21	7.1	68	25	46	324	42	36	114	28	6.7	3.7	4.3
22	8.9	50	24	41	181	41	35	95	26	6.7	3.7	4.1
23	13	40	24	36	95	41	34	107	26	6.5	3.7	4.0
24	32	70	26	34	80	40	34	91	24	6.1	3.7	3.8
25	29	60	27	30	60	37	32	89	22	6.1	3.7	3.8
26	34	50	27	26	50	37	34	102	20	5.9	3.7	3.8
27	48	40	26	24	42	34	34	89	18	5.9	3.7	3.7
28	81	35	23	23	38	31	38	79	17	5.7	3.7	5.4
29	70	30	21	27	------	31	68	79	16	5.7	3.6	5.2
30	56	27	19	37	------	32	83	73	16	5.4	3.6	4.6
31	61	------	19	63	------	35	------	70	------	5.2	5.2	------
TOTAL	570.7	1,833	720	1,795	2,374	1,179	1,640	2,487	1,322	289.8	129.1	165.6
MEAN	18.4	61.1	23.2	57.9	84.8	38.0	54.7	80.2	44.1	9.35	4.16	5.52
MAX	81	126	30	171	324	75	146	136	104	22	5.2	15
MIN	5.2	20	15	14	29	21	32	40	16	5.2	3.6	3.7
CFSM	3.07	10.2	3.87	9.65	14.1	6.34	9.11	13.4	7.34	1.56	.69	.92
IN.	3.54	11.4	4.46	11.1	14.7	7.31	10.2	15.4	8.19	1.80	.80	1.03
AC-FT	1,130	3,640	1,430	3,560	4,710	2,340	3,250	4,930	2,620	575	256	328

CAL YR 1960: TOTAL 11,868.3 MEAN 32.4 MAX 144 MIN 4.1 CFSM 5.40 IN 73.56 AC-FT 23,540
WAT YR 1961: TOTAL 14,505.2 MEAN 39.7 MAX 324 MIN 3.6 CFSM 6.62 IN 89.91 AC-FT 28,770

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1140. South Fork Cedar River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.7	43	26	63	49	12	20	53	46	23	6.2	6.2
2	4.5	40	24	63	63	12	21	61	53	22	5.9	5.9
3	4.5	39	24	169	90	11	22	70	56	19	6.6	5.9
4	4.5	33	36	142	95	11	27	68	53	18	9.0	5.9
5	5.5	30	38	100	81	11	33	60	53	18	13	5.7
6	8.7	27	36	95	63	11	185	52	52	20	10	5.7
7	16	25	32	136	52	11	242	46	53	17	10	5.7
8	12	24	29	145	43	10	113	46	60	17	11	5.4
9	21	23	26	103	38	10	72	50	61	17	10	5.4
10	48	34	24	76	35	10	53	56	55	15	9.6	6.3
11	34	37	24	58	32	9.0	46	53	48	14	9.3	10
12	41	34	22	50	29	9.0	45	50	45	14	9.6	7.6
13	64	32	19	43	27	9.0	52	48	42	13	9.0	7.9
14	48	32	17	38	27	9.0	81	45	39	12	7.9	7.6
15	36	29	16	33	26	9.3	97	43	44	11	7.6	7.1
16	30	27	15	30	24	10	76	44	49	11	7.6	6.9
17	25	26	13	26	24	10	70	46	45	11	7.9	6.9
18	21	24	12	24	23	10	81	49	40	10	7.9	6.6
19	20	21	22	20	21	10	95	45	38	9.3	7.6	6.4
20	17	20	30	19	21	11	83	40	38	9.0	7.4	6.4
21	15	19	28	18	20	10	79	39	38	8.6	7.4	6.2
22	15	74	30	17	19	10	79	39	36	7.9	7.1	6.2
23	23	58	74	16	17	11	83	46	36	7.6	6.9	5.9
24	19	45	222	18	16	12	95	53	38	7.4	6.6	5.9
25	20	37	172	22	15	12	81	60	36	7.1	6.4	5.7
26	21	32	72	26	14	13	64	63	33	6.9	6.9	5.7
27	24	29	55	31	13	13	64	64	27	6.6	6.6	5.7
28	23	29	55	38	13	12	56	66	23	6.6	7.4	12
29	21	27	90	36	------	13	48	63	22	6.6	6.6	11
30	21	26	113	38	------	14	44	55	24	6.3	6.4	9.0
31	21	------	83	43	------	16	------	49	------	6.2	6.2	------
TOTAL	688.4	976	1,479	1,736	990	341.3	2,207	1,622	1,283	378.1	247.6	206.8
MEAN	22.2	32.5	47.7	56.0	35.4	11.0	73.6	52.3	42.8	12.2	7.99	6.89
MAX	64	74	222	169	95	16	242	70	61	23	13	12
MIN	4.5	19	12	16	13	9.0	20	39	22	6.2	5.9	5.4
CFSM	3.70	5.42	7.95	9.33	5.89	1.83	12.3	8.72	7.13	2.03	1.33	1.15
IN.	4.27	6.05	9.17	10.8	6.14	2.12	13.7	10.1	7.95	2.34	1.53	1.28
AC-FT	1,370	1,940	2,930	3,440	1,960	677	4,380	3,220	2,540	750	491	410

CAL YR 1961: TOTAL 14,524.9 MEAN 39.8 MAX 324 MIN 3.6 CFSM 6.63 IN 90.03 AC-FT 28,810
WAT YR 1962: TOTAL 12,155.2 MEAN 33.3 MAX 242 MIN 4.5 CFSM 5.55 IN 75.34 AC-FT 24,110

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.3	10	32	128	13	49	24	38	22	12	7.4	4.7
2	8.3	9.3	29	175	16	45	22	36	21	12	7.1	4.9
3	8.6	9.0	25	178	136	39	21	33	20	12	6.6	4.5
4	7.9	9.3	23	113	103	36	35	31	19	11	6.6	4.5
5	7.4	12	40	81	92	33	48	36	24	11	6.4	4.5
6	7.6	14	100	63	81	30	74	44	22	10	6.2	4.4
7	11	13	85	53	74	27	64	45	21	9.6	5.9	4.4
8	15	19	90	46	76	26	55	43	20	11	5.9	4.4
9	34	19	97	43	68	24	46	40	19	11	5.7	4.4
10	36	21	83	27	58	22	42	37	19	11	5.7	4.4
11	33	25	66	25	50	21	37	35	19	11	5.7	4.2
12	29	27	55	25	43	20	36	32	18	11	5.4	4.4
13	26	26	48	24	37	19	37	31	17	11	6.4	5.2
14	24	24	48	21	34	17	49	30	16	11	5.2	5.0
15	26	22	62	20	31	16	58	31	15	13	5.2	4.5
16	23	20	63	19	30	15	49	31	14	12	5.0	4.7
17	22	19	56	17	29	14	43	33	14	12	4.9	4.4
18	21	17	50	16	32	14	39	43	13	12	5.2	4.0
19	20	229	48	15	44	16	36	50	12	11	5.9	4.0
20	18	482	42	15	53	17	34	52	11	11	6.4	3.8
21	17	193	46	14	50	21	32	53	11	11	5.4	3.8
22	16	110	49	13	45	27	34	50	11	11	5.2	3.8
23	15	70	46	13	40	30	35	42	9.3	11	5.7	3.8
24	15	58	40	12	36	28	35	36	8.6	10	5.7	3.8
25	14	68	31	12	37	27	34	31	11	9.6	5.7	3.7
26	14	85	28	11	55	27	33	29	8.3	9.0	5.2	3.5
27	13	66	26	11	50	30	32	26	6.4	8.6	5.0	3.5
28	12	55	30	10	49	31	31	26	7.1	8.3	5.0	3.4
29	11	48	43	9.0	------	30	35	26	13	7.9	4.9	3.4
30	11	43	125	9.0	------	29	38	26	12	7.6	4.9	3.2
31	11	------	128	10	------	26	------	24	------	7.6	4.7	------
TOTAL	535.1	1,822.6	1,734	1,228.0	1,462	806	1,188	1,120	453.7	327.2	176.2	125.2
MEAN	17.3	60.8	55.9	39.6	52.2	26.0	39.6	36.1	15.1	10.6	5.68	4.17
MAX	36	482	128	178	136	49	74	53	24	13	7.4	5.2
MIN	7.4	9.0	23	9.0	13	14	21	24	6.4	7.6	4.7	3.2
CFSM	2.88	10.1	9.32	6.60	8.70	4.33	6.60	6.02	2.52	1.76	.95	.70
IN.	3.32	11.3	10.7	7.61	9.06	5.00	7.36	6.94	2.81	2.03	1.09	.78
AC-FT	1,060	3,620	3,440	2,440	2,900	1,600	2,360	2,220	900	649	349	248

CAL YR 1962: TOTAL 13,103.5 MEAN 35.9 MAX 482 MIN 5.4 CFSM 5.98 IN 81.22 AC-FT 25,990
WAT YR 1963: TOTAL 10,978.0 MEAN 30.1 MAX 482 MIN 3.2 CFSM 5.01 IN 68.05 AC-FT 21,770

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1140. South Fork Cedar River near Lester, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.2	18	37	164	17	14	43	38	241	119	27	29
2	3.2	22	32	128	16	13	39	34	200	108	26	29
3	3.2	22	29	76	15	13	35	32	157	87	26	25
4	3.2	26	25	56	15	18	34	31	181	81	26	24
5	3.4	26	27	48	14	17	30	31	209	81	24	22
6	3.2	26	30	49	14	16	30	30	191	81	21	20
7	3.2	26	29	40	13	15	31	33	169	95	20	20
8	3.1	31	28	36	13	14	34	37	148	105	19	21
9	3.1	32	26	32	12	14	39	52	163	81	18	18
10	3.2	31	24	30	12	13	49	79	184	68	16	17
11	3.2	30	23	26	11	12	53	76	166	66	15	16
12	3.2	30	21	24	11	11	46	79	148	87	15	15
13	3.7	30	19	21	11	11	42	74	145	81	15	14
14	3.2	40	18	20	11	20	42	64	151	72	13	13
15	3.1	42	19	20	11	28	56	60	160	70	12	13
16	3.0	42	19	24	11	25	48	68	218	56	11	12
17	3.0	49	17	24	11	27	43	95	178	49	11	16
18	3.2	44	16	23	17	30	39	105	188	45	12	13
19	3.1	42	17	21	20	26	37	130	142	40	10	14
20	4.0	34	17	21	17	24	36	148	119	39	9.6	26
21	4.2	30	16	19	17	22	34	145	103	39	9.0	25
22	15	26	18	18	17	20	38	108	108	36	8.6	25
23	11	27	24	17	16	18	34	83	136	31	8.6	23
24	18	26	29	17	16	17	32	76	148	31	8.3	22
25	30	38	45	30	15	16	34	68	130	33	8.6	21
26	24	120	42	25	15	14	40	74	133	33	11	19
27	19	145	38	24	14	14	38	103	108	30	13	17
28	19	83	36	21	14	14	40	142	83	32	26	16
29	18	58	33	20	14	17	43	151	79	31	26	19
30	18	45	30	18	------	23	42	188	95	29	36	48
31	17	------	36	18	------	30	------	231	------	30	35	------
TOTAL	257.9	1,241	820	1,110	410	566	1,181	2,665	4,581	1,866	536.7	612
MEAN	8.32	41.4	26.5	35.8	14.1	18.3	39.4	86.0	153	60.2	17.3	20.4
MAX	30	145	45	164	20	30	56	231	241	119	36	48
MIN	3.0	18	16	17	11	11	30	30	79	29	8.3	12
CFSM	1.39	6.89	4.41	5.97	2.36	3.04	6.56	14.3	25.5	10.0	2.89	3.40
IN.	1.60	7.69	5.08	6.88	2.54	3.51	7.32	16.5	28.4	11.6	3.33	3.79
AC-FT	512	2,460	1,630	2,200	813	1,120	2,340	5,290	9,090	3,700	1,060	1,210

CAL YR 1963: TOTAL 9,205.2 MEAN 25.2 MAX 178 MIN 3.0 CFSM 4.20 IN 57.06 AC-FT 18,260
WAT YR 1964: TOTAL 15,846.6 MEAN 43.3 MAX 241 MIN 3.0 CFSM 7.22 IN 98.22 AC-FT 31,430

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	97	10	290	20	116	36	20	72	64	21	4.8	4.4
2	108	11	234	20	80	33	18	58	68	21	5.0	4.4
3	90	13	125	17	63	30	18	52	79	21	5.1	4.2
4	63	17	84	16	60	29	20	48	74	20	5.0	4.2
5	49	18	61	15	70	28	20	42	74	20	4.9	4.2
6	39	18	49	14	63	27	20	37	74	18	4.9	4.0
7	31	18	42	14	56	27	20	34	68	17	4.9	4.0
8	30	18	55	13	53	27	20	34	64	17	4.9	3.8
9	27	17	75	12	45	30	23	37	60	14	4.7	3.8
10	24	16	80	11	39	34	23	48	55	14	4.9	3.7
11	22	15	64	11	35	43	23	66	55	12	4.7	3.5
12	20	14	53	11	33	46	26	88	46	11	4.7	3.5
13	18	14	45	11	44	45	29	90	39	11	5.4	3.7
14	18	13	38	12	39	43	32	84	35	10	4.7	7.6
15	21	12	32	16	36	40	46	77	31	9.6	4.5	9.0
16	21	12	26	26	39	37	72	82	30	9.3	4.5	9.0
17	24	11	22	31	58	33	66	76	32	8.6	4.5	6.9
18	23	11	24	30	70	30	58	66	33	7.9	4.5	6.2
19	22	10	21	29	77	27	98	61	30	7.6	5.0	5.7
20	21	10	18	29	79	25	171	72	29	7.6	5.2	5.4
21	20	9.6	16	29	68	24	133	74	28	7.4	4.7	5.2
22	18	9.3	65	27	56	23	103	76	26	6.6	4.7	5.0
23	17	11	92	26	48	21	88	68	26	6.4	5.4	5.0
24	16	90	63	25	42	20	88	64	26	6.2	5.0	4.9
25	14	66	49	23	36	19	95	64	24	5.9	4.9	4.9
26	13	50	42	29	38	18	108	72	21	5.7	4.7	4.9
27	12	39	35	130	45	16	130	92	20	5.7	4.5	4.9
28	11	33	30	264	39	16	135	108	18	5.2	4.5	4.7
29	11	33	27	385	------	15	108	97	18	5.0	4.7	4.7
30	12	104	25	369	------	15	88	84	20	4.9	4.5	4.7
31	11	------	22	234	------	17	------	72	------	4.9	4.4	------
TOTAL	923	722.9	1,904	1,899	1,527	874	1,899	2,095	1,267	341.5	148.8	150.1
MEAN	29.8	24.1	61.4	61.3	54.5	28.2	63.3	67.6	42.2	11.0	4.80	5.00
MAX	108	104	290	385	116	46	171	108	79	21	5.4	9.0
MIN	11	9.3	16	11	33	15	18	34	18	4.9	4.4	3.5
CFSM	4.96	4.02	10.2	10.2	9.09	4.70	10.6	11.3	7.04	1.84	.80	.83
IN.	5.72	4.48	11.8	11.8	9.46	5.42	11.8	13.0	7.85	2.12	.92	.93
AC-FT	1,830	1,430	3,780	3,770	3,030	1,730	3,770	4,160	2,510	677	295	298

CAL YR 1964: TOTAL 17,077.6 MEAN 46.7 MAX 290 MIN 8.3 CFSM 7.78 IN 105.85 AC-FT 33,870
WAT YR 1965: TOTAL 13,751.3 MEAN 37.7 MAX 385 MIN 3.5 CFSM 6.28 IN 85.24 AC-FT 27,280

12-1145. Cedar River below Bear Creek, near Cedar Falls, Wash.

Location.--Lat 47°20'30", long 121°32'50", in SE¼SE¼ sec.32, T.22 N., R.10 E., on right bank 500 ft downstream from Bear Creek and 12¼ miles southeast of Cedar Falls.

Drainage area.--25.4 sq mi.

Records available.--October 1945 to December 1963 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,880 ft (from topographic map). Prior to Sept. 16, 1960, at site 90 ft upstream at datum 2.35 ft higher.

Average discharge.--18 years, 180 cfs (130,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (700 cfs, revised), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0600	817	4.81	Jan. 3, 1962	-	1,010	5.08	Nov. 26, 1963	2200	* 742	4.47
Jan. 15, 1961	2400	1,090	5.19	Apr. 6, 1962	2230	* 1,490	5.64				
Feb. 21, 1961	1330	* 1,500	5.65								
Apr. 3, 1961	1000	708	4.65	Nov. 19, 1962	2330	* 2,710	6.70				
				Jan. 2, 1963	2400	730	4.41				
Dec. 24, 1961	0630	1,100	5.20	Feb. 3, 1963	0900	864	4.64				

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 27-30, 1961	20	2.55	1963	Sept.30, 1963	20	2.03
1962	Oct. 5, 1961	23	2.60	1964	Oct. 19, 20, 1963	18	2.01

1945-63: Maximum discharge, 7,620 cfs Nov. 22, 1959 (gage height, 6.98 ft, site and datum then in use), from rating curve extended above 890 cfs on basis of slope-area measurement of peak flow; minimum, 12 cfs Nov. 27, 1952.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1716: 1956-57(M), 1959(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	455	114	81	301	345	208	401	455	85	30	73
2	25	345	119	74	406	274	313	414	571	81	30	74
3	25	260	130	69	341	235	615	365	566	78	29	41
4	24	211	120	78	317	208	505	305	522	74	29	34
5	24	176	110	294	370	187	361	268	465	108	29	32
6	26	148	98	470	582	170	282	232	437	88	28	30
7	32	128	92	383	505	148	238	211	396	81	28	26
8	49	112	87	305	383	135	238	202	313	74	28	27
9	44	100	81	297	392	128	250	214	289	69	28	26
10	40	602	76	254	383	117	226	268	254	65	27	25
11	44	414	76	241	337	112	220	278	244	61	26	24
12	50	282	94	250	285	110	235	257	232	58	26	23
13	50	229	94	235	250	121	247	244	235	54	26	22
14	45	199	126	387	220	193	226	244	274	51	25	22
15	43	208	117	691	208	232	214	264	337	49	25	24
16	42	302	112	831	181	238	217	313	370	48	26	24
17	40	598	108	500	161	217	244	401	392	45	24	23
18	39	598	112	353	148	217	235	465	317	44	23	24
19	38	470	135	278	272	247	217	571	257	41	22	23
20	37	428	114	229	594	257	196	610	208	40	22	28
21	43	309	108	199	1,260	226	187	538	176	38	22	28
22	71	238	106	170	782	217	178	437	156	38	21	24
23	104	208	104	151	475	214	164	490	151	38	21	24
24	226	417	108	138	396	208	161	414	140	37	21	23
25	158	325	114	124	301	200	161	401	133	36	21	22
26	184	235	110	114	244	180	161	485	119	34	20	22
27	244	187	104	108	220	170	161	424	102	33	20	22
28	406	156	98	108	196	160	181	365	96	32	20	33
29	329	135	94	110	------	156	309	374	94	32	20	34
30	254	119	88	190	------	158	392	365	92	32	20	28
31	347	------	87	289	------	173	------	353	------	31	34	------
TOTAL	3,109	8,594	3,236	8,001	10,510	5,953	7,542	11,173	8,393	1,675	771	887
MEAN	100	286	104	258	375	192	251	360	280	54.0	24.9	29.6
MAX	406	602	135	831	1,260	345	615	610	571	108	34	74
MIN	24	100	76	69	148	110	161	202	92	31	20	22
CFSM	3.95	11.3	4.11	10.2	14.8	7.56	9.90	14.2	11.0	2.13	.98	1.16
IN.	4.55	12.6	4.74	11.7	15.4	8.72	11.0	16.4	12.3	2.45	1.13	1.30
AC-FT	6,170	17,050	6,420	15,870	20,850	11,810	14,960	22,160	16,650	3,320	1,530	1,760

CAL YR 1960: TOTAL 55,738 MEAN 152 MAX 605 MIN 24 CFSM 6.00 IN 81.61 AC-FT 110,600
WAT YR 1961: TOTAL 69,844 MEAN 191 MAX 1,260 MIN 20 CFSM 7.53 IN 102.26 AC-FT 138,500

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1145. Cedar River below Bear Creek, near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	28	190	133	310	217	67	122	247	190	128	41	38
2	26	173	124	320	278	64	128	268	226	122	40	37
3	25	184	124	810	410	63	128	297	241	111	44	36
4	24	156	204	610	414	61	150	274	220	107	58	35
5	29	138	220	460	333	60	179	241	220	105	77	34
6	43	126	184	430	260	60	704	217	214	128	61	34
7	74	119	161	710	220	60	968	193	223	113	61	33
8	55	108	140	790	190	61	490	190	264	113	63	32
9	113	108	126	540	168	56	325	196	278	109	57	32
10	235	178	110	401	154	54	244	208	247	103	54	46
11	151	208	102	309	142	53	205	199	220	95	52	57
12	205	181	96	250	130	51	196	190	214	90	53	42
13	321	164	92	211	126	51	214	184	199	84	53	42
14	208	170	85	187	133	49	309	173	193	77	48	42
15	153	145	81	162	126	51	365	168	235	74	47	40
16	106	135	78	147	115	54	289	168	268	72	45	39
17	106	124	81	133	115	56	264	182	244	74	45	38
18	94	117	72	117	111	58	293	190	226	67	48	37
19	87	106	114	103	105	61	349	176	244	64	45	36
20	78	98	181	94	103	64	309	162	244	61	44	36
21	71	96	164	90	97	61	289	157	244	60	44	35
22	69	403	161	86	95	58	282	160	208	58	41	35
23	112	260	406	83	88	58	309	187	205	56	40	34
24	94	211	915	94	82	86	349	211	214	54	39	33
25	92	173	532	110	77	97	309	235	205	53	37	32
26	98	148	345	140	72	95	254	244	182	49	41	32
27	119	133	257	173	70	93	274	254	150	48	40	32
28	119	140	278	184	68	84	232	278	137	47	49	64
29	106	135	465	173	------	84	214	250	142	46	42	58
30	100	133	510	179	------	93	205	220	135	44	40	49
31	100	------	370	196	------	105	------	202	------	41	39	------
TOTAL	3,241	4,760	6,911	8,602	4,499	2,068	8,948	6,521	6,432	2,453	1,488	1,170
MEAN	105	159	223	277	161	66.7	298	210	214	79.1	48.0	39.0
MAX	321	403	915	810	414	105	968	297	278	128	77	64
MIN	24	96	72	83	68	49	122	157	135	41	37	32
CFSM	4.12	6.25	8.78	10.9	6.33	2.63	11.7	8.28	8.44	3.12	1.89	1.54
IN.	4.75	6.97	10.1	12.6	6.59	3.03	13.1	9.55	9.42	3.59	2.18	1.71
AC-FT	6,430	9,440	13,710	17,060	8,920	4,100	17,750	12,930	12,760	4,870	2,950	2,320

CAL YR 1961: TOTAL 69,817 MEAN 191 MAX 1,260 MIN 20 CFSM 7.53 IN 102.22 AC-FT 138,500
WAT YR 1962: TOTAL 57,093 MEAN 156 MAX 968 MIN 24 CFSM 6.16 IN 83.59 AC-FT 113,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	46	56	158	484	75	245	108	173	135	72	46	27
2	45	52	141	655	86	215	102	181	137	70	44	28
3	51	51	126	645	649	189	102	168	122	66	42	27
4	46	52	118	456	480	168	168	156	118	63	41	26
5	45	64	178	336	460	153	228	176	160	60	38	25
6	46	74	404	266	392	137	350	200	137	58	38	24
7	64	64	318	224	356	128	300	200	124	57	37	24
8	87	95	346	197	342	118	254	189	118	64	36	24
9	189	95	392	181	300	112	215	176	126	62	35	24
10	187	109	342	156	254	108	189	163	118	62	34	24
11	168	126	284	140	215	108	173	153	118	63	34	24
12	152	135	239	130	186	102	166	144	118	62	33	24
13	140	126	206	133	166	97	160	139	110	60	37	30
14	128	117	215	118	153	95	206	139	102	62	32	30
15	152	111	275	114	141	90	248	146	101	83	31	26
16	135	103	272	106	135	86	209	150	93	75	30	28
17	124	99	248	99	128	82	192	168	86	72	30	26
18	119	93	218	93	144	83	181	230	82	70	33	24
19	113	903	209	86	221	92	170	281	78	68	38	24
20	103	1,220	186	83	263	93	160	308	72	64	42	23
21	107	686	206	80	230	101	153	322	72	63	34	23
22	103	432	209	75	200	114	170	297	70	68	31	22
23	91	297	192	74	178	118	178	242	64	62	32	24
24	84	242	173	72	158	112	170	200	64	60	32	23
25	79	321	153	70	160	112	160	173	70	57	31	22
26	75	388	141	69	275	110	156	160	63	55	30	21
27	71	290	139	66	239	118	148	156	60	52	29	21
28	66	233	170	64	236	130	141	160	62	50	29	21
29	63	197	237	62	------	128	158	170	85	49	28	21
30	60	184	530	60	------	124	170	170	78	47	27	20
31	57	------	502	65	------	114	------	153	------	47	27	------
TOTAL	2,996	7,015	7,527	5,459	6,822	3,782	5,485	5,843	2,943	1,923	1,061	730
MEAN	96.6	234	243	176	244	122	183	188	98.1	62.0	34.2	24.3
MAX	189	1,220	530	655	649	245	350	322	160	83	46	30
MIN	45	51	118	60	75	82	102	139	60	47	27	20
CFSM	3.80	9.21	9.56	6.93	9.59	4.80	7.20	7.42	3.86	2.44	1.35	.96
IN.	4.39	10.3	11.0	7.99	9.99	5.54	8.03	8.56	4.31	2.82	1.55	1.07
AC-FT	5,940	13,910	14,930	10,830	13,530	7,500	10,880	11,590	5,840	3,810	2,100	1,450

CAL YR 1962: TOTAL 59,719 MEAN 164 MAX 1,220 MIN 32 CFSM 6.44 IN 87.44 AC-FT 118,500
WAT YR 1963: TOTAL 51,586 MEAN 141 MAX 1,220 MIN 20 CFSM 5.56 IN 75.53 AC-FT 102,300

12-1145. Cedar River below Bear Creek, near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	90	170									
2	20	122	144									
3	20	110	126									
4	20	135	112									
5	21	126	118									
6	21	124	139									
7	20	141	122									
8	19	173	118									
9	19	163	108									
10	19	150	97									
11	19	137	92									
12	19	122	86									
13	24	128	82									
14	20	166	78									
15	20	176	83									
16	19	184	85									
17	19	254	86									
18	20	221	82									
19	19	224	85									
20	25	178	85									
21	30	150	80									
22	99	133	90									
23	68	139	118									
24	118	139	137									
25	181	215	215									
26	122	500	195									
27	97	560	178									
28	95	360	163									
29	97	266	146									
30	93	209	135		------							
31	86	------	166		------		------		------			------
TOTAL	1,489	5,795	3,721									
MEAN	48.0	193	120									
MAX	181	560	215									
MIN	19	90	78									
CFSM	1.89	7.60	4.73									
IN.	2.18	8.48	5.45									
AC-FT	2,950	11,490	7,380									

CAL YR 1963: TOTAL 45,053 MEAN 123 MAX 655 MIN 19 CFSM 4.86 IN 65.97 AC-FT 89,360
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

12-1150. Cedar River near Cedar Falls, Wash.

Location.--Lat 47°22'20", long 121°37'30", in SE¼SW¼ sec.23, T.22 N., R.9 E., on left bank 2 miles upstream from Chester Morse Lake and 8 miles southeast of Cedar Falls.

Drainage area.--40.7 sq mi (revised).

Records available.--October 1945 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,560 ft (from topographic map). Prior to Oct. 26, 1957, at site 80 ft downstream at same datum.

Average discharge.--20 years, 278 cfs (201,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,200 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	1100	1,230	5.82	Apr. 6, 1962	2200	* 2,140	7.10	May 31, 1964	2300	1,320	5.90
Jan. 16, 1961	0100	1,650	6.50								
Feb. 21, 1961	1330	* 2,650	7.70	Nov. 20, 1962	0130	* 4,430	9.25	Dec. 1, 1964	1530	2,110	6.96
				Feb. 3, 1963	0930	1,540	6.34	Jan. 29, 1965	0700	* 3,210	8.20
Dec. 24, 1961	0900	1,780	6.65					Apr. 20, 1965	0700	1,250	5.78
Jan. 3, 1962	1830	1,520	6.24	Jan. 1, 1964	1800	* 1,350	5.94				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	28	2.51	1964	Oct. 17, 1963	29	2.36
1962	Oct. 4, 5, 1961	32	2.56	1965	Sept. 9-13, 1965	33	2.43
1963	Sept.29, 30, 1963	32	2.42				

1945-65: Maximum discharge, 9,490 cfs Nov. 22, 1959 (gage height, 11.34 ft, from high watermark in well), from rating curve extended above 4,300 cfs on basis of slope-area measurements at gage heights 10.16 and 11.34 ft; maximum gage height, 11.4 ft Feb. 11, 1951 (backwater from Chester Morse Lake); minimum discharge, 20 cfs Nov. 30 to Dec. 1, 1952.

Remarks.--Records good. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1946-48, 1950(P), 1951. WSP 1516: 1946(M), 1947-48(P), 1950-51(M), 1953-54(P), 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	42	740	198	132	493	550	279	555	560	96	45	97
2	41	585	209	121	685	459	435	600	700	91	45	130
3	40	440	233	111	565	379	900	530	680	86	44	72
4	39	337	224	120	511	324	750	447	620	82	44	61
5	38	273	198	490	620	292	530	403	550	126	43	57
6	41	236	179	860	855	263	411	344	516	105	42	53
7	50	198	162	670	775	241	344	310	475	96	40	50
8	74	174	150	530	595	229	348	292	375	89	39	47
9	61	150	139	555	580	215	383	306	352	86	39	43
10	53	309	128	470	625	198	341	375	310	86	38	42
11	53	735	126	390	545	195	320	399	302	82	34	39
12	65	505	172	400	451	192	355	367	279	82	32	36
13	66	372	169	363	423	220	399	344	275	80	32	34
14	61	309	243	580	363	310	359	344	313	76	32	33
15	60	309	230	995	352	399	327	359	379	72	34	34
16	60	900	209	1,290	316	435	320	423	407	71	40	36
17	58	935	195	830	285	375	363	520	455	69	38	34
18	56	1,020	212	580	247	338	352	610	363	66	35	34
19	55	795	266	451	448	367	324	720	292	64	34	34
20	55	820	230	367	905	407	292	790	238	62	32	39
21	60	590	203	313	2,090	348	275	700	206	61	32	43
22	96	415	190	269	1,250	320	263	560	182	59	32	38
23	139	329	184	238	750	310	241	645	175	59	32	35
24	337	770	190	217	635	306	238	535	156	58	32	33
25	269	710	201	192	498	292	235	498	145	57	31	32
26	291	460	190	178	395	275	238	615	134	54	31	31
27	405	337	179	163	348	256	235	545	119	52	31	30
28	665	280	166	163	310	235	253	475	109	52	30	42
29	595	243	154	178	------	226	539	475	107	51	30	56
30	415	212	143	292	------	223	545	467	107	50	29	45
31	480	------	139	480	------	238	------	439	------	47	52	------
TOTAL	4,820	14,488	5,811	12,988	16,915	9,417	11,194	14,992	9,881	2,267	1,124	1,390
MEAN	155	483	187	419	604	304	373	484	329	73.1	36.3	46.3
MAX	665	1,020	266	1,290	2,090	550	900	790	700	126	52	130
MIN	38	150	126	111	247	192	235	292	107	47	29	30
CFSM	3.82	11.9	4.61	10.3	14.8	7.46	9.17	11.9	8.09	1.80	.89	1.14
IN.	4.40	13.2	5.31	11.9	15.5	8.60	10.2	13.7	9.03	2.07	1.03	1.27
AC-FT	9,560	28,740	11,530	25,760	33,550	18,680	22,200	29,740	19,600	4,500	2,230	2,760

CAL YR 1960: TOTAL 84,324 MEAN 230 MAX 1,020 MIN 38 CFSM 5.66 IN 77.05 AC-FT 167,300
WAT YR 1961: TOTAL 105,287 MEAN 288 MAX 2,090 MIN 29 CFSM 7.09 IN 96.21 AC-FT 208,800

12-1150. Cedar River near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	273	201	498	330	101	185	391	259	165	52	52
2	38	263	182	504	399	96	198	439	302	165	51	51
3	35	269	190	1,290	550	94	190	467	327	149	56	48
4	34	235	307	1,040	575	92	212	439	313	143	71	46
5	39	209	399	790	467	89	259	379	310	140	105	45
6	64	182	306	750	375	92	955	338	302	172	82	44
7	107	168	263	975	313	92	1,380	296	310	145	80	44
8	82	156	223	1,050	269	100	755	288	355	140	82	43
9	142	149	192	825	235	92	511	306	375	136	74	42
10	344	255	163	620	217	86	395	327	341	127	69	58
11	235	324	149	480	198	84	330	313	302	121	66	80
12	278	288	138	399	182	80	306	292	292	115	66	61
13	484	250	127	334	175	80	327	282	269	107	69	58
14	320	250	121	288	192	81	447	266	259	100	64	58
15	238	220	115	253	180	86	535	253	292	94	59	56
16	190	201	113	229	170	87	435	247	341	91	58	52
17	161	180	119	206	165	92	391	263	320	92	58	48
18	138	168	109	185	163	98	423	272	292	86	64	46
19	125	156	164	158	156	101	498	259	275	81	61	46
20	113	140	338	150	147	107	451	238	275	78	58	45
21	105	140	348	140	138	105	419	226	272	74	61	45
22	103	618	292	140	145	101	411	226	266	72	57	44
23	180	439	627	135	134	101	435	259	266	69	53	43
24	154	324	1,490	154	121	161	484	296	272	68	52	42
25	143	259	900	182	115	212	439	324	266	64	51	40
26	156	220	585	253	107	192	371	338	247	61	54	40
27	198	198	423	299	105	180	455	348	203	58	54	42
28	206	201	415	302	103	156	403	375	182	58	68	78
29	178	201	690	282	------	149	355	352	182	57	59	86
30	158	192	835	282	------	152	330	306	182	56	57	72
31	154	------	625	302	------	163	------	279	------	53	54	------
TOTAL	4,945	7,128	11,149	13,495	6,426	3,502	13,285	9,684	8,449	3,137	1,965	1,555
MEAN	160	238	360	435	230	113	443	312	282	101	63.4	51.8
MAX	484	618	1,490	1,290	575	212	1,380	467	375	172	105	86
MIN	34	140	109	135	103	80	185	226	182	53	51	40
CFSM	3.92	5.84	8.84	10.7	5.64	2.78	10.9	7.68	6.92	2.49	1.56	1.27
IN.	4.52	6.51	10.2	12.3	5.87	3.20	12.1	8.85	7.72	2.87	1.80	1.42
AC-FT	9,810	14,140	22,110	26,770	12,750	6,950	26,350	19,210	16,760	6,220	3,900	3,080

CAL YR 1961: TOTAL 103,390 MEAN 283 MAX 2,090 MIN 29 CFSM 6.96 IN 94.47 AC-FT 205,100
WAT YR 1962: TOTAL 84,720 MEAN 232 MAX 1,490 MIN 34 CFSM 5.70 IN 77.41 AC-FT 168,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	68	72	266	715	80	419	192	272	182	110	67	42
2	64	69	241	1,010	126	370	174	303	187	106	62	42
3	69	68	213	998	1,040	322	174	278	170	101	60	42
4	62	68	200	688	760	284	296	255	162	95	58	39
5	58	86	337	521	719	252	392	275	230	90	56	38
6	61	100	650	423	605	230	581	315	198	92	55	38
7	84	87	550	353	541	208	509	309	174	92	54	37
8	133	123	550	315	505	192	423	293	164	103	52	37
9	313	121	650	287	448	182	356	275	177	101	48	36
10	327	149	525	243	384	175	315	249	167	99	48	36
11	256	178	451	203	325	179	284	235	164	103	48	36
12	206	201	381	198	281	167	266	222	167	97	48	35
13	172	188	343	208	252	160	255	205	150	93	50	42
14	149	172	353	185	232	153	293	203	144	95	48	45
15	170	163	454	180	213	146	370	216	137	137	45	42
16	152	154	458	172	208	137	319	216	133	124	44	42
17	138	145	413	153	195	127	290	232	120	118	42	41
18	134	132	364	144	232	129	284	296	112	114	49	38
19	127	1,130	343	131	353	153	272	364	106	106	60	36
20	121	2,500	306	124	444	155	260	398	101	101	64	35
21	117	1,010	325	120	388	160	243	405	103	97	55	35
22	119	643	342	116	332	187	269	388	101	103	50	36
23	109	473	312	108	287	195	290	325	93	95	50	36
24	98	402	278	102	255	185	278	272	93	92	51	35
25	94	520	249	99	249	182	263	241	103	86	48	35
26	92	679	227	92	440	180	255	219	93	80	48	34
27	87	517	219	86	402	195	241	208	88	77	45	33
28	81	409	299	80	384	230	227	208	88	73	44	33
29	78	339	382	65	------	235	249	219	129	70	43	33
30	75	315	840	56	------	232	266	219	118	67	42	32
31	74	------	800	71	------	213	------	203	------	70	42	------
TOTAL	3,888	11,213	12,321	8,246	10,680	6,334	8,886	8,318	4,154	2,987	1,576	1,121
MEAN	125	374	397	266	381	204	296	268	138	96.4	50.8	37.4
MAX	327	2,500	840	1,010	1,040	419	581	405	230	137	67	45
MIN	58	68	200	56	80	127	174	203	88	67	42	32
CFSM	3.08	9.18	9.77	6.54	9.37	5.02	7.28	6.59	3.40	2.37	1.25	.92
IN.	3.55	10.2	11.3	7.53	9.76	5.79	8.12	7.60	3.80	2.73	1.44	1.02
AC-FT	7,710	22,240	24,440	16,360	21,180	12,560	17,630	16,500	8,240	5,920	3,130	2,220

CAL YR 1962: TOTAL 88,920 MEAN 244 MAX 2,500 MIN 40 CFSM 5.99 IN 81.25 AC-FT 176,400
WAT YR 1963: TOTAL 79,724 MEAN 218 MAX 2,500 MIN 32 CFSM 5.37 IN 72.85 AC-FT 158,100

12-1150. Cedar River near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	137	265	939	289	176	447	317	1,250	596	206	204
2	32	195	221	888	243	161	383	283	1,060	615	197	201
3	32	182	192	592	201	153	324	257	855	520	214	178
4	33	235	174	451	199	211	308	245	910	493	216	163
5	33	222	180	383	199	237	286	265	1,010	506	194	151
6	34	203	229	459	178	201	268	243	950	471	180	141
7	32	231	201	368	165	178	277	257	920	574	176	140
8	32	315	192	305	155	174	305	289	885	640	163	167
9	31	281	176	271	147	165	337	386	830	534	157	145
10	30	255	161	245	149	161	424	610	925	455	145	134
11	30	216	151	214	153	183	459	588	865	498	141	127
12	30	195	143	189	141	172	405	574	780	592	138	121
13	34	185	138	176	138	151	365	560	755	574	134	116
14	33	249	134	165	131	193	344	475	770	524	124	111
15	31	272	141	172	129	314	534	443	805	480	117	106
16	30	278	165	245	134	274	427	480	1,070	401	111	104
17	30	409	187	248	147	308	354	630	950	347	108	138
18	31	370	180	224	201	393	317	670	978	321	121	124
19	31	370	187	206	274	308	295	785	810	289	113	124
20	35	299	206	197	232	259	286	865	670	289	102	216
21	43	249	194	176	209	227	271	920	574	298	98	201
22	153	224	199	165	197	204	344	785	570	257	95	209
23	118	235	237	153	187	185	295	610	710	224	93	197
24	164	243	265	167	185	169	277	547	730	227	88	172
25	319	336	372	390	176	163	280	475	670	243	90	165
26	208	718	347	295	169	157	341	480	640	243	110	149
27	157	940	321	259	161	149	334	592	556	237	121	140
28	157	583	295	229	157	151	341	790	475	248	205	131
29	153	416	262	274	155	178	361	840	435	243	192	142
30	155	327	237	251	------	254	337	955	502	219	265	332
31	139	------	268	243	------	337	------	1,150	------	224	240	------
TOTAL	2,402	9,370	6,620	9,539	5,201	6,546	10,326	17,366	23,910	12,382	4,654	4,749
MEAN	77.5	312	214	308	179	211	344	560	797	399	150	158
MAX	319	940	372	939	289	393	534	1,150	1,250	640	265	332
MIN	30	137	134	153	129	149	268	243	435	219	88	104
CFSM	1.90	7.67	5.25	7.56	4.41	5.19	8.46	13.8	19.6	9.81	3.69	3.89
IN.	2.19	8.56	6.05	8.72	4.75	5.98	9.44	15.9	21.8	11.3	4.25	4.34
AC-FT	4,760	18,590	13,130	18,920	10,320	12,980	20,480	34,440	47,420	24,560	9,230	9,420

CAL YR 1963: TOTAL 70,694 MEAN 194 MAX 1,040 MIN 30 CFSM 4.76 IN 64.60 AC-FT 140,200
WAT YR 1964: TOTAL 113,065 MEAN 309 MAX 1,250 MIN 30 CFSM 7.59 IN 103.31 AC-FT 224,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	484	82	1,730	155	902	289	169	439	379	172	49	37
2	542	89	1,500	150	625	259	163	365	412	172	50	36
3	511	111	910	140	475	237	157	327	480	165	51	37
4	368	189	620	128	447	227	161	317	459	161	49	36
5	283	178	455	122	547	221	169	283	471	150	47	35
6	229	165	358	114	506	221	163	257	471	140	44	34
7	192	157	301	111	431	224	159	232	443	136	43	34
8	194	142	368	107	455	229	159	221	431	124	42	34
9	183	134	520	100	386	243	174	229	412	111	42	33
10	163	126	574	96	330	271	176	274	383	107	46	33
11	146	120	463	92	286	308	174	351	390	105	44	33
12	136	114	379	91	265	324	180	451	337	96	46	33
13	128	113	334	94	386	314	197	484	271	92	54	33
14	132	101	286	107	365	295	201	459	229	87	45	60
15	146	96	245	146	327	277	265	427	211	84	42	98
16	150	91	199	254	375	265	408	475	206	79	41	91
17	165	89	165	280	552	232	390	431	232	77	39	64
18	157	87	180	254	560	209	337	372	245	73	37	56
19	150	84	160	237	578	194	542	354	219	68	39	51
20	144	82	145	234	578	183	1,150	397	216	73	51	48
21	138	82	130	245	484	176	920	401	214	71	42	46
22	132	85	492	229	405	180	700	390	204	67	40	45
23	118	105	750	214	334	169	565	383	204	62	48	42
24	111	776	484	199	292	159	538	347	204	62	51	41
25	105	583	361	180	262	152	556	344	192	59	44	40
26	98	443	301	209	295	144	615	379	176	57	42	38
27	91	322	257	889	408	138	735	480	157	57	40	38
28	87	259	216	1,660	334	134	790	606	150	56	40	37
29	84	251	194	2,570	------	132	665	565	154	52	42	37
30	92	816	178	2,280	------	128	538	511	163	51	39	36
31	87	------	165	1,650	------	136	------	431	------	50	37	------
TOTAL	5,746	6,072	13,420	13,337	12,190	6,670	12,116	11,982	8,715	2,916	1,366	1,316
MEAN	185	202	433	430	435	215	404	387	291	94.1	44.1	43.9
MAX	542	816	1,730	2,570	902	324	1,150	606	480	172	54	98
MIN	84	82	130	91	262	128	157	221	150	50	37	33
CFSM	4.55	4.97	10.6	10.6	10.7	5.29	9.92	9.50	7.14	2.31	1.08	1.08
IN.	5.25	5.55	12.3	12.2	11.1	6.09	11.1	10.9	7.96	2.66	1.25	1.20
AC-FT	11,400	12,040	26,620	26,450	24,180	13,230	24,030	23,770	17,290	5,780	2,710	2,610

CAL YR 1964: TOTAL 119,911 MEAN 328 MAX 1,730 MIN 82 CFSM 8.05 IN 109.57 AC-FT 237,800
WAT YR 1965: TOTAL 95,846 MEAN 263 MAX 2,570 MIN 33 CFSM 6.45 IN 87.58 AC-FT 190,100

12-1155. Rex River near Cedar Falls, Wash.

Location.--Lat 47°21'10", long 121°39'50", in NE¼NW¼ sec.33, T.22 N., R.9 E., on right bank 2½ miles upstream from mouth and Chester Morse Lake and 7 miles southeast of Cedar Falls.

Drainage area.--13.4 sq mi (revised).

Records available.--October 1945 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 1,600 ft (from topographic map). Prior to Sept. 9, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--20 years, 105 cfs (76,020 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharge above base (700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0630	945	5.65	Jan. 3, 1962	1530	910	5.60	Jan. 1, 1964	1300	* 728	5.48
Feb. 21, 1961	1130	* 1,640	6.51	Apr. 6, 1962	2000	* 1,510	6.33				
								Nov. 24, 1964	0730	740	5.50
Nov. 22, 1961	0530	744	5.38	Nov. 19, 1962	2200	* 3,020	7.70	Dec. 1, 1964	1200	1,360	6.32
Dec. 24, 1961	0700	1,220	6.02	Feb. 3, 1963	-	-	-	Jan. 28, 1965	2300	* 2,130	7.10

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28,29,30,1961	5.5	2.90	1964	(a)	9.8	3.15
1962	Aug. 2, 1962	10	3.07	1965	Sept.12, 13, 1965	10	3.14
1963	Sept.30, 1963	10	3.16				

a Oct. 2, 3, 10, 11, 1963.

1945-65: Maximum discharge, 4,200 cfs Nov. 22, 1959 (gage height, 8.20 ft), from rating curve extended above 1,600 cfs on basis of contracted-opening measurement at gage height 7.19 ft and slope-area measurement of peak flow; maximum gage height, 9.31 ft Nov. 19, 1962 (backwater from debris); minimum discharge, 4.3 cfs Nov. 29, 1952 (gage height, 2.43 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1946, 1948(P), 1949(M), 1950(P), 1952(M). WSP 1446: 1946(M), 1951, 1953-55(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	280	65	53	232	246	146	211	154	25	9.3	69
2	14	222	78	48	320	172	268	246	178	23	9.0	63
3	14	166	95	43	236	136	520	211	166	22	8.6	25
4	14	125	87	53	232	105	284	169	148	21	8.6	20
5	13	99	73	378	288	91	190	148	133	51	8.6	22
6	16	80	65	400	355	82	145	128	139	30	8.2	17
7	27	70	59	276	264	76	120	115	128	28	8.2	15
8	46	65	54	211	197	70	139	110	101	25	7.9	14
9	29	56	51	250	228	64	172	122	103	22	7.9	13
10	25	213	47	208	228	59	136	145	91	21	7.6	13
11	28	365	53	187	187	58	128	142	87	20	7.3	12
12	45	204	105	187	154	59	145	125	82	18	7.0	11
13	33	145	118	169	133	87	148	115	78	17	7.3	9.7
14	29	112	190	296	112	139	120	139	80	17	7.6	9.7
15	27	172	133	390	120	181	108	139	82	16	7.6	10
16	25	544	101	435	105	190	118	154	80	16	8.2	10
17	24	432	87	272	89	157	136	172	111	16	7.6	9.7
18	22	390	145	200	78	142	118	197	75	15	7.0	11
19	21	328	194	160	311	151	105	228	64	14	6.7	9.7
20	20	340	139	122	618	160	93	232	56	14	6.4	21
21	34	204	108	103	1,110	130	89	190	49	13	6.4	20
22	59	145	95	89	460	118	87	163	45	13	6.1	13
23	101	120	95	82	236	122	82	200	40	13	6.1	12
24	242	469	108	76	218	125	83	157	37	12	6.1	11
25	139	320	110	68	163	112	82	151	34	12	6.1	11
26	200	184	95	62	128	105	80	160	31	12	6.1	9.3
27	276	125	82	58	108	95	78	194	29	11	5.8	9.0
28	350	99	73	58	97	87	89	154	27	11	5.8	30
29	236	80	65	103	------	85	194	148	33	11	5.5	26
30	175	68	60	200	------	89	214	136	31	9.7	5.5	20
31	232	------	58	253	------	97	------	125	------	9.3	35	------
TOTAL	2,530	6,222	2,888	5,490	7,007	3,590	4,417	5,026	2,492	558.0	251.1	546.1
MEAN	81.6	207	93.2	177	250	116	147	162	83.1	18.0	8.10	18.2
MAX	350	544	194	435	1,110	246	520	246	178	51	35	69
MIN	13	56	47	43	78	58	78	110	27	9.3	5.5	9.0
CFSM	6.09	15.5	6.95	13.2	18.7	8.64	11.0	12.1	6.20	1.34	.60	1.36
IN.	7.02	17.3	8.02	15.2	19.4	9.96	12.3	13.9	6.92	1.55	.70	1.52
AC-FT	5,020	12,340	5,730	10,890	13,900	7,120	8,760	9,970	4,940	1,110	498	1,080

CAL YR 1960: TOTAL 34,517.0 MEAN 94.3 MAX 544 MIN 8.2 CFSM 7.04 IN 95.80 AC-FT 68,460
WAT YR 1961: TOTAL 41,017.2 MEAN 112 MAX 1,110 MIN 5.5 CFSM 8.39 IN 113.84 AC-FT 81,360

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1155. Rex River near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	181	93	166	68	32	87	190	97	42	11	18
2	16	120	83	230	95	31	91	200	120	42	11	18
3	15	133	78	702	139	30	83	214	118	34	16	17
4	14	101	171	397	157	29	108	178	120	34	45	15
5	32	85	163	292	122	28	125	142	160	43	80	14
6	54	76	115	288	99	26	715	120	133	61	46	14
7	91	70	93	425	89	24	609	105	128	41	40	14
8	60	66	76	328	83	30	268	110	128	37	36	13
9	158	68	64	232	75	27	178	128	120	34	31	13
10	210	165	53	166	73	26	136	118	108	31	29	47
11	145	160	52	130	70	25	115	122	101	29	26	46
12	226	122	48	103	64	24	112	112	93	26	28	27
13	239	105	45	89	60	24	133	110	83	26	28	28
14	139	110	41	76	71	24	184	101	83	25	23	27
15	97	87	38	68	66	25	187	93	91	22	21	23
16	78	75	35	62	60	27	154	95	93	21	21	21
17	62	66	43	54	59	29	145	97	87	28	21	20
18	52	59	36	47	62	30	163	99	83	21	26	18
19	49	52	102	44	56	33	178	89	78	19	22	18
20	43	46	200	42	51	35	154	83	76	18	22	17
21	38	47	178	40	47	33	178	83	73	17	27	17
22	39	382	154	38	46	32	166	83	71	16	22	16
23	126	178	455	46	41	32	172	101	70	15	21	16
24	85	115	845	56	40	75	181	110	68	14	19	15
25	80	87	320	66	37	97	151	122	68	14	18	14
26	89	75	187	83	35	93	130	120	62	14	23	14
27	105	70	130	115	34	82	236	120	54	13	20	19
28	97	87	197	133	33	66	181	133	56	13	29	64
29	83	85	357	120	------	64	145	118	43	12	22	48
30	75	85	316	110	------	66	130	108	40	12	20	36
31	73	------	211	73	------	76	------	99	------	12	19	------
TOTAL	2,690	3,158	4,979	4,821	1,932	1,275	5,595	3,703	2,705	786	823	687
MEAN	86.8	105	161	156	69.0	41.1	187	119	90.2	25.4	26.5	22.9
MAX	239	382	845	702	157	97	715	214	160	61	80	64
MIN	14	46	35	38	33	24	83	83	40	12	11	13
CFSM	6.48	7.86	12.0	11.6	5.15	3.07	13.9	8.91	6.73	1.89	1.98	1.71
IN.	7.47	8.76	13.8	13.4	5.36	3.54	15.5	10.3	7.51	2.18	2.28	1.91
AC-FT	5,340	6,260	9,880	9,560	3,830	2,530	11,100	7,340	5,370	1,560	1,630	1,360

CAL YR 1961: TOTAL 40,204.2 MEAN 110 MAX 1,110 MIN 5.5 CFSM 8.22 IN 111.58 AC-FT 79,740
WAT YR 1962: TOTAL 33,154 MEAN 90.8 MAX 845 MIN 11 CFSM 6.78 IN 92.01 AC-FT 65,760

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	31	23	95	335	30	166	63	110	38	51	22	16
2	33	22	82	487	50	127	58	120	47	45	20	15
3	39	21	68	412	610	108	65	108	40	41	20	15
4	32	23	65	254	313	90	210	99	44	39	19	15
5	29	41	204	179	265	79	234	125	75	36	18	14
6	35	52	344	143	215	68	265	130	56	34	18	13
7	59	37	238	120	182	60	202	120	47	34	17	13
8	108	66	235	110	160	58	154	104	48	45	16	13
9	253	59	213	97	127	54	122	95	58	43	16	13
10	187	87	186	81	108	51	108	84	51	46	15	12
11	120	105	154	70	90	52	99	79	46	45	15	12
12	91	101	130	65	77	47	99	73	45	41	15	12
13	75	89	122	65	70	45	101	70	40	39	15	15
14	65	78	160	65	65	44	125	70	38	47	14	17
15	68	71	257	60	62	41	115	77	35	85	14	16
16	56	64	206	56	67	40	99	75	32	62	13	16
17	51	61	160	51	64	38	94	82	31	56	13	14
18	48	58	130	47	110	38	91	99	28	51	22	13
19	43	959	125	44	186	60	88	110	28	47	33	13
20	42	1,050	106	40	166	65	85	113	27	42	36	12
21	43	365	140	37	127	81	83	110	31	40	23	12
22	45	210	125	33	104	88	96	95	30	44	20	12
23	39	149	106	30	86	77	115	77	28	37	23	15
24	36	122	90	28	73	68	110	67	30	34	23	12
25	33	245	81	28	93	70	105	60	42	31	20	11
26	34	309	75	26	218	70	100	54	32	28	19	11
27	31	186	81	26	149	88	95	52	31	26	18	11
28	29	130	148	23	161	108	88	47	34	25	18	11
29	27	108	214	21	------	93	104	44	79	23	17	11
30	25	115	440	20	------	79	110	41	58	22	16	10
31	24	------	339	25	------	70	------	39	------	23	16	------
TOTAL	1,831	5,006	5,119	3,078	4,028	2,223	3,483	2,629	1,249	1,262	584	395
MEAN	59.1	167	165	99.3	144	71.7	116	84.8	41.6	40.7	18.8	13.2
MAX	253	1,050	440	487	610	166	265	130	79	85	36	17
MIN	24	21	65	20	30	38	58	39	27	22	13	10
CFSM	4.41	12.5	12.3	7.41	10.7	5.35	8.66	6.33	3.11	3.04	1.41	.98
IN.	5.08	13.9	14.2	8.54	11.2	6.17	9.67	7.30	3.47	3.50	1.62	1.10
AC-FT	3,630	9,930	10,150	6,110	7,990	4,410	6,910	5,210	2,480	2,500	1,160	783

CAL YR 1962: TOTAL 34,283 MEAN 93.9 MAX 1,050 MIN 11 CFSM 7.01 IN 95.15 AC-FT 68,000
WAT YR 1963: TOTAL 30,887 MEAN 84.6 MAX 1,050 MIN 10 CFSM 6.32 IN 85.72 AC-FT 61,260

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1155. Rex River near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	86	91	522	133	55	188	111	490	220	69	104
2	10	122	77	310	111	50	138	95	401	191	66	104
3	10	106	66	198	88	51	113	84	297	168	86	84
4	11	179	60	150	91	100	106	84	361	159	89	72
5	12	135	83	120	88	100	97	93	420	153	77	63
6	12	115	102	181	79	79	91	88	392	153	69	56
7	11	155	82	131	69	64	100	97	378	181	63	65
8	10	220	77	104	63	58	118	108	322	195	56	95
9	10	166	69	88	58	52	131	171	310	165	52	75
10	9.8	130	59	74	59	49	174	269	322	144	48	68
11	10	108	54	64	56	52	178	235	289	165	46	60
12	11	97	51	56	52	49	144	227	258	191	44	54
13	20	90	48	50	49	44	123	224	246	174	44	49
14	14	127	48	46	46	80	132	174	258	159	38	46
15	12	113	72	58	44	104	254	156	281	156	35	42
16	11	140	125	118	46	91	171	185	470	125	33	40
17	12	224	156	97	51	133	128	231	485	111	30	98
18	14	160	133	82	102	144	108	235	485	97	44	70
19	11	160	171	74	118	108	100	265	322	89	36	92
20	20	115	191	69	93	88	97	326	246	91	31	205
21	22	93	141	58	82	75	97	401	205	93	29	133
22	146	86	150	52	72	66	128	289	209	80	28	120
23	79	113	162	46	68	58	106	227	250	70	26	97
24	120	125	147	80	63	52	100	209	242	70	24	84
25	160	224	220	302	59	50	106	181	220	72	30	84
26	108	424	162	171	54	48	131	191	212	69	44	69
27	81	383	162	133	51	44	120	246	185	66	65	60
28	108	205	138	111	48	44	123	289	159	68	138	54
29	104	150	115	156	48	56	133	293	147	63	116	74
30	95	111	102	133	------	93	120	352	174	56	238	172
31	81	------	120	123	------	136	------	460	------	77	141	------
TOTAL	1,344.8	4,666	3,434	3,957	2,041	2,273	3,855	6,596	9,036	3,871	1,935	2,489
MEAN	43.4	156	111	128	70.4	73.3	129	213	301	125	62.4	83.0
MAX	160	424	220	522	133	144	254	460	490	220	238	205
MIN	9.8	86	48	46	44	44	91	84	147	56	24	40
CFSM	3.24	11.6	8.27	9.53	5.25	5.47	9.59	15.9	22.5	9.32	4.66	6.19
IN.	3.73	12.9	9.53	11.0	5.66	6.31	10.7	18.3	25.1	10.7	5.37	6.91
AC-FT	2,670	9,250	6,810	7,850	4,050	4,510	7,650	13,080	17,920	7,680	3,840	4,940

CAL YR 1963: TOTAL 28,375.8 MEAN 77.7 MAX 610 MIN 9.8 CFSM 5.80 IN 78.75 AC-FT 56,280
WAT YR 1964: TOTAL 45,497.8 MEAN 124 MAX 522 MIN 9.8 CFSM 9.28 IN 126.27 AC-FT 90,240

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	205	33	1,070	53	246	97	63	136	115	36	11	12
2	279	41	708	49	168	84	59	110	125	34	12	12
3	246	76	340	42	125	77	56	104	140	33	13	12
4	174	123	209	41	138	71	57	104	135	30	12	12
5	131	97	147	38	195	71	57	86	140	29	12	12
6	104	82	110	34	162	77	54	79	135	26	12	11
7	82	79	90	33	136	79	52	77	130	26	11	11
8	92	65	162	32	141	81	52	77	120	24	11	11
9	79	60	216	30	115	86	57	84	115	23	11	11
10	73	53	273	29	92	94	57	101	105	24	16	11
11	62	49	185	28	79	106	54	125	100	23	12	11
12	56	45	136	28	84	110	57	153	80	21	18	11
13	52	43	115	28	198	101	65	153	65	20	26	11
14	53	39	94	40	153	92	71	138	60	19	14	94
15	71	37	77	67	118	86	97	131	55	18	12	110
16	73	36	64	108	169	79	144	165	54	18	12	66
17	82	37	58	120	289	70	123	136	58	17	11	43
18	71	34	60	118	242	62	106	118	62	16	11	34
19	65	33	55	128	238	57	262	130	58	16	15	30
20	59	32	50	133	220	54	455	181	55	19	26	26
21	53	30	45	133	171	53	378	168	54	18	15	24
22	47	35	308	110	128	56	254	147	52	16	13	23
23	42	78	314	92	104	49	198	131	50	15	24	21
24	41	482	181	82	86	44	202	118	48	14	22	20
25	38	254	128	70	77	43	202	110	43	14	17	19
26	33	171	101	127	99	41	220	120	41	14	16	18
27	30	123	84	603	159	40	246	150	37	14	15	18
28	29	94	73	1,380	118	40	254	190	35	13	16	17
29	28	125	65	1,370	------	40	205	165	35	13	16	16
30	44	485	60	1,100	------	39	168	150	36	12	14	16
31	33	------	53	526	------	49	------	130	------	12	13	------
TOTAL	2,527	2,971	5,631	6,772	4,250	2,128	4,325	3,967	2,338	627	459	743
MEAN	81.5	99.0	182	218	152	68.6	144	128	77.9	20.2	14.8	24.8
MAX	279	485	1,070	1,380	289	110	455	190	140	36	26	110
MIN	28	30	45	28	77	39	52	77	35	12	11	11
CFSM	6.08	7.39	13.6	16.3	11.3	5.12	10.8	9.55	5.82	1.51	1.10	1.85
IN.	7.01	8.25	15.6	18.8	11.8	5.91	12.0	11.0	6.49	1.74	1.27	2.06
AC-FT	5,010	5,890	11,170	13,430	8,430	4,220	8,580	7,870	4,640	1,240	910	1,470

CAL YR 1964: TOTAL 47,182 MEAN 129 MAX 1,070 MIN 24 CFSM 9.62 IN 130.95 AC-FT 93,580
WAT YR 1965: TOTAL 36,738 MEAN 101 MAX 1,380 MIN 11 CFSM 7.51 IN 101.96 AC-FT 72,870

Note.--No gage-height record May 24 to June 23.

12-1161. Canyon Creek near Cedar Falls, Wash.

Location.--Lat 47°25'10", long 121°45'55", in $NW\frac{1}{4}SE\frac{1}{4}$ sec.3, T.22 N., R.8 E., on right bank 400 ft upstream from mouth and 1 mile east of Cedar Falls.

Drainage area.--0.19 sq mi.

Records available.--May 1945 to September 1965.

Gage.--Water-stage recorder and wooden control. Altitude of gage is 1,040 ft (from topographic map).

Average discharge.--20 years, 17.1 cfs (12,380 acre-ft per year).

Extremes.--Maximum and minimum discharges for May 1945 to September 1965 are contained in the following table:

Water year	Maximum			Minimum daily		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1945	June 8, 9, 1945	66	1.75	Sept.27-30, 1945	2.4	-
1946	May 31, June 1,1946	86	1.88	Oct.15-18,21-24,1945	2.0	-
1947	Dec. 19, 1946	102	2.01	Sept.21-30, 1947	1.7	-
1948	Nov. 18, 19, 20,1947	96	1.96	Oct. 1, 7-9, 1947	1.7	-
1949	May 26, 1949	65	1.87	Sept.27-30, 1949	1.4	-
1950	Mar. 12, 1950	66	1.77	Oct. 2, 3, 1949	1.2	-
1951	Feb. 15, 16, 1951	66	1.75	Sept.19-29, 1951	1.3	-
1952	June 5, 1952	17	1.16	Oct. 26-28, 1951	.80	-
1953	Feb. 7, 1953	94	2.00	Dec. 26-28, 1952	.30	-
1954	Dec. 27, 1953	72	1.78	(a)	.30	-
1955	July 8, 1955	76	1.90	(b)	.30	-
1956	May 26, 29, 1956	64	1.79	(c)	2.7	-
1957	Dec. 23, 24, 1956	78	1.85	Oct. 13, 14, 1956	1.4	-
1958	(d)	25	1.30	Nov. 20-23, 1957	.30	-
1959	Nov. 27, 1958	88	1.61	Oct. 5, 6, 1958	.40	-
1960	Nov. 30, 1959	41	1.47	Sept.30, 1960	.90	-
1961	Mar. 5, 1961	42	1.44	Oct. 15-17,30,1960	.30	-
1962	Jan. 17-19, 1962	34	1.35	(e)	.40	-
1963	Jan. 8, 9, 1963	42	f 1.38	Oct. 13-16, 1962	1.8	-
1964	June 7, 1964	40	g 1.42	(h)	1.0	-
1965	Feb. 13, 1965	37	1.38	Sept.28-30, 1965	.70	-

a Oct. 23-30, Nov. 5, 6, 1953.
b Oct. 31 to Nov. 5, Nov. 7-9, 1954.
c Mar. 27-30, Apr. 1-3, 1956.
d Part or all of each day, May 2-10, 1958.
e Oct. 15-26, Oct. 29 to Nov. 9, 1961.
f Occurred Jan. 8, 9, 10, 11, 1963.
g Occurred June 7, 8, 10, 11, 12, 13, 1964.
h Oct. 31, Nov. 1, 12, 13, 1963.

1945-65: Maximum discharge, 102 cfs Dec. 19, 1946 (gage height, 2.01 ft); minimum daily, 0.30 cfs for many days in 1952-54, 1957, 1960.

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1945

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1								-	60	41	7.7	3.2
2								-	62	38	7.3	3.2
3								-	64	36	6.9	3.2
4								-	64	36	6.5	3.2
5								-	64	34	6.1	3.2
6								-	64	33	5.7	3.0
7								-	64	32	5.4	3.0
8								-	64	32	5.1	3.0
9								-	64	30	4.9	2.9
10								-	62	29	4.7	2.9
11								-	62	28	4.5	2.9
12								-	60	27	4.4	2.9
13								-	60	26	4.3	2.9
14								-	58	26	4.2	2.9
15								-	56	25	4.1	2.9
16								-	56	24	4.0	2.7
17								35	56	22	4.0	2.7
18								36	54	22	3.9	2.7
19								40	52	19	3.9	2.7
20								44	52	18	3.8	3.4
21								48	51	17	3.8	2.9
22								51	50	16	3.7	2.7
23								52	49	15	3.7	2.6
24								56	48	13	3.6	2.6
25								56	47	12	3.6	3.0
26								58	47	11	3.4	2.7
27								58	46	11	3.4	2.4
28								60	45	9.7	3.4	2.4
29					------			62	44	9.2	3.2	2.4
30					------			62	42	8.7	3.2	2.4
31		------			------		------	60	------	8.2	3.2	------
TOTAL								-	1,667	708.8	139.6	85.6
MEAN								-	55.6	22.9	4.50	2.85
MAX								-	64	41	7.7	3.4
MIN								-	42	8.2	3.2	2.4
AC-FT								-	3,310	1,410	277	170

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1945 TO SEPTEMBER 1946

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	2.3	19	5.3	12	3.8	6.3	12	84	56	30	4.8
2	2.3	2.4	19	5.9	12	3.8	5.9	12	82	54	28	4.8
3	2.3	2.8	18	6.3	11	3.8	5.9	13	82	52	28	4.8
4	2.3	3.6	18	8.3	9.7	3.8	5.6	15	82	51	27	4.5
5	2.3	3.4	17	9.2	9.7	4.3	5.3	16	82	49	26	4.5
6	2.3	3.4	16	10	9.7	4.8	5.0	18	82	49	26	4.5
7	2.3	3.8	15	14	8.7	4.8	4.8	18	82	48	25	4.3
8	2.3	4.3	15	15	8.3	5.3	4.8	20	82	47	24	4.3
9	2.3	5.3	13	16	7.8	5.6	4.8	22	81	47	24	4.0
10	2.1	6.3	13	18	7.0	6.3	4.8	23	80	45	23	4.0
11	2.1	7.8	13	19	6.6	7.0	5.3	25	77	44	22	4.0
12	2.1	9.2	13	20	6.3	8.7	4.8	27	77	43	21	4.0
13	2.1	11	13	22	5.6	8.7	4.5	29	75	42	19	4.0
14	2.1	13	13	23	5.6	9.2	4.3	32	75	42	18	4.0
15	2.0	14	13	24	5.3	10	4.3	35	74	41	16	4.0
16	2.0	15	12	24	4.8	10	4.3	38	71	40	15	4.0
17	2.0	16	12	24	4.8	10	4.3	40	71	39	14	3.8
18	2.0	18	12	23	4.5	10	4.3	43	71	38	13	3.8
19	2.3	18	11	22	4.5	10	4.3	43	72	38	12	3.6
20	2.3	19	10	22	4.3	10	4.5	46	70	38	11	3.6
21	2.0	19	9.2	20	4.0	10	5.0	49	70	37	9.7	3.6
22	2.0	20	8.7	19	4.0	10	5.3	52	70	36	8.7	3.6
23	2.0	20	8.3	18	5.0	9.2	5.6	57	68	36	7.8	3.6
24	2.0	22	7.8	19	4.3	9.2	6.3	62	66	36	7.4	3.6
25	2.3	22	7.4	17	4.0	9.2	7.0	64	65	35	7.0	3.6
26	2.8	24	6.6	16	3.8	8.7	7.4	68	64	34	6.3	3.4
27	2.6	22	6.6	15	4.0	8.3	8.3	70	62	34	5.9	3.4
28	2.3	22	7.4	13	3.8	7.8	8.7	75	61	32	5.6	3.2
29	2.1	21	6.3	13	------	7.4	9.7	77	59	32	5.3	3.2
30	2.3	19	5.9	13	------	7.0	11	83	57	32	5.3	3.2
31	2.3	------	5.3	12	------	6.6	------	84	------	30	5.0	------
TOTAL	68.5	389.6	364.5	506.0	181.1	233.3	172.4	1,268	2,194	1,277	496.0	117.7
MEAN	2.21	13.0	11.8	16.3	6.47	7.53	5.75	40.9	73.1	41.2	16.0	3.92
MAX	2.8	24	19	24	12	10	11	84	84	56	30	4.8
MIN	2.0	2.3	5.3	5.3	3.8	3.8	4.3	12	57	30	5.0	3.2
AC-FT	136	773	723	1,000	359	463	342	2,520	4,350	2,530	984	233

CAL YR 1945: TOTAL MEAN MAX MIN AC-FT
WAT YR 1946: TOTAL 7,268.1 MEAN 19.9 MAX 84 MIN 2.0 AC-FT 14,420

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1946 TO SEPTEMBER 1947

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.2	2.1	8.3	65	43	29	15	19	12	7.0	5.0	2.4
2	3.2	2.1	8.7	61	46	28	16	19	12	7.0	5.0	2.6
3	3.2	2.1	9.7	58	45	27	16	19	12	7.4	4.8	2.6
4	3.2	2.1	11	54	44	26	16	19	12	7.8	4.5	2.4
5	3.0	2.3	13	50	44	26	16	19	12	8.3	4.5	2.4
6	3.0	2.3	13	46	44	24	16	19	12	8.7	4.3	2.4
7	3.0	2.4	14	44	43	23	16	19	12	9.2	4.3	2.3
8	2.8	2.6	15	42	43	22	16	19	12	9.7	4.0	2.3
9	2.8	2.8	16	40	42	22	16	18	13	9.7	4.0	2.3
10	2.6	3.2	18	38	41	22	16	18	13	10	4.0	2.1
11	2.6	3.2	22	37	39	21	16	18	12	10	3.8	2.1
12	2.6	3.2	22	36	38	19	16	18	12	10	3.8	2.0
13	2.6	3.4	26	34	38	18	16	18	12	10	3.6	2.1
14	2.4	3.6	32	33	37	18	15	17	12	10	3.6	2.0
15	2.4	3.8	42	32	35	17	15	17	11	10	3.6	2.0
16	2.4	4.0	59	30	33	16	15	16	11	9.7	3.6	2.3
17	2.3	4.8	78	29	33	17	15	16	11	9.7	3.4	2.3
18	2.3	5.6	94	29	32	16	15	16	10	9.7	3.4	2.0
19	2.3	5.0	100	28	33	16	16	16	10	9.2	3.4	1.8
20	2.4	5.0	100	26	33	15	16	15	9.7	8.7	3.2	1.8
21	2.4	5.0	100	26	33	15	16	15	9.7	8.7	3.2	1.7
22	2.4	5.3	96	25	32	16	16	14	9.7	8.3	3.0	1.7
23	2.4	5.6	92	26	32	15	16	14	9.2	7.8	3.2	1.7
24	2.4	6.3	89	26	32	15	16	13	8.7	7.4	3.2	1.7
25	2.4	6.6	87	26	32	15	17	13	8.7	7.0	3.0	1.7
26	2.6	6.6	86	26	31	15	18	13	8.7	6.6	3.0	1.7
27	2.3	6.6	81	26	31	15	18	13	8.3	6.3	2.8	1.7
28	2.1	6.6	77	28	30	15	19	13	8.3	6.3	2.8	1.7
29	2.1	7.0	75	31	------	15	19	13	7.8	5.9	2.8	1.7
30	2.1	7.4	72	33	------	15	19	13	7.4	5.6	2.8	1.7
31	2.1	------	69	38	------	15	------	12	------	5.3	2.6	------
TOTAL	79.6	128.6	1,625.7	1,123	1,039	588	488	501	319.2	257.0	112.2	61.2
MEAN	2.57	4.29	52.4	36.2	37.1	19.0	16.3	16.2	10.6	8.29	3.62	2.04
MAX	3.2	7.4	100	65	46	29	19	19	13	10	5.0	2.6
MIN	2.1	2.1	8.3	25	30	15	15	12	7.4	5.3	2.6	1.7
AC-FT	158	255	3,220	2,230	2,060	1,170	968	994	633	510	223	121

CAL YR 1946: TOTAL 8,279.4 MEAN 22.7 MAX 100 MIN 2.1 AC-FT 16,420
WAT YR 1947: TOTAL 6,322.5 MEAN 17.3 MAX 100 MIN 1.7 AC-FT 12,540

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1947 TO SEPTEMBER 1948

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	27	72	41	25	18	7.8	5.3	23	62	20	4.3
2	1.8	28	71	41	24	18	7.8	5.6	26	59	19	4.0
3	2.1	29	69	39	24	18	7.4	5.9	30	56	18	4.0
4	2.1	32	66	40	24	18	7.4	5.9	34	52	18	3.8
5	1.8	32	63	41	24	18	7.0	5.9	39	49	18	3.8
6	1.8	36	60	42	23	18	7.0	6.6	46	47	17	3.6
7	1.7	39	59	43	23	17	6.6	6.3	50	44	17	3.6
8	1.7	41	56	44	22	17	6.3	6.3	56	42	16	3.4
9	1.7	42	54	43	22	17	6.3	6.3	61	41	15	3.4
10	1.8	46	50	45	22	17	5.9	6.3	66	39	15	3.2
11	1.8	50	47	45	21	16	5.9	6.3	72	38	14	3.2
12	1.8	60	45	45	21	15	5.9	6.6	75	36	14	3.2
13	1.8	72	43	44	20	15	5.6	7.0	76	34	13	3.2
14	1.8	83	42	43	20	14	5.3	7.4	77	32	12	3.0
15	2.1	88	40	42	20	14	5.3	7.8	77	31	11	3.0
16	2.6	91	39	41	20	14	5.3	8.3	78	30	11	3.0
17	3.0	93	38	37	20	13	5.0	8.7	77	29	9.7	2.8
18	2.8	96	38	37	20	13	4.8	9.2	74	28	9.2	2.8
19	3.8	96	38	37	18	13	4.8	9.7	72	28	8.7	2.8
20	3.0	94	37	36	18	13	4.5	11	74	27	7.8	2.6
21	3.2	93	37	34	18	13	4.5	11	74	26	7.4	2.6
22	3.6	92	37	33	18	13	4.8	11	70	25	7.0	2.8
23	4.3	91	37	32	18	12	4.8	12	68	24	6.3	2.6
24	5.3	88	38	31	18	11	5.0	13	69	24	5.9	2.6
25	7.0	86	38	29	18	11	5.3	13	69	23	5.6	2.6
26	9.7	84	38	28	19	10	5.0	14	69	23	5.3	2.6
27	13	81	38	28	18	9.7	5.0	14	68	22	5.3	2.8
28	16	78	38	28	18	9.2	5.0	15	66	22	5.0	2.6
29	19	76	38	26	18	9.2	5.3	17	65	21	4.8	2.4
30	22	75	38	26	------	8.7	5.3	18	64	20	4.5	2.4
31	24	------	40	25	------	8.3	------	20	------	20	4.3	------
TOTAL	169.8	2,019	1,444	1,146	594	431.1	171.9	300.4	1,865	1,054	344.8	92.7
MEAN	5.48	67.3	46.6	37.0	20.5	13.9	5.73	9.69	62.2	34.0	11.1	3.09
MAX	24	96	72	45	25	18	7.8	20	78	62	20	4.3
MIN	1.7	27	37	25	18	8.3	4.5	5.3	23	20	4.3	2.4
AC-FT	337	4,000	2,860	2,270	1,180	855	341	596	3,700	2,090	684	184

CAL YR 1947: TOTAL 8,121.4 MEAN 22.3 MAX 96 MIN 1.7 AC-FT 16,110
WAT YR 1948: TOTAL 9,632.7 MEAN 26.3 MAX 96 MIN 1.7 AC-FT 19,110

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1948 TO SEPTEMBER 1949

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	3.0	8.7	12	4.5	4.5	7.0	13	63	31	18	3.4
2	2.3	3.0	11	11	4.3	4.5	7.0	14	62	30	18	3.2
3	2.3	3.2	11	11	4.3	4.8	7.0	15	59	28	17	3.0
4	2.4	3.2	11	11	4.3	5.0	7.0	15	59	28	17	3.0
5	2.4	3.2	13	9.2	4.3	5.3	7.0	16	57	27	17	2.8
6	2.4	3.2	14	9.2	4.3	5.6	6.6	17	57	27	17	2.8
7	2.4	3.0	14	9.2	4.0	5.9	6.3	18	56	26	15	2.6
8	2.4	3.0	15	8.7	4.0	6.3	6.3	19	57	26	15	2.6
9	2.3	3.0	17	8.3	4.0	6.3	5.9	20	56	25	14	2.6
10	2.3	3.0	17	7.8	4.8	6.6	5.6	21	57	24	14	2.6
11	2.3	2.8	17	7.4	4.0	7.0	5.6	22	56	25	14	2.4
12	2.1	2.8	18	7.0	3.8	7.0	5.6	24	56	25	13	2.4
13	2.1	2.8	17	7.0	3.6	7.1	5.3	24	54	25	12	2.4
14	2.1	3.0	17	7.0	3.6	7.1	5.3	27	54	25	11	2.3
15	2.1	3.2	17	6.6	3.6	7.1	5.3	31	54	25	11	2.3
16	2.1	3.2	17	6.6	5.3	7.2	5.0	33	54	26	9.7	2.1
17	2.1	3.0	17	6.3	5.6	7.2	5.3	42	51	26	9.2	2.0
18	2.1	3.0	17	5.9	4.3	7.3	5.6	48	50	25	8.7	2.0
19	2.3	3.0	18	5.9	4.0	7.3	5.9	56	48	25	7.8	2.0
20	2.3	3.2	18	5.9	4.0	7.3	6.6	59	48	25	7.4	2.0
21	2.3	3.2	17	5.6	4.0	7.4	6.6	60	46	25	7.0	1.8
22	2.4	3.4	16	5.6	4.5	7.4	7.0	60	45	25	5.9	1.8
23	2.4	3.8	16	5.3	4.5	7.4	7.0	61	43	24	5.6	1.7
24	2.4	4.0	15	5.3	4.3	7.4	7.0	60	42	24	5.3	1.7
25	2.4	4.3	15	5.3	4.3	7.4	7.4	63	41	23	5.0	1.6
26	2.6	4.3	15	5.3	4.3	7.4	7.8	64	39	22	4.8	1.6
27	2.6	4.5	14	5.0	4.3	7.4	8.3	63	38	22	4.5	1.4
28	2.8	6.3	14	4.8	4.3	7.4	9.2	64	36	21	4.0	1.4
29	2.8	6.3	14	4.8	------	7.0	9.7	63	34	20	3.8	1.4
30	3.0	7.4	13	4.8	------	7.0	11	63	32	20	3.6	1.4
31	3.0	------	13	4.5	------	7.0	------	64	------	19	3.6	------
TOTAL	73.8	108.3	466.7	219.3	119.1	206.6	202.2	1,219	1,504	769	318.9	66.3
MEAN	2.38	3.61	15.1	7.07	4.25	6.66	6.74	39.3	50.1	24.8	10.3	2.21
MAX	3.0	7.4	18	12	5.6	7.4	11	64	63	31	18	3.4
MIN	2.1	2.8	8.7	4.5	3.6	4.5	5.0	13	32	19	3.6	1.4
AC-FT	146	215	926	435	236	410	401	2,420	2,980	1,530	633	132

CAL YR 1948: TOTAL 6,648.7 MEAN 18.2 MAX 78 MIN 2.1 AC-FT 13,190
WAT YR 1949: TOTAL 5,273.2 MEAN 14.4 MAX 64 MIN 1.4 AC-FT 10,460

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1949 TO SEPTEMBER 1950

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.3	2.3	17	53	27	27	39	38	39	42	28	19
2	1.2	2.6	20	56	27	30	38	37	39	41	28	18
3	1.2	2.8	23	57	26	36	38	36	39	41	27	18
4	1.3	3.3	28	57	26	43	37	35	39	41	27	17
5	1.7	3.3	35	58	25	44	36	35	39	40	26	17
6	1.5	3.9	39	60	24	47	36	34	39	40	26	17
7	1.5	4.5	43	59	24	53	36	33	39	40	26	17
8	1.5	5.4	46	58	23	58	35	32	39	39	25	17
9	1.9	6.2	49	55	23	62	35	32	39	39	25	17
10	2.3	6.5	50	53	22	65	35	31	39	38	25	16
11	1.9	7.2	51	52	21	64	34	31	39	38	24	16
12	1.7	7.6	51	50	21	60	35	31	39	37	23	16
13	1.7	8.0	51	48	21	57	35	31	39	37	23	16
14	1.5	8.0	51	46	20	55	34	31	39	36	23	15
15	1.7	8.0	51	44	20	53	35	31	39	35	23	15
16	1.7	8.4	52	42	20	52	36	32	38	35	22	14
17	1.5	8.4	52	40	20	51	35	34	39	34	21	14
18	1.5	8.8	52	40	19	50	35	35	39	33	21	13
19	1.5	8.8	51	39	19	49	36	36	39	32	21	13
20	1.5	8.8	50	37	19	47	37	37	40	31	21	13
21	1.5	9.2	48	36	19	46	38	38	41	31	21	12
22	1.5	10	48	35	19	46	38	38	43	30	20	12
23	1.5	11	47	32	20	46	39	39	43	30	20	11
24	1.5	11	45	30	21	45	39	39	44	29	20	11
25	1.5	12	44	28	21	45	40	39	44	29	20	10
26	1.7	12	43	28	21	44	40	39	45	29	20	9.6
27	1.9	13	46	29	22	43	40	39	44	29	19	9.6
28	3.3	13	46	29	23	42	39	39	44	28	19	9.0
29	2.3	13	45	29	------	41	39	40	43	28	19	8.4
30	2.1	14	47	29	------	40	38	40	42	28	19	7.6
31	2.1	------	51	28	------	39	------	40	------	28	19	------
TOTAL	52.5	241.0	1,372	1,337	613	1,480	1,107	1,102	1,213	1,068	701	418.2
MEAN	1.69	8.03	44.3	43.1	21.9	47.7	36.9	35.5	40.4	34.5	22.6	13.9
MAX	3.3	14	52	60	27	65	40	40	45	42	28	19
MIN	1.2	2.3	17	28	19	27	34	31	38	28	19	7.6
AC-FT	104	478	2,720	2,650	1,220	2,940	2,200	2,190	2,410	2,120	1,390	829

CAL YR 1949: TOTAL 6,289.9 MEAN 17.2 MAX 64 MIN 1.2 AC-FT 12,480
WAT YR 1950: TOTAL 10,704.7 MEAN 29.3 MAX 65 MIN 1.2 AC-FT 21,230

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1950 TO SEPTEMBER 1951

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	15	44	49	28	31	11	11	31	26	9.2	2.6
2	6.8	15	46	51	28	29	11	11	32	26	8.8	2.6
3	6.5	16	47	48	28	28	11	11	33	25	8.4	2.6
4	6.2	16	48	48	28	27	11	11	33	25	8.0	2.6
5	5.8	16	48	47	27	25	11	11	34	25	7.6	2.6
6	5.4	17	49	46	27	24	11	12	34	24	7.6	2.1
7	5.1	17	48	46	27	23	10	12	34	24	7.2	2.1
8	5.1	18	46	45	28	22	9.6	12	34	23	6.5	2.1
9	5.1	19	46	44	31	21	9.6	12	34	23	6.5	2.1
10	5.4	20	45	43	29	21	9.2	12	33	21	6.2	1.9
11	4.8	20	44	42	33	20	9.6	13	31	20	5.8	1.9
12	4.5	21	43	40	39	19	9.2	13	31	20	5.4	1.9
13	4.2	22	42	40	48	18	9.2	13	31	19	5.4	1.7
14	4.2	23	42	39	55	18	9.2	13	31	19	5.1	1.7
15	4.5	23	42	37	64	17	9.2	14	31	18	4.8	1.5
16	4.8	24	41	35	64	16	9.2	14	31	17	4.8	1.5
17	5.1	25	41	35	62	16	9.2	15	31	17	4.5	1.5
18	5.4	24	40	33	58	16	9.2	15	31	16	4.2	1.5
19	7.2	23	39	32	55	15	9.2	15	31	15	4.2	1.3
20	7.6	23	39	31	53	15	9.2	16	31	15	3.9	1.3
21	8.0	24	39	31	49	14	9.2	16	30	14	3.9	1.3
22	8.8	24	39	30	46	14	9.2	17	30	14	3.9	1.3
23	9.2	24	39	29	44	13	9.6	18	29	13	3.6	1.3
24	9.6	25	39	29	42	13	10	20	29	13	3.6	1.3
25	11	24	41	29	39	13	10	20	28	13	3.3	1.3
26	12	25	43	28	38	13	10	21	28	12	3.0	1.3
27	12	28	46	28	35	13	11	23	28	12	3.0	1.3
28	13	31	47	27	33	12	10	25	28	11	3.0	1.3
29	14	35	48	28	------	12	11	27	27	11	2.8	1.3
30	14	39	48	28	------	12	11	28	27	11	2.6	1.5
31	15	------	48	28	------	12	------	29	------	10	2.6	------
TOTAL	237.5	676	1,357	1,146	1,138	562	297.8	500	926	552	159.4	52.3
MEAN	7.66	22.5	43.8	37.0	40.6	18.1	9.93	16.1	30.9	17.8	5.14	1.74
MAX	15	39	49	51	64	31	11	29	34	26	9.2	2.6
MIN	4.2	15	39	27	27	12	9.2	11	27	10	2.6	1.3
AC-FT	471	1,340	2,690	2,270	2,260	1,110	591	992	1,840	1,090	316	104

CAL YR 1950: TOTAL 11,309.7 MEAN 31.0 MAX 65 MIN 4.2 AC-FT 22,430
WAT YR 1951: TOTAL 7,604.0 MEAN 20.8 MAX 64 MIN 1.3 AC-FT 15,080

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1951 TO SEPTEMBER 1952

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.3	1.2	13	9.6	4.2	8.4	4.8	9.2	16	12	5.8	1.9
2	1.5	1.2	12	9.6	3.6	8.4	4.8	9.6	16	11	5.8	1.9
3	1.5	1.5	12	9.6	3.9	8.0	5.1	9.6	16	11	5.4	1.9
4	1.2	1.9	13	9.6	4.8	8.0	5.1	10	17	11	5.2	1.9
5	1.2	2.1	13	9.2	3.9	8.0	5.1	10	17	11	5.2	1.9
6	1.2	2.3	13	9.2	3.6	7.6	5.4	11	17	11	5.2	1.9
7	1.2	2.6	13	9.2	3.6	7.6	5.4	11	17	11	4.8	1.8
8	1.0	2.8	13	8.8	3.6	7.6	5.8	11	17	10	4.6	1.8
9	1.0	3.3	13	8.8	3.9	7.2	5.8	11	17	10	4.6	1.8
10	1.0	3.9	13	8.0	4.5	7.6	6.2	11	17	10	4.2	1.8
11	1.0	4.5	12	7.6	5.1	7.2	6.8	11	16	10	4.0	1.6
12	1.0	5.4	12	7.6	5.4	7.2	6.8	11	16	10	3.7	1.6
13	1.0	5.4	12	7.2	6.2	6.8	7.2	11	16	10	3.4	1.6
14	1.0	6.2	12	7.2	6.5	6.5	7.2	11	16	9.6	3.2	1.6
15	1.0	6.5	12	6.8	7.2	6.2	7.2	11	16	9.6	3.2	1.5
16	1.0	7.2	12	6.8	8.0	6.2	7.2	11	15	9.6	3.2	1.5
17	1.0	8.0	12	6.5	9.2	5.8	7.2	11	15	8.8	3.2	1.5
18	1.0	8.8	12	6.2	8.4	5.8	7.2	11	14	8.8	3.0	1.5
19	1.2	9.2	12	6.2	8.8	5.8	7.2	11	14	8.8	3.0	1.5
20	1.3	10	11	5.8	9.2	5.4	7.2	12	14	8.8	2.7	1.3
21	1.3	11	12	5.4	9.2	5.4	7.2	12	13	8.4	2.7	1.3
22	1.3	11	12	5.1	9.2	5.1	7.2	12	13	8.4	2.7	1.3
23	1.7	12	11	5.1	9.2	4.8	7.6	13	13	8.0	2.7	1.3
24	1.2	12	11	5.1	9.2	5.4	8.0	13	12	7.6	2.7	1.3
25	1.0	12	11	4.5	9.2	5.4	8.0	13	12	7.2	2.7	1.3
26	.80	12	10	4.2	9.2	4.8	8.0	14	12	7.2	2.5	1.3
27	.80	12	10	4.5	9.2	4.8	8.4	14	12	7.2	2.5	1.3
28	.80	13	10	4.2	8.8	4.5	8.8	15	12	6.8	2.5	1.3
29	1.0	13	10	3.9	8.8	4.2	9.2	15	12	6.8	2.3	1.3
30	1.2	12	10	5.1	------	4.5	9.2	15	12	6.5	2.3	1.3
31	1.2	------	9.6	4.8	------	4.8	------	16	------	6.2	2.1	------
TOTAL	34.90	214.0	363.6	211.4	195.6	195.0	206.3	366.4	442	282.3	111.1	46.8
MEAN	1.13	7.13	11.7	6.82	6.74	6.29	6.88	11.8	14.7	9.11	3.58	1.56
MAX	1.7	13	13	9.6	9.2	8.4	9.2	16	17	12	5.8	1.9
MIN	.80	1.2	9.6	3.9	3.6	4.2	4.8	9.2	12	6.2	2.1	1.3
AC-FT	69	424	721	419	388	387	409	727	877	560	220	93

CAL YR 1951: TOTAL 5,946.00 MEAN 16.3 MAX 64 MIN .80 AC-FT 11,790
WAT YR 1952: TOTAL 2,669.40 MEAN 7.29 MAX 17 MIN .80 AC-FT 5,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1952 TO SEPTEMBER 1953

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.3	.70	.40	.40	44	35	10	8.8	20	21	20	7.3
2	1.3	.60	.40	1.2	54	33	9.6	9.2	20	21	19	7.0
3	1.2	.60	.50	.70	66	32	9.6	10	20	21	19	6.1
4	1.1	.60	.60	.40	78	31	9.6	10	21	21	19	5.8
5	.90	.60	.50	.40	83	29	9.6	11	21	21	19	5.4
6	.90	.60	.50	.40	89	27	9.6	12	21	20	19	4.8
7	1.1	.60	.50	.60	90	26	9.6	12	22	20	19	4.4
8	1.1	.60	.60	1.2	88	24	9.6	13	22	20	18	4.1
9	1.1	.60	.60	1.3	88	23	9.6	14	21	20	18	3.9
10	1.1	.60	.60	.70	88	21	9.6	15	21	20	18	3.5
11	1.1	.60	.60	1.3	87	20	9.2	15	21	20	17	3.3
12	1.1	.60	.80	.80	84	19	9.2	16	21	20	17	3.3
13	1.1	.50	.60	.60	83	18	9.2	17	21	20	17	3.1
14	1.1	.50	.50	.60	77	18	8.8	17	21	20	17	3.0
15	1.1	.50	.40	.60	75	17	8.5	17	21	20	16	2.6
16	1.1	.50	.40	.60	74	17	8.2	17	21	20	17	2.6
17	1.1	.50	.40	1.3	68	17	8.2	18	21	20	17	2.4
18	.90	.50	.40	1.6	62	15	7.9	18	21	20	17	2.1
19	.90	.50	.40	1.6	60	15	7.6	19	21	20	16	1.9
20	.90	.50	.40	1.6	55	14	7.3	20	21	20	15	1.8
21	.90	.50	.40	2.3	50	13	7.3	20	21	20	14	1.6
22	.80	.50	.40	3.7	48	13	7.0	20	21	21	14	1.6
23	.80	.50	.40	4.8	44	12	7.3	20	21	21	14	1.4
24	.70	.50	.40	4.8	42	11	7.0	20	22	21	13	1.2
25	.70	.50	.40	6.2	41	11	7.0	20	22	21	13	1.1
26	.70	.50	.30	8.4	40	11	7.0	20	22	21	12	1.1
27	.70	.50	.30	13	40	10	7.3	20	21	20	11	1.0
28	.70	.50	.30	19	38	10	7.6	20	21	20	11	1.0
29	.70	.50	.40	26	------	10	7.9	20	21	20	10	.90
30	.70	.40	.40	34	------	10	8.2	20	21	20	8.8	1.0
31	.70	------	.40	44	------	10	------	20	------	20	8.2	------
TOTAL	29.60	16.20	14.20	184.10	1,836	572	254.1	509.0	632	630	483.0	90.30
MEAN	.95	.54	.46	5.94	65.6	18.5	8.47	16.4	21.1	20.3	15.6	3.01
MAX	1.3	.70	.80	44	90	35	10	20	22	21	20	7.3
MIN	.70	.40	.30	.40	38	10	7.0	8.8	20	20	8.2	.90
AC-FT	59	32	28	365	3,640	1,130	504	1,010	1,250	1,250	958	179

CAL YR 1952: TOTAL 2,116.90 MEAN 5.78 MAX 17 MIN .30 AC-FT 4,200
WAT YR 1953: TOTAL 5,250.50 MEAN 14.4 MAX 90 MIN .30 AC-FT 10,410

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1953 TO SEPTEMBER 1954

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.0	1.2	2.1	65	29	43	24	33	57	59	34	7.2
2	1.0	.60	2.2	67	28	44	23	32	56	59	34	6.9
3	.90	.40	2.8	67	27	45	24	32	55	57	34	6.2
4	.80	.40	3.0	65	27	45	24	31	55	57	33	5.6
5	.70	.30	3.5	65	26	45	23	30	55	57	33	5.0
6	.70	.30	3.9	62	25	44	22	29	59	57	32	4.8
7	.60	.40	4.1	62	24	43	21	28	59	56	32	4.5
8	.60	.40	5.1	60	23	42	21	27	59	55	30	4.2
9	.60	.40	8.5	59	23	42	21	27	61	55	29	3.5
10	.80	.40	8.5	59	22	40	21	27	62	53	28	3.3
11	.70	.40	11	60	21	39	21	27	64	50	27	3.1
12	.60	.40	13	60	22	38	21	27	64	48	26	3.1
13	.50	.40	17	60	23	37	22	28	62	47	23	2.7
14	.40	.40	24	60	21	36	22	28	61	47	23	2.5
15	.40	.50	29	59	21	36	22	29	62	46	21	2.3
16	.40	.60	35	56	23	35	23	30	60	45	21	2.3
17	.40	.60	40	54	23	35	23	32	59	44	20	2.3
18	.50	.60	46	51	23	34	24	33	57	42	19	2.3
19	.70	.60	52	49	24	34	25	34	57	41	18	2.1
20	.60	.70	54	46	24	34	26	36	57	41	18	2.0
21	.40	.90	57	45	26	33	27	38	57	41	18	2.0
22	.40	1.1	61	44	27	32	27	41	56	40	17	1.8
23	.30	.90	65	42	27	31	29	44	57	39	17	1.7
24	.30	.90	68	40	29	31	29	47	59	38	15	1.7
25	.30	1.4	68	38	32	30	30	49	59	38	14	1.7
26	.30	1.2	69	36	34	29	31	53	60	37	13	1.7
27	.30	1.4	69	35	37	28	32	55	60	37	12	1.7
28	.30	1.4	69	34	40	27	33	56	59	37	11	1.5
29	.30	1.6	68	33	------	27	33	59	59	36	9.5	1.5
30	.30	1.9	67	32	------	26	33	59	59	36	8.7	1.5
31	.60	------	68	31	------	25	------	59	------	35	8.0	------
TOTAL	16.70	22.70	1,093.7	1,596	731	1,110	757	1,160	1,766	1,430	678.2	92.7
MEAN	.54	.76	35.3	51.5	26.1	35.8	25.2	37.4	58.9	46.1	21.9	3.09
MAX	1.0	1.9	69	67	40	45	33	59	64	59	34	7.2
MIN	.30	.30	2.1	31	21	25	21	27	55	35	8.0	1.5
AC-FT	33	45	2,170	3,170	1,450	2,200	1,500	2,300	3,500	2,840	1,350	184

CAL YR 1953: TOTAL 6,323.60 MEAN 17.3 MAX 90 MIN .30 AC-FT 12,540
WAT YR 1954: TOTAL 10,454.00 MEAN 28.6 MAX 69 MIN .30 AC-FT 20,740

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1954 TO SEPTEMBER 1955

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.4	.30	2.9	14	16	26	9.5	6.9	15	72	47	28
2	1.4	.30	3.3	13	16	24	9.1	6.9	15	71	46	27
3	1.4	.30	3.8	14	17	23	8.3	6.6	16	72	46	26
4	1.3	.30	4.5	15	17	22	8.0	5.9	16	74	46	25
5	1.3	.30	5.0	15	17	21	7.6	5.9	17	72	46	24
6	1.3	.40	6.2	16	18	20	7.6	5.9	17	74	46	23
7	1.3	.30	7.6	17	18	20	7.2	5.9	17	72	45	23
8	1.1	.30	8.3	17	19	20	7.2	5.6	17	74	45	22
9	1.1	.30	9.5	18	20	19	7.6	5.3	18	75	45	21
10	1.1	.40	11	18	21	19	7.6	5.3	19	72	45	21
11	1.1	.40	12	19	22	19	7.6	5.3	20	71	45	20
12	1.0	.40	13	19	23	18	8.0	5.3	23	71	44	20
13	.90	.50	14	19	24	18	7.6	5.3	25	69	43	20
14	.90	.60	14	20	25	17	7.6	5.6	29	67	43	19
15	.90	.60	15	20	26	16	7.6	5.3	34	67	42	19
16	.80	.90	15	20	26	16	7.6	5.3	35	65	42	18
17	.80	.90	15	20	27	15	8.0	5.9	38	64	41	18
18	.80	1.1	15	19	28	15	8.0	6.2	45	65	40	18
19	.70	1.1	15	19	29	14	8.0	6.6	47	64	39	17
20	.70	.90	15	18	29	13	8.0	7.2	51	64	38	17
21	.70	.70	14	18	30	13	8.3	8.0	53	64	37	17
22	.60	.70	14	17	30	13	8.7	8.3	56	61	36	16
23	.60	.70	14	17	30	12	8.7	9.1	56	57	35	15
24	.50	.80	14	16	29	11	8.3	9.9	57	55	34	14
25	.40	1.1	13	16	29	11	8.0	11	59	51	34	13
26	.40	1.3	13	16	28	11	8.0	11	61	50	33	13
27	.40	1.5	13	16	27	9.9	7.6	12	62	53	32	12
28	.40	1.7	13	16	27	9.9	7.6	13	64	51	31	11
29	.40	2.0	13	16	------	9.9	7.6	13	68	50	30	11
30	.40	2.5	15	16	------	9.5	7.2	14	71	48	30	9.9
31	.30	------	14	16	------	9.5	------	15	------	47	29	------
TOTAL	26.40	23.60	355.1	530	668	494.7	237.7	242.5	1,121	1,982	1,235	557.9
MEAN	.85	.79	11.5	17.1	23.9	16.0	7.92	7.82	37.4	63.9	39.8	18.6
MAX	1.4	2.5	15	20	30	26	9.5	15	71	75	47	28
MIN	.30	.30	2.9	13	16	9.5	7.2	5.3	15	47	29	9.9
AC-FT	52	47	704	1,050	1,320	981	471	481	2,220	3,930	2,450	1,110

CAL YR 1954: TOTAL 9,726.00 MEAN 26.6 MAX 67 MIN .30 AC-FT 19,290
WAT YR 1955: TOTAL 7,473.90 MEAN 20.5 MAX 75 MIN .30 AC-FT 14,820

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1955 TO SEPTEMBER 1956

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.5	4.5	37	35	17	6.9	2.7	13	60	41	36	24
2	8.7	5.3	37	34	16	5.9	2.7	14	60	40	35	24
3	8.3	5.9	37	34	15	5.6	2.7	15	60	39	35	23
4	8.0	6.6	37	34	15	5.0	2.9	17	61	39	34	22
5	7.6	7.6	37	32	15	4.8	2.9	18	61	39	34	22
6	6.9	8.7	38	30	14	4.8	2.9	18	61	38	34	21
7	6.2	11	38	29	14	4.8	2.9	19	61	38	34	20
8	5.9	13	38	28	14	4.8	2.9	20	60	38	33	18
9	6.2	17	38	28	13	4.5	3.1	21	60	38	33	17
10	5.3	19	37	27	13	4.2	3.3	22	59	39	32	16
11	4.8	21	38	27	13	4.0	3.3	24	59	39	32	15
12	4.2	23	36	26	13	4.0	3.3	26	59	39	32	15
13	4.0	26	34	25	12	3.8	3.3	27	57	39	31	14
14	3.8	28	35	24	11	3.8	3.3	28	57	38	31	13
15	3.5	32	39	24	11	3.5	3.5	30	57	38	31	12
16	3.5	34	42	23	11	3.5	3.7	32	54	38	31	11
17	3.5	36	42	23	10	3.1	3.4	34	53	37	30	10
18	3.8	38	43	21	10	3.1	3.7	36	52	37	30	9.5
19	4.0	39	42	21	9.5	2.9	3.7	38	51	37	29	8.7
20	4.0	37	42	20	9.1	2.9	3.7	41	49	37	29	7.9
21	4.0	36	42	20	8.7	3.1	4.0	44	47	36	28	7.6
22	4.0	35	42	19	8.3	3.3	4.2	48	47	36	28	7.2
23	4.2	35	40	19	8.0	3.5	4.8	53	46	37	28	6.4
24	4.5	35	38	18	7.6	3.3	5.1	59	46	37	28	6.1
25	5.0	36	39	18	6.9	3.1	5.7	60	46	37	27	5.7
26	4.8	36	40	18	6.6	3.1	6.4	61	45	37	26	5.4
27	4.5	34	41	18	6.2	2.7	7.2	62	44	38	26	5.1
28	4.5	34	41	17	6.2	2.7	7.9	62	44	38	26	4.8
29	5.0	34	40	17	5.9	2.7	9.1	62	43	37	25	4.5
30	4.8	35	39	17	------	2.7	11	61	42	36	25	4.2
31	4.5	-----	37	17	------	3.1	------	60	------	35	24	------
TOTAL	161.5	762.6	1,206	743	320.0	119.2	129.3	1,125	1,601	1,172	937	380.1
MEAN	5.21	25.4	38.9	24.0	11.0	3.85	4.31	36.3	53.4	37.8	30.2	12.7
MAX	9.5	39	43	35	17	6.9	11	62	61	41	36	24
MIN	3.5	4.5	34	17	5.9	2.7	2.7	13	42	35	24	4.2
AC-FT	320	1,510	2,390	1,470	635	236	256	2,230	3,180	2,320	1,860	754

CAL YR 1955: TOTAL 9,198.9 MEAN 25.2 MAX 75 MIN 3.5 AC-FT 18,250
WAT YR 1956: TOTAL 8,656.7 MEAN 23.7 MAX 62 MIN 2.7 AC-FT 17,170

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1956 TO SEPTEMBER 1957

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.2	3.0	14	49	14	4.8	5.1	13	24	20	12	4.2
2	2.9	3.2	13	46	13	4.5	4.8	13	24	20	12	4.0
3	2.8	3.4	13	43	13	4.5	4.5	13	24	20	12	3.7
4	2.3	3.7	13	41	12	4.5	4.5	13	24	19	11	3.7
5	2.2	4.0	13	39	12	4.5	4.8	14	24	19	11	3.4
6	2.0	4.2	13	38	12	4.8	4.5	14	24	19	11	3.4
7	2.0	4.5	12	35	11	6.8	4.2	15	24	19	10	3.4
8	1.8	4.8	12	34	11	5.7	4.2	15	24	19	10	3.2
9	1.7	5.1	13	33	11	5.4	4.2	16	24	19	9.5	3.2
10	1.5	5.7	13	32	10	5.4	4.5	17	24	19	9.1	3.0
11	1.5	6.1	12	31	9.5	5.1	4.5	18	24	18	8.7	3.0
12	1.5	6.4	12	29	9.1	5.1	5.1	19	24	18	8.3	2.8
13	1.4	6.8	13	28	8.7	5.1	5.4	20	24	18	7.9	2.8
14	1.4	7.2	15	26	8.3	5.4	5.7	20	24	18	7.6	2.8
15	1.7	7.9	18	25	7.9	5.7	6.4	21	24	17	7.6	2.8
16	1.7	9.1	21	24	7.6	6.1	7.2	22	24	17	7.2	2.8
17	1.7	9.5	26	24	7.2	6.1	7.6	22	24	17	7.2	2.6
18	1.7	9.5	34	22	6.8	6.4	8.3	23	23	16	6.8	2.6
19	1.5	10	42	21	6.8	6.4	9.1	24	23	16	6.8	2.6
20	1.8	11	57	20	6.4	6.4	9.5	24	23	16	6.4	2.3
21	2.6	11	64	19	6.1	6.4	11	25	23	16	6.1	2.2
22	1.7	12	70	19	5.7	6.4	11	25	22	15	6.1	2.2
23	1.8	12	76	18	5.7	6.4	11	25	22	15	6.1	2.2
24	1.7	12	73	17	5.7	6.1	12	25	22	15	5.7	2.0
25	1.7	13	69	16	6.1	6.1	12	25	22	14	5.7	2.0
26	1.7	13	65	16	6.1	6.1	13	25	22	14	5.1	2.0
27	1.7	13	63	16	5.4	5.7	13	25	22	14	4.8	1.8
28	1.7	14	61	15	5.1	5.4	13	25	21	13	4.8	1.7
29	1.8	14	59	15	------	5.1	13	25	21	13	4.5	1.7
30	2.6	14	56	15	------	5.1	13	25	20	13	4.2	1.7
31	2.8	-----	52	14	------	5.4	------	24	------	12	4.2	------
TOTAL	60.1	253.1	1,087	820	243.2	172.9	236.1	630	694	518	239.4	81.8
MEAN	1.94	8.44	35.1	26.5	8.69	5.58	7.87	20.3	23.1	16.7	7.72	2.73
MAX	3.2	14	76	49	14	6.8	13	25	24	20	12	4.2
MIN	1.4	3.0	12	14	5.1	4.5	4.2	13	20	12	4.2	1.7
AC-FT	119	502	2,160	1,630	482	343	468	1,250	1,380	1,030	475	162

CAL YR 1956: TOTAL 7,926.8 MEAN 21.7 MAX 76 MIN 1.4 AC-FT 15,720
WAT YR 1957: TOTAL 5,035.6 MEAN 13.8 MAX 76 MIN 1.4 AC-FT 9,990

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1957 TO SEPTEMBER 1958

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	.90	.70	6.7	13	15	7.7	24	20	17	6.7	1.8
2	1.5	.80	.80	7.0	13	16	7.7	25	20	16	6.3	1.7
3	1.4	.80	.80	7.3	13	16	7.7	25	21	16	6.0	1.7
4	1.4	.80	.80	7.7	14	16	7.7	25	20	16	5.7	1.5
5	1.4	.80	.80	7.7	14	16	8.0	25	20	16	5.3	1.4
6	1.4	.80	1.0	8.0	14	16	8.0	25	20	16	5.0	1.3
7	1.4	.70	1.1	7.7	14	16	8.0	25	20	16	4.6	1.3
8	1.4	.70	1.1	7.7	14	16	8.0	25	20	16	4.6	1.3
9	1.4	.70	1.1	7.3	14	16	8.5	25	20	16	4.4	1.3
10	1.4	.70	1.3	7.3	15	16	8.9	25	20	15	4.4	1.3
11	1.4	.70	1.5	7.0	14	15	8.9	24	20	15	4.2	1.1
12	1.3	.90	2.0	7.0	14	15	8.9	24	20	15	4.0	1.1
13	1.3	1.5	2.4	6.7	15	14	8.9	24	20	15	3.7	1.1
14	1.3	1.1	2.8	7.0	14	13	9.4	23	19	14	3.7	1.1
15	1.3	.60	3.0	7.0	13	13	9.8	23	19	14	3.5	1.1
16	1.3	.50	3.3	6.3	14	12	11	22	19	13	3.3	1.0
17	1.3	.50	3.5	6.7	14	12	11	22	19	13	3.3	.90
18	1.3	.50	3.7	6.0	14	11	11	21	19	12	3.3	.90
19	1.3	.40	4.2	5.7	14	11	11	21	19	12	3.3	.90
20	1.3	.30	4.6	5.7	13	11	12	21	19	11	3.3	.90
21	1.3	.30	5.0	6.3	13	11	13	20	19	11	3.0	.80
22	1.1	.30	5.3	6.7	14	9.8	14	20	18	11	3.0	.70
23	1.3	.30	5.3	7.3	14	9.4	16	20	18	9.8	2.8	.70
24	1.1	.40	5.7	8.9	15	8.9	17	20	18	9.4	2.8	.70
25	1.0	.40	5.7	8.9	15	8.9	19	20	18	8.9	2.6	.60
26	1.0	.50	6.0	9.8	15	8.5	20	20	17	8.9	2.4	.60
27	1.0	.50	6.0	11	15	8.5	21	20	17	8.0	2.2	.60
28	1.0	.70	6.3	11	15	7.7	22	20	17	7.7	2.2	.60
29	1.0	.60	6.3	12	------	7.7	23	20	17	7.7	2.0	.50
30	1.0	.60	6.3	12	------	7.7	24	20	17	7.3	2.0	.50
31	.90	------	6.3	13	------	7.7	------	20	------	7.0	2.0	------
TOTAL	39.20	19.30	104.70	246.4	393	381.8	371.1	694	570	390.7	115.6	31.00
MEAN	1.26	.64	3.38	7.95	14.0	12.3	12.4	22.4	19.0	12.6	3.73	1.03
MAX	1.7	1.5	6.3	13	15	16	24	25	21	17	6.7	1.8
MIN	.90	.30	.70	5.7	13	7.7	7.7	20	17	7.0	2.0	.50
AC-FT	78	38	208	489	780	757	736	1,380	1,130	775	229	61

CAL YR 1957: TOTAL 3,798.60 MEAN 10.4 MAX 49 MIN .30 AC-FT 7,530
WAT YR 1958: TOTAL 3,356.80 MEAN 9.20 MAX 25 MIN .30 AC-FT 6,660

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.50	11	64	29	35	13	12	18	24	23	26	12
2	.50	12	58	29	35	12	12	18	24	23	26	11
3	.50	13	53	29	35	12	11	18	24	23	26	11
4	.50	13	46	30	34	12	11	19	24	23	26	11
5	.40	13	42	30	32	11	12	21	23	23	26	11
6	.40	14	40	29	31	11	12	23	23	23	26	10
7	.50	15	42	29	30	11	14	24	23	23	25	9.5
8	.80	14	40	29	29	11	15	25	24	24	25	9.0
9	.70	15	39	29	28	11	16	25	24	24	24	8.5
10	.70	15	39	28	26	11	16	25	24	24	24	8.5
11	.60	16	42	26	25	11	17	25	24	24	24	8.5
12	.70	17	40	26	24	12	18	25	24	25	23	9.0
13	.90	18	39	24	22	12	18	25	24	25	23	9.5
14	.80	20	39	24	21	12	19	25	24	26	22	9.5
15	.90	24	40	23	20	11	19	26	24	26	22	11
16	.90	30	42	23	20	11	19	25	25	26	21	11
17	1.1	35	42	22	19	11	19	25	24	26	21	11
18	1.5	46	42	22	18	11	19	25	24	26	21	11
19	2.6	54	39	21	18	12	19	25	23	26	20	12
20	2.8	60	38	20	17	11	19	25	23	26	20	12
21	3.3	62	38	19	16	11	19	25	23	26	19	12
22	3.5	62	36	19	16	11	18	25	23	27	19	13
23	4.2	66	35	22	15	11	18	25	23	28	18	13
24	4.4	70	35	23	15	11	18	24	23	28	18	14
25	5.0	76	34	22	15	11	18	24	23	28	17	14
26	6.0	84	34	22	14	11	18	24	24	28	17	14
27	7.0	84	32	26	14	11	18	24	24	28	16	15
28	8.0	81	30	29	14	11	18	24	24	28	15	14
29	8.9	79	29	31	------	11	18	24	24	27	14	14
30	9.8	72	30	32	------	11	18	24	23	27	13	15
31	11	------	30	35	------	12	------	24	------	26	12	------
TOTAL	89.40	1,191	1,229	802	638	351	498	734	710	790	649	344.0
MEAN	2.88	39.7	39.6	25.9	22.8	11.3	16.6	23.7	23.7	25.5	20.9	11.5
MAX	11	84	64	35	35	13	19	26	25	28	26	15
MIN	.40	11	29	19	14	11	11	18	23	23	12	8.5
AC-FT	177	2,360	2,440	1,590	1,270	696	988	1,460	1,410	1,570	1,290	682

CAL YR 1958: TOTAL 5,703.00 MEAN 15.6 MAX 84 MIN .40 AC-FT 11,310
WAT YR 1959: TOTAL 8,025.40 MEAN 22.0 MAX 84 MIN .40 AC-FT 15,920

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	27	39	17	3.9	8.0	3.6	11	20	28	12	2.6
2	18	26	38	16	3.9	7.6	3.6	11	20	27	12	2.4
3	19	26	35	16	3.9	7.2	3.9	11	21	26	11	2.4
4	20	25	32	15	3.9	7.2	4.2	11	23	26	11	2.2
5	21	24	31	14	3.9	6.8	4.4	11	23	26	10	2.2
6	22	24	28	13	4.2	6.4	4.8	10	24	25	9.4	2.2
7	22	24	27	13	4.8	6.0	5.0	10	24	25	9.0	2.2
8	22	23	24	13	4.4	6.0	5.8	10	25	24	8.3	2.2
9	22	22	23	12	4.4	5.8	6.0	9.7	26	24	8.0	2.0
10	22	22	22	12	4.4	5.8	6.4	9.2	26	24	7.6	2.0
11	22	22	22	11	4.8	5.4	7.2	9.2	26	24	6.9	2.0
12	22	21	21	11	4.8	5.0	7.6	9.2	27	23	6.6	2.0
13	22	20	20	11	5.4	5.0	8.0	9.2	27	23	6.2	2.0
14	22	20	19	10	6.0	4.8	8.8	9.2	28	22	5.6	2.0
15	22	19	22	9.7	6.8	5.0	9.7	9.2	28	22	5.3	1.8
16	22	18	20	9.7	6.8	4.8	10	9.2	28	22	5.3	1.8
17	22	17	19	9.2	6.8	4.4	10	9.2	28	22	5.0	1.6
18	22	17	20	8.4	7.2	4.2	11	9.7	28	21	4.7	1.6
19	23	16	22	8.4	7.2	3.9	11	9.7	29	20	4.4	1.6
20	23	16	22	8.0	7.6	3.9	12	10	29	20	4.4	1.6
21	23	17	23	7.6	8.0	3.6	13	10	29	19	4.2	1.5
22	24	15	23	7.2	8.4	3.4	12	10	29	19	3.9	1.5
23	23	15	23	6.4	8.4	3.4	12	10	29	18	3.9	1.5
24	24	16	23	6.4	8.4	3.1	12	11	29	17	3.6	1.5
25	24	21	23	6.4	8.4	3.1	12	12	29	16	3.6	1.5
26	25	26	22	6.4	8.4	3.1	12	13	29	15	3.4	1.4
27	25	32	21	5.8	8.4	2.9	12	13	28	15	3.2	1.2
28	26	37	20	5.0	8.0	3.1	12	15	28	15	3.2	1.2
29	27	40	20	5.4	8.0	3.1	12	16	28	14	3.2	1.0
30	27	41	19	4.8	------	3.4	11	17	28	14	3.0	.90
31	27	------	18	4.2	------	3.4	------	18	------	13	2.7	------
TOTAL	701	689	741	303.0	179.5	148.8	263.0	342.7	796	649	190.6	53.60
MEAN	22.6	23.0	23.9	9.77	6.19	4.80	8.77	11.1	26.5	20.9	6.15	1.79
MAX	27	41	39	17	8.4	8.0	13	18	29	28	12	2.6
MIN	16	15	18	4.2	3.9	2.9	3.6	9.2	20	13	2.7	.90
AC-FT	1,390	1,370	1,470	601	356	295	522	680	1,580	1,290	378	106

CAL YR 1959: TOTAL 7,647.0 MEAN 21.0 MAX 41 MIN 8.5 AC-FT 15,170
WAT YR 1960: TOTAL 5,057.20 MEAN 13.8 MAX 41 MIN .90 AC-FT 10,030

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.80	.50	19	5.6	17	36	21	14	21	27	13	1.9
2	.80	.50	20	5.3	16	37	20	14	22	26	12	1.9
3	.60	.60	21	4.7	15	38	21	14	22	25	11	1.8
4	.60	.60	22	4.7	15	39	19	13	24	25	11	1.6
5	.60	.60	22	5.3	15	40	18	13	24	24	10	1.4
6	.60	.80	21	4.7	16	41	18	13	25	24	9.4	1.4
7	.60	.90	21	4.4	16	40	17	13	27	23	8.6	1.4
8	.60	1.0	20	4.2	16	39	18	13	28	22	8.2	1.4
9	.60	1.2	20	4.4	16	38	18	13	30	22	7.8	1.4
10	.50	1.5	20	4.2	17	36	18	13	30	22	7.5	1.3
11	.50	2.0	20	4.4	17	35	18	13	30	22	6.4	1.3
12	.50	1.8	19	4.7	17	34	18	13	30	22	6.1	1.2
13	.50	1.8	18	5.0	18	33	19	13	30	22	5.5	1.0
14	.40	2.0	17	5.3	19	32	18	13	30	22	5.2	1.0
15	.30	2.6	16	6.0	19	30	18	13	30	21	5.2	1.0
16	.30	3.0	14	7.2	20	30	18	13	30	21	4.6	1.0
17	.30	2.8	13	7.6	20	29	18	13	29	21	4.6	.90
18	.40	3.2	13	8.6	20	28	18	13	29	20	4.3	.90
19	.40	3.0	12	9.4	20	27	18	13	29	19	4.1	.90
20	.40	3.9	11	10	20	26	18	13	30	19	3.8	.80
21	.40	4.2	10	11	21	25	18	13	30	18	3.6	.80
22	.40	4.7	9.8	13	22	25	18	13	30	17	3.4	.80
23	.60	6.0	9.4	14	22	24	17	14	30	17	3.4	.70
24	.80	8.6	8.6	15	24	24	17	14	30	16	3.4	.70
25	.50	9.0	8.3	16	26	24	17	15	30	16	3.1	.70
26	.60	10	8.0	17	28	24	16	15	29	16	2.9	.70
27	.80	11	7.6	17	30	24	16	16	29	15	2.7	.70
28	.80	14	7.2	17	32	23	15	17	29	15	2.5	.70
29	.50	16	6.6	17	------	22	15	18	28	15	2.3	.70
30	.30	18	6.2	17	------	22	15	19	28	14	2.1	.70
31	.40	------	6.0	17	------	22	------	20	------	14	1.9	------
TOTAL	16.40	136.80	449.7	290.2	556	947	539	442	843	625	181.1	32.70
MEAN	.53	4.56	14.5	9.36	19.9	30.5	18.0	14.3	28.1	20.2	5.84	1.09
MAX	.80	18	22	17	32	41	21	20	30	27	13	1.9
MIN	.30	.50	6.0	4.2	15	22	15	13	21	14	1.9	.70
AC-FT	33	271	892	576	1,100	1,880	1,070	878	1,670	1,240	359	65

CAL YR 1960: TOTAL 3,513.60 MEAN 9.60 MAX 29 MIN .30 AC-FT 6,970
WAT YR 1961: TOTAL 5,060.40 MEAN 13.9 MAX 41 MIN .30 AC-FT 10,040

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.70	.40	.70	4.6	17	3.4	1.2	18	18	26	20	7.1
2	.70	.40	.70	5.5	17	3.1	1.2	18	18	26	20	6.8
3	.70	.40	.70	7.1	15	2.9	1.2	18	19	26	20	6.4
4	.70	.40	1.2	8.2	14	2.9	1.2	18	19	26	19	6.1
5	.70	.40	1.0	9.8	13	2.7	1.2	18	20	26	19	5.8
6	.60	.40	.80	12	12	2.5	1.3	19	20	26	18	5.5
7	.70	.40	.80	15	11	2.3	1.4	19	20	25	18	5.2
8	.60	.40	.80	18	11	2.1	1.2	19	21	25	17	4.9
9	.60	.40	.80	22	10	2.1	1.2	19	21	25	17	4.6
10	.80	.60	.80	24	10	1.9	1.2	20	22	25	16	4.6
11	.70	.60	.80	28	9.8	1.9	1.4	20	22	24	16	4.3
12	.60	.60	.80	30	9.4	1.8	1.6	20	22	24	15	4.3
13	.60	.60	.80	31	9.0	1.8	2.1	21	22	24	15	4.1
14	.50	.60	.80	32	9.0	1.6	2.7	21	22	24	14	3.8
15	.40	.60	.80	33	8.6	1.6	3.1	21	22	24	14	3.8
16	.40	.60	.90	33	7.8	1.6	3.4	20	22	24	13	3.6
17	.40	.60	1.8	34	7.5	1.4	3.8	20	23	24	13	3.6
18	.40	.60	1.3	34	7.1	1.4	4.3	20	23	24	12	3.4
19	.40	.60	1.8	34	6.4	1.3	4.9	19	23	23	12	3.4
20	.40	.60	1.8	33	6.1	1.3	6.1	18	23	23	12	3.4
21	.40	.60	1.4	31	5.8	1.3	7.1	18	24	23	11	3.4
22	.40	1.0	1.3	30	5.5	1.4	8.6	18	24	23	11	3.1
23	.40	.90	1.8	30	4.9	1.4	9.4	18	24	22	9.8	2.9
24	.40	.70	2.5	28	4.6	1.9	10	18	24	22	9.4	2.7
25	.40	.60	1.4	26	4.3	2.5	11	18	24	22	9.0	2.7
26	.40	.60	1.3	24	3.8	1.6	12	18	24	22	8.6	2.7
27	.50	.60	1.3	23	3.6	1.4	14	18	25	22	8.6	2.5
28	.50	.70	1.6	22	3.6	1.4	16	18	25	22	8.2	2.5
29	.40	.70	2.5	21	------	1.3	17	18	25	22	7.8	2.5
30	.40	.70	3.1	20	------	1.3	17	18	26	21	7.5	2.3
31	.40	------	3.8	18	------	1.2	------	18	------	20	7.5	------
TOTAL	16.20	17.30	41.90	722.7	250.3	58.3	168.8	590	669	735	422.9	122.0
MEAN	.52	.58	1.35	23.3	8.94	1.88	5.63	19.0	22.3	23.7	13.6	4.07
MAX	.80	1.0	3.8	34	17	3.4	17	21	26	26	20	7.1
MIN	.40	.40	.70	4.6	3.6	1.2	1.2	18	18	20	7.5	2.3
AC-FT	32	34	83	1,430	496	116	335	1,170	1,330	1,460	839	242

CAL YR 1961: TOTAL 4,532.90 MEAN 12.4 MAX 41 MIN .40 AC-FT 8,990
WAT YR 1962: TOTAL 3,814.90 MEAN 10.5 MAX 34 MIN .40 AC-FT 7,570

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those *shown in other reports; the differences can be attributed to rounding.*

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	2.5	14	33	16	16	4.8	7.2	5.4	11	8.4	4.2
2	2.3	2.5	17	34	16	16	4.5	7.2	5.8	10	8.4	4.2
3	2.3	2.5	18	36	17	15	4.5	7.2	6.1	10	8.4	3.8
4	2.1	2.5	21	38	16	14	5.1	6.4	6.4	10	8.0	3.8
5	2.1	2.5	22	39	15	14	4.5	6.1	7.2	10	8.0	3.8
6	2.1	2.5	24	40	14	14	4.2	6.1	7.6	10	7.6	3.8
7	2.1	2.3	26	41	14	14	4.2	5.8	8.0	10	7.2	3.8
8	2.7	2.3	26	42	14	13	4.0	5.4	8.4	9.6	7.2	3.8
9	2.9	2.3	28	41	14	13	3.8	5.4	8.8	9.6	7.2	3.8
10	2.3	2.5	30	40	14	13	3.5	5.1	9.2	9.6	6.8	3.8
11	2.1	2.7	35	39	15	13	3.8	4.8	9.2	9.6	6.8	3.8
12	1.9	2.3	36	38	16	12	3.8	4.8	9.2	9.6	6.8	3.8
13	1.8	2.3	38	38	16	12	4.0	4.5	9.6	9.2	6.1	3.8
14	1.8	2.1	39	36	17	11	4.2	4.5	10	9.2	6.1	3.8
15	1.8	2.1	39	34	17	11	4.5	4.2	10	9.2	5.8	3.5
16	1.8	2.1	39	32	17	10	4.8	4.2	10	9.2	5.8	3.5
17	1.9	2.1	39	30	17	10	5.1	4.2	11	9.2	5.8	3.2
18	1.9	2.1	39	29	17	9.2	5.8	4.2	11	9.2	5.4	3.2
19	2.1	2.5	38	28	17	8.8	6.1	4.0	11	9.2	5.1	3.2
20	2.1	2.7	38	26	17	8.4	6.4	4.0	11	9.2	5.1	3.2
21	2.3	2.5	39	25	17	8.0	6.8	3.8	12	9.2	5.1	3.0
22	2.5	2.3	39	24	16	7.2	7.2	3.8	11	9.2	4.8	3.0
23	2.5	2.5	38	24	16	6.8	7.6	3.8	11	8.8	4.8	3.0
24	2.5	2.9	38	22	16	6.4	8.0	3.5	11	8.8	4.5	3.0
25	2.5	4.3	38	21	16	6.1	8.0	3.5	11	8.8	4.5	3.0
26	2.5	5.5	36	20	16	5.8	8.0	3.8	11	8.8	4.5	2.8
27	2.5	5.8	36	20	15	5.4	8.0	3.8	11	8.8	4.5	2.8
28	2.5	7.1	36	19	15	5.4	8.0	4.0	11	8.8	4.5	2.8
29	2.5	9.0	35	18	------	5.8	7.6	4.2	11	8.8	4.2	2.8
30	2.5	12	35	17	------	5.8	7.2	4.8	11	8.4	4.2	2.6
31	2.5	------	34	17	------	5.1	------	5.1	------	8.4	4.2	------
TOTAL	69.7	101.3	1,010	942	450	318.2	168.0	149.4	290.9	290.4	185.8	102.6
MEAN	2.25	3.38	32.6	30.4	16.1	10.3	5.60	4.82	9.70	9.37	5.99	3.42
MAX	2.9	12	39	42	17	16	8.0	7.2	12	11	8.4	4.2
MIN	1.8	2.1	14	17	14	5.1	3.5	3.5	5.4	8.4	4.2	2.6
AC-FT	138	201	2,000	1,870	893	631	333	296	577	576	369	204

CAL YR 1962: TOTAL 4,921.0 MEAN 13.5 MAX 39 MIN 1.2 AC-FT 9,760
WAT YR 1963: TOTAL 4,078.8 MEAN 11.2 MAX 42 MIN 1.8 AC-FT 8,090

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1161. Canyon Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.6	1.0	5.4	8.0	23	15	11	12	31	31	24	13
2	2.4	1.2	6.1	7.6	23	15	10	12	33	30	24	12
3	2.4	1.1	7.2	7.2	23	15	10	12	34	29	24	12
4	2.4	1.2	8.4	7.2	23	16	9.6	13	36	28	24	12
5	2.4	1.2	9.2	7.6	23	16	9.6	13	38	27	24	12
6	2.4	1.2	10	8.4	23	15	9.6	14	38	26	24	11
7	2.4	1.4	11	8.8	23	15	10	14	39	25	24	11
8	2.2	1.7	12	9.2	23	15	10	14	38	25	23	10
9	2.0	1.2	12	10	22	15	9.6	15	38	25	23	9.8
10	2.0	1.2	12	11	22	15	9.2	15	38	25	23	9.4
11	2.0	1.2	13	12	21	16	9.6	15	38	25	22	8.6
12	1.8	1.0	13	13	20	16	9.6	15	38	24	22	8.2
13	1.8	1.0	12	13	20	15	9.6	16	38	24	22	7.8
14	1.8	1.2	12	15	20	15	9.6	16	37	24	22	7.5
15	1.7	1.2	11	16	19	15	9.6	16	37	25	22	7.1
16	1.5	1.2	11	17	18	15	9.6	16	38	25	20	6.8
17	1.5	1.7	10	18	18	15	9.6	16	38	25	19	6.4
18	1.5	1.5	9.2	18	17	15	9.6	16	38	26	19	6.0
19	1.5	1.5	8.8	19	17	14	10	16	37	26	18	5.7
20	1.5	1.5	8.8	19	16	14	10	16	37	27	17	5.3
21	1.5	1.4	8.0	19	16	13	10	18	37	27	17	5.0
22	1.8	1.5	7.2	19	16	13	10	18	38	27	17	4.6
23	1.4	1.8	7.2	19	15	13	10	20	38	27	16	4.3
24	1.2	2.0	6.8	21	15	13	10	20	38	27	16	4.1
25	1.2	2.4	6.8	25	15	13	10	23	37	26	15	4.1
26	1.2	3.2	7.2	22	15	12	11	25	36	26	15	4.1
27	1.2	3.8	6.8	20	15	12	11	27	35	25	15	3.8
28	1.2	3.8	6.8	20	15	12	12	28	34	25	14	3.6
29	1.2	4.2	6.4	21	15	12	12	30	33	25	14	3.6
30	1.1	4.5	6.4	22	------	11	12	30	32	25	14	3.4
31	1.0	------	6.4	22	------	11	------	31	------	24	14	------
TOTAL	53.8	54.0	278.1	475.0	551	437	303.4	562	1,097	806	607	222.2
MEAN	1.74	1.80	8.97	15.3	19.0	14.1	10.1	18.1	36.6	26.0	19.6	7.41
MAX	2.6	4.5	13	25	23	16	12	31	39	31	24	13
MIN	1.0	1.0	5.4	7.2	15	11	9.2	12	31	24	14	3.4
AC-FT	107	107	552	942	1,090	867	602	1,110	2,180	1,600	1,200	441

CAL YR 1963: TOTAL 3,283.2 MEAN 9.00 MAX 42 MIN 1.0 AC-FT 6,510
WAT YR 1964: TOTAL 5,446.5 MEAN 14.9 MAX 39 MIN 1.0 AC-FT 10,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.1	2.9	2.5	21	6.8	24	11	6.4	12	14	12	4.1
2	4.1	2.9	2.5	20	9.8	23	10	7.1	12	14	12	3.8
3	3.8	2.9	2.3	19	14	22	9.4	7.8	12	14	12	3.6
4	3.4	2.9	2.7	19	18	22	9.0	8.2	12	14	11	3.4
5	3.4	2.9	4.1	18	23	21	8.6	9.0	12	14	11	3.1
6	3.4	2.5	5.2	17	26	20	8.2	9.4	12	14	11	2.7
7	3.4	2.5	6.4	16	30	19	7.8	9.8	12	14	10	2.7
8	3.4	2.5	7.8	15	31	19	7.1	11	12	14	10	2.5
9	3.1	2.5	9.8	14	32	19	6.8	11	12	14	9.8	2.5
10	3.4	2.3	12	14	32	18	6.4	12	12	14	9.4	2.3
11	3.6	2.3	14	13	32	18	6.1	12	12	14	9.0	2.3
12	3.6	2.3	15	12	31	17	5.8	12	12	14	9.0	2.1
13	3.6	2.3	17	10	32	17	5.5	12	12	14	8.6	1.9
14	3.8	2.3	19	9.6	31	17	5.2	12	13	14	8.2	1.9
15	3.8	2.3	19	8.6	30	16	4.9	12	13	14	7.8	1.8
16	3.8	2.1	20	8.0	28	16	4.6	13	13	14	7.5	1.6
17	3.8	2.1	21	7.0	28	16	4.6	13	14	14	7.1	1.4
18	3.8	1.9	21	6.4	26	16	4.3	13	14	14	7.1	1.4
19	3.8	1.9	21	5.5	26	16	4.6	13	14	14	7.1	1.3
20	3.8	1.9	21	4.9	25	15	5.2	13	14	13	7.1	1.3
21	3.6	1.9	22	4.9	25	14	4.6	13	14	13	6.8	1.2
22	3.8	1.8	22	4.6	25	14	4.3	13	14	13	6.4	1.2
23	3.8	1.9	22	4.3	25	14	4.1	13	14	12	6.4	1.0
24	3.8	3.1	23	4.1	25	14	4.1	13	14	12	6.4	.90
25	3.8	1.9	23	4.1	25	14	4.3	13	14	12	6.1	.90
26	3.6	1.9	23	4.3	26	13	4.6	12	14	12	5.8	.80
27	3.6	1.4	23	5.5	27	12	4.9	12	14	12	5.5	.80
28	3.4	1.3	22	6.1	24	12	5.2	12	14	12	5.5	.70
29	3.1	1.4	22	6.4	------	12	5.5	12	14	12	4.9	.70
30	3.1	2.3	21	5.8	------	12	6.1	12	14	12	4.9	.70
31	3.1	------	21	5.5	------	12	------	12	------	12	4.3	------
TOTAL	111.6	67.1	487.3	313.6	713.6	514	182.8	353.7	391	413	249.7	56.60
MEAN	3.60	2.24	15.7	10.1	25.5	16.6	6.09	11.4	13.0	13.3	8.05	1.89
MAX	4.1	3.1	23	21	32	24	11	13	14	14	12	4.1
MIN	3.1	1.3	2.3	4.1	6.8	12	4.1	6.4	12	12	4.3	.70
AC-FT	221	133	967	622	1,420	1,020	363	702	776	819	495	112

CAL YR 1964: TOTAL 5,726.6 MEAN 15.6 MAX 39 MIN 1.3 AC-FT 11,360
WAT YR 1965: TOTAL 3,854.00 MEAN 10.6 MAX 32 MIN .70 AC-FT 7,640

12-1165. Cedar River at Cedar Falls, Wash.

Location.--Lat 47°25'10", long 121°47'20", in SW¼SE¼ sec.4, T.22 N., R.8 E., on right bank three-quarters of a mile downstream from Seattle municipal powerplant at Cedar Falls and 3 miles downstream from Chester Morse Lake.

Drainage area.--84.2 sq mi.

Records available.--April 1914 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 910 ft (from river-profile map). Prior to June 1, 1964, graphic water-stage recorder at same site and datum.

Average discharge.--51 years, 313 cfs (226,600 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 23, 1961	1,120	7.57	Oct. 5, 1960	1.5	4.13
1962	Jan. 8, 9, 1962	1,140	7.60	Mar. 15, 1962	11	4.45
1963	Jan. 3, 4, 1963	1,280	7.77	Aug. 20, 1963	12	4.47
1964	June 2, 1964	1,620	8.18	Oct. 1, 1963	20	4.62
1965	Feb. 20, 21, 1965	965	7.35	Sept.17, 1965	a 17	-

a Minimum daily.

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Oct. 5, 1960	5.6	1964	Oct. 19, 1963	21
1962	July 11, 23, Sept. 12, 1962	42	1965	Sept.17, 1965	17
1963	Sept.28, 29, 1963	21			

1914-65: Maximum discharge, 6,440 cfs Dec. 22, 1933 (gage height, 11.5 ft); no flow for part of Nov. 25, 1917, Aug. 18, 1923; minimum daily, 0.5 cfs Oct. 6, 1958.

Remarks.--Records good except those for periods of no gage-height record, which are fair. All artificially diverted water returned to river above station. Some regulation by Chester Morse Lake for power.

Revisions (water years).--WSP 722: 1930. WSP 1286: 1934(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	678	678	239	696	776	487	590	260	45	223	69
2	23	672	678	112	696	783	529	515	333	44	224	82
3	210	660	678	328	696	684	600	436	383	124	70	80
4	70	660	678	221	621	720	617	482	420	44	87	77
5	5.6	654	678	233	679	654	708	533	542	286	89	83
6	62	648	678	265	685	590	548	509	496	62	72	82
7	111	630	672	241	574	541	387	409	490	106	69	84
8	24	482	672	372	668	500	360	347	550	62	79	78
9	22	338	672	375	678	464	345	256	545	57	101	80
10	180	334	666	481	690	438	594	266	550	224	107	77
11	20	536	666	678	696	415	576	279	480	41	105	84
12	133	660	666	672	690	585	648	368	397	42	101	72
13	64	648	598	672	684	720	714	312	400	80	101	62
14	64	660	545	672	696	727	702	282	356	139	101	66
15	60	596	482	542	672	727	611	330	335	40	102	62
16	52	660	500	515	702	702	562	280	332	70	114	62
17	74	643	442	473	690	702	668	356	91	268	114	59
18	73	611	442	623	672	640	600	324	109	275	116	68
19	132	599	630	684	653	586	690	387	216	74	119	68
20	129	563	490	678	714	625	678	224	287	37	115	70
21	137	690	513	684	776	702	684	72	208	37	116	68
22	5.0	684	595	666	1,040	663	678	277	292	37	119	70
23	136	684	247	678	1,110	626	678	257	192	325	117	67
24	207	670	423	678	1,080	580	678	272	48	334	112	63
25	179	621	426	672	1,020	526	524	269	122	292	83	54
26	196	589	345	672	916	530	532	295	280	50	77	70
27	432	590	324	672	832	587	542	338	299	252	76	66
28	480	678	509	672	748	624	528	351	265	100	80	68
29	685	672	343	660	------	622	618	398	269	146	83	68
30	603	660	194	684	------	644	318	190	309	207	64	66
31	675	------	153	690	------	650	------	227	------	256	64	------
TOTAL	5,265.6	18,470	16,283	16,504	21,074	19,333	17,494	10,431	9,856	4,156	3,200	2,125
MEAN	170	616	525	532	753	624	583	336	329	134	103	70.8
MAX	685	690	678	690	1,110	783	714	590	550	334	224	84
MIN	5.0	334	153	112	574	415	318	72	48	37	64	54
AC-FT	10,440	36,630	32,300	32,740	41,800	38,350	34,700	20,690	19,550	8,240	6,350	4,210

CAL YR 1960: TOTAL 128,183.6 MEAN 350 MAX 717 MIN 5.0 AC-FT 254,200
WAT YR 1961: TOTAL 144,191.6 MEAN 395 MAX 1,110 MIN 5.0 AC-FT 286,000

12-1165. Cedar River at Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	67	394	444	617	678	164	302	684	45	104	71	53
2	67	583	317	667	678	84	320	592	47	109	72	53
3	67	539	341	722	635	133	314	615	46	74	66	52
4	67	506	340	746	298	181	456	551	47	49	68	51
5	64	479	509	759	548	303	322	532	68	115	71	50
6	61	460	587	633	518	107	484	503	124	81	70	51
7	63	358	650	879	536	227	504	402	156	52	68	52
8	62	244	600	1,020	540	181	482	379	220	51	67	51
9	72	280	399	1,130	586	131	331	376	235	50	66	50
10	101	392	369	1,060	676	105	297	512	126	50	64	54
11	88	470	330	951	449	103	359	670	302	42	62	56
12	128	526	223	860	353	142	316	468	346	47	63	42
13	149	521	239	790	361	127	337	472	339	47	62	48
14	250	458	217	734	369	186	294	581	299	47	64	58
15	347	421	267	720	348	143	286	646	300	47	62	58
16	319	395	204	714	355	229	457	487	222	46	62	57
17	340	348	196	714	323	132	451	273	49	46	61	53
18	340	326	379	714	348	133	672	243	284	46	61	51
19	289	312	321	699	336	89	512	203	183	45	57	52
20	110	264	413	682	244	235	286	48	180	44	57	53
21	95	249	606	701	244	222	286	47	113	43	58	53
22	134	488	583	696	167	174	149	53	96	43	59	47
23	190	652	595	696	274	186	281	45	47	42	57	47
24	183	612	676	696	342	166	281	47	47	59	56	47
25	283	665	704	702	64	414	383	48	49	87	56	44
26	233	624	638	661	252	364	510	48	154	82	58	52
27	301	435	705	708	234	388	616	48	94	69	58	53
28	304	436	701	702	225	379	484	47	93	72	58	59
29	287	406	699	702	------	338	504	48	164	135	56	61
30	305	384	621	696	------	348	686	47	49	66	56	57
31	342	------	577	690	------	285	------	45	------	67	54	------
TOTAL	5,708	13,227	14,450	23,461	10,981	6,399	11,962	9,760	4,524	1,957	1,920	1,565
MEAN	184	441	466	757	392	206	399	315	151	63.1	61.9	52.2
MAX	347	665	705	1,130	678	414	686	684	346	135	72	61
MIN	61	244	196	617	64	84	149	45	45	42	54	42
AC-FT	11,320	26,240	28,660	46,530	21,780	12,690	23,730	19,360	8,970	3,880	3,810	3,100

CAL YR 1961: TOTAL 137,558 MEAN 377 MAX 1,110 MIN 37 AC-FT 272,800
WAT YR 1962: TOTAL 105,914 MEAN 290 MAX 1,130 MIN 42 AC-FT 210,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	54	74	500	830	369	663	624	474	26	36	36	24
2	54	48	470	1,020	381	634	373	484	27	34	32	26
3	56	106	443	1,230	434	657	233	431	29	34	30	25
4	56	105	417	1,240	401	667	306	408	30	32	29	25
5	59	162	417	1,120	397	680	373	387	36	31	29	24
6	60	248	535	972	393	674	326	448	34	30	30	40
7	65	161	620	836	385	668	316	500	32	30	29	48
8	74	97	662	734	334	668	298	546	32	31	29	48
9	197	76	704	644	327	668	365	366	34	30	42	47
10	282	54	722	580	311	619	361	528	34	30	48	46
11	249	60	704	515	377	649	361	463	34	30	48	48
12	222	176	662	480	373	514	531	297	34	30	54	47
13	116	261	605	466	385	372	507	512	33	30	50	47
14	251	365	575	452	443	235	473	485	33	30	49	48
15	276	361	590	405	605	255	532	482	36	33	35	49
16	278	357	615	389	680	232	531	202	107	32	29	40
17	253	357	600	389	650	225	486	251	135	31	25	24
18	242	357	575	385	692	245	549	245	110	33	25	23
19	239	361	545	385	698	245	532	219	99	33	28	22
20	239	320	515	381	698	248	485	29	99	33	29	23
21	239	397	495	381	698	248	185	28	55	33	27	25
22	245	385	485	381	692	245	662	28	33	36	25	24
23	180	325	461	377	580	218	575	27	32	34	26	25
24	135	347	438	377	533	211	559	26	32	36	26	24
25	135	355	421	377	621	303	537	26	33	33	25	92
26	101	452	401	377	670	338	531	26	32	33	25	96
27	34	387	397	377	638	232	460	28	32	36	28	96
28	34	530	413	373	616	349	465	25	33	42	24	21
29	108	515	413	373	------	544	495	46	36	46	24	21
30	134	520	530	373	------	420	466	72	36	44	24	90
31	106	------	728	369	------	415	------	42	------	36	24	------
TOTAL	4,773	8,319	16,658	17,588	14,381	13,341	13,497	8,131	1,388	1,042	984	1,238
MEAN	154	277	537	567	514	430	450	262	46.3	33.6	31.7	41.3
MAX	282	530	728	1,240	698	680	662	546	135	46	54	96
MIN	34	48	397	369	311	211	185	25	26	30	24	21
AC-FT	9,470	16,500	33,040	34,890	28,520	26,460	26,770	16,130	2,750	2,070	1,950	2,460

CAL YR 1962: TOTAL 102,279 MEAN 280 MAX 1,130 MIN 34 AC-FT 202,900
WAT YR 1963: TOTAL 101,340 MEAN 278 MAX 1,240 MIN 21 AC-FT 201,000

12-1165. Cedar River at Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	97	345	515	314	409	273	419	422	1,170	705	84	598
2	37	53	605	363	317	291	416	268	1,420	730	87	558
3	46	51	525	320	500	63	404	254	1,500	764	92	577
4	47	317	730	326	710	65	284	416	1,440	168	346	566
5	49	546	725	334	710	65	295	426	1,470	450	290	441
6	49	553	730	330	547	62	420	438	1,480	560	333	54
7	49	591	600	389	583	61	400	426	1,500	570	276	401
8	49	614	585	381	75	168	409	428	1,480	605	68	491
9	43	573	740	381	70	479	402	307	1,390	777	68	503
10	40	495	730	385	282	490	412	275	1,360	741	288	240
11	34	600	720	328	673	518	333	429	1,330	175	507	335
12	22	560	715	274	649	547	358	423	1,270	149	469	165
13	22	485	610	385	203	551	406	432	1,200	219	422	51
14	26	690	225	385	319	518	411	505	1,140	268	461	422
15	24	455	225	359	436	514	449	448	1,120	314	64	37
16	41	60	580	397	484	538	438	302	1,220	331	63	163
17	90	60	445	397	68	555	436	293	1,340	322	420	174
18	88	475	396	393	69	561	285	427	1,400	306	233	270
19	21	500	386	338	74	526	247	513	1,480	283	168	156
20	22	365	543	397	69	562	394	529	1,360	267	474	226
21	97	415	339	554	65	497	399	470	1,230	298	485	294
22	135	245	331	594	64	483	408	957	1,110	323	60	523
23	188	70	363	559	61	504	404	848	1,050	575	59	559
24	117	70	486	570	60	522	394	805	928	338	432	516
25	159	70	428	526	59	534	227	906	811	192	486	306
26	94	70	623	112	57	534	245	934	859	185	458	107
27	50	145	616	482	56	510	406	979	969	177	482	157
28	45	435	579	286	144	489	396	986	896	104	276	229
29	204	550	573	319	262	448	407	942	798	73	358	250
30	353	425	698	439	------	535	399	931	752	76	75	237
31	357	------	312	574	------	373	------	1,070	------	80	280	------
TOTAL	2,695	10,883	16,678	12,191	8,075	12,845	11,303	17,789	36,473	11,125	8,664	9,648
MEAN	86.9	363	538	393	278	414	377	574	1,216	359	279	322
MAX	357	690	740	594	710	562	449	1,070	1,500	777	507	598
MIN	21	51	225	112	56	61	227	254	752	73	59	37
AC-FT	5,350	21,590	33,080	24,180	16,020	25,480	22,420	35,280	72,340	22,070	17,180	19,140

CAL YR 1963: TOTAL 101,846 MEAN 279 MAX 1,240 MIN 21 AC-FT 202,000
WAT YR 1964: TOTAL 158,369 MEAN 433 MAX 1,500 MIN 21 AC-FT 314,100

Note.--No gage-height record Nov. 10 to Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	478	27	564	600	520	397	495	669	535	37	34	206
2	533	244	662	540	600	417	456	520	510	39	29	169
3	416	252	925	560	720	487	52	575	520	38	28	94
4	442	260	921	720	720	440	228	595	237	38	33	40
5	278	266	847	660	720	404	174	674	468	38	30	38
6	282	248	751	560	720	636	392	416	130	38	25	38
7	275	33	722	540	660	339	396	404	174	38	25	190
8	132	31	708	500	660	372	143	663	58	38	25	155
9	248	261	650	200	720	485	294	106	58	43	32	146
10	213	261	661	60	720	540	48	505	50	56	27	190
11	221	254	690	500	700	490	48	636	51	56	38	36
12	284	252	720	45	700	495	268	368	60	184	41	36
13	402	455	592	45	700	605	329	200	60	51	40	157
14	494	45	657	100	700	535	350	575	47	268	41	284
15	248	45	710	400	720	490	424	545	92	55	40	126
16	228	401	583	45	680	520	336	460	211	44	29	90
17	53	291	698	45	640	432	33	555	62	37	27	17
18	52	263	684	500	620	440	33	560	50	37	38	46
19	379	118	651	450	600	636	357	545	57	36	41	48
20	490	354	650	460	837	595	436	685	150	32	40	122
21	273	42	700	420	799	525	472	685	450	31	42	108
22	255	43	731	350	788	500	525	685	300	30	41	34
23	239	292	736	300	729	680	595	658	80	31	211	139
24	47	440	719	45	702	674	545	530	400	35	169	84
25	46	464	700	500	543	62	545	540	250	35	172	38
26	84	418	580	520	524	416	500	530	57	29	180	34
27	139	507	620	470	690	674	495	530	57	42	160	211
28	279	228	640	500	628	605	480	530	57	41	130	104
29	277	405	720	380	------	669	525	520	50	32	60	137
30	271	529	720	500	------	353	565	476	37	30	200	160
31	45	------	700	500	------	535	------	500	------	34	220	------
TOTAL	8,103	7,729	21,662	12,015	19,060	15,448	10,539	16,440	5,318	1,573	2,248	3,279
MEAN	261	258	699	388	681	498	351	530	177	50.7	72.5	109
MAX	533	529	925	720	837	680	595	685	535	268	220	284
MIN	45	27	564	45	520	62	33	106	37	29	25	17
AC-FT	16,070	15,330	42,970	23,830	37,800	30,640	20,900	32,610	10,550	3,120	4,460	6,500

CAL YR 1964: TOTAL 165,607 MEAN 452 MAX 1,500 MIN 27 AC-FT 328,500
WAT YR 1965: TOTAL 123,414 MEAN 338 MAX 925 MIN 17 AC-FT 244,800

Note.--No gage-height record Dec. 25 to Feb. 19.

12-1167. Middle Fork Taylor Creek near Selleck, Wash.

Location.--Lat 47°21'15", long 121°47'30", in NE¼NW¼ sec.33, T.22 N., R.8 E., on left bank 0.7 mile upstream from mouth and 4 miles southeast of Selleck.

Drainage area.--5.17 sq mi (revised).

Records available.--August 1956 to December 1963 (discontinued).

Gage.--Water-stage recorder. Concrete control since Aug. 15, 1958. Altitude of gage is 1,440 ft (from topographic map).

Average discharge.--7 years, 36.0 cfs (26,060 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (200 cfs, revised), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 24, 1960	1130	297	3.23	Jan. 3, 1962	1500	244	3.10	Feb. 3, 1963	0430	* 392	3.43
Feb. 21, 1961	1200	* 397	3.44	Apr. 6, 1962	1530	256	3.13				
Nov. 22, 1961	0430	215	3.02	Nov. 19, 1962	2130	256	3.13	Nov. 26, 1963	1700	* 175	2.93
Dec. 24, 1961	0530	* 386	3.42	Dec. 5, 1962	2130	208	3.01				

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28-30, Sept. 13-18, 1961	4.0	1.80	1963	Sept. 9,10,12,29,30	8.2	a 1.86
1962	Oct. 4, 5, 1961	4.8	1.81	1964	Oct. 10, 11, 1963	7.2	1.84

a Occurred Sept. 9, 10, 1963.

1956-63: Maximum discharge, 823 cfs Dec. 15, 1959 (gage height, 4.08 ft); minimum, 4.0 cfs Aug. 28-30, Sept. 13-18, 1961 (gage height, 1.80 ft).

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	64	44	28	58	127	41	48	20	11	5.6	23
2	7.2	57	47	26	86	84	62	54	20	9.8	5.2	13
3	7.2	49	48	24	68	68	130	54	19	9.8	5.2	7.2
4	7.2	41	41	40	69	57	86	54	18	9.2	5.2	6.0
5	6.8	37	38	90	71	51	69	57	18	19	5.2	6.8
6	8.6	32	36	100	101	47	57	52	23	12	5.2	6.0
7	13	29	33	70	90	41	51	49	22	11	4.8	5.6
8	18	27	32	65	79	40	54	47	20	9.8	4.8	5.2
9	11	26	30	75	81	38	66	49	21	9.2	4.8	4.8
10	9.8	64	28	65	73	36	52	54	20	8.0	4.8	4.8
11	9.2	76	35	60	66	34	51	48	20	8.0	4.8	4.8
12	12	52	51	55	59	40	59	45	18	7.6	4.8	4.4
13	9.8	47	52	50	62	55	55	41	18	7.6	4.8	4.0
14	9.2	44	66	80	59	79	49	44	16	7.2	4.8	4.0
15	8.6	60	51	100	64	84	47	41	15	7.2	5.2	4.0
16	8.6	142	45	120	57	77	44	39	14	6.8	5.2	4.0
17	8.0	137	42	100	51	66	42	38	14	6.8	5.2	4.0
18	8.0	142	57	80	45	64	40	37	14	6.8	5.2	5.2
19	8.0	143	62	65	123	64	38	36	14	6.8	4.8	4.4
20	8.0	169	49	59	172	60	36	33	14	6.8	4.8	7.2
21	11	118	45	52	302	52	37	30	13	6.8	4.8	8.5
22	16	92	41	47	169	52	34	29	12	6.4	4.8	5.6
23	40	90	39	41	111	52	32	31	12	6.4	4.8	4.8
24	50	219	40	39	101	49	38	27	12	6.4	4.8	4.8
25	30	145	40	34	79	45	34	26	12	6.4	4.8	4.4
26	48	99	38	32	66	44	33	25	12	6.0	4.8	4.4
27	55	75	34	30	64	41	32	29	12	6.0	4.8	4.4
28	68	62	32	30	62	38	33	25	12	6.0	4.0	9.2
29	52	54	30	48	------	37	47	24	12	6.0	4.0	8.0
30	45	47	28	52	------	36	47	24	12	6.0	4.0	6.4
31	63	------	30	54	------	37	------	22	------	5.6	15	------
TOTAL	663.4	2,439	1,284	1,811	2,488	1,695	1,496	1,212	479	248.4	161.0	188.9
MEAN	21.4	81.3	41.4	58.4	88.9	54.7	49.9	39.1	16.0	8.01	5.19	6.30
MAX	68	219	66	120	302	127	130	57	23	19	15	23
MIN	6.8	26	28	24	45	34	32	22	12	5.6	4.0	4.0
CFSM	4.14	15.7	8.01	11.3	17.2	10.6	9.65	7.56	3.09	1.55	1.00	1.22
IN.	4.77	17.5	9.24	13.0	17.9	12.2	10.8	8.72	3.45	1.79	1.16	1.36
AC-FT	1,320	4,840	2,550	3,590	4,930	3,360	2,970	2,400	950	493	319	375

CAL YR 1960: TOTAL 13,096.6 MEAN 35.8 MAX 219 MIN 6.8 CFSM 6.92 IN 94.21 AC-FT 25,980
WAT YR 1961: TOTAL 14,165.7 MEAN 38.8 MAX 302 MIN 4.0 CFSM 7.51 IN 101.90 AC-FT 28,100

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1167. Middle Fork Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.0	30	36	68	32	17	39	54	25	14	9.5	11
2	5.2	24	31	86	31	16	36	53	29	14	9.5	11
3	5.2	27	32	195	31	15	35	51	29	13	12	11
4	4.8	24	64	138	31	15	44	46	31	14	20	10
5	8.8	22	57	122	29	18	48	43	35	17	23	9.9
6	9.8	20	45	113	28	19	157	40	31	21	15	9.9
7	12	20	40	132	28	19	132	37	29	15	15	9.9
8	7.6	19	36	118	27	19	90	39	28	14	16	9.9
9	21	20	32	94	26	19	68	44	27	14	14	9.5
10	30	48	28	76	26	17	57	43	26	14	13	16
11	18	39	26	66	25	17	51	37	24	13	13	15
12	26	32	25	60	24	16	48	36	22	13	13	11
13	32	30	25	53	23	15	50	36	22	13	13	12
14	20	33	23	48	29	16	56	32	21	13	12	13
15	17	27	23	43	26	17	56	31	20	13	12	12
16	16	25	23	39	24	19	50	29	19	13	11	11
17	14	24	34	35	24	21	47	28	19	13	12	10
18	12	23	26	31	25	21	47	27	18	13	14	9.9
19	11	21	67	28	23	21	47	26	17	12	13	9.9
20	11	20	88	26	22	21	46	25	17	12	13	9.9
21	9.8	22	75	26	21	20	46	25	16	11	14	9.9
22	12	108	68	25	21	20	43	23	15	11	12	9.9
23	29	49	163	24	20	20	43	30	15	11	12	9.9
24	16	38	259	26	19	43	46	36	14	10	11	9.5
25	15	32	128	40	18	56	41	39	19	10	11	9.5
26	23	28	98	51	17	46	40	35	20	10	12	9.2
27	27	28	68	50	17	40	70	32	16	9.9	12	11
28	27	38	90	44	17	33	53	32	15	9.9	20	24
29	22	33	110	37	------	32	47	30	14	9.5	13	17
30	20	36	101	36	------	33	46	28	14	9.5	12	13
31	18	------	78	33	------	36	------	27	------	9.5	11	------
TOTAL	506.2	940	1,989	1,963	684	737	1,679	1,094	647	389.3	413.0	344.7
MEAN	16.3	31.3	64.2	63.3	24.4	23.8	56.0	35.3	21.6	12.6	13.3	11.5
MAX	32	108	259	195	32	56	157	54	35	21	23	24
MIN	4.8	19	23	24	17	15	35	23	14	9.5	9.5	9.2
CFSM	3.16	6.06	12.4	12.2	4.73	4.60	10.8	6.83	4.17	2.43	2.58	2.22
IN.	3.64	6.76	14.3	14.1	4.92	5.30	12.1	7.87	4.65	2.80	2.97	2.48
AC-FT	1,000	1,860	3,950	3,890	1,360	1,460	3,330	2,170	1,280	772	819	684

CAL YR 1961: TOTAL 13,214.5 MEAN 36.2 MAX 302 MIN 4.0 CFSM 7.00 IN 95.06 AC-FT 26,210
WAT YR 1962: TOTAL 11,386.2 MEAN 31.2 MAX 259 MIN 4.8 CFSM 6.03 IN 81.91 AC-FT 22,580

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	13	63	106	18	51	26	43	16	19	15	9.5
2	13	13	59	122	57	46	25	47	21	19	15	10
3	15	13	47	125	232	43	31	43	18	18	14	9.5
4	13	13	43	96	110	39	71	40	18	17	14	9.2
5	13	17	89	76	88	35	73	48	43	17	14	8.9
6	14	15	122	63	68	32	88	48	26	16	14	8.9
7	21	14	88	56	59	30	74	46	22	17	13	8.9
8	36	19	76	51	50	29	63	43	22	25	13	8.6
9	80	18	66	46	44	27	54	40	30	25	13	8.6
10	54	26	57	39	39	26	51	39	26	29	12	8.9
11	40	33	51	32	35	26	48	35	24	24	12	8.6
12	32	31	46	27	31	24	44	33	24	22	15	8.2
13	28	27	44	28	30	23	41	31	22	21	14	12
14	26	26	54	29	28	22	44	29	21	25	13	9.9
15	25	24	70	30	25	21	43	28	20	39	12	9.5
16	21	24	57	28	28	20	39	27	19	27	11	16
17	20	24	51	26	26	20	39	25	19	25	11	11
18	19	23	47	25	37	20	44	24	18	22	11	9.9
19	19	113	48	24	53	27	43	23	18	21	15	9.5
20	18	130	56	23	44	25	40	22	18	20	17	9.2
21	18	82	56	22	39	25	40	21	18	20	12	9.2
22	19	60	51	21	35	26	60	21	18	24	12	9.2
23	17	47	46	20	31	24	59	21	17	20	13	9.5
24	16	47	41	19	29	23	51	20	18	19	13	9.2
25	15	105	37	19	37	24	51	19	19	19	12	8.9
26	15	115	35	18	74	25	48	19	17	18	11	8.6
27	15	78	36	18	50	27	46	18	16	17	11	8.6
28	15	57	65	17	51	31	41	17	17	17	10	8.6
29	14	54	78	15	------	29	43	16	27	16	10	8.2
30	14	80	142	15	------	29	43	16	21	15	9.9	8.2
31	14	------	113	19	------	28	------	16	------	16	9.9	------
TOTAL	692	1,341	1,934	1,255	1,448	877	1,463	918	633	649	391.8	283.0
MEAN	22.3	44.7	62.4	40.5	51.7	28.3	48.8	29.6	21.1	20.9	12.6	9.43
MAX	80	130	142	125	232	51	88	48	43	39	17	16
MIN	13	13	35	15	18	20	25	16	16	15	9.9	8.2
CFSM	4.32	8.65	12.1	7.83	10.0	5.47	9.43	5.73	4.08	4.05	2.44	1.82
IN.	4.98	9.65	13.9	9.03	10.4	6.31	10.5	6.60	4.55	4.67	2.82	2.04
AC-FT	1,370	2,660	3,840	2,490	2,870	1,740	2,900	1,820	1,260	1,290	777	561

CAL YR 1962: TOTAL 11,918.0 MEAN 32.7 MAX 195 MIN 9.2 CFSM 6.32 IN 85.73 AC-FT 23,640
WAT YR 1963: TOTAL 11,884.8 MEAN 32.6 MAX 232 MIN 8.2 CFSM 6.30 IN 85.49 AC-FT 23,570

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1167. Middle Fork Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.9	22	46									
2	7.9	32	39									
3	8.2	25	33									
4	8.2	47	30									
5	8.2	36	37									
6	8.2	37	40									
7	7.9	61	32									
8	7.6	71	30									
9	7.6	59	27									
10	7.2	53	25									
11	7.6	44	23									
12	7.9	37	22									
13	9.9	35	21									
14	8.9	47	21									
15	8.6	40	30									
16	7.6	41	44									
17	7.9	68	57									
18	8.9	57	50									
19	8.6	66	56									
20	12	53	73									
21	14	46	56									
22	62	48	60									
23	29	62	59									
24	29	57	53									
25	33	71	57									
26	25	114	50									
27	21	113	53									
28	31	78	46									
29	26	63	40									
30	23	53	37		------							
31	22	------	41		------		------		------			------
TOTAL	481.8	1,636	1,288									
MEAN	15.5	54.5	41.5									
MAX	62	114	73									
MIN	7.2	22	21									
CFSM	3.01	10.5	8.04									
IN.	3.47	11.8	9.27									
AC-FT	956	3,240	2,550									

CAL YR 1963: TOTAL 11,323.6 MEAN 31.0 MAX 232 MIN 7.2 CFSM 6.00 IN 81.46 AC-FT 22,460
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1168. North Fork Taylor Creek near Selleck, Wash.

Location.--Lat 47°22'20", long 121°48'20", in NE¼NE¼ sec.29, T.22 N., R.8 E., on left bank at upstream side of bridge, 1 mile upstream from mouth and 3 miles east of Selleck.

Drainage area.--3.77 sq mi (revised).

Records available.--June 1956 to December 1963 (discontinued).

Gage.--Water-stage recorder and log control. Altitude of gage is 1,500 ft (from topographic map).

Average discharge.--7 years, 21.2 cfs (15,350 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs, revised), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1200	110	2.31	Apr. 3, 1961	0730	103	2.21	Nov. 25, 1962	1900	112	2.27
Nov. 24, 1960	1430	227	3.02					Feb. 3, 1963	0400	* 241	3.08
Feb. 21, 1961	1330	* 237	3.10	Dec. 24, 1961	0600	* 312	3.33				
Mar. 1, 1961	0430	112	2.28	Jan. 3, 1962	1630	118	2.30	Nov. 26, 1963	2230	92	2.11

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 1961	0.30	0.54	1963	Sept. 9, 1963	3.7	0.92
1962	Oct. 4, 1961	2.3	.83	1964	Oct. 10, 1963	3.2	.89

1956-63: Maximum discharge, 522 cfs Dec. 15, 1959 (gage height, 4.17 ft), from rating curve extended above 200 cfs; minimum, 0.30 cfs Aug. 29, 1961 (gage height, 0.54 ft).

Remarks.--Records fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.2	45	24	17	31	91	22	28	12	3.6	1.6	7.9
2	3.1	38	25	16	41	57	35	29	12	3.4	1.4	10
3	3.1	33	26	15	38	40	89	30	11	3.4	1.4	4.9
4	3.1	27	25	20	38	33	56	31	9.6	3.2	1.4	4.1
5	2.9	22	22	56	40	29	37	35	9.9	6.0	1.5	4.9
6	3.6	20	20	60	56	26	30	31	13	4.3	1.3	3.9
7	5.3	17	20	43	54	24	26	28	11	3.6	1.2	3.6
8	7.0	16	19	36	40	24	27	27	11	3.2	1.1	3.2
9	5.4	15	18	42	37	23	35	27	12	2.9	1.1	2.9
10	4.9	28	18	37	34	22	33	29	11	2.8	1.1	2.8
11	5.4	44	22	32	32	22	31	28	11	2.6	.90	2.5
12	6.5	35	35	28	29	32	36	26	9.9	2.5	.80	1.9
13	5.6	30	37	23	34	49	37	24	9.2	2.6	.90	1.6
14	5.6	28	49	31	33	79	31	25	8.6	2.6	.90	1.8
15	5.4	39	36	50	38	78	28	25	8.0	2.6	1.3	2.1
16	5.2	79	29	73	35	60	26	24	7.3	2.9	1.7	1.9
17	4.9	69	25	56	31	44	26	23	6.8	2.9	1.2	1.7
18	4.7	76	30	44	27	38	25	21	6.5	2.8	1.1	2.5
19	4.5	67	33	35	57	36	24	20	6.2	2.6	1.0	2.1
20	4.5	101	30	33	91	35	21	19	5.9	2.6	.90	3.6
21	5.2	69	25	24	187	30	21	18	5.4	2.5	.80	3.9
22	7.3	46	22	21	110	28	21	17	5.2	2.6	.70	3.1
23	24	50	20	18	65	28	20	18	4.9	2.8	.70	2.8
24	37	163	21	17	56	28	25	15	4.3	2.6	.80	2.5
25	25	106	21	15	44	26	25	14	4.3	2.3	.80	2.3
26	30	57	21	14	36	26	23	14	4.3	2.1	.80	2.3
27	33	40	20	13	37	24	21	18	4.1	2.2	.80	2.1
28	38	33	19	13	36	22	21	15	3.9	2.3	.60	3.6
29	34	27	18	19	------	21	25	15	4.3	2.1	.50	3.6
30	26	25	18	26	------	20	27	15	3.9	1.8	.50	3.2
31	34	------	17	31	------	20	------	14	------	1.7	5.8	------
TOTAL	387.4	1,444	765	958	1,387	1,115	904	703	236.5	88.1	36.60	99.3
MEAN	12.5	48.1	24.7	30.9	49.5	36.0	30.1	22.7	7.88	2.84	1.18	3.31
MAX	38	163	49	73	187	91	89	35	13	6.0	5.8	10
MIN	2.9	15	17	13	27	20	20	14	3.9	1.7	.50	1.6
CFSM	3.31	12.8	6.55	8.20	13.1	9.54	7.99	6.02	2.09	.75	.31	.88
IN.	3.82	14.2	7.55	9.45	13.7	11.0	8.92	6.93	2.33	.87	.36	.98
AC-FT	768	2,860	1,520	1,900	2,750	2,210	1,790	1,390	469	175	73	197

CAL YR 1960: TOTAL 7,776.6 MEAN 21.2 MAX 163 MIN 2.6 CFSM 5.64 IN 76.71 AC-FT 15,420
WAT YR 1961: TOTAL 8,123.90 MEAN 22.3 MAX 187 MIN .50 CFSM 5.90 IN 80.14 AC-FT 16,110

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1168. North Fork Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.1	17	23	36	19	11	27	23	14	6.8	3.9	5.6
2	2.6	15	22	41	18	9.6	24	25	16	7.0	3.9	5.4
3	2.6	17	21	100	18	9.2	22	25	16	6.5	4.9	5.2
4	2.5	15	36	88	18	11	24	22	18	6.8	8.7	4.9
5	4.6	14	38	61	17	15	26	20	21	8.9	13	4.5
6	5.6	13	30	53	17	20	65	19	21	12	11	4.3
7	7.6	12	26	72	15	20	69	17	20	11	11	4.3
8	6.8	11	23	69	15	20	40	17	17	9.6	11	4.1
9	13	11	21	52	14	17	31	20	16	8.6	9.2	4.1
10	23	22	20	44	14	15	25	21	14	8.3	8.3	7.4
11	15	23	18	37	14	14	21	20	13	7.6	7.3	7.0
12	16	21	17	33	13	13	20	18	12	7.3	8.0	5.6
13	18	20	17	30	12	13	20	17	12	7.3	7.0	6.5
14	14	21	16	28	17	13	22	15	11	7.0	6.2	7.6
15	11	20	16	24	14	15	22	14	11	6.8	5.6	6.5
16	8.6	18	18	24	14	18	20	14	11	6.5	5.4	5.9
17	7.0	16	29	22	14	20	18	13	11	6.8	5.9	5.4
18	6.2	16	24	20	14	20	17	12	9.6	6.2	6.5	4.9
19	5.9	14	50	18	14	18	18	12	9.2	5.9	5.6	4.9
20	5.4	13	72	18	14	18	17	12	8.9	5.6	5.4	4.9
21	5.2	14	63	18	13	17	17	12	8.3	5.2	5.9	4.9
22	5.6	34	51	18	14	16	16	12	8.0	4.9	5.2	4.7
23	11	26	94	17	13	16	15	15	7.6	4.7	4.9	4.5
24	7.3	22	212	17	12	28	16	21	7.6	4.5	4.7	4.3
25	7.6	20	92	20	11	42	15	25	8.3	4.3	4.7	4.3
26	12	18	52	27	11	34	15	23	9.2	4.3	5.2	4.3
27	14	18	38	31	11	30	26	20	8.3	4.1	4.7	5.4
28	16	22	45	30	11	26	25	20	7.6	4.1	8.3	12
29	14	23	62	25	------	25	21	18	7.3	4.1	7.0	12
30	12	23	59	22	------	26	20	17	7.0	3.9	6.5	9.2
31	11	------	44	21	------	26	------	15	------	3.9	5.9	------
TOTAL	294.2	549	1,349	1,116	401	595.8	734	554	360.9	200.5	210.8	174.6
MEAN	9.49	18.3	43.5	36.0	14.3	19.2	24.5	17.9	12.0	6.47	6.80	5.82
MAX	23	34	212	100	19	42	69	25	21	12	13	12
MIN	2.5	11	16	17	11	9.2	15	12	7.0	3.9	3.9	4.1
CFSM	2.52	4.85	11.5	9.55	3.80	5.10	6.49	4.74	3.19	1.72	1.80	1.54
IN.	2.90	5.42	13.3	11.0	3.96	5.88	7.24	5.47	3.56	1.98	2.08	1.72
AC-FT	584	1,090	2,680	2,210	795	1,180	1,460	1,100	716	398	418	346

CAL YR 1961: TOTAL 7,719.70 MEAN 21.1 MAX 212 MIN .50 CFSM 5.61 IN 76.15 AC-FT 15,310
WAT YR 1962: TOTAL 6,539.8 MEAN 17.9 MAX 212 MIN 2.5 CFSM 4.75 IN 64.51 AC-FT 12,970

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.6	8.0	46	51	11	29	18	21	7.3	15	7.3	5.6
2	8.6	7.6	44	55	55	26	17	23	8.3	13	6.8	6.2
3	9.2	7.3	37	65	149	24	23	22	7.6	11	6.5	5.2
4	8.3	8.0	34	49	73	22	62	21	9.5	11	6.2	4.7
5	8.0	9.6	55	37	50	21	62	26	22	9.6	6.2	4.5
6	11	8.6	84	31	37	20	70	30	17	9.2	6.2	4.3
7	14	8.3	56	26	29	19	50	28	14	9.9	5.6	4.3
8	26	11	43	24	24	18	40	24	15	12	5.4	4.1
9	52	13	37	22	22	18	35	22	20	12	5.2	3.9
10	38	18	31	20	20	17	30	20	18	16	4.9	4.3
11	26	25	27	17	18	17	27	19	16	15	4.7	3.9
12	20	27	24	15	17	16	25	18	15	14	6.7	4.1
13	17	22	22	16	16	16	23	17	14	12	6.2	5.6
14	15	20	25	16	15	15	24	16	12	12	5.4	5.4
15	15	18	36	17	15	14	23	16	11	16	4.9	5.2
16	14	18	36	16	15	14	21	15	9.9	14	4.7	8.5
17	13	17	31	15	15	13	21	14	9.2	13	4.5	7.0
18	13	16	26	14	20	13	24	13	8.9	12	4.7	6.2
19	12	40	24	14	26	15	25	12	8.9	11	5.9	5.4
20	12	79	21	13	28	16	24	12	8.6	11	8.9	5.2
21	12	56	28	13	24	17	24	11	8.6	9.6	7.0	5.2
22	13	41	29	12	21	17	31	9.9	8.9	14	6.5	4.9
23	12	33	26	12	18	17	34	9.9	8.3	11	7.0	5.4
24	12	32	22	11	17	16	29	9.6	9.6	11	6.8	4.9
25	11	69	20	11	22	16	26	9.2	11	11	7.0	4.7
26	11	92	18	9.9	33	16	24	8.6	9.6	9.6	6.8	4.7
27	9.9	59	18	9.9	28	17	22	8.3	9.6	8.9	6.2	4.3
28	9.6	44	28	9.6	28	20	21	8.0	9.9	8.6	5.9	4.3
29	9.2	40	36	9.0	------	20	21	7.6	18	8.3	5.6	4.3
30	8.9	53	79	8.5	------	20	22	7.3	17	7.6	5.4	4.1
31	8.3	------	64	9.0	------	19	------	7.3	------	8.3	5.4	------
TOTAL	457.6	900.4	1,107	647.9	846	558	898	485.7	362.7	356.6	186.5	150.4
MEAN	14.8	30.0	35.7	20.9	30.2	18.0	29.9	15.7	12.1	11.5	6.02	5.01
MAX	52	92	84	65	149	29	70	30	22	16	8.9	8.5
MIN	8.0	7.3	18	8.5	11	13	17	7.3	7.3	7.6	4.5	3.9
CFSM	3.92	7.96	9.47	5.54	8.01	4.77	7.94	4.16	3.21	3.05	1.60	1.33
IN.	4.51	8.88	10.9	6.39	8.35	5.50	8.86	4.79	3.58	3.52	1.84	1.48
AC-FT	908	1,790	2,200	1,290	1,680	1,110	1,780	963	719	707	370	298

CAL YR 1962: TOTAL 6,812.6 MEAN 18.7 MAX 100 MIN 3.9 CFSM 4.95 IN 67.20 AC-FT 13,510
WAT YR 1963: TOTAL 6,956.8 MEAN 19.1 MAX 149 MIN 3.9 CFSM 5.06 IN 68.63 AC-FT 13,800

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1168. North Fork Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.9	20	26									
2	3.9	23	24									
3	4.1	21	21									
4	4.5	31	21									
5	4.3	31	24									
6	3.9	30	28									
7	3.7	40	25									
8	3.6	54	24									
9	3.6	38	22									
10	3.4	32	21									
11	3.4	26	20									
12	3.6	24	19									
13	4.9	22	19									
14	3.9	30	19									
15	3.7	26	25									
16	3.6	25	44									
17	4.2	31	50									
18	4.9	30	42									
19	4.1	38	40									
20	7.5	31	49									
21	12	26	40									
22	56	26	37									
23	31	32	36									
24	26	33	33									
25	26	43	31									
26	24	67	29									
27	21	78	30									
28	26	50	28									
29	24	37	27									
30	22	30	25		------							
31	20	------	26		------		------		------			------
TOTAL	370.7	1,025	905									
MEAN	12.0	34.2	29.2									
MAX	56	78	50									
MIN	3.4	20	19									
CFSM	3.17	9.06	7.74									
IN.	3.66	10.1	8.93									
AC-FT	735	2,030	1,800									

CAL YR 1963: TOTAL 6,792.5 MEAN 18.6 MAX 149 MIN 3.4 CFSM 4.94 IN 67.01 AC-FT 13,470
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1170. Taylor Creek near Selleck, Wash.

Location.--Lat 47°23'10", long 121°50'45", in NW¼NW¼ sec.19, T.22 N., R.8 E., on left bank half a mile upstream from mouth and 1¼ miles northeast of Selleck.

Drainage area.--17.2 sq mi (revised).

Records available.--June to October 1945, August 1956 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 940 ft (from topographic map). June to October 1945 on right bank 350 ft downstream at different datum.

Average discharge.--9 years, 105 cfs (76,020 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	1,600	4.91	Sept.13, 1961	18	a 2.52
1962	Dec. 24, 1961	714	4.21	Oct. 4, 5, 1961	20	b 2.36
1963	Feb. 3, 1963	696	4.20	Sept.28, 29, 30	21	2.27
1964	Jan. 25, 1964	1,390	4.82	Oct. 10, 11, 1963	19	2.25
1965	Jan. 29, 1965	2,730	5.78	Sept.25-30, 1965	19	2.02

a Occurred Oct. 5, 6, 1960, Sept. 13, 1961.
b Occurred Sept. 25-27, 1962.

1945, 1956-65: Maximum discharge, 2,730 cfs Jan. 29, 1965 (gage height, 5.78 ft), from rating curve extended above 1,100 cfs on basis of slope-area measurement of peak flow; minimum, 16 cfs Oct. 2-7, 1958.

Remarks.--Records good except those over 350 cfs, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24	163	137	86	159	383	137	131	78	46	26	51
2	24	140	143	80	212	271	180	148	74	45	26	40
3	24	116	148	76	186	238	370	148	74	44	26	25
4	24	97	140	90	186	212	250	154	73	42	26	23
5	24	80	128	252	197	204	183	173	71	62	26	25
6	28	71	121	276	255	197	157	151	84	51	25	22
7	36	62	114	215	242	183	140	140	80	46	25	21
8	47	60	111	197	215	180	163	131	73	42	25	20
9	35	55	104	215	208	170	180	137	80	40	25	20
10	31	144	102	193	190	163	154	151	74	40	25	20
11	33	192	114	180	180	167	151	140	73	39	24	20
12	39	126	163	167	167	191	190	128	69	37	23	19
13	33	111	161	163	200	234	170	121	67	36	23	19
14	31	111	197	193	186	276	151	128	63	36	23	19
15	30	147	157	249	208	267	143	118	60	35	23	19
16	29	328	137	330	190	242	140	116	59	35	24	20
17	28	298	128	276	176	212	137	114	57	35	23	19
18	27	328	157	230	163	200	131	108	55	34	22	20
19	27	307	173	197	325	200	126	108	54	34	22	20
20	26	365	146	170	424	197	116	104	54	33	22	23
21	31	280	128	148	781	180	116	102	54	32	22	27
22	43	215	121	134	424	170	108	104	52	30	21	21
23	102	223	111	126	289	173	106	108	51	30	21	20
24	138	522	114	118	289	167	118	99	49	30	21	20
25	78	376	111	111	255	154	111	91	48	29	21	19
26	124	263	111	104	219	154	106	86	48	28	21	19
27	137	250	104	99	230	146	102	102	46	28	21	19
28	157	176	97	99	223	137	102	88	46	28	20	25
29	121	157	91	134	------	131	124	82	48	28	20	25
30	99	146	86	157	------	128	126	82	48	27	20	22
31	133	------	88	157	------	128	------	80	------	27	35	------
TOTAL	1,763	5,909	3,943	5,222	6,979	6,055	4,488	3,673	1,862	1,129	727	682
MEAN	56.9	197	127	168	249	195	150	118	62.1	36.4	23.5	22.7
MAX	157	522	197	330	781	383	370	173	84	62	35	51
MIN	24	55	86	76	159	128	102	80	46	27	20	19
CFSM	3.31	11.5	7.39	9.79	14.5	11.4	8.70	6.89	3.61	2.12	1.36	1.32
IN.	3.81	12.8	8.53	11.3	15.1	13.1	9.70	7.94	4.03	2.44	1.57	1.47
AC-FT	3,500	11,720	7,820	10,360	13,840	12,010	8,900	7,290	3,690	2,240	1,440	1,350

CAL YR 1960: TOTAL 38,482 MEAN 105 MAX 522 MIN 24 CFSM 6.11 IN 83.21 AC-FT 76,330
WAT YR 1961: TOTAL 42,432 MEAN 116 MAX 781 MIN 19 CFSM 6.76 IN 91.75 AC-FT 84,160

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1170. Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	21	76	86	162	112	64	119	125	73	44	28	33
2	20	63	74	187	108	62	112	125	87	46	28	31
3	20	71	82	400	106	60	106	127	87	43	34	31
4	20	63	147	312	106	65	123	116	91	46	51	30
5	26	57	146	260	102	77	127	108	102	51	70	28
6	32	54	114	252	98	80	270	106	91	65	53	28
7	39	49	102	284	96	80	260	98	84	51	48	28
8	30	48	86	272	95	82	181	102	78	47	53	28
9	53	51	78	233	93	75	155	114	77	47	41	28
10	111	116	71	202	93	68	136	112	73	46	39	44
11	60	111	65	181	87	65	123	104	70	44	37	44
12	69	91	62	170	85	62	116	98	67	41	40	33
13	86	82	62	155	82	62	119	96	67	44	40	35
14	57	91	59	148	112	64	123	91	64	44	37	39
15	46	74	60	138	95	68	125	89	60	43	34	34
16	41	69	67	134	87	77	116	85	59	41	33	32
17	35	63	126	125	85	82	110	84	59	43	35	30
18	33	62	93	119	89	82	106	84	54	40	39	28
19	33	57	182	110	82	80	108	80	51	40	37	28
20	30	54	255	98	78	84	104	77	50	38	35	28
21	29	62	230	91	75	78	104	75	48	37	37	28
22	33	214	198	89	82	80	100	73	47	35	34	27
23	74	124	359	91	77	80	96	87	46	34	32	27
24	44	97	512	102	72	138	104	106	44	33	30	27
25	41	80	312	129	68	193	98	114	53	33	31	26
26	65	73	216	155	64	158	98	102	57	32	33	25
27	78	71	170	152	60	141	144	95	51	31	32	28
28	76	91	199	143	64	119	129	95	47	31	46	63
29	62	84	240	129	------	114	116	87	44	30	38	52
30	54	84	230	121	------	114	112	84	43	30	34	38
31	49	------	187	116	------	116	------	78	------	30	33	------
TOTAL	1,467	2,382	4,870	5,260	2,453	2,770	3,840	3,017	1,924	1,260	1,192	981
MEAN	47.3	79.4	157	170	87.6	89.4	128	97.3	64.1	40.6	38.5	32.7
MAX	111	214	512	400	112	193	270	127	102	65	70	63
MIN	20	48	59	89	60	60	96	73	43	30	28	25
CFSM	2.75	4.62	9.13	9.86	5.09	5.20	7.44	5.66	3.73	2.36	2.24	1.90
IN.	3.17	5.15	10.5	11.4	5.30	5.99	8.30	6.52	4.16	2.72	2.58	2.12
AC-FT	2,910	4,720	9,660	10,430	4,870	5,490	7,620	5,980	3,820	2,500	2,360	1,950

CAL YR 1961: TOTAL 39,536 MEAN 108 MAX 781 MIN 19 CFSM 6.30 IN 85.49 AC-FT 78,420
WAT YR 1962: TOTAL 31,416 MEAN 86.1 MAX 512 MIN 20 CFSM 5.00 IN 67.93 AC-FT 62,310

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	34	178	230	70	168	102	123	53	65	48	33
2	32	33	175	252	143	150	96	141	68	60	46	34
3	41	33	150	276	406	136	107	127	62	57	43	31
4	34	34	141	226	244	125	219	121	62	53	41	28
5	32	46	206	193	212	119	205	141	121	51	41	28
6	38	41	276	172	172	114	240	145	89	51	40	27
7	51	37	216	155	158	108	208	136	77	54	40	27
8	97	50	187	148	138	104	172	125	77	72	39	27
9	178	53	168	138	125	100	152	121	100	75	38	25
10	136	77	150	127	116	95	145	116	87	85	37	27
11	100	100	138	112	108	98	138	108	77	77	37	26
12	80	98	127	104	102	93	129	104	77	70	43	26
13	65	80	123	106	98	89	125	100	68	65	47	36
14	59	73	138	106	95	87	127	93	65	65	40	31
15	59	68	181	112	91	84	127	95	62	95	38	28
16	53	68	162	108	98	80	119	89	59	73	37	43
17	50	67	148	102	93	77	119	84	57	70	37	34
18	48	62	134	98	119	78	132	80	53	65	38	28
19	47	204	132	93	145	98	129	75	54	62	46	28
20	44	325	121	91	138	91	129	72	53	59	57	26
21	44	226	143	87	123	89	125	70	56	57	44	25
22	47	168	138	85	112	89	152	68	56	78	40	25
23	43	132	127	84	104	87	160	67	53	65	40	27
24	41	138	116	82	98	84	145	65	56	62	43	25
25	41	280	110	78	112	85	138	64	59	60	39	24
26	41	312	104	75	190	85	132	62	53	56	39	23
27	39	199	108	73	148	91	127	60	53	53	37	22
28	38	155	181	72	148	106	119	59	54	51	35	22
29	34	143	184	64	------	123	125	56	85	50	34	21
30	35	212	320	60	------	129	125	56	73	48	32	21
31	34	------	256	68	------	114	------	54	------	50	32	------
TOTAL	1,714	3,548	5,038	3,777	3,906	3,176	4,268	2,877	2,019	1,954	1,248	828
MEAN	55.3	118	163	122	140	102	142	92.8	67.3	63.0	40.3	27.6
MAX	178	325	320	276	406	168	240	145	121	95	57	43
MIN	32	33	104	60	70	77	96	54	53	48	32	21
CFSM	3.21	6.88	9.45	7.08	8.11	5.96	8.27	5.40	3.91	3.66	2.34	1.60
IN.	3.71	7.67	10.9	8.17	8.45	6.87	9.23	6.22	4.37	4.22	2.70	1.79
AC-FT	3,400	7,040	9,990	7,490	7,750	6,300	8,470	5,710	4,000	3,880	2,480	1,640

CAL YR 1962: TOTAL 32,997 MEAN 90.4 MAX 400 MIN 25 CFSM 5.26 IN 71.35 AC-FT 65,450
WAT YR 1963: TOTAL 34,353 MEAN 94.1 MAX 406 MIN 21 CFSM 5.47 IN 74.28 AC-FT 68,140

12-1170. Taylor Creek near Selleck, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	21	57	119	328	252	125	162	116	193	93	59	65
2	21	91	106	298	212	114	148	108	172	91	57	62
3	21	70	98	216	190	112	134	104	155	89	67	56
4	23	121	95	181	193	158	134	108	181	85	73	50
5	23	102	114	175	187	160	134	119	193	82	57	47
6	22	104	134	248	172	138	129	110	184	78	53	46
7	21	138	116	199	165	125	132	110	252	75	50	50
8	21	175	108	172	155	123	134	114	226	75	47	80
9	20	138	98	165	150	116	134	136	190	73	47	62
10	19	132	93	162	152	125	143	172	172	70	46	54
11	19	108	87	148	152	127	152	160	170	65	43	50
12	21	95	84	138	141	121	145	158	160	64	43	47
13	28	87	80	134	136	110	138	150	148	62	48	46
14	25	121	82	132	132	138	141	136	145	67	43	46
15	21	104	104	158	136	152	199	132	150	77	41	43
16	20	106	162	240	145	141	165	136	226	68	40	43
17	21	170	172	216	150	170	145	145	264	64	39	112
18	25	138	152	190	165	181	134	145	316	60	41	75
19	22	160	158	187	175	155	129	155	226	59	41	77
20	34	132	199	190	158	143	125	181	187	57	39	138
21	41	116	165	165	148	134	125	216	165	65	37	102
22	178	119	168	152	141	123	148	208	150	60	35	93
23	93	148	162	141	136	114	132	178	138	56	34	80
24	77	138	150	249	134	108	125	170	129	53	33	73
25	89	165	162	1,040	125	106	123	158	123	51	35	78
26	70	240	145	380	121	106	129	155	114	50	37	68
27	56	264	148	276	114	100	125	162	112	48	41	62
28	89	196	138	240	112	100	123	168	106	47	67	59
29	75	160	127	276	114	112	125	160	98	46	56	64
30	67	136	119	260	------	136	119	165	95	47	120	115
31	57	------	129	256	------	143	------	178	------	51	85	------
TOTAL	1,340	4,031	3,974	7,312	4,463	4,016	4,131	4,613	5,140	2,028	1,554	2,043
MEAN	43.2	134	128	236	154	130	138	149	171	65.4	50.1	68.1
MAX	178	264	199	1,040	252	181	199	216	316	93	120	138
MIN	19	57	80	132	112	100	119	104	95	46	33	43
CFSM	2.51	7.81	7.45	13.7	8.95	7.53	8.01	8.65	9.96	3.80	2.91	3.96
IN.	2.90	8.72	8.59	15.8	9.65	8.68	8.93	9.97	11.1	4.38	3.36	4.42
AC-FT	2,660	8,000	7,880	14,500	8,850	7,970	8,190	9,150	10,200	4,020	3,080	4,050

CAL YR 1963: TOTAL 33,398 MEAN 91.5 MAX 406 MIN 19 CFSM 5.32 IN 72.21 AC-FT 66,240
WAT YR 1964: TOTAL 44,645 MEAN 122 MAX 1,040 MIN 19 CFSM 7.09 IN 96.53 AC-FT 88,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	106	51	545	108	306	190	93	119	66	36	24	21
2	123	57	425	114	270	175	85	110	64	36	25	21
3	108	73	289	106	246	168	82	108	63	36	26	21
4	93	108	219	98	252	162	80	112	59	36	26	20
5	78	85	178	100	274	155	78	106	56	34	26	20
6	72	75	155	96	246	150	76	102	56	34	25	20
7	67	73	143	89	229	145	74	96	55	33	24	20
8	72	67	155	89	263	143	73	96	53	33	24	20
9	73	67	148	84	235	138	76	89	52	33	24	20
10	68	64	165	82	214	136	74	89	50	36	27	20
11	62	65	143	78	199	134	71	87	53	36	25	20
12	59	62	138	77	205	129	69	89	52	33	28	20
13	59	67	138	78	298	125	74	87	48	32	30	20
14	65	60	129	96	266	121	73	83	48	32	24	34
15	82	59	121	138	249	116	74	87	48	30	23	46
16	80	59	104	187	263	114	91	112	47	30	22	34
17	80	59	93	170	298	108	82	96	46	29	22	25
18	72	57	87	155	278	104	80	87	44	29	22	23
19	67	57	89	150	274	98	182	89	44	29	24	21
20	62	56	96	158	256	96	302	98	42	30	36	21
21	59	56	104	162	235	100	232	91	41	32	24	20
22	56	62	284	145	220	106	172	85	41	29	23	20
23	54	102	280	136	199	93	148	91	41	29	28	20
24	56	404	205	123	184	89	143	83	40	28	29	20
25	56	248	170	114	178	87	129	82	40	27	24	20
26	51	199	172	183	211	85	125	78	40	26	25	19
27	48	145	155	447	263	83	125	74	40	26	23	19
28	47	114	136	987	214	85	138	73	38	25	24	19
29	47	149	125	1,370	------	93	123	71	38	25	23	19
30	59	375	119	662	------	85	125	74	37	25	22	19
31	53	------	112	420	------	85	------	69	------	24	22	------
TOTAL	2,134	3,175	5,422	7,002	6,825	3,698	3,349	2,813	1,442	953	774	662
MEAN	68.8	106	175	226	244	119	112	90.7	48.1	30.7	25.0	22.1
MAX	123	404	545	1,370	306	190	302	119	66	36	36	46
MIN	47	51	87	77	178	83	69	69	37	24	22	19
CFSM	4.00	6.15	10.2	13.1	14.2	6.94	6.49	5.28	2.79	1.79	1.45	1.28
IN.	4.61	6.87	11.7	15.1	14.8	8.00	7.24	6.08	3.12	2.06	1.67	1.43
AC-FT	4,230	6,300	10,750	13,890	13,540	7,330	6,640	5,580	2,860	1,890	1,540	1,310

CAL YR 1964: TOTAL 46,031 MEAN 126 MAX 1,040 MIN 33 CFSM 7.31 IN 99.53 AC-FT 91,300
WAT YR 1965: TOTAL 38,249 MEAN 105 MAX 1,370 MIN 19 CFSM 6.09 IN 82.70 AC-FT 75,870

12-1175. Cedar River near Landsburg, Wash.

Location.--Lat 47°23'35", long 121°57'10", on west line NW¼SW¼ sec.17, T.22 N., R.7 E., on left bank 2 miles upstream from Landsburg and intake of Seattle water-supply system, 4¾ miles east of Maple Valley, 5 miles downstream from Taylor Creek, and 12 miles downstream from Chester Morse Lake.

Drainage area (revised).--122 sq mi, includes Rock Creek drainage above Walsh Lake diversion.

Records available.--July 1895 to September 1965 (prior to October 1948, flow of Rock Creek included). Monthly discharge only for some periods, published in WSP 1316. Published as "near Seattle" 1895-98, "near Maple Valley" 1902, and as "near Ravensdale" 1898-1901, 1903-12.

Gage.--Digital water-stage recorder. Altitude of gage is 600 ft (from river-profile map). Prior to Oct. 1, 1898, staff gage at site 2¼ miles downstream at different datum. Mar. 24, 1901, to May 15, 1913, staff gage at site 2 miles downstream at datum 535.84 ft above mean sea level (levels by city of Seattle). Apr. 30, 1914, to Oct. 22, 1928, graphic water-stage recorder a quarter of a mile downstream at different datum. Oct. 23, 1928, to July 23, 1964, graphic water-stage recorder at present site and datum.

Average discharge.--70 years, 696 cfs (503,900 acre-ft per year), unadjusted.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	2,350	3.93	Sept.25, 1961	209	a 0.86
1962	Dec. 24, 1961	1,960	3.54	Oct. 4, 1961	213	.96
1963	Jan. 3, 1963	1,930	3.50	Sept.29, 30, 1963	231	.90
1964	June 18, 1964	2,340	3.97	Oct. 20, 1963	220	.87
1965	Jan. 30, 1965	4,640	5.85	Sept.17,22-26,28-30	193	.80

a Occurred Oct. 19, 1960.

1895-98, 1901-65: Maximum discharge, 14,200 cfs Nov. 19, 1911 (gage height, 10.0 ft, from graph based on gage readings, site and datum then in use), from computation of peak flow over dam; peak caused by failure of flashboards at Chester Morse Lake; minimum observed, 83 cfs Sept. 19, 1898.

Remarks.--Records excellent. All diversions except Rock Creek returned to river above station. Rock Creek (a tributary which entered naturally just above station prior to 1932), is diverted during summer months to enter river at a point about 1.8 miles downstream from Seattle municipal water-supply intake and 4 miles below station. Some regulation by Chester Morse Lake and Masonry Dam. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--Revised figures of discharge, in cubic feet per second, for the water year 1947, superseding those published in WSP 1092, are given herewith:

Jan. 23, 1947....	1,000	Jan. 25, 1947....	1,250	Jan. 27, 1947....	1,350	Jan. 29, 1947....	1,350
24..........	1,200	25..........	1,300	28..........	1,350	30..........	1,200

Month	Observed				Rock Creek diversion (acre-feet)	Adjusted	
	Maximum	Minimum	Mean	Runoff in acre-feet		Mean	Runoff in acre-feet
January 1947.................	1,350	650	963	59,190	2,620	1,005	61,810
Water year 1946-47.........	4,000	226	705	510,100	18,790	731	528,900
Calendar year 1947.........	1,720	235	730	528,700	21,060	759	549,800

12-1175. Cedar River near Landsburg, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	228	1,070	1,090	603	1,170	1,650	1,000	1,060	600	354	496	332
2	228	1,060	1,090	475	1,270	1,550	1,080	1,010	671	341	481	328
3	333	1,030	1,110	555	1,230	1,360	1,340	963	713	424	388	302
4	335	1,000	1,090	590	1,200	1,370	1,240	984	758	336	328	297
5	221	974	1,070	879	1,220	1,280	1,270	1,110	895	558	341	302
6	249	960	1,060	902	1,350	1,210	1,100	1,050	874	405	328	297
7	321	939	1,050	790	1,210	1,130	895	930	860	400	319	297
8	282	788	1,040	895	1,240	1,080	895	853	874	354	328	289
9	245	609	1,040	923	1,270	1,040	916	732	902	345	336	289
10	330	700	1,030	993	1,250	993	1,080	732	916	478	354	281
11	278	981	1,040	1,190	1,230	972	1,090	738	860	341	350	281
12	346	1,040	1,120	1,170	1,210	1,130	1,230	825	713	319	345	276
13	274	1,020	1,040	1,160	1,280	1,360	1,280	751	738	356	345	256
14	282	1,040	1,050	1,200	1,270	1,430	1,240	725	683	422	336	260
15	267	1,030	970	1,140	1,320	1,430	1,160	777	653	319	341	256
16	263	1,280	890	1,230	1,310	1,380	1,060	677	662	310	350	252
17	284	1,240	841	1,100	1,280	1,320	1,170	764	456	520	354	244
18	273	1,280	893	1,210	1,220	1,250	1,180	725	425	538	350	256
19	318	1,120	1,160	1,220	1,360	1,170	1,170	770	533	386	354	256
20	320	1,460	941	1,180	1,580	1,220	1,160	629	586	306	350	260
21	327	1,340	916	1,160	2,100	1,250	1,150	465	532	306	350	268
22	242	1,230	1,020	1,130	2,010	1,190	1,140	605	564	302	350	252
23	430	1,260	713	1,120	1,890	1,180	1,140	659	540	535	345	244
24	560	1,700	755	1,110	1,860	1,130	1,160	641	359	583	345	236
25	459	1,440	850	1,100	1,750	1,050	994	629	434	561	323	224
26	540	1,200	822	1,080	1,590	1,050	1,000	665	550	376	306	232
27	720	1,130	680	1,080	1,540	1,100	989	719	594	456	302	232
28	817	1,160	944	1,080	1,440	1,120	989	719	561	374	302	240
29	1,020	1,130	870	1,110	------	1,110	1,120	764	556	393	302	240
30	897	1,090	556	1,170	------	1,120	794	572	659	506	293	236
31	1,010	------	517	1,180	------	1,090	------	583	------	494	297	------
TOTAL	12,699	33,301	29,258	31,725	39,650	37,715	33,032	23,826	19,721	12,698	10,689	8,015
MEAN	410	1,110	944	1,023	1,416	1,217	1,101	769	657	410	345	267
MAX	1,020	1,700	1,160	1,230	2,100	1,650	1,340	1,110	916	583	496	332
MIN	221	609	517	475	1,170	972	794	465	359	302	293	224
AC-FT	25,190	66,050	58,030	62,930	78,640	74,810	65,520	47,260	39,120	25,190	21,200	15,900

CAL YR 1960: TOTAL 264,881 MEAN 724 MAX 1,700 MIN 221 AC-FT 525,400
WAT YR 1961: TOTAL 292,329 MEAN 801 MAX 2,100 MIN 221 AC-FT 579,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	232	592	679	971	1,010	484	668	1,020	369	403	345	313
2	228	778	550	1,060	1,010	390	678	932	403	403	345	313
3	224	768	554	1,420	960	398	668	970	394	365	349	309
4	224	708	727	1,340	668	458	822	888	403	345	369	305
5	228	674	792	1,260	821	631	679	869	430	421	416	301
6	240	652	860	1,100	878	464	1,010	813	475	426	381	297
7	240	542	917	1,380	837	526	1,060	750	475	369	373	294
8	232	452	848	1,480	862	495	935	683	535	361	377	290
9	244	456	624	1,590	906	445	732	701	560	353	365	290
10	368	614	578	1,470	1,010	432	656	806	457	357	357	313
11	293	714	526	1,350	840	428	701	1,010	550	349	349	321
12	332	762	426	1,240	638	422	633	810	660	345	353	294
13	368	748	436	1,140	684	423	665	800	648	349	353	294
14	410	699	416	1,080	735	478	625	873	636	345	349	309
15	525	634	467	1,050	700	422	620	962	565	341	345	301
16	520	600	410	1,040	708	542	766	855	570	337	341	294
17	485	548	508	1,040	643	458	730	602	373	337	341	286
18	510	528	674	1,030	650	456	993	555	530	337	349	282
19	465	492	688	1,000	683	406	854	525	530	337	341	278
20	297	449	848	979	542	540	589	385	480	333	337	278
21	252	452	1,040	1,000	547	556	582	365	416	333	341	278
22	281	818	974	1,000	534	483	454	365	394	329	337	271
23	385	942	1,200	986	523	546	566	390	353	325	333	267
24	361	882	1,660	1,010	642	516	572	421	349	333	329	263
25	434	914	1,300	1,030	453	938	679	439	353	369	325	256
26	550	877	1,070	1,030	514	835	775	416	466	365	333	263
27	491	654	1,080	1,070	518	879	981	398	412	349	333	267
28	501	678	1,100	1,050	506	784	860	398	398	349	345	325
29	472	655	1,160	1,040	------	720	780	390	439	408	333	305
30	488	606	1,080	1,040	------	732	1,010	381	365	341	325	286
31	514	------	988	1,020	------	664	------	373	------	341	321	------
TOTAL	11,394	19,888	25,180	35,296	20,022	16,951	22,343	20,145	13,988	11,055	10,790	8,743
MEAN	368	663	812	1,139	715	547	745	650	466	357	348	291
MAX	550	942	1,660	1,590	1,010	938	1,060	1,020	660	426	416	325
MIN	224	449	410	971	453	390	454	365	349	325	321	256
AC-FT	22,600	39,450	49,940	70,010	39,710	33,620	44,320	39,960	27,740	21,930	21,400	17,340

CAL YR 1961: TOTAL 273,533 MEAN 749 MAX 2,100 MIN 224 AC-FT 542,500
WAT YR 1962: TOTAL 215,795 MEAN 591 MAX 1,660 MIN 224 AC-FT 428,000

12-1175. Cedar River near Landsburg, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	275	290	1,020	1,440	762	1,190	1,020	909	321	325	301	253
2	271	260	988	1,630	855	1,140	820	911	333	317	294	260
3	278	278	911	1,910	1,440	1,140	660	890	329	309	286	253
4	271	317	855	1,880	1,100	1,140	918	823	325	305	282	249
5	267	373	932	1,700	1,040	1,140	960	837	426	297	282	245
6	278	466	1,160	1,520	960	1,130	960	877	369	297	278	253
7	301	416	1,130	1,380	925	1,110	904	888	349	301	278	267
8	369	345	1,130	1,260	841	1,110	820	981	345	337	275	263
9	592	329	1,140	1,170	807	1,090	855	768	394	337	282	263
10	602	345	1,140	1,080	774	1,040	834	934	373	341	294	263
11	530	403	1,110	995	827	1,070	820	869	353	333	290	267
12	505	452	1,060	960	814	981	930	788	349	321	297	260
13	349	525	1,010	930	814	755	942	786	337	313	305	275
14	475	624	1,010	900	855	667	921	873	325	313	294	278
15	505	619	1,080	870	1,000	654	962	841	317	353	282	275
16	500	619	1,090	855	1,110	619	966	588	361	325	267	286
17	475	619	1,060	834	1,080	614	966	592	403	317	260	256
18	457	608	1,020	827	1,160	624	996	580	385	317	260	249
19	452	768	988	814	1,180	648	982	570	369	313	271	245
20	457	960	925	807	1,180	642	932	390	369	309	282	242
21	452	890	925	800	1,160	636	643	365	341	305	271	242
22	462	788	918	788	1,140	630	1,120	361	309	341	263	242
23	421	672	883	781	1,020	602	1,060	357	309	321	263	242
24	357	690	855	774	974	580	1,020	353	309	317	271	242
25	353	918	820	774	1,060	660	992	345	317	313	267	301
26	345	1,140	794	774	1,210	716	977	341	309	305	267	305
27	263	918	800	768	1,130	621	893	337	309	301	263	305
28	256	967	946	762	1,110	748	917	333	305	305	260	235
29	301	932	953	748	------	953	921	337	361	309	256	231
30	345	1,080	1,260	742	------	897	898	365	341	305	256	290
31	337	------	1,380	762	------	855	------	353	------	305	253	------
TOTAL	12,101	18,611	31,293	32,235	28,328	26,402	27,609	19,542	10,342	9,807	8,550	7,837
MEAN	390	620	1,009	1,040	1,012	852	920	630	345	316	276	261
MAX	602	1,140	1,380	1,910	1,440	1,190	1,120	981	426	353	305	305
MIN	256	260	794	742	762	580	643	333	305	297	253	231
AC-FT	24,000	36,910	62,070	63,940	56,190	52,370	54,760	38,760	20,510	19,450	16,960	15,540

CAL YR 1962: TOTAL 221,338 MEAN 606 MAX 1,590 MIN 256 AC-FT 439,000
WAT YR 1963: TOTAL 232,657 MEAN 637 MAX 1,910 MIN 231 AC-FT 461,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	298	562	836	1,020	1,060	711	873	780	1,560	1,060	423	834
2	244	372	862	1,110	926	708	854	642	1,700	1,070	431	860
3	251	332	820	885	1,030	564	825	626	1,830	1,120	435	867
4	254	658	957	840	1,240	571	700	750	1,810	654	654	852
5	258	824	984	809	1,240	566	702	798	1,850	732	591	788
6	258	830	1,040	928	1,040	533	826	789	1,850	893	668	410
7	254	865	938	920	1,140	516	802	779	2,010	946	585	661
8	251	992	896	869	593	540	818	780	1,990	888	397	839
9	248	895	991	861	567	820	810	699	1,840	1,100	391	790
10	244	854	977	845	681	922	830	710	1,770	1,050	564	645
11	240	906	964	770	1,130	978	780	828	1,750	631	739	640
12	227	867	957	710	1,100	939	792	820	1,680	501	758	492
13	234	755	947	804	748	942	814	802	1,590	550	716	376
14	234	1,020	590	798	614	960	813	875	1,540	600	746	670
15	227	868	638	824	992	970	946	812	1,490	660	424	393
16	239	424	902	964	934	987	878	680	1,740	665	379	435
17	281	504	908	944	646	1,070	850	678	1,920	654	600	621
18	289	746	808	905	614	1,110	699	794	2,160	638	600	620
19	224	956	752	850	634	1,020	662	874	2,080	610	445	573
20	237	741	998	912	595	1,030	788	950	1,890	590	748	669
21	318	704	771	988	560	974	790	866	1,720	616	714	659
22	546	712	731	1,050	545	934	835	1,350	1,550	648	436	844
23	483	470	769	966	542	944	802	1,220	1,460	800	368	874
24	398	457	864	1,120	528	940	780	1,180	1,310	758	633	832
25	449	503	808	1,690	514	924	634	1,260	1,200	515	769	690
26	365	625	982	974	510	946	654	1,250	1,230	503	729	504
27	312	746	995	1,080	498	935	782	1,320	1,350	493	746	484
28	348	880	942	946	524	899	794	1,330	1,280	443	667	534
29	472	928	921	1,010	670	889	788	1,290	1,160	395	640	548
30	590	823	1,030	1,040	------	914	777	1,280	1,110	401	541	637
31	585	------	725	1,230	------	831	------	1,390	------	411	631	------
TOTAL	9,858	21,819	27,303	29,662	22,415	26,587	23,698	29,202	49,420	21,595	18,168	19,641
MEAN	318	727	881	957	773	858	790	942	1,647	697	586	655
MAX	590	1,020	1,040	1,690	1,240	1,110	946	1,390	2,160	1,120	769	874
MIN	224	332	590	710	498	516	634	626	1,110	395	368	376
AC-FT	19,550	43,280	54,150	58,830	44,460	52,730	47,000	57,920	98,020	42,830	36,040	38,960

CAL YR 1963: TOTAL 229,632 MEAN 629 MAX 1,910 MIN 224 AC-FT 455,500
WAT YR 1964: TOTAL 299,368 MEAN 818 MAX 2,160 MIN 224 AC-FT 593,800

12-1175. Cedar River near Landsburg, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	766	318	1,640	1,040	3,450	1,020	975	1,100	870	296	264	419
2	902	480	1,630	1,000	2,900	947	772	940	842	300	264	378
3	843	538	1,620	1,020	2,490	1,030	510	982	842	296	268	315
4	783	625	1,510	1,110	2,210	975	588	1,000	555	296	264	261
5	592	591	1,370	1,070	2,080	926	510	1,080	786	300	264	261
6	610	563	1,240	975	1,910	1,130	758	835	495	296	261	261
7	597	407	1,170	947	1,710	856	744	737	470	292	261	378
8	504	349	1,170	912	1,770	807	515	1,040	370	292	264	334
9	542	505	1,020	634	1,680	947	622	561	366	296	264	358
10	545	538	1,130	530	1,550	996	437	779	354	300	271	358
11	519	541	1,130	828	1,440	947	402	996	354	307	275	296
12	559	536	1,140	510	1,390	947	550	712	362	406	289	261
13	661	709	1,020	433	1,610	1,050	652	572	354	296	289	354
14	799	420	1,070	500	1,530	975	676	898	342	475	282	419
15	599	348	1,110	877	1,480	926	751	905	382	300	278	390
16	579	581	968	628	1,420	947	700	856	475	289	268	338
17	398	592	1,050	577	1,380	926	415	919	354	289	261	247
18	381	545	1,010	912	1,380	758	382	898	334	282	268	268
19	613	439	968	982	1,350	1,030	737	898	342	285	282	268
20	736	553	968	975	1,520	996	1,130	1,060	338	282	300	322
21	584	390	1,080	996	1,450	926	1,050	1,050	652	282	282	315
22	551	333	1,410	877	1,420	921	1,010	1,040	505	275	268	224
23	538	574	1,440	828	1,340	1,070	1,040	1,050	370	271	402	319
24	357	1,280	1,290	545	1,290	1,070	996	870	646	278	398	275
25	352	1,060	1,220	863	1,150	561	975	891	338	275	378	224
26	372	961	1,100	1,020	1,090	712	926	884	330	271	406	221
27	368	975	1,140	1,590	1,380	1,050	912	856	330	268	382	366
28	532	640	1,180	2,300	1,270	1,000	919	863	319	278	370	303
29	532	877	1,160	3,430	------	1,080	947	856	319	261	300	303
30	542	1,360	1,150	3,950	------	737	996	849	296	261	410	300
31	386	------	1,140	4,060	------	926	------	800	------	264	428	------
TOTAL	17,642	18,628	37,244	36,919	46,640	29,189	22,597	27,777	13,692	9,159	9,461	9,336
MEAN	569	621	1,201	1,191	1,666	942	753	896	456	295	305	311
MAX	902	1,360	1,640	4,060	3,450	1,130	1,130	1,100	870	475	428	419
MIN	352	318	968	433	1,090	561	382	561	296	261	261	221
AC-FT	34,990	36,950	73,870	73,230	92,510	57,900	44,820	55,090	27,160	18,170	18,770	18,520

CAL YR 1964: TOTAL 313,902 MEAN 858 MAX 2,160 MIN 318 AC-FT 622,600
WAT YR 1965: TOTAL 278,284 MEAN 762 MAX 4,060 MIN 221 AC-FT 552,000

12-1184. Rock Creek at State Highway 5A, near Ravensdale, Wash.

Location.--Lat 47°21'45", long 122°00'35", in NE¼SW¼ sec.26, T.22 N., R.6 E., on left bank near upstream ends of culverts on State Highway 5A, 1½ miles northeast of Ravensdale.

Drainage area.--11.2 sq mi.

Records available.--June 1956 to September 1962 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 530 ft (from topographic map).

Average discharge.--6 years, 17.3 cfs (12,520 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-62 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 26, 1961	112	2.89	Sept.26, 27, 1961	5.6	a 1.46
1962	Jan. 10, 11, 12, Apr. 4, 1962	18	2.00	Oct. 26, 1961	4.4	1.58

a Occurred Oct. 1-4, 1960.

1956-62: Maximum discharge, 114 cfs Dec. 16, 1959 (gage height, 2.89 ft); minimum, 2.7 cfs Sept. 13-15, 1958; minimum gage height, 1.07 ft Oct. 12, 14, 1956.

Remarks.--Records good. No regulation. City of Kent diverts about 1 cfs above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.9	7.0	44	21	26	97	35	26	19	11	9.1	8.4
2	5.9	7.4	42	19	27	91	35	26	18	11	9.1	7.7
3	5.9	7.0	40	19	28	84	35	27	18	11	9.1	7.7
4	5.9	7.0	38	19	29	77	35	28	18	11	9.1	7.7
5	6.2	7.0	37	20	31	71	36	29	17	11	9.1	7.4
6	6.4	7.0	35	23	34	68	35	31	18	11	9.1	7.4
7	6.4	6.7	34	24	38	63	34	31	17	11	9.1	7.4
8	6.7	6.7	32	26	40	60	34	31	16	11	9.1	7.4
9	6.4	6.7	31	27	40	57	33	31	16	10	9.1	7.0
10	6.4	7.4	30	27	41	54	32	31	16	10	8.8	7.0
11	6.4	7.7	29	27	41	52	32	30	15	10	8.8	7.0
12	6.7	7.7	29	26	40	51	32	29	14	9.9	8.8	6.7
13	6.4	7.7	28	26	41	49	32	29	14	9.8	8.4	6.7
14	6.4	8.4	27	26	42	49	32	29	14	10	8.4	6.7
15	6.2	9.1	27	26	46	49	32	28	14	10	8.4	6.7
16	6.2	10	26	27	49	48	31	28	14	10	8.4	6.7
17	6.2	11	26	29	52	46	31	26	14	10	8.4	6.7
18	6.2	13	26	29	52	44	31	26	14	10	8.4	6.7
19	6.2	13	27	29	52	43	30	25	14	9.8	8.4	6.7
20	6.2	22	27	28	56	41	29	25	14	9.8	8.4	6.7
21	6.2	27	27	28	74	40	28	24	14	9.8	8.0	6.7
22	6.2	29	25	27	103	38	28	24	14	9.4	8.0	6.4
23	6.7	37	25	26	95	38	28	23	13	9.4	8.0	6.4
24	7.0	55	24	25	94	38	27	23	13	9.4	8.0	6.4
25	7.0	78	24	24	106	38	27	22	13	9.4	8.0	6.4
26	7.4	76	24	24	110	38	26	21	13	9.4	8.0	6.2
27	7.0	64	23	23	106	38	26	21	12	9.4	8.0	6.2
28	7.0	56	23	23	99	37	25	21	12	9.4	8.0	6.4
29	7.0	49	23	23	------	36	25	20	12	9.4	8.0	6.4
30	7.0	46	21	24	------	36	26	20	12	9.4	8.0	6.4
31	7.0	------	21	24	------	35	------	19	------	9.1	8.8	------
TOTAL	200.7	697.5	895	769	1,592	1,606	922	804	447	314.3	264.3	206.3
MEAN	6.47	23.3	28.9	24.8	56.9	51.8	30.7	26.0	14.9	10.1	8.53	6.88
MAX	7.4	78	44	29	110	97	36	31	19	11	9.1	8.4
MIN	5.9	6.7	21	19	26	35	25	19	12	9.1	8.0	6.2
AC-FT	398	1,380	1,780	1,530	3,160	3,190	1,830	1,600	888	623	524	409

CAL YR 1960: TOTAL 6,990.9 MEAN 19.1 MAX 78 MIN 5.9 AC-FT 13,870
WAT YR 1961: TOTAL 8,719.6 MEAN 23.9 MAX 110 MIN 5.9 AC-FT 17,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1184. Rock Creek at State Highway 5A, near Ravensdale, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.3	5.2	5.4	11	12	10	16	13	11	9.0	7.5	6.6
2	6.0	4.8	5.4	12	12	10	16	13	11	9.0	7.5	6.3
3	6.0	4.8	5.4	13	12	10	16	13	11	9.0	7.5	6.3
4	5.4	4.8	5.4	14	11	11	16	13	12	9.0	7.5	6.3
5	5.6	4.8	5.4	14	11	11	16	13	12	9.0	7.5	6.3
6	5.4	4.8	5.4	15	11	11	16	13	12	8.7	7.5	6.3
7	5.4	5.0	5.6	16	11	11	16	13	12	8.7	7.5	6.0
8	5.4	5.0	5.6	16	11	11	16	13	12	8.7	7.2	6.0
9	5.4	5.2	5.6	17	10	12	16	13	12	8.7	7.2	6.0
10	5.4	5.4	5.6	17	10	12	16	13	11	8.7	7.2	6.3
11	5.4	5.6	5.4	17	10	12	15	13	11	8.4	7.2	6.3
12	5.4	5.4	5.2	17	10	12	15	13	11	8.4	7.2	6.3
13	5.4	5.4	5.8	17	10	12	15	13	11	8.4	6.9	6.3
14	5.6	5.4	5.8	17	11	12	14	13	11	8.4	6.9	6.3
15	5.8	5.4	5.8	16	11	12	14	13	11	8.1	6.9	6.3
16	5.6	4.8	6.0	16	11	13	14	12	11	8.1	6.9	6.3
17	5.4	4.8	7.2	16	11	13	14	12	10	8.1	6.9	6.3
18	5.1	5.0	7.8	16	11	13	14	12	10	8.1	6.9	6.3
19	5.0	5.2	8.1	16	11	13	13	12	10	8.1	6.9	6.3
20	5.0	5.2	8.4	15	11	13	13	12	10	8.1	6.9	6.3
21	5.0	5.2	8.4	15	11	13	13	12	10	7.8	6.6	6.3
22	5.0	5.6	8.1	15	11	13	13	12	10	8.1	6.6	6.3
23	5.2	5.6	8.7	15	11	13	13	12	10	8.1	6.3	6.3
24	5.0	5.4	10	14	11	13	13	11	9.8	7.8	6.3	6.0
25	5.0	5.4	11	14	11	15	13	12	9.8	7.8	6.3	6.0
26	4.8	5.4	10	14	11	15	13	12	9.8	7.8	6.3	6.0
27	4.6	5.2	10	14	11	16	13	12	9.4	7.8	6.3	6.3
28	5.0	5.2	10	13	11	16	13	11	9.4	7.8	6.3	6.6
29	5.0	5.0	11	13	------	17	13	11	9.8	7.5	6.3	6.3
30	5.0	5.4	11	13	------	17	13	11	9.8	7.5	6.3	6.3
31	5.0	------	11	12	------	17	------	11	------	7.5	6.6	------
TOTAL	164.6	155.4	231.0	467	309	407	442	392	326.8	256.2	213.9	187.8
MEAN	5.31	5.18	7.45	15.1	11.0	13.1	14.7	12.7	10.9	8.26	6.90	6.26
MAX	6.3	5.6	11	17	12	17	16	13	12	9.0	7.5	6.6
MIN	4.6	4.8	5.2	11	10	10	13	11	9.4	7.5	6.3	6.0
AC-FT	326	308	458	927	613	808	877	779	648	508	424	373

CAL YR 1961:	TOTAL 7,477.4	MEAN 20.5	MAX 110	MIN 4.6	AC-FT 14,830
WAT YR 1962:	TOTAL 3,554.2	MEAN 9.74	MAX 17	MIN 4.6	AC-FT 7,050

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1185. Rock Creek near Maple Valley, Wash.

Location.--Lat 47°22'50", long 122°01'10", in SE¼NE¼ sec.22, T.22 N., R.6 E., on left bank 650 ft upstream from mouth and 2 miles southeast of Maple Valley.

Drainage area.--12.6 sq mi (revised).

Records available.--June 1945 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 425 ft (from topographic map). Prior to Mar. 16, 1953, at site 50 ft downstream at datum 0.82 ft lower (corrected).

Average discharge.--20 years, 21.5 cfs (15,570 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 26, 1961	114	2.58	Oct. 20,21,22, 1960	5.3	a 1.45
1962	(b)	19	1.68	Nov. 1-5, 1961	3.5	1.38
1963	Jan. 5, 1963	44	1.94	Aug. 30 to Sept.19	c 1.5	-
1964	Jan. 26, 1964	113	2.55	Oct. 21, 1963	1.0	1.45
1965	Jan. 30, 1965	187	d 3.57	July 30, 31, 1965	2.3	e 1.40

a Occurred Sept. 20, 25-30, 1961.
b Mar. 29 to Apr. 1, Apr. 4, 1962.
c Minimum daily.
d Maximum gage height for year, 3.74 ft Jan. 30, 1965, backwater from debris.
e Occurred June 7, 8, 1965.

1945-65: Maximum discharge, 187 cfs Jan. 30, 1965; maximum gage height, 4.26 ft Feb. 11, 1951, site and datum then in use; minimum discharge, 1.0 cfs Oct. 21, 1963.

Revisions.--Figures of maximum discharge for the water years 1956 and 1960 have been revised to 125 cfs Dec. 12, 1955 (gage height, 2.72 ft), and 117 cfs Dec. 17, 1959 (gage height, 2.64 ft), respectively, superseding those published in WSP 1446, 1716, and 1736.

Remarks.--Records good except those for Mar. 1 to June 1, 1965, which are fair. No regulation. Small diversions above station for domestic use. Since about midyear 1965, the city of Kent has diverted an average of about 4 cfs daily for municipal use; intermittently prior to that time.

Revisions (water years).--Revised figures of discharge, in cubic feet per second, for the water years 1956 and 1960, superseding those published in WSP 1446, 1516, 1716, and 1736, are given herewith:

Dec. 12, 1955... 115
13......... 120
14......... 105
Dec. 23, 1955... 102
24......... 100
Jan. 6, 1956... 104
Jan. 7, 1956... 111
8......... 111
9......... 105
Jan. 10, 1956... 99
Dec. 16, 1959... 109
17......... 110
18......... 95

Month	Cfs-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
December 1955	2,515	120	56	81.1	6.44	7.42	4,990
Calendar year 1955	-	120	6.2	24.8	1.97	26.69	17,930
January 1956	2,466	111	57	79.5	6.31	7.28	4,890
Water year 1955-56	-	120	6.2	30.6	2.43	33.07	22,220
Calendar year 1956	-	111	5.5	24.9	1.98	26.94	18,110
December 1959	1,786	110	41	57.6	4.57	5.27	3,540
Calendar year 1959	-	110	6.7	28.1	2.23	30.23	20,310
Water year 1959-60	-	110	5.3	25.2	2.00	27.24	18,300

12-1185. Rock Creek near Maple Valley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.8	7.4	51	26	29	104	43	32	22	13	8.2	8.8
2	5.8	7.4	46	26	30	100	45	32	22	13	8.2	7.7
3	5.8	7.4	42	26	31	95	45	33	22	13	8.2	7.7
4	5.8	7.4	40	26	32	89	45	33	21	13	8.2	7.3
5	5.8	7.9	38	28	33	84	43	35	20	13	8.2	7.3
6	6.3	7.9	36	30	37	82	43	36	21	12	8.2	7.3
7	6.8	7.9	35	32	39	76	42	36	20	12	8.2	7.3
8	6.8	7.4	34	34	42	73	42	38	20	12	8.2	7.3
9	6.8	7.4	32	34	44	69	42	38	20	12	8.2	7.3
10	6.3	8.4	31	35	44	66	42	36	19	12	8.2	7.3
11	6.8	8.4	31	35	44	64	41	36	19	12	8.2	7.3
12	6.8	8.4	31	35	44	63	41	36	18	12	8.2	7.3
13	6.8	8.4	31	34	46	60	41	35	18	10	8.8	6.8
14	6.8	9.6	30	34	46	60	40	35	18	10	8.8	6.3
15	6.3	12	29	34	50	59	40	34	18	9.5	8.8	6.3
16	6.3	12	27	35	52	59	39	33	18	9.5	8.8	6.3
17	6.3	13	27	37	55	57	38	32	18	9.5	8.8	6.3
18	5.8	14	28	37	56	54	38	31	18	10	8.2	6.3
19	5.8	16	28	37	60	52	36	31	18	9.5	8.2	6.3
20	5.3	22	29	37	62	51	36	30	17	9.5	8.2	6.3
21	5.8	28	30	37	77	50	35	29	16	9.5	8.2	6.3
22	5.3	31	31	35	100	49	34	27	16	9.5	8.2	6.3
23	7.4	37	31	34	99	48	33	27	15	8.8	8.8	6.3
24	7.4	57	31	32	99	48	33	26	15	8.8	8.8	6.3
25	6.8	86	31	30	106	48	32	26	15	8.8	8.2	5.8
26	7.4	90	31	29	114	48	31	26	15	8.8	8.2	5.8
27	7.4	79	30	28	112	48	31	26	14	8.8	8.2	5.8
28	7.4	69	30	27	107	47	31	25	14	8.8	8.2	5.8
29	7.4	61	29	28	------	47	31	24	14	8.8	8.2	5.8
30	7.4	56	29	28	------	46	31	23	14	8.8	8.8	5.8
31	7.4	------	27	28	------	45	------	23	------	8.2	9.5	------
TOTAL	202.1	794.3	1,006	988	1,690	1,941	1,144	964	535	324.1	260.3	200.8
MEAN	6.52	26.5	32.5	31.9	60.4	62.6	38.1	31.1	17.8	10.5	8.40	6.69
MAX	7.4	90	51	37	114	104	45	38	22	13	9.5	8.8
MIN	5.3	7.4	27	26	29	45	31	23	14	8.2	8.2	5.8
AC-FT	401	1,580	2,000	1,960	3,350	3,850	2,270	1,910	1,060	643	516	398

CAL YR 1960: TOTAL 7,842.8 MEAN 21.4 MAX 90 MIN 5.3 AC-FT 15,560
WAT YR 1961: TOTAL 10,049.6 MEAN 27.5 MAX 114 MIN 5.3 AC-FT 19,930

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.8	4.0	8.2	14	11	13	19	15	15	12	8.2	5.8
2	5.8	3.5	8.2	15	11	13	18	15	15	11	8.2	5.8
3	5.8	3.5	8.2	15	10	13	18	15	15	11	8.2	5.8
4	5.4	3.5	8.2	15	10	13	18	15	15	11	8.2	5.8
5	5.4	3.5	8.2	16	11	14	18	15	15	11	8.2	5.8
6	5.4	4.0	8.2	17	11	14	18	15	15	11	7.7	5.8
7	5.4	4.0	7.7	17	11	14	18	14	14	10	7.7	5.8
8	5.4	4.0	7.7	18	11	14	18	14	14	10	7.7	5.8
9	5.4	4.0	7.7	17	11	14	18	14	14	10	7.7	5.8
10	5.4	4.9	7.3	17	11	14	18	14	14	10	7.7	5.8
11	5.4	4.4	7.3	17	12	15	18	14	14	10	7.3	5.8
12	5.4	4.4	6.8	17	12	15	17	14	14	9.5	7.3	5.8
13	4.9	4.4	7.3	16	12	15	17	14	14	9.5	7.3	5.8
14	4.4	4.4	7.3	16	13	15	17	14	14	9.5	7.3	5.8
15	4.4	5.8	7.7	16	13	15	17	14	13	9.5	7.3	5.8
16	4.4	5.4	7.7	16	13	16	16	14	13	9.5	7.3	6.3
17	4.4	5.4	9.5	15	13	16	16	14	13	9.5	7.3	6.3
18	4.4	6.3	10	15	13	16	16	14	13	9.5	7.3	6.3
19	4.4	6.8	11	15	13	16	16	14	13	9.5	7.3	6.3
20	4.4	6.8	11	15	13	15	16	13	12	9.5	7.3	6.3
21	4.4	6.8	9.5	15	13	15	16	13	12	9.5	6.8	6.3
22	4.4	7.7	10	15	13	15	16	13	12	9.5	6.8	6.3
23	4.9	7.7	12	15	13	15	16	14	12	9.5	6.8	6.3
24	4.9	7.7	13	13	13	15	16	13	11	9.5	6.8	6.3
25	4.4	7.3	13	13	13	16	16	14	11	9.5	6.8	6.3
26	4.4	7.3	14	13	13	17	16	14	11	8.8	6.8	6.3
27	4.4	6.8	13	13	13	18	16	14	11	8.8	6.8	6.8
28	4.4	7.3	14	12	13	18	15	14	11	8.8	6.8	6.8
29	4.4	7.3	14	12	------	19	15	14	11	8.8	6.8	6.8
30	4.4	7.7	14	12	------	19	15	14	12	8.2	6.3	6.8
31	4.0	------	14	11	------	19	------	15	------	8.2	6.3	------
TOTAL	150.7	166.6	305.7	463	339	476	504	437	393	301.6	226.3	183.5
MEAN	4.86	5.55	9.86	14.9	12.1	15.4	16.8	14.1	13.1	9.73	7.30	6.12
MAX	5.8	7.7	14	18	13	19	19	15	15	12	8.2	6.8
MIN	4.0	3.5	6.8	11	10	13	15	13	11	8.2	6.3	5.8
AC-FT	299	330	606	918	672	944	1,000	867	780	598	449	364

CAL YR 1961: TOTAL 8,670.2 MEAN 23.8 MAX 114 MIN 3.5 AC-FT 17,200
WAT YR 1962: TOTAL 3,946.4 MEAN 10.8 MAX 19 MIN 3.5 AC-FT 7,830

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1185. Rock Creek near Maple Valley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.9	7.5	35	42	22	28	27	23	16	11	8.9	1.5
2	6.9	7.5	38	43	24	28	28	23	15	11	9.6	1.5
3	6.9	6.9	36	43	32	28	28	23	15	11	8.9	1.5
4	6.3	6.9	36	43	36	28	30	23	15	11	7.5	1.5
5	6.3	6.9	36	44	40	28	31	24	15	11	8.2	1.5
6	6.3	6.9	35	43	41	28	34	24	15	9.6	8.9	1.5
7	6.3	6.6	34	42	41	28	35	24	15	9.6	8.2	1.5
8	7.2	6.9	32	41	41	27	38	24	15	11	8.9	1.5
9	8.9	7.5	32	41	41	27	39	23	15	9.6	8.9	1.5
10	8.2	8.2	30	41	40	26	38	23	13	9.6	7.5	1.5
11	7.5	8.9	29	39	40	26	36	23	13	9.6	8.9	1.5
12	8.9	8.9	28	38	38	24	35	23	13	9.6	8.9	1.5
13	11	8.9	28	37	37	24	34	22	13	9.6	8.2	1.5
14	8.9	8.9	28	34	37	24	34	22	18	9.6	8.9	1.5
15	9.6	8.9	28	34	35	24	34	21	11	8.9	7.5	1.5
16	8.9	8.9	27	32	33	24	33	21	11	9.6	6.3	1.5
17	8.2	8.9	27	31	32	23	32	20	11	9.6	6.9	1.5
18	8.2	8.9	26	29	31	22	31	20	11	8.9	7.5	1.5
19	7.5	13	26	28	29	22	30	20	11	8.9	6.9	1.5
20	7.5	15	26	28	28	21	29	20	11	8.9	6.9	2.1
21	8.2	15	26	27	28	21	29	19	11	8.2	6.9	2.1
22	8.9	15	27	27	28	20	28	19	11	6.9	6.9	2.7
23	8.2	15	27	26	27	20	28	19	11	8.2	6.9	3.3
24	7.5	15	26	25	26	20	27	18	11	8.9	6.3	3.9
25	7.5	20	26	24	27	20	27	18	11	8.9	6.3	3.9
26	7.5	24	26	24	27	20	26	18	11	8.9	6.3	3.9
27	7.5	26	25	24	26	20	25	18	11	8.9	5.7	3.9
28	7.5	28	27	23	27	20	25	17	11	8.2	3.9	3.9
29	7.5	30	28	22	------	22	24	17	11	8.9	2.1	4.5
30	7.5	34	33	22	------	24	24	17	11	8.9	1.5	5.1
31	7.5	------	38	22	------	25	------	16	------	8.9	1.5	------
TOTAL	241.7	393.0	926	1,019	914	742	919	642	382	291.4	216.7	67.8
MEAN	7.80	13.1	29.9	32.9	32.6	23.9	30.6	20.7	12.7	9.40	6.99	2.26
MAX	11	34	38	44	41	28	39	24	18	11	9.6	5.1
MIN	6.3	6.6	25	22	22	20	24	16	11	6.9	1.5	1.5
AC-FT	479	780	1,840	2,020	1,810	1,470	1,820	1,270	758	578	430	134

CAL YR 1962: TOTAL 4,884.1 MEAN 13.4 MAX 38 MIN 5.8 AC-FT 9,690
WAT YR 1963: TOTAL 6,754.6 MEAN 18.5 MAX 44 MIN 1.5 AC-FT 13,400

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.1	3.3	20	28	80	28	25	16	18	17	12	8.2
2	5.1	3.9	20	33	76	28	24	16	17	17	12	8.2
3	4.5	3.9	21	37	74	27	24	16	17	17	12	8.2
4	5.1	4.5	18	38	68	28	24	16	17	17	11	8.2
5	5.1	3.9	19	39	64	27	24	15	17	17	11	8.2
6	5.7	6.3	20	41	60	26	24	16	17	17	11	8.2
7	5.1	6.9	21	41	57	27	24	16	17	16	11	8.2
8	5.1	6.9	22	42	54	27	24	17	17	16	11	8.2
9	5.1	6.3	22	43	51	27	24	18	17	16	11	7.5
10	5.1	7.5	22	42	49	27	24	18	17	16	11	7.5
11	3.9	7.5	21	42	47	27	23	17	17	16	10	7.5
12	3.9	8.2	21	41	45	27	23	17	17	16	9.6	7.5
13	4.5	8.2	21	42	43	27	23	17	17	16	9.6	7.5
14	3.3	8.9	21	41	42	27	23	17	16	16	9.6	7.5
15	3.3	8.2	20	41	41	26	23	18	16	15	9.6	8.2
16	3.3	8.9	20	43	40	26	22	18	17	15	9.6	8.2
17	3.3	8.2	20	44	40	28	24	17	17	15	9.6	8.9
18	3.9	8.9	20	44	40	29	22	16	18	15	8.9	8.9
19	3.3	9.6	20	45	39	31	22	14	20	15	8.9	8.9
20	4.5	9.6	22	47	39	32	20	15	20	15	8.9	9.6
21	3.9	10	22	46	38	32	20	15	20	14	8.9	9.6
22	4.5	10	24	46	36	32	20	16	20	14	8.9	9.6
23	2.7	11	24	45	34	32	18	16	20	14	8.9	9.6
24	2.1	12	24	48	34	30	18	17	19	14	8.9	9.6
25	2.1	12	24	76	33	30	18	17	19	14	8.9	10
26	2.1	14	24	107	32	29	18	17	18	14	8.9	9.6
27	2.1	15	24	101	31	28	18	17	18	12	8.9	9.6
28	3.3	17	22	85	30	27	18	17	18	12	8.9	9.6
29	3.3	19	22	84	29	26	17	18	18	12	8.2	9.6
30	3.3	19	21	83	------	27	16	18	17	12	8.2	9.6
31	3.3	------	21	82	------	26	------	18	------	12	8.2	------
TOTAL	120.9	278.6	663	1,617	1,346	871	647	516	533	464	303.1	259.7
MEAN	3.90	9.25	21.4	52.2	46.4	28.1	21.6	16.6	17.8	15.0	9.78	8.66
MAX	5.7	19	24	107	80	32	25	18	20	17	12	10
MIN	2.1	3.3	18	28	29	26	16	14	16	12	8.2	7.5
AC-FT	240	553	1,320	3,210	2,670	1,730	1,280	1,020	1,060	920	601	515

CAL YR 1963: TOTAL 6,256.4 MEAN 17.1 MAX 44 MIN 1.5 AC-FT 12,410
WAT YR 1964: TOTAL 7,619.3 MEAN 20.8 MAX 107 MIN 2.1 AC-FT 15,110

12-1185. Rock Creek near Maple Valley, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.9	7.5	45	53	155	65	24	25	14	6.0	2.7	4.2
2	8.9	8.2	54	51	139	62	22	24	13	6.1	3.4	4.2
3	8.9	9.6	58	50	123	59	20	24	13	5.7	4.2	4.2
4	8.9	9.7	59	48	112	56	19	24	12	6.4	5.1	4.2
5	8.9	8.9	56	47	106	53	20	24	11	7.2	4.6	4.2
6	8.9	8.9	54	46	101	50	19	23	11	5.7	3.9	3.9
7	7.5	8.9	52	46	94	47	18	23	10	5.1	3.6	3.9
8	7.5	8.9	49	46	94	45	17	22	10	5.1	3.4	4.2
9	8.2	8.9	47	46	91	43	17	22	9.7	5.1	4.6	4.6
10	8.9	8.9	45	45	88	42	16	22	10	5.7	6.4	4.2
11	8.9	9.7	43	44	84	39	15	21	10	6.4	6.4	4.2
12	8.2	12	40	43	83	38	14	21	10	6.4	7.2	4.2
13	7.5	14	38	42	85	36	14	20	10	5.7	6.4	4.2
14	7.5	15	37	42	86	36	14	20	10	5.7	5.7	4.6
15	7.5	15	36	41	85	35	14	20	11	5.1	5.1	4.6
16	6.9	16	35	40	85	35	15	20	10	5.7	5.1	3.9
17	6.9	16	33	38	82	34	14	19	10	5.7	4.6	3.9
18	6.9	16	32	37	79	34	14	18	11	5.1	3.9	3.9
19	8.2	17	31	36	75	33	19	18	11	4.6	4.6	3.6
20	8.2	18	29	36	72	33	22	17	12	5.1	6.4	3.6
21	8.9	19	29	35	71	33	24	17	12	5.1	5.7	3.9
22	7.5	20	36	35	71	33	26	16	11	4.6	5.7	3.9
23	6.9	21	45	36	69	32	27	16	11	4.6	6.4	3.9
24	6.3	28	52	36	66	32	28	15	11	4.2	5.7	3.9
25	5.7	28	56	36	64	31	27	14	11	3.9	5.1	3.9
26	5.1	28	59	37	61	31	26	14	11	3.6	4.2	3.9
27	5.1	28	61	44	65	28	25	14	11	3.6	4.2	3.9
28	5.1	28	62	61	68	28	25	13	8.9	3.6	4.6	3.9
29	5.7	29	60	107	------	27	25	14	7.6	3.1	4.6	3.9
30	5.7	34	57	177	------	26	25	14	6.5	2.9	4.2	3.9
31	6.9	------	56	173	------	24	------	14	------	2.7	4.2	------
TOTAL	231.1	500.1	1,446	1,654	2,454	1,200	605	588	319.7	155.5	151.9	121.5
MEAN	7.45	16.7	46.6	53.4	87.6	38.7	20.2	19.0	10.7	5.02	4.90	4.05
MAX	8.9	34	62	177	155	65	28	25	14	7.2	7.2	4.6
MIN	5.1	7.5	29	35	61	24	14	13	6.5	2.7	2.7	3.6
AC-FT	458	992	2,870	3,280	4,870	2,380	1,200	1,170	634	308	301	241

CAL YR 1964: TOTAL 8,734.0 MEAN 23.9 MAX 107 MIN 5.1 AC-FT 17,320
WAT YR 1965: TOTAL 9,426.8 MEAN 25.8 MAX 177 MIN 2.7 AC-FT 18,700

12-1190. Cedar River at Renton, Wash.

Location.--Lat 47°29'00", long 122°12'10", in SW¼NW¼ sec.17, T.23 N., R.5 E., on left bank 125 ft downstream from bridge on Mill Avenue at Renton and 1½ miles upstream from mouth.

Drainage area (revised).--186 sq mi, includes 3.67 sq mi in vicinity of Youngs Lake in Big Soos basin.

Records available.--March 1901 to July 1903 (fragmentary), September 1906 to December 1907 (monthly discharge only), August 1945 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 15.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Jan. 1, 1908, staff gages within 1 mile of present site at datum 10.67 ft below mean sea level, unadjusted. Aug. 7, 1945, to Aug. 15, 1947, graphic water-stage recorder at site 700 ft upstream at datum 20.13 ft above mean sea level and Aug. 16, 1947, to Dec. 7, 1950, at datum 19.13 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Dec. 8, 1950, to Jan. 28, 1963, graphic water-stage recorder; Jan. 29 to Mar. 20, 1963, digital water-stage recorder; and Mar. 21 to Apr. 26, 1963, graphic water-stage recorder; all at present site and datum.

Average discharge.--20 years (1945-65), 711 cfs (514,700 acre-ft per year), unadjusted.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 22, 1961	3,180	6.98	Aug. 29, 1961	50	2.71
1962	Dec. 24, 1961	2,570	6.47	July 1, 1962	a 30	-
1963	Jan. 3, 1963	2,340	6.21	Aug. 10, 1963	37	2.49
1964	Jan. 25, 1964	2,960	6.67	Oct. 7, 1963	41	2.51
1965	Jan: 31, 1965	5,300	8.43	July 7, 1965	56	2.38

a Minimum daily.

1901-3, 1906-7, 1945-65: Maximum discharge not determined, probably occurred Feb. 11, 1951, during period of no gage-height record (discharge measurement of 6,640 cfs, gage height, 9.48 ft made Feb. 10, 1951); minimum daily, 30 cfs July 1, 1962.

Remarks.--Records good prior to Oct. 24, 1961, fair Oct. 24, 1961, to May 10, 1962, and excellent May 11, 1962, to Sept. 30, 1965. Flow partly regulated by Chester Morse Lake for operation of powerplant. Between 200 and 300 cfs is diverted at Landsburg most of time by the city of Seattle for municipal use. Records of chemical analyses for the water years 1961-65 and of water temperatures for the water year 1965 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1316: 1901-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	100	904	1,190	505	1,190	2,080	1,040	952	470	262	214	179
2	98	917	1,180	465	1,130	2,130	1,150	1,020	505	147	207	203
3	95	890	1,180	441	1,300	1,810	1,440	1,130	550	160	200	193
4	259	852	1,190	505	1,290	1,660	1,500	1,210	588	157	83	186
5	130	819	1,150	812	1,320	1,530	1,410	1,310	696	207	95	186
6	112	800	1,110	1,180	1,620	1,450	1,270	1,150	726	288	102	186
7	154	780	1,110	973	1,510	1,310	938	1,060	793	179	90	179
8	200	696	1,090	931	1,480	1,230	904	917	762	163	88	176
9	141	515	1,080	952	1,460	1,140	966	786	858	135	83	176
10	124	583	1,060	931	1,420	1,040	1,040	780	884	144	90	170
11	224	917	994	1,160	1,360	1,030	1,120	762	832	217	98	166
12	210	938	1,110	1,190	1,320	1,130	1,220	800	708	108	98	163
13	214	931	1,030	1,160	1,460	1,500	1,330	744	666	100	92	141
14	160	987	1,150	1,220	1,480	1,610	1,270	708	550	130	90	110
15	160	945	1,070	1,230	1,720	1,700	1,190	738	510	150	98	105
16	157	1,330	959	1,500	1,640	1,590	1,080	660	490	92	98	105
17	144	1,340	924	1,410	1,590	1,490	1,160	726	378	150	108	100
18	157	1,540	973	1,440	1,420	1,350	1,170	684	262	273	102	95
19	147	1,260	1,320	1,340	1,500	1,260	1,150	690	312	252	102	100
20	190	2,050	1,120	1,330	1,840	1,310	1,110	600	352	108	100	102
21	200	1,870	1,040	1,270	2,600	1,310	1,100	515	360	79	95	121
22	207	1,450	1,110	1,230	2,820	1,260	1,090	485	344	77	98	105
23	217	1,470	976	1,190	2,620	1,230	1,110	600	387	130	98	102
24	423	2,030	684	1,070	2,660	1,200	1,140	566	242	284	95	95
25	356	2,240	878	1,040	2,700	1,110	1,000	545	200	276	92	90
26	423	1,740	806	1,000	2,390	1,150	973	572	248	228	75	83
27	510	1,460	774	987	2,070	1,190	945	616	356	102	68	90
28	678	1,350	774	987	1,890	1,190	924	627	340	210	62	90
29	838	1,270	708	1,070	------	1,170	1,080	654	336	110	60	98
30	762	1,210	545	1,190	------	1,170	897	556	410	166	62	86
31	826	------	446	1,210	------	1,120	------	475	------	214	83	------
TOTAL	8,616	36,084	30,731	32,919	48,800	42,450	33,717	23,638	15,115	5,298	3,126	3,981
MEAN	278	1,203	991	1,062	1,743	1,369	1,124	763	504	171	101	133
MAX	838	2,240	1,320	1,500	2,820	2,130	1,500	1,310	884	288	214	203
MIN	95	515	446	441	1,130	1,030	897	475	200	77	60	83
AC-FT	17,090	71,570	60,950	65,290	96,790	84,200	66,880	46,890	29,980	10,510	6,200	7,900

CAL YR 1960: TOTAL 254,969 MEAN 697 MAX 2,240 MIN 50 AC-FT 505,700
WAT YR 1961: TOTAL 284,475 MEAN 779 MAX 2,820 MIN 60 AC-FT 564,200

12-1190. Cedar River at Renton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	90	428	550	810	846	450	654	1,010	215	30	55	118
2	88	616	485	876	846	400	654	921	230	53	58	110
3	98	660	490	1,440	804	410	726	949	250	60	64	113
4	110	605	545	1,510	744	450	834	846	254	55	88	108
5	118	588	822	1,430	762	550	642	834	262	86	215	105
6	135	556	780	1,190	882	500	970	780	302	134	204	100
7	147	470	834	1,420	816	540	1,540	780	346	146	193	100
8	147	387	810	1,540	834	500	1,330	612	342	176	212	98
9	144	352	535	1,610	894	500	858	648	410	190	197	95
10	242	455	520	1,490	1,010	450	636	672	395	173	190	108
11	224	605	450	1,350	921	450	612	907	334	167	183	176
12	210	649	368	1,240	535	450	500	744	490	143	183	173
13	256	654	278	1,140	600	450	500	708	500	143	190	170
14	245	627	338	1,060	672	470	520	768	500	143	160	183
15	364	545	298	970	702	450	540	864	440	134	100	183
16	378	500	359	900	684	500	600	834	420	131	73	173
17	352	465	535	882	589	470	654	515	306	126	75	167
18	364	432	684	846	589	450	834	420	282	105	131	157
19	352	382	666	792	702	420	828	386	386	86	173	154
20	256	374	1,010	756	744	450	490	310	258	70	193	151
21	166	382	1,210	738	678	520	480	226	200	66	197	157
22	160	648	1,000	750	756	500	410	215	160	62	193	154
23	228	1,120	1,270	744	520	520	430	219	128	58	154	148
24	288	1,000	2,130	750	726	500	485	314	98	55	118	146
25	262	864	1,590	828	636	1,000	505	450	91	62	81	140
26	369	834	1,110	864	500	900	672	515	100	86	81	140
27	364	642	870	882	520	920	914	440	134	75	113	148
28	400	606	846	900	500	800	828	290	83	64	121	234
29	378	648	900	870	------	720	750	262	55	95	183	226
30	382	515	907	870	------	684	970	242	52	88	176	180
31	410	------	834	852	------	654	------	230	------	60	131	------
TOTAL	7,727	17,609	24,024	32,300	20,012	17,028	21,366	17,911	8,023	3,122	4,485	4,415
MEAN	249	587	775	1,042	715	549	712	578	267	101	145	147
MAX	410	1,120	2,130	1,610	1,010	1,000	1,540	1,010	500	190	215	234
MIN	88	352	278	738	500	400	410	215	52	30	55	95
AC-FT	15,330	34,930	47,650	64,070	39,690	33,770	42,380	35,530	15,910	6,190	8,900	8,760

CAL YR 1961: TOTAL 258,404 MEAN 708 MAX 2,820 MIN 60 AC-FT 512,500
WAT YR 1962: TOTAL 178,022 MEAN 488 MAX 2,130 MIN 30 AC-FT 353,100

Note.--No gage-height record Feb. 26 to Mar. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	157	160	1,150	1,820	666	1,120	905	786	88	201	90	71
2	154	157	1,070	1,980	774	1,100	834	792	83	165	83	71
3	160	160	961	2,260	1,780	1,070	590	798	95	139	76	71
4	154	215	858	2,180	1,510	1,060	905	714	246	90	68	58
5	151	258	864	1,860	1,410	1,070	1,070	756	410	76	67	51
6	183	359	1,290	1,670	1,250	1,050	1,130	798	323	97	67	49
7	212	364	1,290	1,460	1,150	1,020	1,190	804	175	131	63	50
8	306	250	1,120	1,290	1,040	1,000	996	877	168	194	57	60
9	613	250	1,120	1,170	975	989	810	768	261	207	51	59
10	744	278	1,100	1,050	898	926	768	912	268	204	44	51
11	618	338	1,070	940	940	961	726	750	246	207	58	50
12	600	359	1,000	852	954	989	738	690	218	194	58	47
13	460	425	947	798	940	822	794	620	204	181	67	49
14	535	525	968	774	877	822	778	702	187	165	69	71
15	562	510	1,090	774	877	714	809	672	172	187	61	92
16	535	505	1,120	852	989	708	799	535	102	178	56	115
17	410	500	1,090	834	961	690	827	445	136	136	54	129
18	382	495	1,160	756	1,030	654	840	430	134	120	53	121
19	375	572	1,000	708	1,080	505	858	420	107	85	56	117
20	364	1,080	912	696	1,090	475	834	299	97	78	66	115
21	354	1,000	884	678	1,040	440	671	181	115	74	73	113
22	354	720	884	642	1,010	435	870	142	190	105	62	115
23	346	589	840	630	898	410	919	134	211	181	63	114
24	238	594	798	625	834	390	898	123	214	175	76	85
25	223	1,060	768	615	919	425	846	115	221	181	87	83
26	219	1,470	738	605	1,120	520	828	105	168	159	96	124
27	167	1,230	726	600	1,020	525	756	97	162	112	108	127
28	128	1,080	905	595	1,010	595	762	90	153	105	108	123
29	118	912	954	580	------	816	762	85	194	107	102	73
30	197	1,130	1,560	585	------	898	768	90	214	95	99	64
31	212	------	1,780	630	------	846	------	100	------	95	77	------
TOTAL	10,231	17,545	32,017	31,509	29,042	24,045	25,281	14,830	5,562	4,424	2,215	2,518
MEAN	330	585	1,033	1,016	1,037	776	843	478	185	143	71.5	83.9
MAX	744	1,470	1,780	2,260	1,780	1,120	1,190	912	410	207	108	129
MIN	118	157	726	580	666	390	590	85	83	74	44	47
AC-FT	20,290	34,800	63,500	62,500	57,600	47,690	50,140	29,410	11,030	8,770	4,390	4,990

CAL YR 1962: TOTAL 188,455 MEAN 516 MAX 1,780 MIN 30 AC-FT 373,800
WAT YR 1963: TOTAL 199,219 MEAN 546 MAX 2,260 MIN 44 AC-FT 395,100

12-1190. Cedar River at Renton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	99	452	759	1,280	1,380	741	934	785	1,610	974	244	587
2	98	320	850	1,670	1,190	741	928	651	1,550	974	295	753
3	57	213	798	1,160	1,190	657	869	604	1,850	995	320	785
4	57	330	928	996	1,430	587	753	741	1,810	651	408	791
5	54	806	974	908	1,420	645	778	811	1,890	446	587	723
6	54	728	1,150	1,100	1,240	587	869	804	1,900	747	490	496
7	58	816	998	1,080	1,320	554	863	785	2,110	902	511	426
8	67	1,090	960	996	811	538	863	778	2,300	717	337	747
9	86	983	1,040	1,000	669	778	850	693	2,130	981	271	729
10	87	815	998	975	675	988	869	717	1,940	954	385	699
11	87	842	968	891	1,200	1,050	824	824	1,840	651	480	446
12	82	821	947	804	1,180	1,020	817	824	1,770	354	587	501
13	87	721	926	912	981	1,020	837	811	1,680	376	554	295
14	111	1,140	639	919	639	1,030	830	869	1,610	403	587	394
15	115	1,070	610	940	1,030	1,040	974	804	1,540	480	436	446
16	107	555	834	1,170	1,070	1,060	941	675	1,820	522	225	259
17	123	525	1,000	1,170	915	1,180	908	651	2,100	565	303	628
18	147	630	878	1,170	699	1,300	741	759	2,650	549	587	699
19	143	1,050	813	1,090	729	1,180	681	824	2,530	522	299	522
20	100	788	1,070	1,230	669	1,150	778	863	2,300	496	516	663
21	216	663	919	1,170	622	1,090	791	960	2,080	511	604	741
22	547	814	806	1,250	593	1,040	876	1,310	1,790	560	490	765
23	477	500	867	1,140	571	1,050	843	1,210	1,510	599	259	876
24	298	484	887	1,320	554	1,020	798	1,150	1,370	772	341	837
25	292	522	871	2,660	527	1,000	571	1,250	1,180	385	651	753
26	299	636	1,020	1,960	511	1,020	571	1,160	1,190	354	628	543
27	176	969	1,050	1,540	496	988	693	1,300	1,300	333	645	367
28	211	948	992	1,400	490	954	741	1,290	1,230	283	699	470
29	243	926	953	1,320	645	928	791	1,230	1,110	207	451	485
30	454	748	1,050	1,330	------	954	778	1,210	1,030	203	587	593
31	457	------	830	1,650	------	960	------	1,340	------	217	538	------
TOTAL	5,489	21,905	28,385	38,201	25,446	28,850	24,360	28,683	52,720	17,683	14,315	18,019
MEAN	177	730	916	1,232	877	931	812	925	1,757	570	462	601
MAX	547	1,140	1,150	2,660	1,430	1,300	974	1,340	2,650	995	699	876
MIN	54	213	610	804	490	538	571	604	1,030	203	225	259
AC-FT	10,890	43,450	56,300	75,770	50,470	57,220	48,320	56,890	104,600	35,070	28,390	35,740

CAL YR 1963: TOTAL 195,205 MEAN 535 MAX 2,260 MIN 44 AC-FT 387,200
WAT YR 1964: TOTAL 304,056 MEAN 831 MAX 2,660 MIN 54 AC-FT 603,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	804	260	2,140	1,150	4,000	1,270	1,070	1,010	760	110	67	349
2	902	321	2,210	1,130	3,360	1,010	690	847	722	98	67	328
3	869	480	2,130	1,150	2,930	1,140	640	910	701	91	71	285
4	785	691	1,890	1,200	2,620	1,060	600	969	549	81	73	229
5	645	629	1,590	1,160	2,560	1,000	422	1,040	555	70	79	191
6	571	566	1,410	1,090	2,310	1,160	604	878	510	64	76	182
7	554	471	1,310	1,050	1,930	979	688	698	358	64	74	210
8	527	319	1,290	1,020	1,890	807	581	926	262	67	70	276
9	456	382	1,200	837	1,770	958	471	686	216	70	71	244
10	516	504	1,200	639	1,600	993	535	592	203	153	88	274
11	485	516	1,190	753	1,460	944	364	914	199	189	126	267
12	516	509	1,190	699	1,380	930	422	707	219	263	157	168
13	549	689	1,060	475	1,560	1,010	586	632	211	210	172	183
14	778	583	1,130	475	1,600	944	604	653	215	249	178	266
15	587	338	1,170	735	1,520	898	597	815	245	177	174	371
16	693	421	1,020	765	1,430	904	683	785	335	120	172	275
17	390	621	1,090	604	1,380	972	433	835	352	103	155	199
18	337	523	1,040	765	1,420	654	305	820	253	94	99	157
19	413	431	1,020	960	1,350	972	553	816	211	89	109	163
20	695	475	1,010	967	1,540	937	1,400	966	203	97	152	159
21	625	451	1,160	1,030	1,530	872	1,380	969	314	128	174	221
22	511	293	1,800	921	1,540	885	1,200	938	442	162	165	188
23	493	434	2,090	908	1,430	1,040	1,030	945	304	160	205	158
24	383	1,490	1,710	772	1,350	1,080	963	785	389	143	309	209
25	293	1,430	1,430	772	1,260	800	926	784	320	127	304	172
26	303	1,320	1,340	1,060	1,120	740	866	785	206	108	315	142
27	258	1,250	1,390	1,840	1,630	1,080	828	762	196	83	311	162
28	418	817	1,370	2,700	1,460	1,020	807	753	188	86	315	248
29	467	915	1,350	3,940	------	1,140	844	750	177	81	256	192
30	475	1,690	1,310	4,380	------	820	895	745	146	74	268	209
31	419	------	1,270	4,790	------	890	------	711	------	67	344	------
TOTAL	16,717	19,819	43,510	40,737	50,930	29,909	21,987	25,426	9,961	3,678	5,196	6,677
MEAN	539	661	1,404	1,314	1,819	965	733	820	332	119	168	223
MAX	902	1,690	2,210	4,790	4,000	1,270	1,400	1,040	760	263	344	371
MIN	258	260	1,010	475	1,120	654	305	592	146	64	67	142
AC-FT	33,160	39,310	86,300	80,800	101,000	59,320	43,610	50,430	19,760	7,300	10,310	13,240

CAL YR 1964: TOTAL 328,323 MEAN 897 MAX 2,660 MIN 203 AC-FT 651,200
WAT YR 1965: TOTAL 274,547 MEAN 752 MAX 4,790 MIN 64 AC-FT 544,600

12-1195. May Creek near Renton, Wash.

Location.--Lat 47°31'25", long 122°11'45", in SW¼SE¼ sec.32, T.24 N., R.5 E., on left bank 20 ft downstream from county road bridge, 1 mile upstream from mouth, and 2½ miles north of Renton.

Drainage area.--12.5 sq mi.

Records available.--June 1945 to October 1950, June 1955 to September 1958, October 1963 to September 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 60 ft (from topographic map). Prior to June 1955 at different datum.

Average discharge.--9 years, 21.5 cfs (15,570 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water year 1964 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (130 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Jan. 2, 1964	0030	* 342	3.35	Aug. 11, 16, 17, 23-26	3.0	a 1.10
	Jan. 25, 1964	2100	205	2.60			

a Occurred Aug. 11, 16, 17, 1964.

1945-50, 1955-58, 1963-64: Maximum discharge, 401 cfs Feb. 17, 1949 (gage height, 3.98 ft, datum then in use); minimum, 1.7 cfs for many days in 1958.

Remarks.--Records fair. Some minor diversions above station for irrigation. No regulation.

Revisions (water years).--WSP 1316: 1947(M). WSP 1736: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	5.7	30	186	66	28	19	8.4	5.1	7.6	4.0	4.0
2	3.5	7.6	26	265	54	27	17	8.9	5.1	8.0	4.2	4.0
3	3.5	6.4	23	156	48	26	16	8.9	4.8	7.6	4.8	3.8
4	4.0	7.2	21	87	42	31	18	9.4	6.8	8.0	4.8	3.6
5	4.0	7.2	25	63	36	33	25	11	7.2	7.6	4.2	3.6
6	4.5	11	51	66	31	30	21	9.4	6.4	6.0	4.0	3.6
7	4.0	14	50	63	28	27	19	8.9	9.9	5.4	3.6	3.6
8	4.0	16	52	52	26	27	18	8.0	13	5.4	3.6	4.2
9	4.0	13	59	57	25	26	17	8.0	11	5.4	3.6	4.2
10	4.0	16	49	52	24	26	18	8.4	8.9	5.1	3.4	4.0
11	4.0	14	40	43	31	26	19	7.6	8.9	5.1	3.4	3.8
12	5.0	21	34	36	26	25	17	7.6	8.4	4.8	3.4	3.6
13	8.0	33	30	38	26	21	16	7.6	7.6	4.5	3.4	3.4
14	6.0	55	28	42	25	21	15	7.2	7.6	5.4	3.4	3.4
15	4.5	58	32	42	32	20	15	6.8	7.2	7.2	3.2	3.4
16	3.8	45	38	62	33	18	14	6.8	17	7.6	3.2	3.4
17	4.0	45	40	74	32	29	14	6.4	30	6.0	3.0	14
18	4.2	38	42	78	33	40	12	5.7	59	5.4	3.8	9.4
19	4.2	55	46	81	31	36	12	5.7	66	5.4	4.0	7.2
20	5.1	63	66	102	29	35	11	6.0	50	5.4	3.6	6.8
21	7.2	50	65	89	26	34	11	6.4	35	5.7	3.4	6.2
22	12	40	61	75	25	33	15	7.2	26	5.4	3.2	5.7
23	6.8	45	61	62	23	33	14	7.2	20	5.1	3.2	5.4
24	6.8	50	52	74	22	27	12	7.2	17	4.5	3.0	5.1
25	7.6	55	55	178	20	26	11	6.8	14	4.5	3.2	5.1
26	6.0	63	48	176	18	24	11	6.4	12	4.0	3.2	5.1
27	5.4	76	46	112	17	23	11	5.7	11	3.8	3.2	4.8
28	11	63	45	81	18	21	9.9	5.4	9.9	3.6	4.8	4.8
29	8.4	49	40	75	20	19	9.9	5.4	8.9	3.6	4.0	4.8
30	6.8	38	37	68	------	18	8.9	5.1	8.0	3.6	4.5	6.4
31	6.0	------	38	65	------	17	------	4.8	------	3.8	4.2	------
TOTAL	171.8	1,060.1	1,330	2,700	867	827	446.7	224.3	501.7	170.5	114.5	150.4
MEAN	5.54	35.3	42.9	87.1	29.9	26.7	14.9	7.24	16.7	5.50	3.69	5.01
MAX	12	76	66	265	66	40	25	11	66	8.0	4.8	14
MIN	3.5	5.7	21	36	17	17	8.9	4.8	4.8	3.6	3.0	3.4
CFSM	.442	2.82	3.43	6.97	2.39	2.13	1.18	.578	1.34	.440	.295	.400
IN	.51	3.15	3.96	8.03	2.58	2.46	1.31	.67	1.49	.51	.34	.45
AC-FT	341	2,100	2,640	5,360	1,720	1,640	886	445	995	338	227	298

CAL YR 1963:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1964:	TOTAL 8,564.0	MEAN 23.4	MAX 265	MIN 3.0	CFSM 1.87	IN 25.46	AC-FT 16,990

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1196. May Creek at mouth, near Renton, Wash.

Location.--Lat 47°31'50", long 122°12'00", in NW¼ sec.32, T.24 N., R.5 E., on left bank at highway crossing, a quarter of a mile upstream from mouth and 2 miles north of Renton.

Drainage area.--12.7 sq mi.

Records available.--August 1964 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 25 ft (from topographic map). Prior to Oct. 1, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for August 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (150 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Sept.17, 1964	–	* 31	2.10	Sept.13, 15, 16, 1964	4.0	1.32
1965	Nov. 30, 1964	2330	* 295	3.62	Aug. 1, 1965	3.5	1.27
	Dec. 23, 1964	0715	170	3.13			
	Jan. 30, 1965	1145	241	3.43			

1964-65: Maximum discharge, 295 cfs Nov. 30, 1964 (gage height, 3.62 ft); minimum, 3.5 cfs Aug. 1, 1965 (gage height, 1.27 ft).

Remarks.--Records excellent. Some minor diversions for irrigation above station. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1964

DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.
1	6.1	5	4.7	9	5.0	13	4.2	17	16	21	7.3	25	6.3	29	5.5
2	5.3	6	4.7	10	4.7	14	4.3	18	11	22	6.7	26	5.7	30	7.5
3	4.8	7	4.7	11	4.5	15	4.2	19	8.5	23	6.3	27	5.5		
4	4.7	8	5.1	12	4.3	16	4.3	20	8.3	24	6.1	28	5.3		

TOTAL	181.6
MEAN	6.05
MAX	16
MIN	4.2
CFSM	.48
IN	.53
AC-FT	360

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.2	6.5	244	37	115	45	13	23	9.0	5.1	3.9	4.2
2	7.3	7.5	172	48	80	40	12	20	8.4	5.1	4.2	4.5
3	7.8	10	108	51	63	35	11	19	7.8	4.9	4.3	4.2
4	6.7	27	76	42	65	31	10	19	7.6	4.9	4.3	4.2
5	6.3	27	55	40	104	28	10	23	7.4	4.9	4.3	4.2
6	5.9	18	43	49	114	25	10	19	7.1	4.8	4.1	4.1
7	5.7	15	37	48	94	24	11	18	6.9	4.8	4.0	4.0
8	6.9	13	37	45	82	22	10	16	6.9	4.9	4.0	4.0
9	7.8	12	43	42	67	21	10	15	7.4	4.9	4.1	4.0
10	8.5	11	43	37	56	19	10	14	8.7	5.0	5.2	4.0
11	7.5	11	37	34	49	18	9.3	13	9.5	5.2	4.9	4.2
12	6.9	11	32	33	46	17	9.3	12	8.4	5.1	5.5	4.2
13	6.5	20	29	33	56	15	11	12	7.4	4.9	5.1	4.3
14	6.5	19	32	34	59	14	11	11	7.1	4.8	4.6	4.7
15	6.5	16	35	32	55	13	10	13	6.9	4.8	4.3	5.5
16	6.3	14	28	32	51	13	11	17	6.7	4.7	4.2	4.9
17	6.1	14	28	30	46	12	10	13	6.7	4.7	4.1	4.6
18	5.9	13	27	29	41	11	9.8	12	6.5	4.6	4.1	4.4
19	5.7	12	26	27	37	11	32	12	6.3	4.5	5.7	4.3
20	5.5	11	24	25	33	11	59	13	6.3	5.2	7.3	4.3
21	5.5	10	32	29	32	11	57	11	6.0	5.1	5.5	4.3
22	5.5	11	111	29	38	12	47	11	5.8	4.8	5.0	4.3
23	5.3	16	162	37	33	11	37	10	5.8	4.6	5.6	4.2
24	5.3	75	130	49	30	10	33	9.8	5.6	4.4	5.4	4.2
25	5.1	94	92	42	27	10	29	9.8	5.6	4.3	5.0	4.2
26	5.1	94	90	49	37	10	24	9.3	5.6	4.2	4.8	4.3
27	5.0	78	95	79	61	9.8	21	9.0	5.4	4.2	4.6	4.2
28	5.0	61	82	104	53	10	19	8.7	5.4	4.2	4.5	4.1
29	5.0	61	67	156	------	13	19	8.4	5.3	4.1	4.4	4.1
30	5.0	198	54	208	------	11	20	11	5.1	4.0	4.2	4.1
31	5.1	------	42	170	------	10	------	9.8	------	3.9	4.2	------
TOTAL	190.4	986.0	2,113	1,700	1,624	542.8	585.4	421.8	204.6	145.6	145.4	128.8
MEAN	6.14	32.9	68.2	54.8	58.0	17.5	19.5	13.6	6.82	4.70	4.69	4.29
MAX	8.5	198	244	208	115	45	59	23	9.5	5.2	7.3	5.5
MIN	5.0	6.5	24	25	27	9.8	9.3	8.4	5.1	3.9	3.9	4.0
CFSM	.48	2.59	5.37	4.32	4.57	1.38	1.54	1.07	.54	.37	.37	.34
IN.	.56	2.89	6.19	4.98	4.76	1.59	1.71	1.24	.60	.43	.43	.38
AC-FT	378	1,960	4,190	3,370	3,220	1,080	1,160	837	406	289	288	255

CAL YR 1964:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965:	TOTAL 8,787.8	MEAN 24.1	MAX 244	MIN 3.9	CFSM 1.90	IN 25.73	AC-FT 17,430

12-1197. Coal Creek near Bellevue, Wash.

Location.--Lat 47°34'00", long 122°10'45", in NW¼SW¼ sec.16, T.24 N., R.5 E., on left bank three-quarters of a mile upstream from mouth and 3 miles southeast of Bellevue.

Drainage area.--6.80 sq mi.

Records available.--December 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map). Prior to Aug. 7, 1964, at site 700 ft downstream at different datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs), December 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 1, 1964	1530	* 249	3.41	Jan. 19, 1964	1500	100	2.00	Nov. 30, 1964	1300	* 134	2.58
				Jan. 25, 1964	0100	241	3.20	Jan. 30, 1965	1100	104	2.33

Annual minimum discharge, December 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	July 31, Aug. 15-17, Sept. 2-15, 27-29	3	-	1965	June 24, 1965	2.3	0.47

1963-65: Maximum discharge, 249 cfs Jan. 1, 1964 (gage height, 3.41 ft, site and datum then in use), from rating curve extended above 70 cfs; minimum, 2.3 cfs June 24, 1965 (gage height, 0.47 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are fair. Some minor diversions and possible regulation above station.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			-	134	35	18	15	7.5	4.7	6.5	4.2	3.5
2			-	105	31	18	14	7.2	4.2	6.2	3.5	3.0
3			-	53	28	18	12	7.2	4.2	5.9	4.5	3.0
4			-	36	25	21	17	8.5	7.2	5.5	3.3	3.0
5			-	30	22	21	17	8.5	5.5	5.5	3.3	3.0
6			-	36	20	20	14	7.2	5.0	5.2	3.3	3.0
7			-	28	18	18	14	6.8	8.9	5.2	3.2	3.0
8			-	25	17	19	12	6.8	7.8	5.2	3.2	3.0
9			-	32	15	18	13	7.2	6.5	5.0	3.2	3.0
10			22	26	16	19	14	6.8	5.5	4.7	3.1	3.0
11			18	22	19	18	15	6.5	6.8	4.5	3.1	3.0
12			15.5	18	17	17	13	6.8	5.2	4.5	3.1	3.0
13			13.5	23	17	15	12	6.5	5.2	4.2	3.1	3.0
14			13	21	17	16	12	5.9	5.2	6.5	3.1	3.0
15			17	25	24	14	11	5.5	5.5	5.5	3.0	3.0
16			19	40	22	12	11	5.5	14	5.0	3.0	5.0
17			21	45	22	26	10	5.2	23	4.5	3.0	10
18			22	41	24	27	9.7	5.2	79	4.7	3.6	8.0
19			25	53	22	23	9.3	5.2	44	4.7	3.9	7.0
20			35	56	20	23	9.3	5.9	28	5.0	3.8	6.0
21			30	45	18	21	8.9	5.2	20	4.5	3.7	5.0
22			31	37	17	25	12	6.8	15	4.2	3.6	4.5
23			30	30	15	25	9.7	5.5	12	3.8	3.6	4.0
24			28	52	14	22	8.9	5.9	9.7	3.5	3.5	3.5
25			28	117	12	20	8.5	5.2	8.9	3.5	3.5	3.5
26			24	70	11	19	8.5	5.2	7.5	3.5	3.5	3.5
27			24	51	11	18	8.2	5.0	7.2	3.3	4.5	3.0
28			22	39	12	17	7.8	4.5	6.5	3.5	4.0	3.0
29			20	42	16	15	7.8	4.5	6.2	3.3	4.0	3.0
30			19	35	------	14	7.5	4.5	5.5	3.5	4.5	4.0
31		------	19.5	40	------	14	------	4.2	------	3.0	4.0	------
TOTAL			-	1,407	557	591	342.1	188.4	373.9	143.6	109.9	118.5
MEAN			-	45.4	19.2	19.1	11.4	6.08	12.5	4.63	3.55	3.95
MAX			-	134	35	27	17	8.5	79	6.5	4.5	10
MIN			-	18	11	12	7.5	4.2	4.2	3.0	3.0	3.0
AC-FT			-	2,790	1,100	1,170	679	374	742	285	218	235

Note.--No gage-height record Aug. 7 to Sept. 30. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1197. Coal Creek near Bellevue, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.2	5.5	91	22	41	21	8.0	12	5.9	3.9	3.9	3.0
2	3.5	4.5	53	28	33	19	6.5	11	5.5	4.1	4.1	3.0
3	4.0	9.4	35	28	28	17	6.3	10	5.5	3.9	4.2	3.0
4	3.5	17	27	23	37	16	6.3	10	5.3	3.9	4.2	3.0
5	3.0	9.2	20	25	56	14	6.5	11	5.2	3.9	4.1	3.0
6	3.0	7.1	18	28	53	13	6.5	9.8	5.2	3.8	3.9	2.9
7	3.5	6.1	16	27	40	12	6.5	9.8	5.0	3.9	3.9	2.9
8	4.1	5.3	17	24	35	11	6.3	12	5.2	4.1	3.8	2.9
9	4.5	5.2	21	22	28	10	6.5	8.8	6.1	3.9	3.8	2.9
10	5.0	5.3	20	20	27	9.5	6.1	8.5	6.9	3.9	5.4	2.9
11	4.5	5.2	18	18	23	9.2	5.9	8.0	8.4	3.9	3.6	3.0
12	4.0	5.3	16	17	24	8.8	5.7	7.8	6.3	3.8	3.9	3.0
13	3.5	11	15	17	29	8.5	7.1	7.5	5.8	3.6	3.4	3.2
14	3.5	10	18	17	29	8.0	6.1	7.1	5.0	3.6	3.2	3.5
15	3.5	8.5	16	18	27	8.0	6.1	8.7	4.9	3.6	3.5	5.0
16	4.0	7.5	13	18	25	7.8	6.7	10	4.8	3.6	3.5	3.4
17	3.5	7.0	12	18	22	7.3	5.9	8.0	4.7	3.6	3.4	3.1
18	3.5	6.5	11	16	20	7.5	6.1	7.5	4.6	3.5	3.4	2.9
19	3.0	6.0	11	15	19	8.0	24	8.5	4.5	3.5	6.9	2.9
20	3.0	5.6	12	15	17	6.9	31	7.8	4.5	5.2	5.2	3.0
21	3.1	5.3	22	17	18	7.1	27	7.1	4.4	4.4	3.2	3.1
22	3.4	6.0	79	15	19	7.3	20	6.9	4.4	4.2	3.2	3.0
23	3.2	13	63	28	17	6.9	16	6.9	4.4	4.2	4.5	3.0
24	3.4	56	44	32	15	6.5	15	6.5	4.2	4.1	3.6	3.0
25	3.4	38	33	26	14	6.5	13	6.5	4.4	4.1	3.4	2.9
26	3.5	39	44	32	23	6.7	11	6.3	4.5	4.1	3.2	3.4
27	3.4	31	47	44	31	6.3	11	6.1	4.2	3.9	3.1	3.0
28	3.4	22	36	51	24	6.9	9.8	6.1	4.2	3.9	3.0	3.0
29	3.6	36	29	81	------	7.5	11	6.5	4.2	3.9	3.0	3.0
30	3.6	109	25	87	------	6.5	12	7.8	4.1	3.9	3.0	3.0
31	3.8	------	21	60	------	6.3	------	6.7	------	3.9	2.9	------
TOTAL	111.1	502.5	903	889	774	297.0	315.9	257.2	152.3	121.8	117.4	92.9
MEAN	3.58	16.8	29.1	28.7	27.6	9.58	10.5	8.30	5.08	3.93	3.79	3.10
MAX	5.0	109	91	87	58	21	31	12	8.4	5.2	6.9	5.0
MIN	3.0	4.5	11	15	14	6.3	5.7	6.1	4.1	3.5	2.9	2.9
AC-FT	220	997	1,790	1,760	1,540	589	627	510	302	242	233	184

CAL YR 1964: TOTAL 5,348.0 MEAN 14.6 MAX 134 MIN 3.0 AC-FT 10,610
WAT YR 1965: TOTAL 4,534.1 MEAN 12.4 MAX 109 MIN 2.9 AC-FT 8,990

12-1200. Mercer Creek near Bellevue, Wash.

Location.--Lat 47°36'10", long 122°10'55", in NW¼NW¼ sec.4, T.24 N., R.5 E., on left bank 40 ft upstream from Northern Pacific Railway trestle, 1 mile southeast of Bellevue, and 1½ miles upstream from mouth.

Drainage area.--12.0 sq mi.

Records available.--June to October 1945, June 1955 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 20 ft (from topographic map). Prior to June 5, 1959, at site 600 ft downstream at different datums.

Average discharge.--10 years, 20.1 cfs (14,550 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (120 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1330	177	5.13	Nov. 25, 1962	2330	141	4.73	Nov. 24, 1964	1330	175	5.72
Nov. 24, 1960	1730	188	5.32	Nov. 30, 1962	2200	124	4.43	Nov. 30, 1964	1300	192	5.74
Jan. 15, 1961	1530	153	4.73	Feb. 3, 1963	0900	* 150	4.88	Dec. 22, 1964	-	* 193	5.75
Feb. 6, 1961	0700	180	5.19	Feb. 5, 1963	0030	124	4.43	Jan. 29, 1965	1200	130	4.68
Feb. 24, 1961	2000	* 192	5.38					Feb. 5, 1965	2330	159	5.26
				Nov. 14, 1963	1500	129	4.65	Apr. 20, 1965	0130	164	5.27
Dec. 17, 1961	1030	* 168	4.98	Jan. 1, 1964	2000	* 224	6.17				
Jan. 3, 1962	0630	143	4.56	Jan. 25, 1964	1330	140	4.87				
Jan. 6, 1962	0330	123	4.24	June 18, 1964	0630	164	5.27				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 12, 1961	2.2	1.15	1964	Aug. 24, 1964	3.6	b 1.24
1962	July 26, 1962	3.0	1.09	1965	Oct. 12, 1964, July 6, Aug. 17, 1965	3.4	c 1.20
1963	Sept. 7, 1963	3.5	a 1.24				

a Occurred June 14, 17, 1963.
b Occurred July 28, 1964.
c Occurred July 6, 1965.

1945, 1955-65: Maximum discharge, 242 cfs Dec. 20, 1955 (gage height, 5.08 ft, site and datum then in use); minimum, 1.9 cfs Aug. 6, 1958.

Remarks.--Records fair. Some small diversions for irrigation and domestic use. No regulation.

Revisions.--WSP 1446: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.4	22	27	16	51	42	24	36	11	5.0	4.4	12
2	5.4	29	23	14	63	34	31	31	8.9	4.8	4.3	7.1
3	5.5	30	27	13	44	32	33	23	8.0	4.4	4.0	5.8
4	5.8	17	27	19	43	29	25	32	8.0	4.3	4.1	5.8
5	5.6	9.8	21	93	43	28	21	53	7.3	20	4.6	9.2
6	13	6.2	19	63	145	34	20	30	12	12	4.4	8.0
7	23	5.6	17	50	69	28	18	23	12	8.3	4.2	7.0
8	11	5.4	16	56	49	25	20	22	9.2	7.1	4.1	7.0
9	4.1	5.2	14	64	49	30	26	30	9.5	5.8	4.2	6.5
10	3.6	44	13	51	40	26	20	33	9.2	5.0	4.1	6.0
11	8.2	46	26	52	34	37	18	24	11	4.6	3.8	5.5
12	26	22	70	52	32	49	31	20	8.3	4.2	3.4	5.4
13	5.5	31	39	43	76	49	33	18	7.1	3.8	3.6	4.9
14	4.3	36	47	47	46	96	32	18	5.8	3.6	3.9	4.9
15	3.8	29	32	119	89	80	20	16	5.4	3.9	4.0	5.4
16	3.6	45	25	100	76	47	19	15	5.0	3.9	5.0	5.6
17	3.8	42	28	85	70	37	17	14	4.9	4.0	4.8	5.6
18	3.6	47	54	60	44	31	17	12	4.9	4.0	4.4	5.5
19	3.6	33	49	43	46	30	18	11	4.6	4.0	4.2	5.5
20	3.6	132	32	36	42	39	17	9.5	4.9	3.9	4.0	11
21	4.6	101	27	33	68	28	22	9.2	5.2	4.1	4.1	6.9
22	6.7	70	23	30	52	29	19	10	4.8	4.2	3.9	6.7
23	29	98	21	28	37	39	17	19	4.3	4.4	3.8	6.0
24	43	152	21	27	112	37	18	13	4.3	4.6	3.9	6.2
25	16	106	21	25	97	28	16	11	4.3	4.4	4.0	6.2
26	35	60	34	23	51	31	15	14	5.0	4.2	4.2	5.6
27	21	44	26	22	44	31	14	30	5.0	4.6	4.3	5.6
28	15	35	21	24	38	24	14	17	4.9	4.8	4.0	6.7
29	15	30	19	56	------	22	27	15	4.8	4.9	3.9	7.6
30	18	27	18	87	------	20	25	14	5.2	4.6	4.2	6.9
31	21	------	18	66	------	20	------	12	------	4.6	8.0	------
TOTAL	372.7	1,360.2	855	1,497	1,650	1,112	647	634.7	204.8	166.0	131.8	198.1
MEAN	12.0	45.3	27.6	48.3	58.9	35.9	21.6	20.5	6.83	5.35	4.25	6.60
MAX	43	152	70	119	145	96	33	53	12	20	8.0	12
MIN	3.6	5.2	13	13	32	20	14	9.2	4.3	3.6	3.4	4.9
CFSM	1.00	3.78	2.30	4.02	4.91	2.99	1.80	1.71	.57	.45	.35	.55
IN.	1.16	4.22	2.65	4.64	5.11	3.45	2.01	1.97	.63	.51	.41	.61
AC-FT	739	2,700	1,700	2,970	3,270	2,210	1,280	1,260	406	329	261	393

CAL YR 1960: TOTAL 7,254.8 MEAN 19.8 MAX 152 MIN 3.6 CFSM 1.65 IN 22.48 AC-FT 14,390
WAT YR 1961: TOTAL 8,829.3 MEAN 24.2 MAX 152 MIN 3.4 CFSM 2.02 IN 27.36 AC-FT 17,510

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1200. Mercer Creek near Bellevue, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.9	12	29	19	12	16	14	15	7.3	7.8	4.6	5.0
2	6.5	10	20	34	12	17	14	13	14	8.3	5.0	5.4
3	6.2	13	19	108	12	17	13	20	11	6.0	8.0	5.4
4	6.0	9.2	23	42	11	41	21	14	12	8.9	16	4.8
5	12	8.3	21	60	11	60	18	12	16	10	17	4.8
6	20	7.6	17	101	12	37	20	11	12	28	13	4.8
7	17	7.6	22	54	15	26	17	9.8	8.3	12	17	5.0
8	11	7.3	19	36	17	24	15	12	7.8	8.9	16	5.8
9	12	16	16	30	19	30	14	16	8.0	7.8	8.6	5.2
10	28	55	15	25	23	25	13	12	7.8	7.3	6.7	12
11	18	28	13	22	21	22	12	9.5	6.9	6.5	6.2	11
12	22	16	13	22	17	18	12	9.2	6.7	6.2	6.2	6.5
13	13	14	20	22	20	17	12	8.3	9.5	6.2	5.6	14
14	8.9	13	26	22	31	16	11	7.8	7.8	6.2	5.4	13
15	7.8	12	27	21	26	16	12	8.3	6.2	6.0	5.2	7.6
16	8.9	12	37	19	22	16	9.8	7.8	5.6	5.4	5.2	6.9
17	8.9	12	141	24	18	15	7.6	7.1	5.5	4.9	5.4	5.4
18	8.0	14	61	20	16	14	7.1	7.3	5.4	4.9	5.8	5.4
19	8.3	17	58	15	15	15	6.2	8.9	5.0	4.6	5.6	5.5
20	7.8	13	55	13	14	22	7.1	7.8	4.8	4.3	5.4	6.2
21	7.3	17	64	12	13	21	6.9	6.9	4.6	4.2	5.4	6.5
22	7.3	43	36	12	14	26	6.5	7.1	4.4	4.2	5.2	6.5
23	21	28	44	12	19	24	6.0	21	4.6	4.1	5.0	6.5
24	15	19	57	13	15	36	11	24	4.4	4.0	4.4	7.1
25	16	15	36	14	13	37	8.6	29	4.6	4.0	4.8	6.7
26	33	14	28	18	11	25	9.8	17	5.6	3.9	5.5	6.9
27	23	15	24	16	11	21	34	14	9.8	3.9	5.4	10
28	14	22	27	14	12	19	19	12	5.8	4.0	6.9	29
29	10	34	28	13	------	17	14	9.8	5.4	4.1	5.5	20
30	8.9	26	24	13	------	15	13	9.5	5.0	4.6	5.0	11
31	8.0	------	20	12	------	15	------	8.0	------	4.3	4.9	------
TOTAL	400.7	530.0	1,040	858	452	720	384.6	375.1	221.8	205.5	225.9	249.9
MEAN	12.9	17.7	33.5	27.7	16.1	23.2	12.8	12.1	7.39	6.63	7.29	8.33
MAX	33	55	141	108	31	60	34	29	16	28	17	29
MIN	6.0	7.3	13	12	11	14	6.0	6.9	4.4	3.9	4.4	4.8
CFSM	1.08	1.47	2.80	2.31	1.35	1.94	1.07	1.01	.62	.55	.61	.69
IN.	1.24	1.64	3.22	2.66	1.40	2.23	1.19	1.16	.69	.64	.70	.77
AC-FT	795	1,050	2,060	1,700	897	1,430	763	744	440	408	448	496

CAL YR 1961: TOTAL 8,212.1 MEAN 22.5 MAX 145 MIN 3.4 CFSM 1.87 IN 25.45 AC-FT 16,290
WAT YR 1962: TOTAL 5,663.5 MEAN 15.5 MAX 141 MIN 3.9 CFSM 1.29 IN 17.55 AC-FT 11,230

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.7	8.0	76	49	32	22	29	14	5.8	7.0	5.9	6.6
2	9.1	7.9	54	53	46	26	21	19	9.0	6.4	5.4	6.2
3	9.3	7.7	39	55	123	19	21	13	7.4	6.1	4.8	5.6
4	7.5	14	30	33	96	17	44	12	10	5.9	5.3	5.4
5	7.4	17	28	26	83	16	34	31	20	6.8	5.4	4.8
6	11	12	27	22	49	15	43	19	10	6.0	5.6	4.7
7	17	10	21	20	38	14	43	15	8.4	13	5.6	4.4
8	31	12	19	20	30	13	35	12	8.6	13	5.2	4.8
9	53	12	18	24	24	13	31	11	13	7.9	5.2	5.0
10	24	26	16	17	21	13	21	11	8.9	7.4	5.2	6.8
11	16	34	16	16	19	13	18	9.8	7.4	7.2	4.8	6.9
12	13	27	15	14	17	13	19	9.3	8.4	6.6	5.0	6.1
13	12	31	25	14	17	12	18	8.7	7.2	6.2	5.2	6.7
14	11	20	49	16	16	13	30	8.9	6.2	6.6	5.0	6.2
15	11	16	90	20	16	12	39	9.3	5.8	7.4	4.8	6.4
16	9.3	14	52	19	18	14	18	8.0	5.6	6.2	4.6	12
17	8.9	16	34	18	17	14	18	7.7	5.4	5.9	4.4	9.5
18	9.3	13	26	16	20	12	23	7.5	5.8	5.8	4.7	6.6
19	9.1	16	24	14	27	12	28	6.9	5.6	5.9	5.2	5.9
20	9.1	29	20	13	24	12	20	6.6	6.9	5.6	5.0	5.9
21	8.2	32	25	13	18	12	18	6.1	11	5.9	5.2	5.6
22	7.9	17	22	13	16	12	16	6.2	12	13	5.4	6.4
23	7.9	14	18	13	16	12	14	6.4	8.6	7.0	6.8	8.5
24	8.0	23	16	13	15	12	14	6.6	8.2	6.9	8.2	7.0
25	8.0	106	15	13	22	13	13	6.6	8.9	6.4	8.2	6.2
26	9.8	98	14	12	43	14	13	6.4	8.0	5.8	6.6	5.9
27	8.9	56	15	12	21	20	16	6.1	8.7	5.6	5.8	5.9
28	8.0	35	18	12	19	32	13	6.1	10	5.4	5.4	5.6
29	7.9	36	38	10	------	61	17	6.2	14	5.2	5.4	5.8
30	7.7	90	94	10	------	46	14	6.2	8.2	5.0	5.3	5.8
31	8.0	------	54	20	------	47	------	6.1	------	5.8	5.6	------
TOTAL	377.0	849.6	1,008	620	903	576	701	308.7	263.0	214.9	170.2	189.2
MEAN	12.2	28.3	32.5	20.0	32.3	18.6	23.4	9.96	8.77	6.93	5.49	6.31
MAX	53	106	94	55	123	61	44	31	20	13	8.2	12
MIN	7.4	7.7	14	10	15	12	13	6.1	5.4	5.0	4.4	4.4
CFSM	1.01	2.36	2.71	1.67	2.69	1.55	1.95	.83	.73	.58	.46	.53
IN.	1.17	2.63	3.12	1.92	2.80	1.79	2.17	.96	.82	.67	.53	.59
AC-FT	748	1,690	2,000	1,230	1,790	1,140	1,390	612	522	426	338	375

CAL YR 1962: TOTAL 5,927.4 MEAN 16.2 MAX 108 MIN 3.9 CFSM 1.35 IN 18.37 AC-FT 11,760
WAT YR 1963: TOTAL 6,180.6 MEAN 16.9 MAX 123 MIN 4.4 CFSM 1.41 IN 19.15 AC-FT 12,260

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1200. Mercer Creek near Bellevue, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.6	11	17	168	50	46	18	9.9	7.2	8.5	8.6	6.5
2	5.8	21	15	104	33	28	16	9.2	7.4	7.7	7.9	6.5
3	6.2	10	14	51	28	23	14	9.2	6.7	7.0	9.7	6.0
4	7.0	11	14	38	26	29	21	13	17	6.7	8.3	5.4
5	9.5	8.4	15	33	24	29	35	28	14	6.5	6.4	5.2
6	9.3	29	40	53	21	48	18	13	11	6.0	5.7	5.4
7	7.0	36	25	39	19	26	15	11	31	5.6	5.2	6.0
8	6.9	36	40	29	18	25	14	10	19	6.7	4.9	9.7
9	7.0	19	60	52	18	27	15	11	12	6.2	5.0	7.4
10	6.7	22	40	36	18	23	15	10	9.7	5.6	4.9	6.5
11	6.7	14	30	26	30	29	19	9.3	14	5.6	4.6	5.9
12	6.6	39	25	22	22	25	15	10	10	5.0	4.6	5.6
13	19	69	20	37	29	21	13	9.9	9.5	5.0	5.4	5.9
14	11	100	20	48	23	22	13	9.0	9.3	8.5	4.8	6.5
15	7.4	78	30	44	44	18	16	8.3	9.0	9.5	4.6	5.7
16	6.9	39	50	76	35	16	13	8.3	9.0	7.0	4.4	6.2
17	7.5	37	45	75	27	59	12	7.9	52	6.7	4.3	41
18	11	25	40	56	31	54	11	7.6	115	6.4	7.4	15
19	8.0	77	37	59	22	29	11	7.2	34	6.0	6.0	10
20	15	61	70	68	19	28	11	11	20	6.2	5.0	15
21	24	34	39	46	18	26	12	9.5	14	6.9	4.9	8.8
22	50	35	36	40	16	25	22	23	12	6.2	4.8	8.1
23	13	61	58	32	16	25	13	11	10	5.9	4.6	7.5
24	20	43	38	59	17	18	11	10	9.2	5.4	4.3	7.2
25	16	51	55	116	15	18	11	9.0	8.3	5.2	5.0	7.6
26	9.3	54	32	61	14	18	11	7.9	8.1	5.4	5.6	7.2
27	7.7	46	32	48	14	22	11	7.6	8.1	5.0	5.9	6.7
28	33	28	33	36	17	16	10	6.9	7.7	4.8	20	6.9
29	15	22	23	62	23	15	9.9	6.7	9.4	4.6	8.4	7.2
30	8.9	19	21	41	------	14	9.7	6.4	10	5.4	14	16
31	7.4	------	27	58	------	14	------	6.2	------	5.6	7.4	------
TOTAL	374.4	1,135.4	1,041	1,713	687	816	435.6	317.0	513.6	192.8	202.6	264.6
MEAN	12.1	37.8	33.6	55.3	23.7	26.3	14.5	10.2	17.1	6.22	6.54	8.82
MAX	50	100	70	168	50	59	35	28	115	9.5	20	41
MIN	5.6	8.4	14	22	14	14	9.7	6.2	6.7	4.6	4.3	5.2
CFSM	1.01	3.15	2.80	4.60	1.97	2.19	1.21	.85	1.43	.52	.54	.74
IN.	1.16	3.52	3.23	5.31	2.13	2.53	1.35	.98	1.59	.60	.63	.82
AC-FT	743	2,250	2,060	3,400	1,360	1,620	864	629	1,020	382	402	525

CAL YR 1963: TOTAL 6,496.8 MEAN 17.8 MAX 123 MIN 4.4 CFSM 1.48 IN 20.13 AC-FT 12,890
WAT YR 1964: TOTAL 7,693.0 MEAN 21.0 MAX 168 MIN 4.3 CFSM 1.75 IN 23.84 AC-FT 15,260

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.3	16	110	37	44	25	24	13	8.6	5.2	6.4	5.2
2	13	12	63	84	35	22	16	12	7.7	5.6	7.2	5.4
3	9.3	18	38	68	31	20	13	12	7.7	5.2	8.3	5.4
4	7.7	75	31	46	64	18	12	13	7.0	4.8	7.9	5.4
5	6.9	24	27	45	125	17	17	28	7.0	4.9	7.9	5.4
6	6.7	11	24	61	98	16	16	14	6.7	4.8	7.0	4.8
7	6.9	9.5	26	51	54	16	16	12	6.5	5.0	6.2	4.3
8	14	8.3	28	39	45	15	15	11	6.7	6.4	6.4	4.8
9	15	10	28	33	35	15	15	10	6.7	5.9	7.0	4.8
10	13	9.7	28	28	32	15	16	10	6.5	6.2	13	4.9
11	9.2	11	23	25	27	14	12	9.5	14	6.9	6.9	5.6
12	8.2	11	17	22	29	14	11	9.3	9.5	5.6	9.2	6.0
13	8.6	52	15	23	43	13	16	9.3	7.9	5.2	7.2	6.5
14	9.0	21	28	23	52	13	13	9.9	7.7	5.4	5.7	9.5
15	9.7	12	26	21	34	13	12	14	7.2	7.4	5.2	22
16	8.4	10	15	20	28	12	20	38	7.0	6.9	4.8	10
17	8.2	10	14	18	24	12	13	14	7.0	7.4	4.6	6.7
18	7.2	8.8	14	18	21	12	11	11	6.9	7.0	4.6	5.9
19	7.2	8.4	14	18	21	12	56	13	6.5	7.0	8.2	5.4
20	7.2	7.9	15	19	19	12	91	14	6.4	11	19	5.4
21	7.5	8.1	50	26	22	13	62	10	6.4	9.0	7.2	5.6
22	7.0	11	150	25	32	22	30	9.7	5.7	8.1	5.9	5.6
23	7.2	25	97	51	21	15	23	9.7	6.0	7.7	13	5.4
24	7.4	121	63	79	18	14	25	9.3	6.2	7.4	9.7	5.2
25	7.4	57	42	41	17	14	18	9.0	6.4	7.0	7.6	5.2
26	7.4	56	68	41	39	15	16	8.8	6.5	7.0	6.4	6.4
27	7.0	46	60	82	82	14	14	8.4	6.0	7.0	5.7	6.0
28	6.7	35	41	78	34	15	14	7.9	5.9	7.0	5.6	4.8
29	6.5	40	33	107	------	20	13	8.3	5.7	7.0	5.9	5.0
30	7.0	164	29	108	------	15	13	14	5.4	6.9	5.6	4.8
31	7.4	------	28	66	------	14	------	9.9	------	6.5	5.0	------
TOTAL	263.2	908.7	1,245	1,403	1,126	477	643	382.0	211.4	204.4	230.3	187.4
MEAN	8.49	30.3	40.2	45.3	40.2	15.4	21.4	12.3	7.05	6.59	7.43	6.25
MAX	15	164	150	108	125	25	91	38	14	11	19	22
MIN	6.5	7.9	14	18	17	12	11	7.9	5.4	4.8	4.6	4.3
CFSM	.71	2.52	3.35	3.77	3.35	1.28	1.79	1.03	.59	.55	.62	.52
IN.	.82	2.82	3.86	4.35	3.49	1.48	1.99	1.18	.66	.63	.71	.58
AC-FT	522	1,800	2,470	2,780	2,230	946	1,280	758	419	405	457	372

CAL YR 1964: TOTAL 7,559.1 MEAN 20.7 MAX 168 MIN 4.3 CFSM 1.72 IN 23.43 AC-FT 14,990
WAT YR 1965: TOTAL 7,281.4 MEAN 19.9 MAX 164 MIN 4.3 CFSM 1.66 IN 22.57 AC-FT 14,440

Note.--No gage-height record Dec. 17-23.

12-1205. Juanita Creek near Kirkland, Wash.

Location.--Lat 47°42'28", long 122°12'42", in SW¼SE¼ sec.30, T.26 N., R.5 E., on right bank a quarter of a mile upstream from mouth and Lake Washington and 2 miles north of Kirkland.

Drainage area.--6.43 sq mi (revised).

Records available.--June to October 1945, September 1963 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 20 ft (from topographic map). Prior to Oct. 2, 1945, graphic water-stage recorder at site 500 ft upstream at different datum.

Extremes.--Maximum and minimum discharges for September 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	-	-	-	Sept. 9, 27, 1963	1.6	0.58
1964	Jan. 1, 1964	89	2.37	Oct. 1, 1963	1.8	.60
1965	Feb. 5, 1965	90	2.40	(a)	1.9	.61

a July 31, Aug. 1, 6-8, 15-18, 1965.

1945, 1963-65: Maximum discharge, 90 cfs Feb. 5, 1965 (gage height, 2.40 ft); minimum, 1.1 cfs Sept. 1, 1945.

Remarks.--Records excellent. Probably several small diversions above station for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1												1.9
2												2.0
3												1.9
4												1.9
5												1.9
6												1.8
7												1.8
8												1.8
9												1.8
10												1.8
11												1.8
12												1.8
13												2.1
14												1.9
15												1.8
16												2.0
17												1.9
18												1.8
19												1.8
20												1.8
21												1.8
22												1.8
23												1.9
24												1.8
25												1.8
26												1.8
27												1.7
28												1.8
29					------							1.8
30					------							1.9
31		------			------		------		------			------
TOTAL												55.4
MEAN												1.85
MAX												2.1
MIN												1.7
CFSM												.29
IN.												.32
AC-FT												110

12-1205. Juanita Creek near Kirkland, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

CAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.8	4.0	7.7	58	18	13	9.1	7.0	4.5	4.5	3.0	3.3
2	1.9	5.0	7.3	44	15	13	10	6.4	4.1	3.8	3.1	3.8
3	1.9	4.0	7.0	25	14	12	8.8	6.2	3.8	3.8	3.4	3.3
4	2.0	4.0	6.8	19	13	13	12	6.6	5.9	3.8	3.1	2.9
5	2.2	3.5	8.0	16	12	13	16	7.7	5.0	3.7	2.9	2.9
6	2.5	6.0	13	17	11	16	12	6.4	4.5	3.8	2.6	2.9
7	2.0	8.0	10	14	11	13	10	6.2	5.5	3.4	2.6	2.7
8	2.0	7.5	16	13	10	13	9.4	5.5	6.4	3.7	2.5	3.1
9	1.9	6.0	18	18	10	13	9.4	5.9	5.2	3.4	2.6	2.7
10	2.0	9.0	13	14	10	12	8.5	6.6	4.6	3.3	2.6	2.6
11	2.0	8.0	10	13	9.1	14	9.1	5.9	5.2	3.1	2.5	2.4
12	1.9	10	8.8	12	9.4	13	8.5	6.7	4.5	3.0	2.5	2.4
13	4.1	15	7.7	15	11	12	8.0	6.6	4.3	3.1	2.6	2.3
14	2.8	20	8.2	18	10	13	7.7	5.9	4.1	3.5	2.6	2.4
15	2.2	16	11	18	14	11	17	5.5	4.1	3.8	2.5	2.5
16	2.1	11	15	27	15	10	17	5.2	9.1	3.4	2.4	2.5
17	2.2	11	14	29	13	22	13	5.0	16	3.3	2.4	7.5
18	2.6	9.4	13	22	12	20	11	5.0	26	3.1	4.0	3.7
19	2.4	23	14	26	11	15	9.1	4.6	15	3.1	3.3	4.6
20	2.7	17	26	28	10	14	8.5	5.9	10	3.3	2.7	6.8
21	4.5	12	18	24	9.4	13	8.2	5.2	7.5	3.4	2.6	4.1
22	5.2	11	16	20	8.8	12	10	5.7	6.2	3.1	2.5	3.7
23	3.7	20	20	17	8.8	11	8.5	5.0	5.5	2.9	2.4	3.4
24	4.5	16	17	21	8.8	10	7.7	5.5	5.0	2.7	2.3	3.3
25	3.5	16	17	31	8.0	9.7	7.3	5.2	4.5	2.6	2.5	3.0
26	3.5	17	14	24	7.7	9.4	7.3	4.6	4.1	2.6	2.7	3.0
27	3.0	14	13	21	7.5	9.4	7.0	4.3	4.1	2.6	3.4	2.9
28	5.0	12	13	17	9.1	8.8	6.6	4.1	5.0	2.6	5.0	2.9
29	4.5	10	11	21	10	8.2	6.4	4.1	5.0	2.5	3.4	2.9
30	4.0	8.5	10	17	———	7.7	6.4	4.0	5.2	2.7	4.5	4.3
31	3.5	———	11	20	———	7.7	———	3.8	———	2.9	3.5	———
TOTAL	90.1	333.9	394.5	679	316.6	381.9	289.5	172.3	199.9	100.5	90.7	100.8
MEAN	2.91	11.1	12.7	21.9	10.9	12.3	9.65	5.56	6.66	3.24	2.93	3.36
MAX	5.2	23	26	58	18	22	17	7.7	26	4.5	5.0	7.5
MIN	1.8	3.5	6.8	12	7.5	7.7	6.4	3.8	3.8	2.5	2.3	2.3
CFSM	.45	1.73	1.98	3.41	1.70	1.92	1.50	.86	1.04	.50	.46	.52
IN.	.52	1.93	2.28	3.93	1.83	2.21	1.67	1.00	1.16	.58	.52	.58
AC-FT	179	662	782	1,350	628	757	574	342	397	199	180	200

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 3,149.7 MEAN 8.61 MAX 58 MIN 1.8 CFSM 1.34 IN 18.22 AC-FT 6,250

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

CAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.3	6.4	35	19	25	18	9.8	7.5	4.7	2.6	2.2	2.4
2	3.1	5.4	24	38	20	16	8.2	7.4	4.5	2.8	2.5	2.5
3	3.0	7.7	17	32	18	14	7.5	7.2	4.2	2.7	2.8	2.5
4	2.9	16	14	23	32	13	7.1	8.8	4.1	2.8	2.7	2.4
5	2.7	8.4	11	23	64	12	7.7	14	4.0	2.7	2.8	2.4
6	2.6	6.2	10	28	55	11	7.4	9.1	3.9	2.6	2.4	2.3
7	2.7	5.4	9.3	25	34	11	7.3	8.0	3.7	2.7	2.3	2.3
8	3.7	4.6	10	24	28	11	6.9	7.3	3.8	3.2	2.2	2.2
9	4.0	4.8	10	21	23	10	7.1	6.8	3.8	3.1	2.4	2.2
10	3.5	5.0	13	18	20	9.9	7.5	6.5	3.9	3.0	3.1	2.3
11	3.3	4.8	11	16	18	9.5	6.8	6.2	5.2	3.0	2.7	2.4
12	3.1	4.5	9.0	15	19	9.0	6.6	6.0	4.4	2.9	3.0	2.4
13	3.0	5.4	8.2	14	23	8.8	7.8	5.8	4.0	2.8	2.7	2.5
14	3.0	4.8	10	14	26	8.6	7.0	5.7	3.9	2.7	2.4	3.0
15	3.0	4.6	9.6	13	21	8.4	6.6	8.1	3.8	2.7	2.3	4.1
16	3.1	4.3	7.2	12	18	8.1	7.3	13	3.7	2.7	2.2	2.9
17	3.4	4.1	5.9	11	16	7.7	6.5	8.4	3.6	2.7	2.2	2.6
18	3.0	4.0	6.2	11	15	7.6	6.2	7.0	3.6	2.7	2.2	2.6
19	2.9	3.8	6.7	10	15	7.4	26	6.7	3.5	2.6	3.4	2.5
20	2.9	3.8	7.2	10	14	7.3	39	6.6	3.5	4.1	5.1	2.5
21	2.7	3.7	12	11	14	7.9	30	5.7	3.3	3.2	2.9	2.6
22	2.7	4.1	52	10	16	9.8	19	5.6	3.5	3.0	2.7	2.6
23	2.9	5.2	32	17	14	7.9	15	5.5	3.3	2.8	3.5	2.6
24	2.9	20	23	37	13	7.5	14	5.3	3.2	2.6	3.8	2.4
25	2.9	13	18	26	13	7.4	12	5.1	3.2	2.5	3.2	2.4
26	2.9	13	32	26	19	7.5	11	5.0	3.2	2.5	2.8	2.6
27	2.7	12	29	32	32	7.2	9.3	4.8	3.2	3.0	2.6	2.5
28	2.7	10	21	34	22	7.5	8.3	4.8	3.0	2.6	2.6	2.4
29	2.7	15	17	52	———	8.6	7.8	5.1	2.9	2.4	2.5	2.4
30	3.1	43	16	52	———	7.6	7.5	5.9	2.7	2.4	2.5	2.4
31	3.1	———	14	35	———	7.1	———	5.1	———	2.3	2.4	———
TOTAL	93.5	253.0	500.3	709	647	294.3	330.2	214.0	111.3	86.4	85.1	75.9
MEAN	3.02	8.43	16.1	22.9	23.1	9.49	11.0	6.90	3.71	2.79	2.75	2.53
MAX	4.0	43	52	52	64	18	39	14	5.2	4.1	5.1	4.1
MIN	2.6	3.7	5.9	10	13	7.1	6.2	4.8	2.7	2.3	2.2	2.2
CFSM	.47	1.31	2.51	3.56	3.59	1.48	1.71	1.07	.58	.43	.43	.39
IN.	.54	1.46	2.89	4.10	3.74	1.70	1.91	1.24	.64	.50	.49	.44
AC-FT	185	502	992	1,410	1,280	584	655	424	221	171	169	151

CAL YR 1964: TOTAL 3,178.0 MEAN 8.68 MAX 58 MIN 2.3 CFSM 1.35 IN 18.38 AC-FT 6,300
WAT YR 1965: TOTAL 3,400.0 MEAN 9.32 MAX 64 MIN 2.2 CFSM 1.45 IN 19.67 AC-FT 6,740

12-1210. Issaquah Creek near Issaquah, Wash.

Location.--Lat 47°28'55", long 122°02'10", in SW¼NW¼ sec.15, T.23 N., R.6 E., on left bank 3½ miles south of Issaquah and 4 miles upstream from East Fork Issaquah Creek.

Drainage area.--27.0 sq mi (revised).

Records available.--June 1945 to September 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 210 ft (from topographic map). Prior to Oct. 1, 1948, at datum 0.99 ft higher. Oct. 1, 1948, to July 6, 1952, at site 70 ft upstream at datum 0.41 ft lower.

Average discharge.--19 years, 69.6 cfs (50,390 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (300 cfs, revised), water years 1961-64

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	1530	602	3.06	Dec. 24, 1961	0830	* 296	2.24	Jan. 1, 1964	-	750	3.32
Nov. 24, 1960	1300	* 637	3.14					Jan. 25, 1964	1030	725	3.27
Feb. 21, 1961	1630	632	3.05	Nov. 30, 1962	1700	328	2.30				
Feb. 24, 1961	1600	468	2.65	Dec. 30, 1962	1200	324	2.23				
Mar. 1, 1961	0700	348	2.35	Feb. 3, 1963	0700	* 438	2.57				

Annual minimum discharge, water years 1961-64

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.13, 1961	14	a 0.80	1963	(c)	17	0.91
1962	Oct. 19, 1961	11	b 1.05	1964	Oct. 1-3, 1963	17	d .62

a Occurred Oct. 1, 2, 4-6, 1960.
b Occurred Oct. 4, 5, 1961.
c All or part of Aug. 29, 30, Sept. 4-10, 12, 13, 18, 26-30, 1963.
d Occurred Aug. 26, 1964.

1945-64: Maximum discharge, 2,610 cfs Feb. 9 or 10, 1951 (gage height, 6.08 ft, site and datum then in use); minimum, 9.4 cfs Aug. 21, 1958 (gage height, 0.58 ft).

Remarks.--Records good. Many small diversions for irrigation and domestic use. No regulation.

Revisions (water years).--WSP 1092: 1946. WSP 1286: 1950. WSP 1346: 1953(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	53	81	63	122	292	82	109	47	27	20	32
2	16	63	78	59	162	222	120	122	43	26	18	22
3	17	63	78	54	146	190	145	122	43	26	20	21
4	16	49	81	65	152	168	127	130	40	26	18	20
5	16	43	68	169	142	156	111	190	39	42	20	22
6	20	38	62	180	247	174	100	150	47	34	18	21
7	22	35	59	169	223	145	89	127	47	30	18	20
8	30	33	56	167	188	140	104	118	42	29	18	20
9	22	30	52	162	167	135	137	116	43	27	18	18
10	20	83	49	146	146	127	111	111	42	26	18	20
11	20	98	57	136	132	137	104	102	40	26	17	18
12	40	68	88	132	117	159	145	89	38	26	17	17
13	27	76	78	127	183	194	145	84	36	25	18	16
14	23	106	98	142	172	222	120	89	35	25	20	16
15	21	104	79	193	235	211	111	78	34	25	18	17
16	21	154	73	211	214	174	102	69	32	25	18	18
17	20	152	71	214	214	148	95	63	32	25	18	18
18	20	188	103	183	180	130	89	59	31	23	18	18
19	20	166	149	149	217	122	82	55	31	23	17	18
20	19	468	111	127	232	132	78	52	31	23	16	25
21	20	324	94	108	474	109	78	52	31	25	16	30
22	25	226	85	96	384	106	76	52	30	25	16	22
23	58	274	78	87	236	116	78	69	29	25	17	21
24	77	494	76	79	320	113	84	55	27	23	17	20
25	48	380	83	74	320	102	78	50	27	22	17	20
26	85	235	85	69	253	106	72	49	29	21	17	20
27	64	169	78	64	250	102	67	72	27	21	17	18
28	57	134	71	64	222	91	67	58	27	21	17	21
29	49	106	64	98	------	84	100	55	27	21	16	22
30	43	90	62	132	------	80	104	53	27	20	17	21
31	48	------	62	132	------	76	------	52	------	20	30	------
TOTAL	1,000	4,502	2,409	3,851	6,050	4,463	3,001	2,652	1,054	783	560	612
MEAN	32.3	150	77.7	124	216	144	100	85.5	35.1	25.3	18.1	20.4
MAX	85	494	149	214	474	292	145	190	47	42	30	32
MIN	16	30	49	54	117	76	67	49	27	20	16	16
CFSM	1.19	5.56	2.88	4.60	8.00	5.33	3.70	3.17	1.30	.94	.67	.76
IN.	1.38	6.20	3.32	5.30	8.33	6.15	4.13	3.65	1.45	1.08	.77	.84
AC-FT	1,980	8,930	4,780	7,640	12,000	8,850	5,950	5,260	2,090	1,550	1,110	1,210

CAL YR 1960: TOTAL 23,901 MEAN 65.3 MAX 494 MIN 16 CFSM 2.42 IN 32.92 AC-FT 47,410
WAT YR 1961: TOTAL 30,937 MEAN 84.8 MAX 494 MIN 16 CFSM 3.14 IN 42.61 AC-FT 61,360

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1210. Issaquah Creek near Issaquah, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	21	30	65	42	34	65	56	40	22	16	16
2	18	20	26	97	39	34	59	59	54	22	16	16
3	16	21	32	186	38	32	56	61	50	21	20	16
4	14	18	39	148	38	59	63	55	50	22	34	16
5	17	18	38	137	36	91	61	50	49	23	39	16
6	26	17	32	137	36	86	101	49	44	49	30	14
7	23	17	36	148	36	76	104	47	40	31	26	16
8	21	17	31	130	38	80	91	49	38	26	25	17
9	25	22	27	106	38	89	78	56	36	23	22	16
10	41	40	25	91	43	82	67	53	34	22	21	26
11	23	36	23	78	40	78	61	47	34	21	20	26
12	25	26	23	74	40	69	55	43	34	21	21	21
13	22	23	29	67	39	67	52	43	35	21	22	21
14	18	22	27	63	75	65	49	42	34	21	20	23
15	16	20	32	59	59	63	46	40	31	21	17	21
16	17	18	61	58	49	67	43	38	30	20	17	18
17	17	18	194	63	46	65	42	36	30	20	18	17
18	14	18	153	53	49	61	40	35	29	20	20	17
19	12	20	194	47	44	61	38	35	27	18	20	17
20	13	18	208	40	40	63	40	34	26	17	17	17
21	13	21	165	38	39	63	40	32	23	17	18	17
22	14	54	127	38	46	69	39	32	22	17	17	17
23	23	38	177	38	47	67	38	53	22	17	17	17
24	18	31	246	40	40	86	42	72	22	17	17	17
25	17	26	159	49	38	159	40	93	22	16	16	17
26	31	23	118	52	35	135	42	72	23	16	18	17
27	27	23	95	53	34	120	69	61	27	14	18	17
28	25	31	97	50	34	106	59	58	23	14	22	38
29	21	34	104	47	------	93	55	52	22	14	20	30
30	18	30	93	46	------	82	52	49	22	14	17	22
31	17	------	78	43	------	72	------	43	------	14	17	------
TOTAL	622	741	2,719	2,341	1,178	2,374	1,687	1,545	973	631	638	576
MEAN	20.1	24.7	87.7	75.5	42.1	76.6	56.2	49.8	32.4	20.4	20.6	19.2
MAX	41	54	246	186	75	159	104	93	54	49	39	38
MIN	12	17	23	38	34	32	38	32	22	14	16	14
CFSM	.74	.91	3.25	2.80	1.56	2.84	2.08	1.85	1.20	.75	.76	.71
IN.	.86	1.02	3.75	3.22	1.62	3.27	2.32	2.13	1.34	.87	.88	.79
AC-FT	1,230	1,470	5,390	4,640	2,340	4,710	3,350	3,060	1,930	1,250	1,270	1,140

CAL YR 1961: TOTAL 27,108 MEAN 74.3 MAX 474 MIN 12 CFSM 2.75 IN 37.34 AC-FT 53,770
WAT YR 1962: TOTAL 16,025 MEAN 43.9 MAX 246 MIN 12 CFSM 1.63 IN 22.07 AC-FT 31,790

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	21	22	236	228	61	100	96	62	27	36	27	20
2	20	22	225	222	98	106	83	72	29	33	23	22
3	21	21	171	214	334	90	84	67	29	30	22	19
4	21	25	135	159	239	83	188	61	33	28	21	18
5	20	32	140	135	218	76	155	84	85	27	21	18
6	26	30	150	118	172	70	180	86	49	27	21	17
7	31	26	125	102	138	65	172	76	39	33	21	17
8	65	30	106	95	115	61	138	67	40	45	21	17
9	116	35	93	93	98	58	124	61	76	38	20	17
10	67	50	80	80	86	55	111	58	59	36	20	20
11	47	80	72	65	78	56	94	55	46	35	19	20
12	39	63	65	59	70	55	90	50	42	33	20	18
13	35	55	69	59	67	52	83	50	39	29	21	22
14	31	49	97	59	62	50	88	45	36	29	20	22
15	29	47	150	74	61	49	83	44	33	32	19	20
16	27	44	137	76	70	49	78	42	32	29	19	34
17	26	44	118	67	64	48	79	40	29	27	19	23
18	25	43	104	61	81	45	84	38	28	26	19	19
19	25	91	100	56	94	49	84	36	28	27	21	19
20	23	162	86	53	90	46	90	34	28	26	22	18
21	23	122	89	52	78	45	81	32	30	26	20	18
22	26	91	82	50	72	45	81	32	32	40	19	18
23	26	72	74	49	67	45	81	32	32	29	21	18
24	25	72	65	47	62	44	76	32	30	27	18	18
25	23	232	59	47	80	44	72	32	33	27	21	18
26	25	267	56	44	108	45	67	30	29	24	20	18
27	25	186	58	43	84	55	64	29	29	23	21	18
28	23	132	120	42	83	65	61	29	30	24	19	17
29	23	122	135	39	------	122	65	29	49	23	18	17
30	22	246	292	38	------	131	64	28	41	23	18	17
31	22	------	260	52	------	117	------	28	------	26	18	------
TOTAL	978	2,513	3,749	2,578	2,930	2,021	2,896	1,461	1,142	918	629	577
MEAN	31.5	83.8	121	83.2	105	65.2	96.5	47.1	38.1	29.6	20.3	19.2
MAX	116	267	292	228	334	131	188	86	85	45	27	34
MIN	20	21	56	38	61	44	61	28	27	23	18	17
CFSM	1.17	3.10	4.48	3.08	3.88	2.41	3.58	1.75	1.41	1.10	.75	.71
IN.	1.35	3.46	5.16	3.55	4.04	2.78	3.99	2.01	1.57	1.26	.87	.79
AC-FT	1,940	4,980	7,440	5,110	5,810	4,010	5,740	2,900	2,270	1,820	1,250	1,140

CAL YR 1962: TOTAL 19,183 MEAN 52.6 MAX 292 MIN 14 CFSM 1.95 IN 26.42 AC-FT 38,050
WAT YR 1963: TOTAL 22,392 MEAN 61.3 MAX 334 MIN 17 CFSM 2.27 IN 30.84 AC-FT 44,410

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1210. Issaquah Creek near Issaquah, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	17	34	86	400	162	86	76	52	36	39	28	35
2	17	44	76	450	140	80	72	50	34	40	30	31
3	18	36	69	280	123	80	68	48	40	39	33	29
4	18	48	64	190	114	110	74	48	43	36	35	26
5	20	48	81	160	101	115	86	68	44	35	28	25
6	20	58	148	200	92	100	80	58	46	33	26	24
7	18	76	113	180	84	90	76	52	108	31	24	25
8	18	88	115	152	79	86	72	50	121	33	23	42
9	18	74	105	162	76	86	70	53	92	34	23	35
10	18	106	92	140	76	110	72	53	74	30	22	30
11	18	79	80	125	90	115	74	50	73	28	21	27
12	18	74	72	116	77	100	70	48	68	27	21	25
13	26	78	66	129	79	90	69	50	60	26	24	23
14	22	140	68	132	76	94	68	44	50	31	22	24
15	18	120	98	144	92	98	80	43	52	44	21	23
16	18	110	130	188	100	90	76	41	120	35	21	24
17	18	135	135	178	101	121	71	40	200	31	21	90
18	20	110	120	188	121	172	66	38	310	30	24	60
19	18	155	115	200	110	134	62	36	200	28	23	52
20	28	136	155	218	96	125	59	44	140	28	21	86
21	36	111	140	180	88	121	58	58	100	34	21	76
22	92	106	130	160	78	108	74	66	80	31	21	60
23	45	138	125	140	74	98	66	58	70	28	20	48
24	39	124	110	226	68	87	60	53	62	26	20	42
25	41	145	115	566	64	80	58	51	56	25	19	47
26	36	194	100	329	62	78	59	46	50	24	21	41
27	30	215	100	235	60	76	60	41	46	23	23	35
28	50	158	98	190	68	72	58	37	45	22	34	34
29	48	126	90	205	75	70	55	35	43	21	30	33
30	39	102	84	178	------	68	52	33	40	24	50	57
31	34	------	88	178	------	68	------	34	------	28	45	------
TOTAL	876	3,168	3,168	6,519	2,626	3,008	2,041	1,478	2,503	944	795	1,209
MEAN	28.3	106	102	210	90.6	97.0	68.0	47.7	83.4	30.5	25.6	40.3
MAX	92	215	155	566	162	172	86	68	310	44	50	90
MIN	17	34	64	116	60	68	52	33	34	21	19	23
CFSM	1.05	3.91	3.78	7.79	3.35	3.59	2.52	1.77	3.09	1.13	.95	1.49
IN.	1.21	4.36	4.36	8.98	3.62	4.14	2.81	2.04	3.45	1.30	1.10	1.67
AC-FT	1,740	6,280	6,280	12,930	5,210	5,970	4,050	2,930	4,960	1,870	1,580	2,400

CAL YR 1963: TOTAL 22,364 MEAN 61.3 MAX 334 MIN 17 CFSM 2.27 IN 30.80 AC-FT 44,360
WAT YR 1964: TOTAL 28,335 MEAN 77.4 MAX 566 MIN 17 CFSM 2.87 IN 39.03 AC-FT 56,200

Note.--No gage-height record Dec. 8 to Jan. 7.

12-1216. Issaquah Creek near mouth, near Issaquah, Wash.

Location.--Lat 47°33'09", long 122°02'48", in SE¼NW¼ sec.21, T.24 N., R.6 E., on right bank a quarter of a mile downstream from North Fork, 1 mile upstream from mouth, and 1½ miles northwest of Issaquah.

Drainage area.--54.7 sq mi.

Records available.--September 1963 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 40 ft (from topographic map). Prior to Apr. 30, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (800 cfs), September 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
1963	-	-	-	June 18, 1964	0500	1,050	6.83	Dec. 22, 1964	2030	873	6.51
								Jan. 29, 1965	1245	1,600	8.84
Jan. 1, 1964	2200	* 1,950	8.90	Nov. 24, 1964	1230	855	6.45				
Jan. 25, 1964	1200	1,730	8.44	Dec. 1, 1964	2315	1,330	7.67				

Annual minimum discharge, September 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	(a)	28	2.34	1965	Aug. 1, 2, 8, 9	23	2.96
1964	(b)	28	c 2.34				

a Part of each day Sept. 21, 22, 28-30, 1963.
b Part of each day Oct. 1-3, 10-13, 16, 17, 1963.
c Occurred Oct. 12, 13, 16, 1963.

1963-65: Maximum discharge, 1,950 cfs Jan. 1, 1964 (gage height, 8.90 ft); minimum, 23 cfs Aug. 1, 2, 8, 9, 1965; minimum gage height, 2.34 ft Sept. 21, 22, 29, 30, Oct. 12, 13, 16, 1963.

Remarks.--Records good. Many minor diversions for irrigation and domestic use above station. Upstream withdrawal of water for gravel-washing operations caused as much as 4 to 5 cfs variation in the normal flow, during working hours on weekdays. Records of chemical analyses for the water year 1965 are published in reports of the Geological Survey.

Discharge, in cubic feet per second, 1963

Sept. 16, 1963..	52	Sept. 19, 1963..	33	Sept. 22, 1963..	29	Sept. 25, 1963..	31	Sept. 28, 1963..	28
17........	41	20........	30	23........	33	26........	31	29........	28
18........	33	21........	29	24........	33	27........	30	30........	29

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	66	188	980	394	192	168	109	76	83	54	69
2	29	87	165	1,080	334	182	160	104	77	85	61	64
3	30	73	147	525	290	172	145	103	79	80	72	60
4	33	86	134	395	261	240	153	103	88	76	77	54
5	30	89	160	346	231	259	188	128	89	73	61	49
6	32	113	305	458	205	229	170	116	92	73	54	47
7	32	157	241	398	190	198	164	108	211	69	51	49
8	31	189	253	339	174	192	155	103	222	70	47	91
9	29	148	235	355	162	192	155	106	168	72	47	70
10	30	194	198	311	166	247	155	108	135	64	48	61
11	30	155	174	272	201	254	162	101	129	60	46	54
12	28	153	157	249	170	227	155	100	121	56	45	48
13	38	162	144	269	174	198	145	103	108	55	49	46
14	38	320	147	280	170	205	142	95	111	65	47	47
15	33	253	208	299	205	216	174	92	104	95	43	46
16	31	229	286	379	218	196	158	88	300	77	42	47
17	30	292	295	388	227	300	153	85	451	68	43	218
18	34	235	259	412	268	377	142	83	831	64	60	128
19	31	352	249	437	259	297	135	82	444	60	56	108
20	40	309	346	505	218	261	129	92	285	60	47	203
21	60	241	286	400	194	245	128	108	207	73	44	133
22	167	233	274	353	174	216	151	121	168	65	42	112
23	89	318	265	305	164	198	142	111	142	59	41	98
24	77	301	231	451	158	176	131	103	128	54	39	86
25	87	333	241	1,360	145	176	124	101	116	52	41	88
26	72	444	212	790	138	172	128	94	108	49	43	79
27	63	539	215	540	133	168	126	88	101	49	46	70
28	104	359	208	441	140	157	119	85	98	47	83	68
29	93	278	188	475	151	149	113	83	92	45	64	66
30	77	223	179	420	------	147	109	79	86	48	114	100
31	66	------	188	423	------	145	------	76	------	56	83	------
TOTAL	1,594	6,931	6,778	14,635	5,914	6,583	4,379	3,058	5,367	2,002	1,690	2,459
MEAN	51.4	231	219	472	204	212	146	98.6	179	64.6	54.5	82.0
MAX	167	539	346	1,360	394	377	188	128	831	95	114	218
MIN	28	66	134	249	133	145	109	76	76	45	39	46
CFSM	.940	4.22	4.00	8.63	3.73	3.88	2.67	1.80	3.27	1.18	.996	1.50
IN	1.08	4.71	4.61	9.95	4.02	4.48	2.98	2.08	3.65	1.36	1.15	1.67
AC-FT	3,160	13,750	13,440	29,030	11,730	13,060	8,690	6,070	10,650	3,970	3,350	4,880

CAL YR 1963: TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1964: TOTAL 61,390	MEAN 168	MAX 1,360	MIN 28	CFSM 3.07	IN 41.74	AC-FT 121,800

12-1216. Issaquah Creek near mouth, near Issaquah, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	88	68	1,170	207	531	248	102	137	70	44	24	31
2	108	83	987	258	398	227	95	123	67	43	27	32
3	108	102	563	245	321	198	87	117	64	42	29	33
4	87	288	384	209	346	175	83	123	62	42	29	31
5	74	206	299	209	550	161	85	137	59	42	29	31
6	67	154	248	227	600	146	83	126	59	41	27	32
7	62	142	216	213	450	137	87	119	59	42	25	34
8	77	123	224	209	550	130	82	112	58	43	25	34
9	85	121	254	196	350	124	83	105	59	43	25	34
10	87	115	250	181	300	119	90	98	58	48	38	35
11	73	121	216	169	277	112	82	93	64	58	33	34
12	65	115	191	157	279	107	79	90	61	39	37	35
13	62	163	175	159	470	102	90	87	58	36	37	36
14	67	139	199	176	458	96	93	85	57	34	30	44
15	79	124	189	204	410	96	88	85	57	33	28	52
16	85	117	152	245	388	93	102	105	56	32	28	48
17	71	113	135	228	363	91	100	90	56	30	27	41
18	64	110	136	206	307	87	91	83	54	30	25	37
19	59	103	136	198	268	85	223	85	52	31	33	36
20	58	98	139	200	229	85	355	91	50	34	61	34
21	56	93	134	244	221	85	325	83	52	34	38	34
22	53	95	653	215	242	100	235	79	49	31	34	34
23	52	133	666	235	198	87	185	80	48	30	38	33
24	52	624	467	259	177	82	169	82	47	28	38	32
25	58	491	348	219	165	83	144	77	48	28	36	32
26	56	508	430	303	231	87	132	74	49	29	35	33
27	53	371	455	615	385	82	117	71	47	28	33	34
28	50	282	356	902	296	87	121	68	47	27	31	32
29	50	337	295	1,350	------	114	121	68	47	27	31	32
30	56	981	253	1,240	------	93	135	87	44	27	32	32
31	56	------	221	798	------	87	------	76	------	26	32	------
TOTAL	2,118	6,520	10,601	10,476	9,760	3,606	3,864	2,936	1,658	1,102	995	1,052
MEAN	68.3	217	342	338	349	116	129	94.7	55.3	35.5	32.1	35.1
MAX	108	981	1,170	1,350	600	248	355	137	70	58	61	52
MIN	50	68	135	157	165	82	79	68	44	26	24	31
CFSM	1.25	3.97	6.25	6.18	6.38	2.12	2.36	1.73	1.01	.649	.587	.642
IN	1.44	4.43	7.21	7.12	6.64	2.45	2.63	2.00	1.13	.75	.68	.72
AC-FT	4,200	12,930	21,030	20,780	19,360	7,150	7,660	5,820	3,290	2,190	1,970	2,090

CAL YR 1964: TOTAL 65,326 MEAN 178 MAX 1,360 MIN 39 CFSM 3.25 IN 44.41 AC-FT 129,600
WAT YR 1965: TOTAL 54,688 MEAN 150 MAX 1,350 MIN 24 CFSM 2.74 IN 37.18 AC-FT 108,500

12-1217. Tibbetts Creek near Issaquah, Wash.

Location.--Lat 47°32'30", long 122°03'45", in SW¼NE¼ sec.29, T.24 N., R.6 E., on right bank just upstream from old highway bridge, 1¼ miles upstream from mouth and 1½ miles northwest of Issaquah.

Drainage area.--3.90 sq mi.

Records available.--August 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 75 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs), August 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
1963	-	-	-	Jan. 25, 1964	0900	139	5.45				
Jan. 1, 1964	1900	* 171	5.64	Nov. 30, 1964	-	* 105	5.37				
Jan. 19, 1964	1630	113	5.16								

Annual minimum discharge, August 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Aug. 18, Sept. 9	0.10	3.03	1965	July 24-26, 28-31, Aug. 1,6-9,17,18	0.10	-
1964	Oct. 1-4,7,8,11, 12, 1963	.20	a 3.07				

a Occurred Oct. 1, 1963.

1963-65: Maximum discharge, 171 cfs Jan. 1, 1964 (gage height, 5.64 ft), from rating table extended above 50 cfs; minimum, 0.10 cfs Aug. 18, Sept. 9, 1963, several days in 1965.

Remarks.--Records fair. Several small diversions for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	.40
2											-	.40
3											-	.30
4											-	.20
5											-	.20
6											-	.20
7											-	.20
8											-	.20
9											-	.20
10											-	.20
11											-	.20
12											-	.20
13											-	.30
14											.30	.20
15											.20	.30
16											.20	.50
17											.20	.40
18											.20	.30
19											.20	.20
20											.20	.20
21											.30	.20
22											.30	.20
23											.30	.30
24											.40	.30
25											.30	.30
26											.30	.30
27											.20	.20
28											.20	.20
29					------						.20	.20
30					------						.30	.20
31		------			------		------		------		.30	------
TOTAL											-	7.70
MEAN											-	.26
MAX											-	.50
MIN											-	.20
CFSM											-	.07
IN.											-	.07
AC-FT											-	15

12-1217. Tibbetts Creek near Issaquah, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.20	1.9	11	73	22	9.4	11	3.4	1.4	2.1	.70	1.0
2	.20	2.8	9.1	76	19	11	8.8	3.3	1.3	2.1	.80	.80
3	.20	2.3	7.8	33	17	11	8.6	3.1	1.2	1.7	1.3	.80
4	.40	2.6	6.8	22	15	14	11	3.1	1.9	1.6	1.3	.70
5	.30	2.5	8.8	19	14	14	8.8	3.7	1.9	1.6	.90	.70
6	.30	4.5	19	24	12	14	8.3	3.1	1.7	1.4	.80	.60
7	.30	7.0	16	21	10	13	7.8	3.0	3.7	1.4	.60	.70
8	.30	8.1	20	18	9.1	12	8.3	2.9	4.0	1.4	.60	1.2
9	.30	6.1	17	22	8.3	12	10	3.0	3.4	1.4	.60	.80
10	.30	8.3	14	20	8.3	14	13	2.9	2.9	1.0	.50	.70
11	.30	6.8	12	17	11	14	8.1	2.8	3.0	.80	.50	.60
12	.20	8.6	9.4	15	8.6	13	6.5	2.8	2.8	.80	.50	.50
13	.60	14	8.1	17	8.6	12	5.9	2.5	2.5	.80	.70	.50
14	.90	26	8.1	15	9.1	12	7.2	2.3	2.4	1.2	.60	.50
15	.40	17	7.5	20	13	11	11	2.2	2.3	2.5	.50	.50
16	.30	15	15	29	13	10	5.9	2.1	7.3	1.9	.40	.50
17	.40	25	16	44	13	17	5.7	2.0	16	1.3	.40	5.7
18	.50	14	16	43	14	21	5.7	1.9	48	1.1	1.2	2.9
19	.40	26	16	68	13	20	5.5	1.8	23	.90	.90	2.5
20	.80	21	22	51	12	19	5.2	2.1	9.7	1.0	.70	3.9
21	1.4	17	19	26	11	17	4.8	2.0	6.3	1.3	.60	2.8
22	5.4	16	18	22	9.4	17	5.3	2.6	5.9	1.1	.50	2.3
23	2.0	21	17	18	8.6	17	4.7	2.2	5.1	.90	.50	1.8
24	1.9	20	15	41	7.8	16	4.5	2.2	4.7	.80	.40	1.7
25	2.3	22	14	112	7.0	13	4.3	2.0	3.8	.80	.50	1.7
26	1.8	27	13	58	6.3	12	4.3	1.8	3.7	.70	.50	1.6
27	1.5	27	13	35	5.7	12	4.0	1.7	3.3	.60	.50	1.4
28	3.8	20	13	26	6.3	11	3.8	1.6	3.0	.60	1.2	1.3
29	2.9	16	12	28	7.8	9.7	3.7	1.6	2.8	.60	.80	1.3
30	2.2	13	11	22	------	9.4	3.5	1.5	2.3	.70	1.8	2.2
31	1.8	------	11	26	------	9.7	------	1.3	------	.70	1.1	------
TOTAL	34.60	418.5	415.6	1,061	319.9	417.2	205.2	74.5	181.3	36.80	22.90	44.20
MEAN	1.12	14.0	13.4	34.2	11.0	13.5	6.84	2.40	6.04	1.19	.74	1.47
MAX	5.4	27	22	112	22	21	13	3.7	48	2.5	1.8	5.7
MIN	.20	1.9	6.8	15	5.7	9.4	3.5	1.3	1.2	.60	.40	.50
CFSM	.29	3.59	3.44	8.78	2.83	3.45	1.75	.62	1.55	.30	.19	.38
IN.	.33	3.99	3.96	10.1	3.05	3.98	1.96	.71	1.73	.35	.22	.42
AC-FT	69	830	824	2,100	635	828	407	148	360	73	45	88

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 3,231.70 MEAN 8.83 MAX 112 MIN .20 CFSM 2.26 IN 30.82 AC-FT 6,410

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.8	1.6	80	11	28	14	3.6	5.5	1.8	.40	.20	.20
2	2.9	2.0	49	13	21	12	3.4	4.9	1.7	.40	.20	.20
3	2.9	3.4	27	14	17	10	3.1	4.7	1.6	.40	.30	.20
4	2.4	14	16	11	20	9.1	2.9	4.7	1.3	.40	.20	.20
5	2.0	11	12	11	31	7.9	3.1	7.0	1.2	.40	.20	.20
6	1.8	9.0	10	12	32	7.0	2.9	5.8	1.2	.30	.20	.20
7	1.6	7.0	8.5	12	25	6.5	3.1	5.3	1.1	.30	.10	.20
8	2.0	5.0	9.1	11	28	6.0	2.7	4.7	1.1	.40	.10	.20
9	2.4	4.0	17	11	20	5.5	2.7	4.3	1.1	.40	.20	.20
10	2.4	4.0	12	9.7	16	5.3	2.7	3.9	1.0	.40	.50	.20
11	2.2	5.0	11	9.1	14	4.5	2.6	3.4	1.3	.50	.40	.20
12	1.8	6.0	10	8.3	14	4.3	2.4	3.2	1.2	.40	.60	.20
13	1.8	7.0	9.4	8.3	18	4.1	3.1	2.9	1.0	.30	.50	.30
14	1.7	10	10	8.8	20	3.8	2.9	2.7	1.0	.30	.30	.40
15	1.8	9.0	10	10	19	3.8	2.7	2.9	1.0	.30	.20	.60
16	1.7	7.0	8.5	11	16	3.6	3.2	3.8	.90	.30	.20	.50
17	1.6	6.0	8.0	11	14	3.4	2.9	2.9	.80	.30	.20	.40
18	1.5	5.0	8.0	10	12	3.2	2.9	2.6	.90	.20	.20	.30
19	1.4	5.0	7.7	10	11	3.2	11	2.7	.80	.20	.50	.30
20	1.3	4.1	7.7	9.4	9.4	3.1	23	3.1	.70	.40	.90	.30
21	1.2	3.9	11	11	10	2.9	21	2.6	.70	.40	.40	.30
22	1.1	3.9	48	10	12	3.2	16	2.6	.70	.30	.30	.30
23	1.1	5.6	48	13	10	2.9	12	2.6	.60	.20	.40	.20
24	1.1	28	35	16	9.1	2.6	9.7	2.4	.60	.20	.40	.20
25	1.1	22	25	14	8.5	2.6	8.2	2.4	.60	.20	.30	.20
26	1.1	25	31	19	12	2.6	7.0	2.2	.60	.20	.60	.20
27	.90	14	33	29	18	2.4	6.0	2.0	.50	.20	.30	.20
28	.90	7.2	25	36	15	2.7	5.5	1.8	.50	.20	.30	.20
29	.90	14	18	58	------	3.6	5.1	1.8	.50	.20	.30	.20
30	.90	50	14	64	------	2.9	5.5	2.9	.40	.20	.20	.20
31	.90	------	12	43	------	2.7	------	2.1	------	.20	.20	------
TOTAL	50.20	298.7	630.9	524.6	480.0	151.4	182.9	106.4	28.40	9.50	9.90	7.70
MEAN	1.62	9.96	20.4	16.9	17.1	4.88	6.10	3.43	.95	.31	.32	.26
MAX	2.9	50	80	64	32	14	23	7.0	1.8	.50	.90	.60
MIN	.90	1.6	7.7	8.3	8.5	2.4	2.4	1.8	.40	.20	.10	.20
CFSM	.42	2.55	5.22	4.34	4.40	1.25	1.56	.88	.24	.08	.08	.07
IN.	.48	2.85	6.02	5.00	4.58	1.44	1.74	1.01	.27	.09	.09	.07
AC-FT	100	592	1,250	1,040	952	300	363	211	56	19	20	15

CAL YR 1964: TOTAL 3,342.80 MEAN 9.13 MAX 112 MIN .40 CFSM 2.34 IN 31.88 AC-FT 6,630
WAT YR 1965: TOTAL 2,480.60 MEAN 6.80 MAX 80 MIN .10 CFSM 1.74 IN 23.65 AC-FT 4,920

Note.--No gage-height record Nov. 30, Dec. 1.

12-1218. Pine Lake near Issaquah, Wash.

Location.--Lat 47°35'15", long 122°03'00", in NE¼NW¼ sec.9, T.24 N., R.6 E., on north shore 4¾ miles northwest of Issaquah.

Drainage area.--1.06 sq mi.

Records available.--May 1956 to September 1965.

Gage.--Staff gage read once daily at infrequent intervals. Altitude of gage is 390 ft (from topographic map).

Extremes.--Maximum and minimum gage heights, in feet, for the water years 1961-65 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Jan. 18, Feb. 26, 1961..........	4.00	Sept.27, 1961....................	1.63
1962	Jan. 8, 1962.....................	3.70	Oct. 3, 1961.....................	1.58
1963	Jan. 3, 1963.....................	3.82	Oct. 2, 4, 1962..................	1.96
1964	Jan. 20, 1964....................	4.03	Sept.14, 16, 1964................	2.78
1965	Feb. 1, 1965.....................	4.22	Sept.27, 30, 1965................	1.86

1956-65: Maximum gage height observed, 4.22 ft Feb. 1, 1965; minimum observed, 1.14 ft Oct. 7, 1958.

Remarks.--No regulation or diversion above station.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	-	-	-	3.79	-	-	3.41	-	-	-
2	-	2.11	-	-	-	-	-	3.53	3.38	-	-	-
3	-	-	-	3.25	-	-	3.34	-	-	2.72	-	-
4	-	2.12	-	-	3.59	-	-	-	3.36	-	-	1.81
5	-	-	3.40	3.32	3.60	-	-	3.64	-	-	2.20	-
6	-	-	-	-	3.80	3.52	-	-	3.28	2.70	-	-
7	1.92	2.12	3.38	3.48	-	-	-	-	-	-	-	-
8	-	-	-	-	-	3.45	-	3.68	3.24	-	2.16	-
9	1.93	-	-	3.70	-	-	-	-	-	-	-	-
10	-	-	3.39	-	-	-	3.38	-	-	-	2.10	-
11	-	-	-	3.68	-	-	-	3.80	-	2.66	-	1.74
12	1.92	2.23	3.36	-	-	-	-	3.72	3.14	-	-	-
13	-	-	-	-	3.66	-	-	3.66	-	2.63	-	1.73
14	-	-	-	3.66	3.72	-	-	-	3.10	-	-	1.68
15	1.91	2.70	-	3.86	-	3.56	-	3.46	-	2.60	2.01	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	1.88	-	3.41	-	3.76	-	3.37	3.42	3.01	-	2.00	-
18	-	2.74	-	4.00	-	-	-	3.42	-	2.54	-	-
19	-	-	-	-	-	-	-	-	2.99	-	2.00	1.64
20	2.02	2.78	3.50	-	-	3.46	3.38	3.42	-	2.48	1.98	-
21	-	-	-	-	-	-	-	-	-	-	-	1.68
22	-	-	-	-	-	-	-	-	2.94	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	2.06	-	-	3.54	-	-	3.39	3.40	2.92	2.42	-	-
25	-	3.74	-	-	-	3.37	-	-	-	-	-	1.64
26	2.08	-	-	3.43	4.00	-	3.38	-	-	2.38	-	-
27	-	-	3.44	-	-	3.34	-	-	2.83	-	-	1.63
28	-	-	-	-	-	-	-	-	-	-	1.85	-
29	-	-	-	-	------	-	-	3.43	2.80	2.33	-	-
30	-	-	3.36	-	------	-	-	-	-	-	1.80	-
31	2.10	------	-	3.55	------	-	------	3.40	------	-	-	------

12-1218. Pine Lake near Issaquah, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	1.98	-	-	3.12	-	-	-	-	-	2.10
2	-	-	-	3.29	3.08	-	-	-	3.10	-	2.33	-
3	1.58	-	-	-	3.08	-	3.20	3.14	-	-	-	2.09
4	-	1.78	2.05	-	-	-	-	-	-	2.78	2.36	-
5	1.62	-	-	-	3.05	3.23	-	-	-	-	-	2.08
6	-	-	2.07	-	-	-	-	-	3.14	2.79	2.39	-
7	-	1.77	-	-	3.05	-	-	3.12	-	-	-	-
8	-	-	-	3.70	-	3.26	-	-	-	-	2.41	-
9	-	-	2.10	3.66	-	-	-	3.14	3.10	2.76	-	-
10	1.70	-	-	3.60	-	3.20	3.15	-	-	-	2.40	2.02
11	-	1.78	-	-	-	-	-	3.10	3.04	2.72	-	-
12	-	-	2.09	-	3.08	3.28	-	-	-	-	-	-
13	-	1.77	-	-	-	-	-	-	-	-	-	2.05
14	1.70	-	-	3.50	-	3.26	3.10	-	-	2.66	2.36	-
15	-	-	-	-	3.14	-	-	3.10	-	-	2.32	2.03
16	1.72	1.81	-	-	-	3.26	3.09	-	-	2.66	2.30	-
17	1.71	-	-	3.34	3.14	-	-	3.10	-	-	-	-
18	-	1.85	-	-	-	-	-	-	-	2.61	-	1.99
19	1.68	-	2.78	-	-	3.24	-	-	-	2.59	-	-
20	-	1.84	-	3.26	3.13	-	-	-	2.92	-	-	1.96
21	-	-	-	-	-	-	3.06	3.04	-	-	2.24	-
22	-	1.93	-	3.22	3.11	3.30	-	-	-	-	-	-
23	1.73	1.91	-	-	-	-	-	-	-	2.53	-	-
24	-	-	-	3.16	-	-	-	3.10	-	-	-	-
25	1.72	1.92	-	-	-	-	3.06	-	-	2.50	2.19	1.94
26	-	-	-	-	-	-	-	3.17	-	-	-	-
27	-	1.92	-	-	3.10	3.34	-	-	-	2.48	2.14	1.92
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	3.29	3.12	------	3.32	-	-	-	-	-	-
30	1.78	-	-	-	------	-	-	3.12	2.76	-	2.13	1.98
31	-	------	-	3.10	------	3.27	------	3.10	------	2.36	-	------

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	2.06	3.15	-	-	3.34	-	3.36	2.99	-	-	-
2	1.96	-	-	-	3.48	-	3.54	-	-	-	2.56	-
3	-	2.05	3.35	3.82	-	3.36	-	-	2.98	-	-	2.24
4	1.96	-	-	-	-	-	3.62	-	2.99	2.73	-	-
5	-	2.09	3.40	-	3.78	3.35	-	-	2.98	-	-	2.21
6	-	-	-	3.72	-	-	-	-	-	-	2.49	-
7	-	2.10	-	-	3.74	-	3.72	3.36	-	2.76	-	2.18
8	2.02	-	3.44	3.61	-	-	-	-	-	-	2.48	-
9	-	2.12	-	-	3.68	3.30	3.72	3.35	-	2.78	-	2.16
10	2.12	-	3.43	-	-	-	-	-	3.05	-	-	-
11	-	-	3.43	-	-	-	-	3.33	-	-	-	-
12	2.12	-	-	3.64	3.52	3.28	-	-	-	-	2.44	2.15
13	-	-	-	-	-	-	3.64	3.30	3.05	-	-	-
14	-	2.23	3.50	-	3.42	3.32	-	-	-	-	2.41	2.17
15	-	-	-	3.38	-	-	3.61	-	3.00	-	-	-
16	2.14	-	-	-	3.41	-	-	3.28	-	2.70	-	2.17
17	-	-	3.56	3.34	-	-	3.54	-	-	-	2.39	-
18	2.10	-	-	-	3.36	-	-	-	2.98	-	-	2.16
19	2.11	-	-	-	3.37	3.36	-	-	-	2.67	2.37	-
20	2.10	-	3.60	3.30	-	-	3.40	-	-	-	-	-
21	-	-	-	-	3.36	3.26	-	3.16	-	-	-	2.12
22	2.10	-	-	-	-	-	3.43	-	-	2.70	2.32	-
23	-	2.62	-	-	3.35	3.26	-	3.12	-	-	-	2.10
24	-	-	-	-	-	-	-	-	-	-	2.32	-
25	2.09	-	3.46	3.23	-	-	3.38	-	-	2.66	-	-
26	-	2.74	-	-	3.34	3.26	-	-	-	-	2.30	2.08
27	2.09	-	-	-	-	-	3.37	-	-	-	-	-
28	-	-	-	3.18		3.30	-	3.06	-	-	2.30	2.04
29	2.08	3.05	-	-	------	-	3.36	-	-	2.61	-	-
30	-	-	-	3.16	------	3.39	-	3.01	-	-	-	2.00
31	-	------	-	-	------	3.48	------	-	------	-	-	------

12-1218. Pine Lake near Issaquah, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				-	3.96	-	-	3.34	-	-	3.14	-
2				-	-	-	3.46	-	3.06	-	-	-
3				3.98	3.90	-	-	-	-	-	3.12	2.88
4				-	-	3.54	3.46	3.32	-	-	-	-
5				-	3.74	-	-	-	3.10	-	3.12	2.88
6				4.00	-	3.58	3.44	3.28	-	-	-	-
7				-	-	-	-	-	-	3.38	3.10	2.88
8				-	3.70	-	3.44	3.28	3.20	-	-	-
9			3.79	3.95	-	-	-	-	-	3.36	-	2.84
10				-	-	-	3.44	-	3.18	-	3.04	-
11				-	3.62	-	-	3.24	-	3.34	-	-
12				3.96	-	-	-	-	-	-	3.02	2.84
13				-	3.62	-	-	3.22	3.16	3.33	-	-
14				-	-	-	3.40	-	3.20	-	2.98	2.78
15				3.96	3.62	-	-	-	-	3.32	-	-
16				-	-	-	3.38	3.20	-	-	2.96	2.78
17				-	-	3.57	3.39	-	3.46	-	-	-
18				3.98	3.60	3.54	3.36	3.20	-	3.29	-	-
19				-	-	-	-	-	3.60	-	2.94	2.82
20		2.98		4.02	3.56	3.58	-	3.20	-	3.28	-	-
21				-	-	-	3.38	-	-	-	-	-
22				3.92	3.54	-	-	-	3.60	3.26	2.92	2.88
23				-	-	-	3.38	3.18	-	-	-	-
24				3.96	3.48	3.52	-	-	3.58	3.23	-	2.88
25				-	-	-	3.38	3.16	-	3.24	2.87	2.86
26				-	-	3.50	3.36	3.13	3.54	-	-	2.88
27				-	3.44	-	-	3.12	-	3.18	2.88	-
28				4.02	-	-	3.34	-	-	-	-	-
29				-	3.46	-	-	3.10	-	3.16	-	-
30				4.00	------	3.44	-	-	-	-	-	2.86
31		------		-	------	-	------	3.06	------	3.14	2.92	------

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	2.74	-	-	4.22	3.70	-	3.52	3.20	2.70	2.28	2.06
2	-	-	4.14	-	-	3.68	-	3.50	-	-	-	-
3	2.84	2.76	-	3.84	4.06	-	3.36	-	-	-	2.28	-
4	2.84	-	4.04	-	-	-	3.36	3.48	-	-	-	2.02
5	-	-	-	-	4.00	-	-	-	3.16	2.60	-	-
6	2.82	2.82	-	3.78	-	3.56	3.36	3.44	-	-	2.30	1.96
7	-	-	3.82	-	-	-	-	-	-	2.58	-	-
8	2.82	-	-	-	-	3.54	3.34	-	3.04	-	2.20	-
9	-	2.86	-	3.74	3.84	-	-	-	3.06	-	2.22	-
10	-	-	-	-	-	-	-	3.36	-	2.64	-	1.92
11	-	2.90	-	3.74	3.74	3.50	3.34	-	-	-	-	-
12	-	-	-	-	-	-	-	3.32	2.98	-	2.23	-
13	2.80	-	3.72	3.70	-	-	-	-	-	2.60	-	-
14	-	2.96	-	-	-	-	3.34	-	-	-	-	1.96
15	2.80	-	-	-	3.66	3.40	-	-	2.92	-	-	-
16	-	-	3.66	-	-	-	-	-	-	2.56	-	1.96
17	2.80	-	-	-	-	3.36	3.46	3.30	-	-	2.18	-
18	-	-	3.60	3.60	-	-	-	-	-	-	-	1.92
19	-	-	-	-	-	-	3.58	-	2.88	2.49	-	-
20	-	-	3.72	-	-	-	-	3.30	-	-	2.16	-
21	2.76	-	-	3.56	-	-	-	3.28	2.86	2.47	-	1.89
22	2.74	-	-	-	-	3.36	3.64	-	-	-	-	-
23	-	-	3.80	-	3.60	-	-	-	2.86	2.44	-	1.88
24	-	3.80	-	3.64	-	3.36	3.60	3.26	-	-	-	-
25	-	-	-	-	3.64	3.32	-	-	2.80	2.38	-	-
26	-	-	3.96	-	-	-	3.60	3.26	-	-	2.13	-
27	2.71	3.87	-	3.70	3.66	-	-	-	-	2.36	-	1.86
28	2.70	-	-	-	-	-	-	-	-	-	2.10	-
29	-	-	4.04	3.70	------	-	3.54	-	2.74	-	-	-
30	-	-	-	-	------	3.36	-	3.26	-	-	2.08	1.86
31	-	------	3.94	-	------	-	------	-	------	2.30	-	------

12-1220. Sammamish Lake near Redmond, Wash.

Location.--Lat 47°34'45", long 122°06'40", in NE¼SW¼ sec.12, T.24 N., R.5 E., on west shore 5.1 miles uplake from outlet and 6.6 miles south of Redmond.

Drainage area.--97.7 sq mi.

Records available.--January 1939 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 24.04 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to June 22, 1942, staff gage 4.6 miles downlake at datum 1.00 ft higher. June 22, 1942, to Aug. 22, 1951, staff gage 4½ miles downlake at datum 1.00 ft higher and Aug. 23, 1951, to Apr. 29, 1965, at present datum.

Extremes.--Maximum and minimum gage heights, in feet, for the water years 1961-65 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Feb. 27, 1961	7.80	Sept.27, 1961	1.67
1962	Jan. 10, 1962	5.34	Oct. 4, 1961	1.65
1963	Jan. 5, 1963	5.53	Oct. 4, 5, 6, 1962	1.98
1964	Jan. 27, 1964	7.50	July 31, Aug. 1, 2, 1964	1.90
1965	Jan. 31, 1965	3.89	Sept.11, 12, 13, 1965	a 1.72

a Minimum recorded.

1939-65: Maximum gage height observed, 9.40 ft Feb. 12, 1951 (present datum); minimum observed, 1.09 ft Aug. 25-27, 1951.

A stage of 10.83 ft (present datum) was observed on Dec. 22, 1933, from information by Corps of Engineers.

Remarks.--Many small diversions from tributaries for irrigation and domestic use. Slight regulation on tributaries.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.82	2.38	5.96	4.54	5.70	7.76	5.72	4.48	4.06	3.10	2.32	1.84
2	1.80	2.46	5.86	4.50	5.76	7.72	5.68	4.52	4.02	3.08	2.30	1.88
3	1.79	2.52	5.80	4.46	5.80	7.64	5.68	4.58	3.98	3.04	2.28	1.88
4	1.78	2.54	5.72	4.44	5.84	7.54	5.66	4.64	3.94	3.00	2.26	1.86
5	1.77	2.55	5.62	4.58	5.94	7.44	5.60	4.70	3.90	2.96	2.24	1.85
6	1.76	2.55	5.54	4.72	6.18	7.36	5.54	4.78	3.88	3.04	2.20	1.84
7	1.80	2.55	5.43	4.84	6.26	7.24	5.48	4.80	3.86	3.04	2.18	1.84
8	1.84	2.54	5.30	4.94	6.38	7.14	5.46	4.80	3.82	3.00	2.16	1.82
9	1.82	2.54	5.22	5.02	6.40	7.04	5.40	4.82	3.80	2.96	2.14	1.81
10	1.80	2.60	5.14	5.12	6.42	6.92	5.34	4.82	3.78	2.94	2.12	1.80
11	1.82	2.75	5.08	5.19	6.40	6.90	5.32	4.80	3.74	2.92	2.10	1.79
12	1.90	2.80	5.12	5.26	6.40	6.86	5.30	4.80	3.72	2.90	2.08	1.79
13	1.89	2.84	5.10	5.31	6.42	6.84	5.28	4.76	3.68	2.88	2.08	1.77
14	1.88	2.92	5.10	5.38	6.50	6.96	5.26	4.74	3.64	2.86	2.06	1.76
15	1.87	3.00	5.08	5.58	6.60	7.08	5.24	4.70	3.62	2.84	2.06	1.76
16	1.87	3.13	5.04	5.80	6.68	7.06	5.20	4.66	3.60	2.80	2.04	1.77
17	1.87	3.26	5.00	6.06	6.76	7.00	5.12	4.62	3.58	2.76	2.04	1.76
18	1.86	3.54	5.08	6.12	6.80	6.94	5.04	4.56	3.56	2.72	2.02	1.74
19	1.86	3.64	5.10	6.14	6.86	6.86	5.00	4.48	3.52	2.68	2.02	1.72
20	1.86	3.82	5.12	6.15	6.94	6.78	4.96	4.44	3.48	2.64	2.00	1.72
21	1.89	4.38	5.12	6.10	7.14	6.68	4.90	4.38	3.44	2.62	1.98	1.72
22	1.90	4.60	5.10	6.02	7.36	6.59	4.84	4.34	3.38	2.60	1.96	1.72
23	1.91	4.87	5.06	5.96	7.46	6.54	4.78	4.32	3.34	2.56	1.94	1.72
24	2.08	5.20	5.00	5.84	7.60	6.46	4.74	4.28	3.32	2.54	1.92	1.72
25	2.11	5.77	4.96	5.76	7.70	6.38	4.66	4.24	3.30	2.52	1.90	1.70
26	2.18	6.06	4.92	5.66	7.78	6.30	4.62	4.20	3.26	2.48	1.88	1.68
27	2.26	6.15	4.88	5.56	7.80	6.20	4.58	4.20	3.22	2.46	1.88	1.67
28	2.28	6.15	4.84	5.52	7,76	6.10	4.56	4.18	3.20	2.44	1.86	1.70
29	2.32	6.12	4.76	5.50	------	6.00	4.54	4.16	3.16	2.40	1.84	1.70
30	2.33	6.10	4.70	5.58	------	5.90	4.50	4.14	3.14	2.38	1.82	1.68
31	2.36	------	4.64	5.64	------	5.80	------	4.10	------	2.34	1.82	------
MAX	2.36	6.15	5.96	6.15	7.80	7.76	5.72	4.82	4.06	3.10	2.32	1.88
MIN	1.76	2.38	4.64	4.44	5.70	5.80	4.50	4.10	3.14	2.34	1.82	1.67

Note.--Gage usually read in late afternoon or evening.

12-1220. Sammamish Lake near Redmond, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.68	2.02	2.50	4.60	3.98	3.20	3.82	3.20	3.28	3.14	-	2.12
2	1.67	2.04	2.56	4.68	3.92	3.16	3.80	3.16	3.28	3.14	-	2.12
3	1.66	2.04	2.58	4.84	3.86	3.18	3.76	3.22	3.30	3.12	2.48	2.12
4	1.65	2.04	2.56	4.90	3.80	3.20	3.76	3.22	3.30	3.12	-	2.11
5	1.78	2.04	2.58	5.08	3.74	3.28	3.74	3.20	3.34	3.12	2.51	2.10
6	1.76	2.03	2.60	5.16	3.68	3.32	3.76	3.18	3.34	3.14	2.51	2.09
7	1.74	2.02	2.62	5.22	3.64	3.36	3.74	3.16	3.34	3.14	2.58	2.06
8	1.72	2.00	2.66	5.26	3.60	3.38	3.72	3.18	3.34	3.10	2.53	2.04
9	1.84	2.06	2.64	5.30	3.56	3.40	3.72	3.22	3.34	3.10	2.53	2.01
10	1.86	2.18	2.62	5.34	3.54	3.44	3.70	3.20	3.32	3.08	2.52	2.07
11	1.88	2.20	2.61	5.28	3.54	3.50	3.68	3.18	3.32	3.06	2.47	2.06
12	1.94	2.18	2.60	5.22	3.52	3.50	3.64	3.16	3.30	3.04	2.47	2.05
13	1.94	2.18	2.62	5.18	3.50	3.50	3.60	3.16	3.30	3.00	2.45	2.07
14	1.92	2.17	2.64	5.14	3.52	3.50	3.56	3.14	3.30	2.98	2.44	2.08
15	1.88	2.17	2.82	5.06	3.54	3.48	3.54	3.14	3.30	2.96	2.42	2.06
16	1.90	2.16	3.00	4.98	3.52	3.48	3.50	3.12	3.30	2.94	2.41	2.05
17	1.90	2.15	3.16	4.92	3.50	3.46	3.46	3.10	3.30	2.93	2.39	2.02
18	1.88	2.16	3.42	4.86	3.48	3.44	3.42	3.08	3.30	2.90	2.37	2.02
19	1.88	2.15	3.68	4.78	3.47	3.44	3.38	3.06	3.28	2.86	2.35	2.01
20	1.86	2.14	3.84	4.70	3.44	3.48	3.34	3.04	3.28	2.82	2.34	2.00
21	1.84	2.13	4.08	4.62	3.42	3.46	3.32	3.04	3.26	2.80	2.32	2.00
22	1.84	2.24	4.20	4.54	3.40	3.50	3.28	3.04	3.24	2.78	2.30	1.98
23	1.92	2.34	4.30	4.46	3.38	3.50	3.24	3.06	3.24	2.76	2.27	1.98
24	1.92	2.34	4.46	4.38	3.36	3.62	3.22	3.14	3.22	2.74	2.27	1.96
25	1.90	2.34	4.62	4.30	3.34	3.70	3.20	3.20	3.22	2.70	2.25	1.91
26	1.96	2.34	4.64	4.24	3.32	3.78	3.18	3.24	3.20	2.66	2.22	1.92
27	2.02	2.33	4.64	4.20	3.28	3.86	3.16	3.24	3.18	2.64	2.21	1.96
28	2.04	2.36	4.64	4.16	3.24	3.88	3.26	3.26	3.16	2.62	2.20	1.94
29	2.04	2.42	4.66	4.12	------	3.88	3.24	3.24	3.16	2.60	2.19	2.00
30	2.00	2.46	4.62	4.08	------	3.88	3.24	3.26	3.14	2.58	2.18	2.00
31	1.98	------	4.60	4.04	------	3.86	------	3.26	------	2.54	2.16	------
MAX	2.04	2.46	4.66	5.34	3.98	3.88	3.82	3.26	3.34	3.14	-	2.12
MIN	1.65	2.00	2.50	4.04	3.24	3.16	3.16	3.04	3.14	2.54	-	1.91

Note.--Gage usually read in late afternoon or evening.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.99	2.16	4.48	5.22	3.92	4.48	3.85	4.00	3.04	2.90	2.60	2.33
2	2.00	2.15	4.67	5.32	3.95	4.50	3.90	3.99	3.00	2.90	2.56	2.34
3	2.00	2.14	4.77	5.42	4.46	4.49	3.96	3.97	2.99	2.90	2.56	2.33
4	1.98	2.14	4.84	5.48	4.68	4.47	4.09	3.90	3.07	2.90	2.55	2.32
5	1.98	2.18	4.88	5.53	4.96	4.45	4.19	3.90	3.06	2.89	2.54	2.30
6	1.98	2.20	4.92	5.51	5.03	4.40	4.32	3.90	3.06	2.89	2.54	2.31
7	1.99	2.20	4.92	5.46	5.16	4.36	4.49	3.88	3.04	2.85	2.52	2.32
8	2.10	2.18	4.88	5.41	5.19	4.35	4.54	3.86	3.06	2.83	2.52	2.33
9	2.20	2.23	4.86	5.38	5.16	4.36	4.56	3.86	3.11	2.83	2.51	2.32
10	2.29	2.32	4.84	5.30	5.10	4.34	4.54	3.82	3.10	2.82	2.48	2.31
11	2.33	2.36	4.80	5.22	5.08	4.21	4.52	3.78	3.10	2.81	2.48	2.30
12	2.32	2.43	4.74	5.16	5.00	4.10	4.48	3.77	3.10	2.80	2.47	2.30
13	2.31	2.50	4.80	5.08	4.95	4.06	4.50	3.70	3.09	2.80	2.46	2.29
14	2.30	2.49	4.84	4.99	4.90	4.00	4.53	3.66	3.07	2.80	2.45	2.28
15	2.30	2.53	4.88	4.94	4.82	3.95	4.49	3.60	3.05	2.78	2.43	2.28
16	2.29	2.53	4.94	4.88	4.77	3.90	4.44	3.57	3.04	2.76	2.41	2.30
17	2.29	2.54	5.00	4.82	4.72	3.97	4.42	3.54	3.00	2.75	2.40	2.29
18	2.30	2.54	5.00	4.75	4.70	3.85	4.40	3.52	3.00	2.73	2.40	2.28
19	2.29	2.57	4.96	4.66	4.66	3.78	4.39	3.48	2.99	2.71	2.39	2.26
20	2.27	2.73	4.90	4.60	4.66	3.70	4.37	3.46	2.98	2.70	2.38	2.25
21	2.26	2.82	4.88	4.54	4.64	3.68	4.32	3.38	2.97	2.68	2.37	2.24
22	2.24	2.86	4.86	4.45	4.62	3.66	4.29	3.35	2.96	2.75	2.38	2.23
23	2.23	2.88	4.84	4.40	4.50	3.62	4.26	3.32	2.96	2.69	2.36	2.25
24	2.22	2.90	4.78	4.35	4.48	3.58	4.22	3.28	2.94	2.68	2.36	2.24
25	2.20	3.40	4.70	4.30	4.46	3.53	4.19	3.24	2.93	2.68	2.36	2.23
26	2.20	3.58	4.65	4.20	4.47	3.50	4.16	3.20	2.91	2.67	2.36	2.22
27	2.22	3.74	4.60	4.15	4.49	3.48	4.12	3.17	2.90	2.66	2.35	2.21
28	2.22	3.90	4.58	4.10	4.46	3.52	4.11	3.13	2.91	2.64	2.35	2.20
29	2.19	4.00	4.62	4.02	------	3.69	4.07	3.10	2.90	2.63	2.34	2.19
30	2.19	4.24	4.82	3.95	------	3.77	4.02	3.08	2.90	2.62	2.34	2.19
31	2.18	------	5.08	3.94	------	3.89	------	3.06	------	2.60	2.34	------
MAX	2.33	4.24	5.08	5.53	5.19	4.50	4.56	4.00	3.11	2.90	2.60	2.34
MIN	1.98	2.14	4.48	3.94	3.92	3.48	3.85	3.06	2.90	2.60	2.34	2.19

Note.--Gage usually read in late afternoon or evening.

12-1220. Sammamish Lake near Redmond, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.19	2.57	5.14	5.50	7.38	4.91	4.56	3.62	2.82	3.62	1.90	2.14
2	2.18	2.58	5.12	6.63	7.36	4.88	4.51	3.59	2.80	3.60	1.90	2.14
3	2.17	2.58	5.09	6.52	7.30	4.83	4.47	3.57	2.79	3.44	1.94	2.09
4	2.17	2.60	5.05	6.58	7.22	4.87	4.45	3.54	2.78	3.40	1.97	2.00
5	2.17	2.64	5.04	6.42	7.03	4.89	4.43	3.52	2.80	3.34	1.96	1.99
6	2.16	2.72	5.07	6.49	6.85	4.88	4.40	3.46	2.82	3.28	1.98	1.98
7	2.16	2.87	5.11	6.56	6.67	4.87	4.38	3.43	2.80	3.20	2.00	1.95
8	2.16	2.93	5.12	6.55	6.59	4.88	4.36	3.39	2.85	3.18	2.01	1.95
9	2.15	2.98	5.14	6.53	6.55	4.87	4.34	3.36	2.89	3.12	2.01	1.94
10	2.14	3.01	5.11	6.50	6.42	4.86	4.32	3.34	3.02	3.04	2.02	1.94
11	2.13	3.09	5.05	6.46	6.30	4.87	4.28	3.32	3.05	3.00	2.03	1.94
12	2.13	3.22	5.03	6.42	6.20	4.87	4.25	3.29	3.08	2.92	2.03	1.94
13	2.16	3.45	5.01	6.39	6.12	4.85	4.20	3.28	3.08	2.86	2.04	1.94
14	2.16	3.60	4.97	6.35	6.01	4.84	4.18	3.24	3.08	2.82	2.05	1.94
15	2.13	3.72	4.95	6.35	5.92	4.81	4.16	3.19	3.14	2.78	2.06	1.94
16	2.13	3.85	5.03	6.42	5.85	4.82	4.13	3.15	3.29	2.74	2.17	1.94
17	2.12	3.90	5.07	6.48	5.79	4.89	4.12	3.11	3.42	2.68	2.08	1.98
18	2.11	4.00	5.12	6.56	5.74	5.00	4.08	3.07	3.57	2.64	2.10	2.01
19	2.14	4.20	5.21	6.76	5.69	5.04	4.02	3.05	3.92	2.62	2.12	2.05
20	2.16	4.30	5.28	6.78	5.62	5.05	4.00	2.96	4.00	2.60	2.15	2.09
21	2.22	4.36	5.30	6.79	5.59	5.04	3.99	3.04	4.06	2.55	2.17	2.12
22	2.34	4.44	-	6.81	5.52	5.06	3.97	3.02	4.10	2.41	2.18	2.15
23	2.37	4.51	5.39	6.95	5.45	5.04	3.95	2.99	4.07	2.36	2.18	2.15
24	2.47	4.71	5.42	7.10	5.33	4.98	3.92	2.97	4.04	2.30	2.17	2.14
25	2.46	4.85	5.43	7.26	5.24	4.93	3.88	2.98	3.97	2.26	2.19	2.14
26	2.46	5.03	5.46	7.41	5.12	4.87	3.84	2.96	3.94	2.20	2.15	2.14
27	2.47	5.09	5.43	7.50	5.00	4.83	3.82	2.94	3.88	2.14	2.11	2.12
28	2.52	5.12	5.42	7.49	4.97	4.79	3.78	2.92	3.80	2.08	2.14	2.09
29	2.53	5.15	5.41	7.47	4.94	4.74	3.74	2.88	3.72	2.00	2.16	2.09
30	2.54	5.16	5.36	7.45	------	4.66	3.68	2.86	3.68	1.96	2.18	2.09
31	2.55	------	5.48	7.46	------	4.60	------	2.84	------	1.90	2.15	------
MAX	2.55	5.16	5.48	7.50	7.38	5.06	4.56	3.62	4.10	3.62	2.19	2.15
MIN	2.11	2.57	4.95	5.50	4.94	4.60	3.68	2.84	2.78	1.90	1.90	1.94

Note.--Gage usually read in late afternoon or evening.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.08	1.99	3.61	2.84	3.84	2.80	2.18	2.44	2.15	1.89	1.79	1.79
2	2.07	1.99	3.66	2.90	3.66	-	2.15	2.43	2.15	1.89	1.77	1.78
3	2.08	2.22	3.71	2.92	3.50	2.68	2.15	2.41	2.13	1.88	1.77	1.77
4	2.07	2.25	3.55	2.86	3.48	-	2.15	2.41	2.12	1.87	1.76	1.77
5	2.07	2.27	3.37	2.92	3.46	-	2.15	2.45	2.11	1.86	1.76	1.76
6	2.07	2.29	3.33	-	3.44	-	2.18	2.43	2.10	1.86	1.75	1.75
7	2.07	2.29	3.19	2.80	3.40	-	2.15	2.41	2.09	1.85	1.75	1.75
8	2.07	2.27	2.99	-	3.40	-	2.14	2.40	2.06	1.85	1.75	1.74
9	2.08	2.25	2.94	2.70	-	-	2.15	2.38	2.05	1.83	1.75	1.74
10	2.08	2.25	2.90	2.70	-	-	2.15	2.36	2.04	1.83	1.80	1.74
11	2.08	2.25	2.84	2.65	-	-	2.15	2.35	2.06	1.85	1.82	1.73
12	2.07	2.26	2.73	2.61	-	-	2.15	2.33	2.06	1.85	1.82	1.72
13	2.06	2.27	2.70	2.58	-	-	2.16	2.31	2.05	1.85	1.82	1.73
14	2.05	2.28	2.66	-	-	-	2.16	2.28	2.04	1.85	1.82	1.74
15	2.04	2.30	2.64	-	-	-	2.12	2.28	2.02	1.85	1.81	1.79
16	2.02	2.28	2.62	-	-	-	2.16	2.31	2.01	1.85	1.81	1.81
17	2.01	2.26	2.56	2.54	3.00	-	2.16	2.30	1.99	1.85	1.81	1.79
18	2.00	2.24	2.48	2.54	-	-	2.15	2.28	1.99	1.83	1.80	1.79
19	1.99	2.22	2.46	2.54	-	-	2.28	2.27	1.98	1.82	1.81	1.79
20	1.99	2.21	2.42	2.54	-	-	2.48	2.27	1.97	1.83	1.86	1.79
21	1.98	2.20	2.46	2.60	2.70	-	2.60	2.26	1.96	1.83	1.86	1.79
22	1.97	2.19	2.70	2.62	2.72	-	2.62	2.24	1.96	1.82	1.86	1.80
23	1.96	2.28	2.92	2.65	2.70	-	2.62	2.22	1.94	1.82	1.87	1.80
24	1.95	2.57	3.12	2.68	2.70	-	2.62	2.21	1.94	1.82	1.87	1.80
25	1.94	2.75	3.10	2.70	2.70	-	2.55	2.20	1.93	1.82	1.86	1.80
26	1.94	2.82	3.12	2.74	2.74	-	2.50	2.17	1.91	1.81	1.86	1.80
27	1.94	2.94	3.14	2.78	2.82	-	2.42	2.17	1.91	1.80	1.85	1.80
28	1.94	2.94	3.16	2.80	2.80	2.18	2.45	2.15	1.90	1.80	1.83	1.80
29	1.94	2.94	3.12	2.84	------	2.18	2.40	2.14	1.90	1.80	1.82	1.79
30	1.95	3.30	3.02	2.86	------	2.15	2.41	2.17	1.89	1.80	1.81	1.79
31	1.97	------	2.98	3.89	------	2.15	------	2.16	------	1.79	1.80	------
MAX	2.08	3.30	3.71	-	-	-	2.62	2.45	2.15	1.89	1.87	1.81
MIN	1.94	1.99	2.42	-	-	-	2.12	2.14	1.89	1.79	1.75	1.72

12-1230. Cottage Lake Creek near Redmond, Wash.

Location.--Lat 47°44'15", long 122°04'45", in NE¼SE¼ sec.18, T.26 N., R.6 E., on left bank 100 ft downstream from county road bridge, 2 miles upstream from mouth, and 4½ miles northeast of Redmond.

Drainage area.--10.7 sq mi (revised).

Records available.--June to September 1945, June 1955 to October 1965 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 210 ft (from topographic map). Prior to June 1955, at different datum.

Average discharge.--10 years, 13.8 cfs (9,990 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Nov. 24, 1960	76	1.84	(a)	5.2	b 0.67
1962	Jan. 7, 1962	41	1.46	Sept.28, 29, 1962	2.2	.58
1963	Feb. 5, 1963	42	1.46	Oct. 1,2,5,6, 1962	4.8	.72
1964	Jan. 1, 1964	57	1.88	Oct. 9, 1963	1.3	.55
1965	Feb. 5, 1965	106	c 2.03	July 13, 14, 1965	4.8	.70

a July 18, 20, Aug. 20, 21, 28, 29, Sept. 14, 15, 16, 1961.
b Occurred Oct. 4, 5, 6, 1960.
c Occurred Jan. 30, 1965.

1945, 1955-65: Maximum discharge, 132 cfs Jan. 6, 1956, and on or about Feb. 26, 1957; maximum gage height, 2.19 ft Jan. 6, 1956; minimum discharge, 1.3 cfs Oct. 9, 1963 (gage height, 0.55 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. Several small diversions for irrigation and domestic use above station. Some regulation in small lakes above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.1	13	21	13	32	38	16	16	12	8.3	6.2	6.9
2	6.1	11	19	12	31	33	17	16	11	8.3	5.9	6.6
3	6.1	11	19	12	28	30	19	15	11	7.9	5.9	5.9
4	6.1	8.2	19	12	29	26	16	18	10	7.9	6.2	5.9
5	5.8	7.9	18	20	31	24	15	24	10	12	5.9	6.2
6	6.9	7.5	17	20	52	23	15	19	11	10	5.9	5.9
7	8.8	7.5	16	19	50	22	14	19	10	9.0	5.9	5.9
8	8.5	8.2	14	20	46	21	15	19	10	7.9	5.7	5.7
9	7.9	8.8	14	22	45	24	16	20	11	6.9	5.9	5.7
10	7.5	17	13	23	41	21	15	20	10	6.9	5.9	5.4
11	8.5	16	14	25	35	22	14	19	11	6.6	5.7	5.7
12	11	13	18	26	30	26	16	17	10	6.2	5.7	5.9
13	8.5	14	17	25	35	27	16	17	10	5.9	5.7	5.4
14	7.9	16	18	25	32	38	15	16	9.7	5.7	5.7	5.2
15	7.5	17	15	42	38	36	14	14	9.3	5.9	5.7	5.2
16	7.2	19	14	44	39	32	13	14	9.0	5.7	5.9	5.4
17	7.5	19	15	46	40	30	13	12	8.6	5.7	5.9	5.4
18	7.2	19	21	45	35	27	13	12	8.3	5.4	5.7	5.4
19	6.9	20	21	38	37	25	14	12	8.3	5.4	5.4	5.4
20	7.2	36	19	33	34	24	13	11	8.3	5.4	5.4	5.9
21	7.9	37	18	27	38	22	14	10	8.3	5.7	5.4	5.9
22	8.2	37	17	24	35	21	13	11	8.3	5.7	5.4	5.7
23	14	47	16	21	32	22	13	13	7.9	5.7	5.4	5.7
24	13	68	16	18	48	22	13	12	7.9	5.7	5.4	5.7
25	10	65	15	16	53	22	13	11	8.3	5.9	5.4	5.7
26	13	48	17	15	50	23	12	13	8.3	5.9	5.4	5.7
27	11	39	16	14	46	21	12	16	7.9	5.9	5.4	5.7
28	12	29	14	14	41	20	12	16	8.3	6.2	5.4	5.7
29	11	24	14	20	------	18	14	15	8.3	6.6	5.4	5.9
30	11	22	13	28	------	16	14	14	8.3	6.6	5.4	5.9
31	11	------	13	30	------	15	------	13	------	6.2	6.2	------
TOTAL	271.3	705.1	511	749	1,083	771	429	474	280.3	209.1	176.4	172.6
MEAN	8.75	23.5	16.5	24.2	38.7	24.9	14.3	15.3	9.34	6.75	5.69	5.75
MAX	14	68	21	46	53	38	19	24	12	12	6.2	6.9
MIN	5.8	7.5	13	12	28	15	12	10	7.9	5.4	5.4	5.2
CFSM	.82	2.20	1.54	2.26	3.61	2.32	1.34	1.43	.87	.63	.53	.54
IN.	.94	2.45	1.78	2.60	3.76	2.68	1.49	1.65	.97	.73	.61	.60
AC-FT	538	1,400	1,010	1,490	2,150	1,530	851	940	556	415	350	342

CAL YR 1960: TOTAL 4,969.7 MEAN 13.6 MAX 68 MIN 4.7 CFSM 1.27 IN 17.27 AC-FT 9,860
WAT YR 1961: TOTAL 5,831.8 MEAN 16.0 MAX 68 MIN 5.2 CFSM 1.49 IN 20.27 AC-FT 11,570

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1230. Cottage Lake Creek near Redmond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.7	7.3	12	12	11	9.4	16	9.4	9.0	5.7	6.0	8.6
2	5.7	7.3	12	14	11	10	15	9.7	9.7	5.4	6.3	6.9
3	5.7	8.6	12	28	10	12	14	11	10	4.8	6.9	5.1
4	5.7	7.6	12	25	9.7	18	14	14	12	5.1	8.6	4.8
5	6.6	7.3	12	25	9.4	28	14	12	14	5.4	8.6	4.8
6	9.0	7.3	11	30	9.7	28	14	12	13	6.6	8.6	4.8
7	8.6	6.9	13	38	11	26	14	11	11	5.4	8.6	4.8
8	7.6	6.9	12	33	11	27	12	11	11	4.8	8.6	4.5
9	8.3	9.6	11	30	11	27	11	11	9.7	4.8	7.6	6.4
10	9.0	18	9.0	26	13	24	11	10	9.4	4.8	6.3	11
11	7.6	13	8.3	22	13	23	10	9.4	9.0	5.1	5.7	12
12	7.6	11	8.3	20	12	21	9.4	9.4	8.6	5.1	5.4	9.7
13	6.9	9.3	9.7	19	13	19	9.0	9.0	8.6	7.6	5.4	9.7
14	6.2	9.0	11	19	16	17	8.3	8.6	8.6	14	5.1	9.4
15	6.2	8.3	12	18	15	16	11	8.6	8.0	11	4.8	8.0
16	6.2	8.3	17	17	13	14	10	8.3	7.6	9.9	5.1	7.2
17	5.9	7.6	32	17	12	14	9.0	8.3	7.2	9.7	4.8	7.2
18	5.9	8.3	27	16	12	13	8.6	8.3	7.2	8.6	5.1	7.2
19	6.6	8.6	26	14	11	14	8.3	9.0	6.9	8.3	5.1	6.0
20	6.9	8.3	25	13	9.7	19	10	8.6	6.6	8.0	5.1	6.6
21	6.6	8.6	29	12	9.0	19	9.0	8.0	6.3	6.9	4.8	6.6
22	6.2	13	25	11	9.4	19	8.3	8.3	6.6	6.0	4.8	6.6
23	8.3	12	25	11	10	20	8.0	11	7.2	6.3	4.8	6.6
24	8.3	10	25	11	9.7	26	8.3	13	7.2	6.3	4.5	6.3
25	7.9	9.0	21	12	9.0	29	12	14	7.2	6.3	4.8	4.5
26	12	8.6	18	12	9.0	27	15	13	7.2	6.0	7.0	4.5
27	12	8.6	16	12	8.6	27	17	12	7.6	5.7	9.4	3.8
28	11	11	15	12	9.0	24	15	11	7.2	5.4	10	2.8
29	9.0	12	16	12	------	22	13	11	6.9	5.4	9.7	2.8
30	7.9	13	15	11	------	20	10	10	6.0	5.7	9.4	3.6
31	7.3	------	13	11	------	18	------	9.4	------	5.7	9.0	------
TOTAL	234.4	284.3	510.3	563	307.2	630.4	344.2	319.3	256.5	205.8	205.9	192.8
MEAN	7.56	9.48	16.5	18.2	11.0	20.3	11.5	10.3	8.55	6.64	6.64	6.43
MAX	12	18	32	38	16	29	17	14	14	14	10	12
MIN	5.7	6.9	8.3	11	8.6	9.4	8.0	8.0	6.0	4.8	4.5	2.8
CFSM	.71	.89	1.54	1.70	1.03	1.90	1.07	.96	.80	.62	.62	.60
IN.	.81	.99	1.77	1.96	1.07	2.19	1.20	1.11	.89	.72	.72	.67
AC-FT	465	564	1,010	1,120	609	1,250	683	633	509	408	408	382

CAL YR 1961: TOTAL 5,373.4 MEAN 14.7 MAX 53 MIN 5.2 CFSM 1.38 IN 18.68 AC-FT 10,660
WAT YR 1962: TOTAL 4,054.1 MEAN 11.1 MAX 38 MIN 2.8 CFSM 1.04 IN 14.09 AC-FT 8,040

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.4	6.0	25	22	14	14	16	9.0	7.6	9.7	6.6	7.3
2	5.4	5.7	22	26	16	14	14	9.3	8.3	8.6	6.6	7.3
3	5.7	5.7	20	29	30	14	14	9.0	8.3	8.6	6.2	6.9
4	5.4	6.9	19	25	35	13	14	8.6	8.6	7.9	6.2	6.9
5	5.1	8.6	18	23	40	12	13	10	9.7	7.6	6.6	6.6
6	5.4	8.3	16	22	35	12	15	11	9.3	7.6	6.6	6.6
7	6.0	7.6	14	20	30	11	15	11	9.0	7.3	6.2	6.2
8	8.6	8.0	14	20	25	11	14	10	9.0	9.0	5.9	5.9
9	15	8.3	14	20	22	11	14	10	9.3	8.6	5.9	5.9
10	10	11	12	18	20	10	13	9.7	8.6	8.6	5.9	6.6
11	9.4	15	12	16	18	10	12	9.3	8.3	8.3	5.9	7.6
12	9.2	14	9.7	15	17	9.7	12	9.0	8.3	7.9	6.2	7.3
13	16	14	9.7	13	16	9.3	12	8.6	7.9	7.3	6.2	9.0
14	11	12	12	13	14	9.3	13	8.6	7.9	7.9	6.2	11
15	7.6	11	20	14	14	9.0	14	8.3	7.6	7.9	6.2	9.0
16	7.2	11	17	15	14	9.0	13	7.9	7.6	7.6	5.9	9.0
17	6.6	11	16	14	14	8.6	12	7.9	6.9	7.6	5.9	9.0
18	6.6	9.7	15	13	15	8.6	12	7.6	6.6	7.3	5.9	8.3
19	6.6	9.4	14	12	16	8.6	13	7.9	6.6	7.3	6.6	7.9
20	6.3	9.7	13	11	16	8.6	12	7.9	7.3	7.3	6.9	7.6
21	11	10	14	10	14	8.3	12	7.6	14	7.3	6.6	7.6
22	17	9.4	14	10	13	8.3	12	7.6	16	7.9	6.6	7.6
23	14	9.0	12	9.5	13	8.3	11	7.6	13	6.9	6.9	7.6
24	12	12	12	9.5	12	8.3	11	7.9	12	7.3	7.3	7.3
25	10	28	11	9.0	14	8.3	10	7.6	12	6.9	7.3	6.9
26	10	30	11	9.0	16	8.6	9.7	7.9	10	6.6	7.3	6.6
27	9.7	26	11	8.5	14	9.3	10	7.9	10	6.2	7.3	6.6
28	9.7	22	11	7.5	14	11	9.7	7.9	9.3	5.9	7.3	6.2
29	9.7	21	14	7.0	------	18	9.7	7.6	14	6.6	6.9	6.2
30	9.4	26	26	6.5	------	18	9.3	7.9	12	6.2	6.9	6.2
31	8.3	------	22	10	------	17	------	7.9	------	6.6	6.9	------
TOTAL	279.3	386.3	470.4	457.5	531	336.1	371.4	266.0	285.0	234.3	201.9	220.7
MEAN	9.01	12.9	15.2	14.8	19.0	10.8	12.4	8.58	9.50	7.56	6.51	7.36
MAX	17	30	26	29	40	18	16	11	16	9.7	7.3	11
MIN	5.1	5.7	9.7	6.5	12	8.3	9.3	7.6	6.6	5.9	5.9	5.9
CFSM	.84	1.20	1.42	1.38	1.77	1.01	1.16	.80	.89	.71	.61	.69
IN.	.97	1.34	1.63	1.59	1.85	1.17	1.29	.92	.99	.81	.70	.77
AC-FT	554	766	933	907	1,050	667	737	528	565	465	400	438

CAL YR 1962: TOTAL 4,161.1 MEAN 11.4 MAX 38 MIN 2.8 CFSM 1.07 IN 14.46 AC-FT 6,250
WAT YR 1963: TOTAL 4,039.9 MEAN 11.1 MAX 40 MIN 5.1 CFSM 1.03 IN 14.04 AC-FT 8,010

Note.--No gage-height record Jan. 13 to Feb. 12. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1230. Cottage Lake Creek near Redmond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.2	10	15	41	31	16	13	14	11	5.6	7.0	6.1
2	6.2	11	13	43	27	18	13	15	10	5.9	6.7	6.1
3	6.2	10	12	40	25	17	12	14	9.5	6.1	7.0	5.9
4	6.2	10	12	38	25	17	16	14	12	6.4	7.0	5.6
5	6.6	9.3	13	36	23	18	20	14	11	6.1	6.7	5.6
6	6.6	13	17	38	22	21	18	13	11	6.4	6.4	5.3
7	6.2	15	15	34	21	19	17	12	11	6.7	6.5	5.3
8	6.2	16	16	31	20	19	16	12	12	7.3	6.4	7.3
9	6.2	13	19	33	19	20	15	11	11	7.3	6.4	6.4
10	6.6	14	18	30	19	20	15	11	10	7.3	6.1	6.1
11	6.6	13	16	26	19	21	15	7.3	11	7.0	5.9	6.1
12	6.2	17	15	22	18	22	14	7.3	11	6.7	5.6	6.1
13	7.6	17	15	24	24	22	14	7.8	10	6.7	5.9	6.1
14	7.6	28	15	25	19	22	15	8.1	10	7.3	5.6	6.4
15	6.9	25	18	25	21	21	22	8.1	10	8.1	5.6	6.1
16	6.9	21	20	38	21	19	22	8.1	12	7.5	5.6	6.1
17	6.9	18	20	38	18	25	21	7.8	15	7.3	5.9	11
18	7.3	16	20	35	20	22	19	7.8	21	7.3	6.4	8.1
19	6.9	25	21	38	18	21	17	7.8	20	6.7	6.1	8.1
20	7.6	21	27	42	17	21	15	8.8	19	6.7	5.9	11
21	8.6	18	25	40	16	20	15	8.8	16	7.0	5.9	9.2
22	12	18	25	38	15	19	16	10	14	6.7	5.6	8.8
23	10	24	26	36	14	18	16	9.5	12	6.7	5.3	8.8
24	11	24	25	38	14	17	15	9.8	15	6.4	5.1	8.4
25	10	26	24	46	13	16	15	9.2	10	6.4	5.3	8.1
26	9.3	28	22	41	12	16	15	8.4	9.5	6.4	5.6	7.8
27	9.0	26	21	38	12	16	14	8.1	8.8	6.4	5.9	7.5
28	13	22	21	34	14	15	14	7.8	6.4	6.7	7.5	7.8
29	11	19	19	35	15	15	13	8.4	6.1	6.4	6.4	7.8
30	10	16	18	32	------	14	13	11	5.6	6.7	6.7	9.2
31	9.7	------	18	34	------	13	------	10	------	6.7	6.1	------
TOTAL	247.3	543.3	581	1,089	552	580	475	309.9	350.9	208.9	190.1	218.2
MEAN	7.98	18.1	18.7	35.1	19.0	18.7	15.8	10.0	11.7	6.74	6.13	7.27
MAX	13	28	27	46	31	25	22	15	21	8.1	7.5	11
MIN	6.2	9.3	12	22	12	13	12	7.3	5.6	5.6	5.1	5.3
CFSM	.75	1.69	1.75	3.28	1.78	1.75	1.48	.93	1.09	.63	.57	.68
IN.	.86	1.89	2.02	3.79	1.92	2.02	1.65	1.08	1.22	.73	.66	.76
AC-FT	491	1,080	1,150	2,160	1,090	1,150	942	615	696	414	377	433

CAL YR 1963: TOTAL 4,275.5 MEAN 11.7 MAX 40 MIN 5.9 CFSM 1.09 IN 14.86 AC-FT 8,480
WAT YR 1964: TOTAL 5,345.6 MEAN 14.6 MAX 46 MIN 5.1 CFSM 1.37 IN 18.58 AC-FT 10,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.2	10	35	25	64	24	12	12	8.5	6.0	6.6	6.3
2	8.4	11	29	38	54	21	12	12	8.2	6.0	8.2	6.0
3	8.1	13	24	39	46	20	11	11	7.8	6.0	7.8	6.3
4	7.8	30	21	35	53	19	11	12	7.8	6.3	7.5	6.3
5	7.5	20	18	33	78	18	11	14	7.5	6.0	7.5	6.0
6	7.5	15	16	34	96	16	11	14	7.2	6.0	7.2	6.0
7	7.3	13	15	32	82	14	11	13	6.9	6.3	6.9	6.0
8	7.8	11	15	32	72	14	10	12	6.9	5.7	6.6	6.0
9	8.1	11	15	29	59	13	10	12	6.9	5.1	6.9	6.0
10	7.8	11	16	25	48	12	11	11	6.9	5.1	7.5	6.0
11	7.5	10	15	22	41	12	10	11	8.2	5.4	7.5	6.3
12	7.5	9.8	14	21	39	11	10	10	8.2	5.4	7.8	6.3
13	7.3	11	13	19	40	11	10	10	8.2	5.1	7.5	6.6
14	7.5	10	14	19	38	11	10	9.6	8.2	4.8	6.9	7.5
15	7.5	9.8	14	18	34	12	10	10	7.8	5.1	6.9	8.5
16	8.1	9.8	12	18	30	11	10	12	7.5	5.4	6.6	7.8
17	10	9.8	12	17	27	10	9.6	12	7.5	5.4	6.6	7.4
18	9.2	9.5	12	16	23	10	9.6	12	7.5	5.4	6.3	6.9
19	8.4	9.2	11	16	21	10	18	11	7.5	5.4	6.6	6.6
20	7.8	9.2	11	16	19	9.6	27	11	7.5	6.6	7.5	6.6
21	7.5	8.8	18	15	20	10	24	10	7.5	6.6	6.9	6.6
22	7.3	9.2	32	15	22	11	19	10	7.2	6.3	6.6	6.6
23	7.3	10	32	17	20	10	16	10	7.2	6.0	7.8	6.6
24	7.0	22	29	24	20	10	16	10	6.9	6.0	7.8	6.6
25	7.0	17	27	19	20	10	15	9.6	6.9	6.0	7.5	6.3
26	6.7	17	32	22	24	10	14	10	6.9	6.0	6.9	6.3
27	6.7	17	33	26	31	10	13	9.6	6.9	6.3	6.9	6.3
28	6.7	17	33	36	26	10	12	9.3	6.6	6.0	6.9	6.3
29	6.7	20	31	82	------	11	12	8.5	6.3	5.7	6.6	6.3
30	7.0	35	28	96	------	11	12	8.9	6.3	5.7	6.6	6.3
31	7.0	------	24	78	------	10	------	8.5	------	5.7	6.3	------
TOTAL	237.2	416.1	651	934	1,147	391.6	387.2	336.0	221.4	178.8	219.7	195.6
MEAN	7.65	13.9	21.0	30.1	41.0	12.6	12.9	10.8	7.38	5.77	7.09	6.52
MAX	10	35	35	96	96	24	27	14	8.5	6.6	8.2	8.5
MIN	6.7	8.8	11	15	19	9.6	9.6	8.5	6.3	4.8	6.3	6.0
CFSM	.72	1.30	1.96	2.82	3.83	1.18	1.21	1.01	.69	.54	.66	.61
IN.	.82	1.45	2.26	3.25	3.99	1.36	1.35	1.17	.77	.62	.76	.68
AC-FT	470	825	1,290	1,850	2,280	777	768	666	439	355	436	388

CAL YR 1964: TOTAL 5,278.3 MEAN 14.4 MAX 46 MIN 5.1 CFSM 1.35 IN 18.35 AC-FT 10,470
WAT YR 1965: TOTAL 5,315.6 MEAN 14.6 MAX 96 MIN 4.8 CFSM 1.36 IN 18.48 AC-FT 10,540

12-1240. Evans Creek above mouth, near Redmond, Wash.

Location.--Lat 47°40'30", long 122°04'50", on north line of NE¼NE¼ sec.7, T.25 N., R.6 E., on right bank 25 ft upstream from county bridge, three-quarters of a mile upstream from mouth, and 2 miles east of Redmond.

Drainage area.--13.0 sq mi.

Records available.--June 1955 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 50 ft (from topographic map).

Average discharge.--10 years, 22.0 cfs (15,930 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Nov. 25, 1960	106	3.06	(a)	6.6	b 1.67
1962	Jan. 7, 1962	67	2.52	July 26-29, 1962	6.6	1.63
1963	Feb. 5, 1963	70	2.50	Aug. 16, 17, 1963	5.4	1.67
1964	Jan. 1, 1964	89	2.72	Oct. 1, 1963	4.5	1.64
1965	Jan. 30, 1965	146	3.34	July 31, 1965	5.4	c 1.58

a Aug. 2, 4, 12, 29, 30, 1961.
b Occurred Aug. 2, 4, 12, 1961.
c Occurred Aug. 19, 1965.

1955-65: Maximum discharge, 146 cfs Jan. 30, 1965 (gage height, 3.34 ft); maximum gage height, 3.49 ft Dec. 22, 1955; minimum discharge, 4.5 cfs Oct. 1, 1963.

Remarks.--Records good. Several small diversions above station for irrigation and domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.7	15	32	22	50	61	25	25	14	9.8	7.0	9.5
2	8.7	16	27	22	55	58	31	28	13	9.8	7.0	9.0
3	8.7	15	27	21	51	54	35	26	13	9.8	7.0	8.4
4	8.7	13	29	23	49	48	32	28	13	9.2	7.0	8.4
5	9.0	12	25	42	49	44	29	40	13	14	7.0	9.5
6	9.5	12	23	50	74	43	27	37	14	12	7.0	8.7
7	12	12	22	50	78	41	25	33	14	11	7.0	8.4
8	14	11	21	48	72	38	24	28	13	10	7.0	8.4
9	12	11	20	51	66	36	25	29	15	9.5	7.0	8.2
10	11	22	20	49	60	34	22	29	14	9.5	7.0	8.2
11	11	26	21	48	52	36	21	30	13	9.2	7.0	8.4
12	16	17	34	47	48	38	28	26	13	9.0	7.0	8.2
13	13	18	30	43	55	42	41	24	12	8.7	7.0	8.2
14	11	20	38	42	57	55	30	22	12	8.4	7.0	8.2
15	11	21	31	56	60	59	28	20	12	8.4	7.4	8.2
16	11	30	29	67	67	57	27	19	11	8.4	9.8	8.4
17	11	33	30	66	68	57	25	18	11	8.2	8.7	8.4
18	10	34	37	69	64	46	22	18	11	8.2	8.2	8.4
19	10	28	40	67	62	39	25	18	11	8.2	8.2	8.7
20	10	44	34	57	59	39	22	16	11	7.9	7.6	9.5
21	11	60	30	48	60	33	22	16	10	8.2	7.4	9.5
22	13	58	29	42	62	32	21	15	10	8.2	7.4	9.0
23	18	66	27	39	56	36	20	20	9.8	8.2	7.2	9.0
24	21	91	26	35	62	37	21	17	9.8	8.2	7.0	9.0
25	14	104	26	32	85	32	20	16	9.8	7.9	7.0	9.0
26	17	92	30	30	79	32	19	16	9.8	7.9	7.0	9.0
27	15	72	28	28	72	30	22	20	9.5	7.9	7.0	9.2
28	14	56	25	28	66	29	22	18	9.5	8.2	7.0	11
29	13	44	27	40	------	26	26	16	9.8	8.2	6.8	12
30	13	37	25	51	------	25	24	17	9.8	7.6	7.0	12
31	14	------	23	55	------	24	------	19	------	7.0	8.7	------
TOTAL	379.3	1,090	866	1,368	1,738	1,261	761	704	350.8	276.7	227.4	270.0
MEAN	12.2	36.3	27.9	44.1	62.1	40.7	25.4	22.7	11.7	8.93	7.34	9.00
MAX	21	104	40	69	85	61	41	40	15	14	9.8	12
MIN	8.7	11	20	21	48	24	19	15	9.5	7.0	6.8	8.2
CFSM	.94	2.79	2.15	3.39	4.77	3.13	1.95	1.75	.90	.69	.56	.69
IN.	1.09	3.12	2.48	3.91	4.97	3.61	2.18	2.01	1.00	.79	.65	.77
AC-FT	752	2,160	1,720	2,710	3,450	2,500	1,510	1,400	696	549	451	536

CAL YR 1960: TOTAL 7,768.9 MEAN 21.2 MAX 104 MIN 6.5 CFSM 1.63 IN 22.23 AC-FT 15,410
WAT YR 1961: TOTAL 9,292.2 MEAN 25.5 MAX 104 MIN 6.8 CFSM 1.96 IN 26.58 AC-FT 18,430

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1240. Evans Creek above mouth, near Redmond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	11	17	26	18	17	23	14	12	11	7.2	7.9
2	12	11	16	28	18	17	22	14	13	11	7.6	7.9
3	11	11	16	49	18	17	22	16	13	9.6	8.6	7.9
4	11	11	17	46	17	23	23	15	13	11	10	7.9
5	13	11	17	42	17	32	24	14	14	11	11	7.9
6	16	11	15	57	17	32	24	14	13	14	10	7.9
7	13	11	18	65	17	31	22	14	12	11	11	7.9
8	11	11	17	62	17	30	20	14	12	10	11	7.9
9	12	12	16	56	18	35	20	16	11	9.6	9.6	7.9
10	14	21	14	47	19	32	20	16	11	9.6	9.0	10
11	12	17	14	40	18	29	18	14	11	9.6	8.2	11
12	12	14	14	35	18	27	18	14	11	9.3	8.6	9.6
13	11	13	16	34	19	26	17	14	12	9.3	9.0	11
14	9.2	13	17	32	23	24	16	13	11	9.3	9.6	12
15	9.0	12	19	32	20	24	16	13	11	9.0	9.3	10
16	9.0	12	22	29	20	23	15	13	9.6	9.0	9.3	9.6
17	9.2	12	46	29	19	22	14	12	9.6	9.0	10	9.3
18	9.2	12	50	27	19	21	14	12	9.6	9.0	10	9.3
19	9.2	12	49	25	18	21	14	13	9.6	8.6	9.6	9.3
20	9.2	12	49	23	17	26	14	12	9.6	8.6	9.6	9.3
21	9.2	12	54	23	17	26	14	12	9.4	8.2	9.6	9.6
22	9.2	25	47	22	17	26	14	12	9.0	8.2	10	9.6
23	12	21	42	21	19	26	13	16	9.0	7.6	9.6	9.6
24	11	17	46	21	17	28	13	20	9.0	7.6	8.6	9.3
25	11	15	42	22	16	32	13	21	9.0	7.6	8.2	9.0
26	13	14	38	23	16	30	13	18	9.6	7.2	8.6	9.0
27	12	14	35	22	15	28	19	16	11	7.2	8.6	9.6
28	12	16	32	21	16	28	16	14	9.6	7.2	9.0	13
29	11	18	30	20	------	28	15	14	9.3	7.2	9.0	12
30	10	17	28	20	------	24	14	13	9.0	7.2	8.2	11
31	9.8	------	27	19	------	24	------	12	------	7.2	7.9	------
TOTAL	344.2	419	880	1,018	500	809	520	445	321.9	280.9	285.5	283.2
MEAN	11.1	14.0	28.4	32.8	17.9	26.1	17.3	14.4	10.7	9.06	9.21	9.44
MAX	16	25	54	65	23	35	24	21	14	14	11	13
MIN	9.0	11	14	19	15	17	13	12	9.0	7.2	7.2	7.9
CFSM	.85	1.07	2.18	2.53	1.37	2.01	1.33	1.10	.83	.70	.71	.73
IN.	.98	1.20	2.52	2.91	1.43	2.31	1.49	1.27	.92	.80	.82	.81
AC-FT	683	831	1,750	2,020	992	1,600	1,030	883	638	557	566	562

CAL YR 1961: TOTAL 8,600.1 MEAN 23.6 MAX 85 MIN 6.8 CFSM 1.81 IN 24.60 AC-FT 17,060
WAT YR 1962: TOTAL 6,106.7 MEAN 16.7 MAX 65 MIN 7.2 CFSM 1.29 IN 17.47 AC-FT 12,110

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.6	9.3	49	44	24	28	37	21	8.3	13	7.8	6.6
2	9.6	9.3	48	43	28	31	31	24	8.8	12	7.4	6.6
3	10	9.3	44	45	54	28	28	22	9.4	11	7.0	6.2
4	9.6	10	37	41	58	26	33	21	9.4	9.4	7.0	6.2
5	9.3	12	33	37	68	26	31	24	17	9.4	7.4	6.4
6	9.6	11	31	33	67	24	37	24	13	10	7.0	6.6
7	11	11	27	30	60	24	40	23	11	10	7.0	6.6
8	13	11	24	30	51	22	37	25	11	12	7.0	6.6
9	17	12	24	35	43	21	34	23	16	9.4	6.6	6.6
10	14	15	27	30	38	20	30	20	14	9.4	6.6	7.0
11	12	16	22	27	34	20	28	19	11	8.3	6.6	7.4
12	11	16	20	24	31	20	27	18	11	7.8	6.6	7.4
13	11	16	22	23	28	19	26	17	9.4	7.8	7.8	7.8
14	11	14	25	24	28	19	27	17	8.8	8.3	7.4	7.8
15	11	13	38	26	27	18	28	16	9.4	11	6.6	7.8
16	10	12	42	27	28	18	25	15	8.8	8.8	6.1	7.8
17	9.6	13	37	26	26	17	24	15	8.8	7.8	5.8	8.8
18	9.6	12	33	25	28	17	24	13	9.4	7.4	6.2	7.4
19	9.6	14	33	23	28	16	31	11	10	7.8	6.6	7.0
20	9.6	16	33	22	28	16	27	11	13	7.0	6.6	7.0
21	8.6	17	29	20	27	15	24	10	16	7.0	6.2	7.0
22	8.6	14	29	20	25	16	23	10	19	10	6.2	6.6
23	8.6	13	26	20	24	16	23	10	17	8.3	6.6	7.0
24	8.6	14	24	19	24	15	22	10	13	7.8	7.4	7.0
25	8.6	38	23	19	26	15	21	10	19	7.8	7.4	6.6
26	9.3	48	21	18	37	17	20	9.4	15	7.4	7.4	7.0
27	9.3	39	21	17	29	19	20	8.8	16	7.0	7.0	7.0
28	9.3	35	23	17	28	24	19	8.8	15	7.4	6.6	7.4
29	9.3	35	26	15	------	33	20	8.3	20	7.4	6.6	7.4
30	9.3	41	43	13	------	34	20	8.3	16	7.4	6.6	7.8
31	9.3	------	45	17	------	38	------	8.8	------	7.8	6.6	------
TOTAL	315.9	545.9	959	810	997	672	817	481.4	383.5	272.9	211.7	212.4
MEAN	10.2	18.2	30.9	26.1	35.6	21.7	27.2	15.5	12.8	8.80	6.83	7.08
MAX	17	48	49	45	68	38	40	25	20	13	7.8	8.8
MIN	8.6	9.3	20	13	24	15	19	8.3	8.3	7.0	5.8	6.2
CFSM	.78	1.40	2.38	2.01	2.74	1.67	2.09	1.19	.98	.68	.53	.54
IN.	.90	1.56	2.74	2.32	2.85	1.92	2.34	1.38	1.10	.78	.61	.61
AC-FT	627	1,080	1,900	1,610	1,980	1,330	1,620	955	761	541	420	421

CAL YR 1962: TOTAL 6,284.3 MEAN 17.2 MAX 65 MIN 7.2 CFSM 1.32 IN 17.98 AC-FT 12,460
WAT YR 1963: TOTAL 6,678.7 MEAN 18.3 MAX 68 MIN 5.8 CFSM 1.41 IN 19.11 AC-FT 13,250

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1240. Evans Creek above mouth, near Redmond, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.1	11	24	60	54	26	21	18	10	11	8.9	9.6
2	7.8	14	20	80	47	26	22	16	10	11	9.6	9.6
3	7.8	12	19	65	41	26	20	16	9.3	11	10	8.9
4	8.6	11	18	52	38	27	24	16	15	11	11	8.9
5	8.6	11	20	45	34	30	34	28	14	10	9.3	8.9
6	9.3	16	33	50	32	45	27	20	14	9.6	8.9	8.9
7	8.9	19	30	45	30	37	26	19	24	9.3	8.2	8.9
8	8.9	21	32	43	28	35	24	18	20	9.6	8.6	11
9	8.9	17	38	46	26	37	23	18	16	9.3	8.6	10
10	8.9	19	35	44	26	35	22	18	15	9.3	7.8	9.3
11	8.6	14	31	39	26	37	23	16	16	8.9	7.5	8.9
12	8.6	18	26	36	26	35	22	17	14	8.6	7.1	7.8
13	11	25	24	37	28	38	20	18	13	8.2	7.8	7.8
14	10	33	26	41	27	35	20	16	13	9.3	7.8	7.5
15	9.6	36	30	40	32	32	25	15	12	11	7.8	7.8
16	9.3	25	34	53	35	29	25	14	19	9.6	7.5	7.5
17	9.6	21	38	57	32	39	23	14	27	8.9	6.8	19
18	10	19	36	59	33	46	22	13	52	8.9	8.9	14
19	10	27	35	58	31	39	20	12	60	8.6	8.2	12
20	11	32	43	61	28	37	19	13	51	8.2	7.5	20
21	14	23	40	58	26	37	19	14	40	8.9	7.5	14
22	22	21	37	52	25	33	26	18	29	8.2	7.1	12
23	15	27	35	48	24	31	25	16	24	8.6	7.1	10
24	14	27	33	47	24	27	21	14	19	8.2	6.4	9.6
25	14	31	38	65	22	26	19	13	18	8.2	7.1	9.3
26	12	32	35	71	21	25	20	13	15	8.2	7.8	9.3
27	11	34	33	67	20	26	19	12	16	7.8	8.2	9.3
28	16	31	31	62	21	24	18	11	14	7.8	15	8.9
29	14	26	30	60	24	22	17	11	13	7.8	11	9.3
30	13	24	29	55	------	20	17	11	12	7.8	11	13
31	11	------	40	52	------	20	------	10	------	8.6	10	------
TOTAL	338.5	677	973	1,648	861	982	663	478	624.3	281.4	266.0	311.0
MEAN	10.9	22.6	31.4	53.2	29.7	31.7	22.1	15.4	20.8	9.08	8.58	10.4
MAX	22	36	43	80	54	46	34	28	60	11	15	20
MIN	7.1	11	18	36	20	20	17	10	9.3	7.8	6.4	7.5
CFSM	.84	1.74	2.41	4.09	2.28	2.44	1.70	1.19	1.60	.70	.66	.80
IN.	.97	1.94	2.78	4.71	2.46	2.81	1.90	1.37	1.79	.81	.76	.89
AC-FT	671	1,340	1,930	3,270	1,710	1,950	1,320	948	1,240	558	528	617

CAL YR 1963: TOTAL 6,846.4 MEAN 18.8 MAX 68 MIN 5.8 CFSM 1.44 IN 19.59 AC-FT 13,580
WAT YR 1964: TOTAL 8,103.2 MEAN 22.1 MAX 80 MIN 6.4 CFSM 1.70 IN 23.18 AC-FT 16,070

Note.--No gage-height record Dec. 13 to Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	13	100	38	111	41	20	20	12	8.8	5.8	9.4
2	12	14	102	53	87	37	18	19	22	8.8	6.2	8.8
3	12	14	84	61	69	34	16	18	15	8.8	7.0	8.8
4	11	38	60	57	66	31	16	20	12	8.3	7.4	8.8
5	11	25	43	51	92	28	16	28	11	7.8	7.4	8.8
6	11	19	32	53	105	28	16	24	10	7.8	7.4	7.8
7	10	16	26	54	96	25	16	22	9.4	7.8	7.0	7.8
8	12	14	25	49	84	24	14	20	9.4	8.3	7.0	7.8
9	13	15	26	44	74	23	15	19	8.8	8.3	7.0	7.8
10	12	15	27	40	62	22	20	19	8.8	8.3	10	7.8
11	10	15	24	36	56	20	17	16	12	8.3	8.8	8.3
12	9.3	16	20	33	51	20	16	16	12	7.8	10	8.3
13	9.3	25	19	32	53	20	17	15	12	7.8	9.2	8.8
14	9.3	19	22	32	56	19	17	14	11	7.8	8.3	11
15	9.6	16	23	30	54	19	16	14	11	7.4	7.8	21
16	9.3	14	18	29	50	19	17	24	11	7.4	7.4	16
17	10	14	17	27	47	17	15	18	11	7.4	7.4	11
18	9.3	14	17	26	43	16	13	16	11	7.4	7.4	10
19	8.9	13	15	25	40	16	25	15	10	7.0	8.3	9.4
20	8.9	13	15	24	37	16	45	18	10	8.8	14	8.8
21	8.9	13	24	27	36	16	41	16	9.4	7.8	10	8.3
22	8.9	13	63	27	41	21	36	14	9.4	7.4	9.4	8.3
23	8.6	15	88	32	37	18	32	14	9.4	7.4	12	8.3
24	8.6	41	83	51	33	16	30	14	10	7.0	12	8.3
25	8.6	46	68	50	32	16	27	13	9.4	7.0	11	7.8
26	8.6	38	63	49	35	16	24	12	9.4	6.6	10	8.3
27	8.3	37	68	62	50	16	21	12	9.4	6.6	10	8.3
28	8.6	35	62	75	45	15	20	12	8.8	6.2	8.8	7.8
29	8.6	32	55	108	------	16	20	12	9.4	6.2	9.4	7.8
30	8.9	67	46	138	------	15	20	17	8.8	5.8	9.4	7.8
31	9.6	------	41	135	------	14	------	14	------	5.8	8.8	------
TOTAL	307.1	679	1,376	1,548	1,642	654	636	525	322.8	233.9	271.6	277.2
MEAN	9.91	22.6	44.4	49.9	58.6	21.1	21.2	16.9	10.8	7.55	8.76	9.24
MAX	13	67	102	138	111	41	45	28	22	8.8	14	21
MIN	8.3	13	15	24	32	14	13	12	8.8	5.8	5.8	7.8
CFSM	.76	1.74	3.41	3.84	4.51	1.62	1.63	1.30	.83	.58	.67	.71
IN.	.88	1.94	3.94	4.43	4.70	1.87	1.82	1.50	.92	.67	.78	.79
AC-FT	609	1,350	2,730	3,070	3,260	1,300	1,260	1,040	640	464	539	550

CAL YR 1964: TOTAL 8,476.8 MEAN 23.2 MAX 102 MIN 6.4 CFSM 1.78 IN 24.25 AC-FT 16,810
WAT YR 1965: TOTAL 8,472.6 MEAN 23.2 MAX 138 MIN 5.8 CFSM 1.79 IN 24.24 AC-FT 16,810

12-1252. Sammamish River near Woodinville, Wash.

Location.--Lat 47°42'15", long 122°08'30", in SW¼SW¼ sec.26, T.26 N., R.5 E., on right bank 3½ miles upstream from Bear Creek and 3½ miles southeast of Woodinville.

Drainage area.--157 sq mi.

Records available.--January to September 1965.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1947 (Corps of Engineers bench mark). Auxiliary water-stage recorder 2 miles downstream from base gage.

Extremes.--Maximum discharge during period, 1,900 cfs Jan. 30 (elevation, 23.20 ft); minimum discharge, 52 cfs July 31, Aug. 8; minimum elevation, 15.32 ft July 6, 7, 8.

Remarks.--Records good except those for July to September, which are fair. Some minor regulation and many small diversions for irrigation and domestic use on tributaries above station. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				-	1,570	626	224	332	182	92	58	87
2				-	1,340	582	224	317	182	91	57	84
3				-	1,150	543	210	310	174	90	57	83
4		† 358		-	1,130	500	200	309	169	87	57	83
5				† 694	1,420	462	195	349	162	84	56	82
6				-	1,560	437	191	319	154	83	55	80
7				-	1,360	408	199	304	149	80	55	77
8				-	1,200	385	193	291	145	79	55	75
9				-	1,080	353	193	280	142	76	57	73
10				-	955	333	214	271	139	75	70	72
11				-	862	315	204	264	145	77	77	71
12				-	810	294	195	253	151	75	79	71
13				-	840	277	204	242	142	73	84	69
14				-	888	260	217	236	136	71	79	74
15				-	858	252	210	235	133	69	79	96
16				-	812	244	221	302	128	69	79	97
17				-	768	229	217	266	125	66	79	86
18				-	718	220	213	242	124	64	80	84
19				-	672	211	278	238	119	63	80	79
20				-	633	208	536	252	112	70	101	77
21				-	602	204	584	240	108	69	97	74
22	† 126			-	642	229	543	228	108	67	94	73
23				-	598	214	504	227	108	65	98	71
24				-	551	199	500	218	104	63	106	70
25		† 568		-	518	190	462	208	102	61	102	68
26				-	536	200	426	200	98	62	100	67
27				-	725	193	395	194	96	60	95	67
28				-	683	200	374	188	91	57	94	65
29				1,480	------	214	349	186	95	56	94	64
30				1,820	------	210	341	198	96	55	91	64
31		------		1,800	------	204	------	188	------	54	91	------
TOTAL				-	25,481	9,396	9,016	7,887	3,919	2,203	2,456	2,283
MEAN				-	910	303	301	254	131	71.1	79.2	76.1
MAX				-	1,570	626	584	349	182	92	106	97
MIN				-	518	190	191	186	91	54	55	64
CFSM				-	5.80	1.93	1.92	1.62	.834	.453	.504	.485
IN				-	6.04	2.23	2.14	1.87	.93	.52	.58	.54
AC-FT				-	50,540	18,640	17,880	15,640	7,770	4,370	4,870	4,530

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† Result of discharge measurement.

Note.--Result of discharge measurement, 152 cfs Sept. 28, 1964.

12-1255. Bear Creek at Woodinville, Wash.

Location.--Lat 47°45'25", long 122°09'50", in SE¼NE¼ sec.9, T.26 N., R.5 E., on left bank at Woodinville, a quarter of a mile upstream from mouth.

Drainage area.--15.3 sq mi.

Records available.--July to October 1945, January to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 30 ft (from topographic map). June 28 to Oct. 1, 1945, at site a quarter of a mile upstream at different datum.

Extremes.--Maximum discharge during period January to September 1965, 199 cfs Feb. 5, 1965 (gage height, 2.91 ft); minimum, 4.5 cfs Aug. 1, 1965 (gage height, 0.86 ft).

1945, 1965: Maximum discharge, 199 cfs Feb. 5, 1965 (gage height, 2.91 ft); minimum, 3.4 cfs Aug. 21, 1945.

Remarks.--Records good. Several small diversions for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				60	70	34	24	17	11	7.4	6.1	6.7
2				130	60	29	19	16	10	7.4	6.9	6.7
3				100	50	27	17	16	9.7	7.1	7.9	6.9
4				75	70	25	15	24	9.4	7.1	7.6	6.7
5				60	151	24	16	31	9.4	6.9	7.6	6.5
6				70	160	22	17	19	9.2	6.7	6.9	6.5
7				62	88	21	17	16	8.9	7.1	6.7	6.3
8				60	64	20	16	15	9.2	8.4	6.3	6.3
9				55	60	20	17	14	9.4	8.1	6.7	6.5
10				50	55	19	21	14	9.4	8.1	8.1	6.5
11				45	50	19	17	13	12	8.1	7.4	6.9
12				38	55	18	15	13	11	7.9	8.1	7.1
13				36	60	18	18	12	9.7	7.1	7.6	7.1
14				38	50	17	17	12	9.2	7.1	6.9	8.4
15				40	45	17	15	16	9.2	7.1	6.5	10
16				37	40	17	17	32	8.7	7.1	6.3	8.7
17				33	35	16	15	16	8.7	7.1	6.1	6.9
18				29	33	16	14	14	8.7	7.4	6.1	6.5
19				28	33	16	56	13	8.7	7.1	6.5	6.5
20				28	33	16	68	14	8.4	11	9.7	6.3
21				30	33	17	63	12	8.4	9.2	7.4	6.7
22				27	55	24	36	12	8.1	8.1	6.7	6.7
23				46	45	18	27	12	8.1	7.1	8.9	6.5
24				86	40	16	31	12	7.9	6.9	12	6.3
25				58	35	16	24	11	7.9	6.7	8.9	6.1
26				78	43	17	21	11	8.1	6.7	8.7	6.5
27				114	74	16	19	11	7.9	6.7	7.6	6.5
28				135	44	18	17	11	7.6	6.7	10	6.1
29				182	------	22	16	11	7.6	6.7	8.4	6.3
30				151	------	17	16	14	7.4	6.5	7.1	6.1
31		------		83	------	16	------	12	------	6.1	6.7	------
TOTAL				2,064	1,631	608	701	466	268.9	228.7	234.4	203.8
MEAN				66.6	58.3	19.6	23.4	15.0	8.96	7.38	7.56	6.79
MAX				182	160	34	68	32	12	11	12	10
MIN				27	33	16	14	11	7.4	6.1	6.1	6.1
CFSM				4.35	3.81	1.28	1.53	.98	.59	.48	.49	.44
IN.				5.02	3.96	1.48	1.70	1.13	.65	.56	.57	.50
AC-FT				4,090	3,240	1,210	1,390	924	533	454	465	404

12-1260. North Creek near Bothell, Wash.

Location.--Lat 47°47'30", long 122°11'45", in NE corner of NW¼ sec.32, T.27 N., R.5 E., on left bank 2 miles north of Bothell and 2½ miles upstream from mouth.

Drainage area.--24.6 sq mi (revised).

Records available.--June 1945 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map). Apr. 5, 1950, to Sept. 30, 1951, at datum 0.59 ft higher.

Average discharge.--20 years, 35.6 cfs (25,770 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (190 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	2000	214	3.51	Nov. 25, 1962	1530	* 242	3.75	Jan. 2, 1965	0830	214	3.43
Nov. 24, 1960	2000	* 266	4.09	Jan. 2, 1963	2000	195	3.16	Jan. 29, 1965	0830	276	4.12
Jan. 15, 1961	1800	260	3.99	Feb. 4, 1963	2200	234	3.66	Feb. 5, 1965	1900	* 289	4.27
Feb. 24, 1961	1730	254	3.82					Apr. 19, 1965	2130	233	3.61
				Jan. 1, 1964	1530	* 285	4.22				
Dec. 17, 1961	0400	* 222	3.48	Jan. 19, 1964	1930	218	3.48				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 11, 1961	4.8	a 0.83	1964	July 28, Aug. 24	6.2	c 1.01
1962	July 28, 1962	6.2	.87	1965	Aug. 1, 1965	5.0	.96
1963	Aug. 17, 1963	5.8	b 1.00				

a Occurred Sept. 12, 1961.
b Occurred Oct. 5, 6, 1962.
c Occurred July 28, 1964.

1945-65: Maximum discharge, 680 cfs Mar. 5 or 6, 1950 (gage height, 7.0 ft, present datum, from high watermark, from information by local resident); minimum, 1.0 cfs Aug. 10, 1946 (gage height, 0.45 ft, present datum).

Remarks.--Records good. Many small diversions for irrigation and domestic use.

Revisions (water years).--WSP 1286: 1950(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.8	27	60	29	103	104	41	68	18	8.4	7.8	12
2	7.8	20	51	26	110	88	43	66	17	8.4	7.0	11
3	8.1	16	52	24	88	78	56	48	16	7.8	6.7	9.7
4	8.1	14	50	32	81	68	41	78	16	7.8	7.0	9.4
5	8.1	12	43	82	90	69	35	102	16	26	7.5	9.7
6	12	12	37	76	174	90	30	75	16	13	7.0	9.4
7	22	12	32	68	128	75	28	56	16	9.0	6.4	9.0
8	21	11	30	70	103	68	42	50	15	8.1	6.7	9.0
9	12	11	27	91	97	72	52	58	15	7.5	7.0	8.4
10	11	79	26	82	83	64	39	53	15	8.4	6.7	8.4
11	14	56	39	90	78	79	35	44	14	8.7	5.8	7.8
12	21	31	94	83	75	93	48	37	14	7.8	5.7	7.5
13	13	46	74	78	115	100	43	32	14	7.5	6.0	7.0
14	11	58	71	84	96	158	35	32	13	7.5	6.4	7.8
15	11	66	53	217	135	164	30	29	12	7.5	7.2	8.1
16	10	80	44	204	132	122	28	26	13	8.1	16	8.1
17	10	75	50	164	129	94	26	22	13	8.4	8.7	7.8
18	9.7	68	95	122	103	78	27	21	13	7.5	7.0	7.8
19	9.7	57	86	93	101	72	45	20	13	8.1	7.0	8.1
20	9.7	184	67	76	88	74	36	19	13	8.4	7.0	9.0
21	13	158	53	65	102	65	39	18	12	8.7	6.7	9.7
22	15	123	45	54	90	60	36	18	11	9.4	6.4	8.7
23	84	155	39	49	77	59	32	24	7.8	9.4	6.4	8.4
24	44	232	38	46	188	54	31	19	7.2	10	6.4	8.1
25	24	220	36	39	184	53	28	19	8.4	9.4	6.4	8.4
26	36	140	51	35	127	60	26	41	9.0	8.7	6.4	8.4
27	22	104	43	31	104	50	24	69	8.7	9.0	6.4	8.7
28	19	82	36	30	90	42	25	35	8.4	9.7	6.0	9.4
29	16	68	32	66	------	38	39	26	8.7	9.4	6.0	10
30	18	62	31	118	------	36	36	22	8.7	8.1	6.0	10
31	24	------	31	101	------	35	------	20	------	7.8	8.7	------
TOTAL	552.0	2,279	1,516	2,425	3,071	2,362	1,076	1,247	381.9	283.5	218.4	264.8
MEAN	17.8	76.0	48.9	78.2	110	76.2	35.9	40.2	12.7	9.15	7.05	8.83
MAX	84	232	95	217	188	164	56	102	18	26	16	12
MIN	7.8	11	26	24	75	35	24	18	7.2	7.5	5.7	7.0
CFSM	.72	3.09	1.99	3.18	4.46	3.10	1.46	1.64	.52	.37	.29	.36
IN.	.83	3.45	2.29	3.67	4.64	3.57	1.63	1.89	.58	.43	.33	.40
AC-FT	1,090	4,520	3,010	4,810	6,090	4,680	2,130	2,470	757	562	433	525

CAL YR 1960: TOTAL 12,466.4 MEAN 34.1 MAX 242 MIN 5.7 CFSM 1.38 IN 18.85 AC-FT 24,730
WAT YR 1961: TOTAL 15,676.6 MEAN 42.9 MAX 232 MIN 5.7 CFSM 1.75 IN 23.70 AC-FT 31,090

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1260. North Creek near Bothell, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.7	12	36	32	24	21	32	20	15	9.4	7.5	8.1
2	9.0	12	26	50	22	21	29	19	39	10	7.5	8.1
3	8.7	15	25	116	22	20	28	34	62	8.7	9.7	8.1
4	8.4	13	31	82	21	56	36	30	61	11	13	7.8
5	15	12	27	73	20	104	34	23	58	13	15	7.5
6	25	12	24	93	23	110	34	20	41	16	12	7.5
7	22	11	39	110	32	89	29	18	31	11	12	7.8
8	13	11	30	90	32	81	26	20	26	8.7	12	7.8
9	20	33	24	75	35	76	24	22	25	8.7	9.7	7.8
10	23	65	19	61	42	61	23	18	22	8.7	9.0	27
11	14	32	16	52	36	52	22	16	19	8.4	8.7	27
12	15	21	16	49	30	43	21	16	18	8.4	8.7	12
13	11	17	20	43	33	37	20	15	22	8.7	8.7	16
14	8.4	16	26	45	54	34	20	15	19	8.7	8.4	16
15	7.8	15	39	41	43	30	26	15	16	8.4	8.4	12
16	8.8	14	62	40	36	28	22	14	15	8.4	8.7	9.7
17	8.7	13	154	46	30	26	19	14	14	12	8.5	9.0
18	8.4	19	90	39	28	25	18	17	13	9.7	8.4	8.7
19	20	28	84	34	25	28	17	16	12	8.7	8.4	8.7
20	21	20	93	30	23	54	19	15	12	7.8	8.4	9.0
21	12	22	126	27	21	51	17	14	11	7.5	8.4	9.4
22	12	36	89	26	24	61	16	14	11	7.5	8.4	9.4
23	18	24	77	26	26	53	16	31	10	7.0	8.1	9.0
24	15	20	74	27	23	95	17	39	9.4	7.0	8.1	9.0
25	16	17	58	30	20	97	16	44	9.4	7.0	8.1	9.0
26	48	16	48	31	17	72	19	30	11	7.2	8.4	9.0
27	35	20	42	30	17	62	46	23	11	7.2	8.4	9.7
28	28	40	50	28	19	54	31	22	9.7	7.0	9.4	24
29	16	37	48	26	------	45	26	20	9.4	6.7	8.4	27
30	14	49	41	25	------	39	22	19	9.0	7.0	8.1	15
31	12	------	35	24	------	35	------	17	------	7.2	8.1	------
TOTAL	502.9	672	1,569	1,501	778	1,660	725	650	640.9	272.7	284.6	356.1
MEAN	16.2	22.4	50.6	48.4	27.8	53.5	24.2	21.0	21.4	8.80	9.18	11.9
MAX	48	65	154	116	54	110	46	44	62	16	15	27
MIN	7.8	11	16	24	17	20	16	14	9.0	6.7	7.5	7.5
CFSM	.66	.91	2.06	1.97	1.13	2.18	.98	.85	.87	.36	.37	.48
IN.	.76	1.02	2.37	2.27	1.18	2.51	1.10	.98	.97	.41	.43	.54
AC-FT	997	1,330	3,110	2,980	1,540	3,290	1,440	1,290	1,270	541	565	706

CAL YR 1961: TOTAL 14,073.5 MEAN 38.6 MAX 217 MIN 5.7 CFSM 1.57 IN 21.28 AC-FT 27,910
WAT YR 1962: TOTAL 9,612.2 MEAN 26.3 MAX 154 MIN 6.7 CFSM 1.07 IN 14.53 AC-FT 19,070

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	12	106	66	34	44	51	29	11	12	9.7	9.4
2	12	12	93	100	58	42	43	34	13	12	9.4	10
3	12	12	72	88	118	37	40	33	13	11	9.1	8.2
4	11	18	60	78	138	34	41	28	16	11	8.8	7.6
5	11	20	54	62	174	31	40	45	20	10	9.1	7.3
6	12	16	49	54	121	29	54	37	15	11	9.4	7.0
7	16	16	44	48	97	28	54	31	13	12	9.1	7.0
8	25	20	38	48	76	26	54	28	14	17	8.8	7.1
9	55	22	36	55	63	25	49	25	17	12	8.8	7.0
10	20	29	32	45	55	25	42	22	14	14	9.1	7.9
11	20	42	30	42	50	26	37	20	12	14	9.1	8.2
12	21	41	28	40	45	25	36	19	13	12	9.4	7.9
13	21	44	34	38	44	25	34	18	11	11	8.2	14
14	15	35	37	40	43	26	42	16	11	14	7.0	17
15	15	30	82	44	42	26	44	16	9.7	15	6.8	11
16	14	28	67	44	42	26	52	15	9.7	12	7.7	11
17	13	29	55	44	41	25	42	15	9.4	11	7.9	11
18	13	25	45	41	46	25	50	14	9.4	11	6.1	9.7
19	13	24	42	36	50	26	59	13	9.4	11	6.6	9.1
20	12	28	36	34	48	26	50	12	10	10	6.9	9.1
21	12	35	42	32	42	25	44	11	17	10	7.0	8.8
22	11	29	39	32	38	22	42	11	23	13	7.3	9.4
23	12	26	34	30	36	23	42	12	16	11	8.5	9.7
24	11	39	31	30	34	24	36	12	14	11	9.4	9.4
25	11	147	26	31	43	23	34	12	17	11	8.8	9.1
26	14	116	25	29	60	24	30	11	15	9.7	11	9.1
27	13	81	26	27	44	28	31	11	14	9.4	7.9	8.8
28	12	56	30	26	42	55	27	11	14	9.4	7.3	8.8
29	12	66	50	25	------	107	33	9.7	19	9.4	7.3	8.8
30	12	103	99	24	------	88	31	11	14	9.4	6.8	8.8
31	12	------	72	29	------	63	------	11	------	9.7	7.6	------
TOTAL	475	1,201	1,514	1,362	1,724	1,059	1,264	592.7	413.6	356.0	255.9	277.2
MEAN	15.3	40.0	48.8	43.9	61.6	34.2	42.1	19.1	13.8	11.5	8.25	9.24
MAX	55	147	106	100	174	107	59	45	23	17	11	17
MIN	11	12	25	24	34	22	27	9.7	9.4	9.4	6.1	7.0
CFSM	.62	1.63	1.99	1.79	2.50	1.39	1.71	.78	.56	.47	.34	.38
IN.	.72	1.82	2.29	2.06	2.61	1.60	1.91	.90	.63	.54	.39	.42
AC-FT	942	2,380	3,000	2,700	3,420	2,100	2,510	1,180	820	706	508	550

CAL YR 1962: TOTAL 10,058.3 MEAN 27.6 MAX 147 MIN 6.7 CFSM 1.12 IN 15.21 AC-FT 19,950
WAT YR 1963: TOTAL 10,494.4 MEAN 28.8 MAX 174 MIN 6.1 CFSM 1.17 IN 15.87 AC-FT 20,820

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1260. North Creek near Bothell, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.5	22	31	196	72	66	37	35	13	9.7	8.2	9.1
2	8.5	27	27	184	59	76	32	31	12	10	8.2	10
3	8.8	18	26	117	53	63	29	29	11	10	8.8	9.4
4	9.7	20	26	89	50	65	64	27	22	10	8.5	8.5
5	10	17	37	78	46	64	82	32	19	9.7	7.6	8.2
6	11	50	64	75	44	59	56	26	17	9.1	7.0	8.5
7	10	53	45	71	42	51	45	24	18	8.8	6.8	8.2
8	10	48	86	65	40	57	38	22	29	10	6.8	8.8
9	10	42	116	72	38	65	37	25	21	9.4	7.9	8.2
10	10	62	71	61	37	62	37	33	16	8.8	7.6	7.6
11	10	36	53	56	36	103	53	26	19	7.9	7.3	7.3
12	10	64	44	51	35	78	48	28	16	7.6	7.0	7.0
13	24	81	39	71	46	66	41	30	14	7.6	7.3	7.0
14	15	121	43	75	45	66	37	24	13	8.5	7.0	7.6
15	12	81	68	71	70	58	91	21	14	9.4	7.0	8.2
16	11	48	90	110	68	52	93	19	46	8.5	7.0	7.9
17	11	42	78	146	56	100	64	17	47	8.2	6.8	30
18	12	36	69	116	55	83	54	16	67	8.2	9.4	11
19	12	106	81	137	47	65	45	14	44	8.2	8.5	12
20	14	76	149	155	43	61	39	19	30	8.2	7.3	16
21	24	53	98	120	40	60	36	21	22	8.5	7.0	11
22	38	61	82	98	37	52	46	21	18	7.9	7.0	10
23	18	110	85	80	35	47	37	18	15	7.3	6.8	9.7
24	25	87	69	92	36	41	32	18	13	7.0	6.6	9.4
25	16	85	66	114	32	44	30	16	12	7.0	7.0	9.4
26	15	79	57	85	31	58	34	14	12	6.6	9.4	9.4
27	14	63	55	75	29	46	33	14	12	6.6	11	9.1
28	40	48	50	65	34	40	35	12	11	6.8	14	9.4
29	26	40	44	80	40	35	33	12	10	6.6	9.4	9.7
30	19	35	42	66	------	33	31	12	10	7.3	12	16
31	17	------	43	79	------	31	------	11	------	7.9	9.7	------
TOTAL	479.5	1,711	1,934	2,950	1,296	1,847	1,369	667	623	257.3	251.9	303.6
MEAN	15.5	57.0	62.4	95.2	44.7	59.6	45.6	21.5	20.8	8.30	8.13	10.1
MAX	40	121	149	196	72	103	93	35	67	10	14	30
MIN	8.5	17	26	51	29	31	29	11	10	6.6	6.6	7.0
CFSM	.63	2.32	2.54	3.87	1.82	2.42	1.86	.87	.84	.34	.33	.41
IN.	.72	2.59	2.92	4.46	1.96	2.79	2.07	1.01	.94	.39	.38	.46
AC-FT	951	3,390	3,840	5,850	2,570	3,660	2,720	1,320	1,240	510	500	602

CAL YR 1963: TOTAL 11,428.9 MEAN 31.3 MAX 174 MIN 6.1 CFSM 1.27 IN 17.28 AC-FT 22,670
WAT YR 1964: TOTAL 13,689.3 MEAN 37.4 MAX 196 MIN 6.6 CFSM 1.52 IN 20.70 AC-FT 27,150

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	48	104	88	125	73	37	23	12	9.4	5.4	8.2
2	11	26	84	195	97	62	31	22	12	10	5.8	8.5
3	10	39	59	155	82	55	26	22	11	9.7	6.2	8.5
4	9.7	93	44	102	133	52	24	44	10	9.1	6.0	8.2
5	9.4	36	37	96	225	48	24	53	9.4	9.1	6.0	8.2
6	9.1	24	33	117	249	44	30	33	9.7	8.9	5.6	7.6
7	9.1	20	31	100	174	41	30	28	9.4	9.1	5.9	7.6
8	12	17	38	98	143	37	26	24	9.7	10	6.2	7.6
9	12	19	40	90	117	36	26	21	9.7	10	7.0	7.9
10	11	20	49	74	98	34	35	19	9.7	10	9.1	8.2
11	10	19	51	65	82	31	27	17	14	10	7.9	8.5
12	9.7	17	42	58	89	30	25	16	12	9.4	8.6	8.8
13	9.7	20	37	55	99	28	30	16	11	8.7	8.0	8.8
14	9.7	17	42	57	87	26	27	14	10	7.9	7.0	10
15	11	16	41	59	78	26	25	19	10	8.9	7.1	14
16	13	15	30	55	67	26	26	43	9.7	8.8	7.4	12
17	11	15	25	50	60	24	23	24	9.7	8.8	7.4	9.4
18	10	14	25	45	55	22	21	19	9.4	8.5	7.0	9.1
19	9.7	14	25	43	55	21	82	19	9.4	8.2	8.8	8.8
20	9.7	14	30	41	54	21	110	18	9.1	13	15	8.5
21	9.4	14	40	44	57	21	85	16	9.1	9.4	8.8	8.8
22	9.4	15	146	39	93	36	53	14	8.5	8.5	7.9	9.1
23	9.4	19	98	58	73	25	44	15	8.8	7.6	11	8.8
24	9.7	82	72	119	62	22	49	14	8.8	7.0	16	8.8
25	9.7	44	56	90	57	23	40	14	8.8	6.6	13	8.8
26	9.7	47	130	119	76	25	35	14	9.1	6.4	11	8.8
27	9.4	39	139	160	137	25	31	12	9.1	7.0	9.1	8.8
28	9.4	30	99	186	96	26	27	12	8.6	6.6	12	8.5
29	9.4	33	75	265	------	31	25	12	9.2	6.2	9.4	8.8
30	10	107	62	242	------	25	24	17	9.0	5.7	8.5	8.8
31	11	------	52	172	------	22	------	14	------	5.6	8.2	------
TOTAL	315.3	933	1,836	3,137	2,820	1,018	1,098	648	295.9	264.1	262.3	266.4
MEAN	10.2	31.1	59.2	101	101	32.8	36.6	20.9	9.86	8.52	8.46	8.88
MAX	13	107	146	265	249	73	110	53	14	13	16	14
MIN	9.1	14	25	39	54	21	21	12	8.5	5.6	5.4	7.6
CFSM	.41	1.26	2.41	4.11	4.09	1.33	1.49	.85	.40	.35	.34	.36
IN.	.48	1.41	2.78	4.74	4.26	1.54	1.66	.98	.45	.40	.40	.40
AC-FT	625	1,850	3,640	6,220	5,590	2,020	2,180	1,290	587	524	520	528

CAL YR 1964: TOTAL 12,649.1 MEAN 34.6 MAX 196 MIN 6.6 CFSM 1.40 IN 19.12 AC-FT 25,090
WAT YR 1965: TOTAL 12,894.0 MEAN 35.3 MAX 265 MIN 5.4 CFSM 1.44 IN 19.49 AC-FT 25,570

12-1265. Sammamish River at Bothell, Wash.

Location.--Lat 47°45'20", long 122°11'35", in NW¼SE¼ sec.8, T.26 N., R.5 E., on left bank in Bothell, a quarter of a mile downstream from North Creek and 3½ miles upstream from mouth.

Drainage area.--212 sq mi (revised).

Records available.--October 1939 to September 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is at mean lower low water at Seattle (Corps of Engineers bench mark), or 6.54 ft below mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Dec. 28, 1939, staff gage at same site and datum.

Average discharge.--24 years, 365 cfs (264,200 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-63 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 25, 1961	1,390	30.46	(a)	99	23.14
1962	Jan. 7, 1962	850	28.10	Oct. 5, 1961	99	23.18
1963	Feb. 4, 1963	948	28.55	Sept.11, 1963	75	22.91

a Aug. 29-31, Sept. 11-15, 1961.

1939-63: Maximum discharge, 1,910 cfs Jan. 6, 1956 (gage height, 32.22 ft), but may have been higher Feb. 12 or 13, 1951; minimum, 62 cfs Aug. 22, 23, 1951; minimum gage height, 22.91 ft Sept. 11, 1963.

Remarks.--Records good. Some small diversions from tributaries for irrigation and domestic use. Slight regulation on some tributaries. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	125	249	741	462	848	1,220	678	551	308	176	129	128
2	120	237	703	447	928	1,180	692	572	290	174	126	123
3	119	237	696	431	850	1,130	714	527	280	171	125	114
4	117	219	690	438	822	1,090	680	585	270	168	124	112
5	114	210	654	616	824	1,060	652	713	262	220	122	113
6	124	204	625	663	1,100	1,070	625	640	269	210	119	111
7	153	198	597	637	1,090	1,030	603	585	275	188	117	108
8	167	197	579	654	1,010	986	608	561	258	177	116	108
9	141	194	558	752	980	982	631	587	261	172	120	106
10	134	358	540	714	936	942	608	585	250	166	118	105
11	137	386	554	743	898	954	587	558	246	162	114	101
12	184	296	718	745	868	972	608	529	237	158	114	99
13	155	326	658	722	976	1,000	631	509	230	155	113	99
14	144	369	680	724	950	1,120	599	497	223	150	111	99
15	137	391	620	1,040	1,040	1,220	579	476	214	152	110	99
16	135	462	579	1,170	1,070	1,140	569	458	204	152	134	100
17	135	470	585	1,080	1,080	1,060	556	436	198	149	124	101
18	133	484	713	1,000	1,040	988	542	418	198	147	115	101
19	132	450	724	908	1,030	944	574	397	198	146	113	101
20	132	785	646	844	1,010	934	556	385	198	145	110	105
21	137	878	606	798	1,040	888	554	375	197	144	108	114
22	150	802	578	758	1,060	856	536	364	189	145	107	112
23	252	924	556	728	1,030	856	516	396	184	146	104	110
24	261	1,120	540	707	1,200	830	511	365	180	146	104	108
25	198	1,220	533	675	1,380	808	497	345	182	141	103	106
26	235	1,070	560	646	1,320	812	481	380	184	137	102	104
27	218	942	540	616	1,260	785	465	465	183	137	102	103
28	206	852	513	599	1,220	749	458	386	179	138	101	103
29	198	796	491	701	------	722	498	354	179	138	100	105
30	198	758	477	862	------	696	511	337	180	133	99	107
31	214	------	470	880	------	675	------	329	------	134	113	------
TOTAL	5,005	16,084	18,724	22,760	28,860	29,699	17,319	14,665	6,706	4,877	3,517	3,205
MEAN	161	536	604	734	1,031	958	577	473	224	157	113	107
MAX	261	1,220	741	1,170	1,380	1,220	714	713	308	220	134	128
MIN	114	194	470	431	822	675	458	329	179	133	99	99
CFSM	.77	2.57	2.89	3.51	4.93	4.58	2.76	2.26	1.07	.75	.54	.51
IN.	.89	2.86	3.33	4.05	5.14	5.28	3.08	2.61	1.19	.87	.63	.57
AC-FT	9,930	31,900	37,140	45,140	57,240	58,910	34,350	29,090	13,300	9,670	6,980	6,360

CAL YR 1960: TOTAL 141,429 MEAN 386 MAX 1,220 MIN 107 CFSM 1.85 IN 25.17 AC-FT 280,500
WAT YR 1961: TOTAL 171,421 MEAN 470 MAX 1,380 MIN 99 CFSM 2.25 IN 30.50 AC-FT 340,000

12-1265. Sammamish River at Bothell, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	104	149	261	466	380	310	408	281	196	144	122	110
2	102	148	235	491	374	310	400	289	235	149	123	110
3	101	152	231	739	368	306	389	308	267	144	132	109
4	100	148	245	677	360	409	406	302	274	149	154	106
5	108	146	243	636	350	590	404	296	277	160	167	106
6	150	144	232	734	353	589	407	270	250	182	154	105
7	148	143	266	826	368	526	394	261	221	164	153	105
8	128	142	263	772	364	515	384	263	206	155	155	105
9	129	174	242	718	364	534	376	277	202	155	143	104
10	161	288	231	665	386	497	366	266	196	159	135	137
11	137	228	221	626	380	460	358	253	188	156	129	180
12	142	191	215	602	364	431	350	243	182	153	127	134
13	135	178	233	582	365	408	358	238	192	154	127	143
14	128	171	261	573	431	392	335	231	183	156	123	155
15	124	166	280	563	407	380	348	228	170	155	121	134
16	124	161	335	544	386	372	334	222	165	154	119	127
17	126	159	661	545	371	362	318	214	164	159	119	121
18	124	167	547	528	360	354	322	218	159	155	120	119
19	134	180	545	499	350	358	301	219	153	150	118	118
20	147	170	560	469	338	416	304	214	147	147	116	118
21	130	174	668	464	329	432	298	206	142	144	117	119
22	127	233	579	438	332	448	288	202	140	140	116	118
23	148	233	563	430	340	440	278	245	134	136	114	118
24	154	208	582	431	328	528	282	292	134	132	110	117
25	147	193	553	440	316	600	275	304	137	131	109	117
26	221	187	526	440	305	528	280	271	143	130	111	118
27	204	192	504	437	299	504	353	245	152	128	115	122
28	191	228	518	422	304	483	324	231	148	124	119	162
29	164	256	515	408	------	458	301	225	141	121	116	192
30	154	268	499	398	------	440	285	217	153	121	114	152
31	148	------	478	389	------	422	------	205	------	121	110	------
TOTAL	4,340	5,577	12,292	16,952	9,972	13,802	10,226	7,736	5,451	4,528	3,908	3,781
MEAN	140	186	397	547	356	445	341	250	182	146	126	126
MAX	221	288	668	826	431	600	408	308	277	182	167	192
MIN	100	142	215	389	299	306	275	202	134	121	109	104
CFSM	.67	.89	1.90	2.62	1.70	2.13	1.63	1.19	.87	.70	.60	.60
IN.	.77	.99	2.19	3.02	1.77	2.46	1.82	1.38	.97	.81	.70	.67
AC-FT	8,610	11,060	24,380	33,620	19,780	27,380	20,280	15,340	10,810	8,980	7,750	7,500

CAL YR 1961: TOTAL 153,817 MEAN 421 MAX 1,380 MIN 99 CFSM 2.02 IN 27.37 AC-FT 305,100
WAT YR 1962: TOTAL 98,565 MEAN 270 MAX 826 MIN 100 CFSM 1.29 IN 17.54 AC-FT 195,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	138	147	654	644	394	486	462	382	182	175	128	99
2	132	146	624	715	451	494	437	395	183	166	124	100
3	141	144	582	810	770	478	425	378	189	162	118	97
4	131	156	545	698	778	466	448	365	191	160	116	93
5	129	171	526	646	888	454	452	402	217	155	118	91
6	134	165	517	615	774	443	509	396	205	155	118	94
7	146	159	499	595	718	434	529	378	191	161	118	94
8	184	164	485	581	665	424	526	366	187	183	112	94
9	288	170	477	597	626	416	525	352	197	170	108	95
10	215	191	466	563	597	407	497	340	193	169	106	97
11	201	245	452	525	573	404	480	330	184	166	104	99
12	198	249	440	499	552	398	470	324	180	160	105	100
13	192	259	450	494	534	388	464	312	176	153	107	110
14	176	242	469	491	518	384	483	302	166	158	104	132
15	172	221	620	507	507	380	502	295	162	171	100	112
16	167	214	610	509	507	376	493	285	156	160	96	110
17	164	213	566	494	493	368	466	280	153	149	94	112
18	164	209	533	478	505	360	475	270	152	147	96	109
19	162	209	521	458	515	354	497	256	153	140	105	103
20	160	226	502	443	520	348	477	247	154	137	104	103
21	158	250	507	432	494	342	456	242	184	135	101	101
22	161	238	507	425	477	334	446	238	250	149	100	101
23	160	232	481	416	464	329	444	233	204	143	102	105
24	158	254	462	407	454	328	426	225	184	138	108	105
25	154	548	446	402	475	326	416	218	195	138	108	104
26	160	607	432	392	557	323	402	212	180	135	118	105
27	158	529	426	382	501	334	404	205	179	127	103	105
28	154	450	436	374	481	395	390	198	179	127	98	103
29	153	460	482	359	------	545	394	191	215	127	97	103
30	150	602	700	347	------	542	390	188	195	128	94	103
31	149	------	665	365	------	502	------	188	------	127	95	------
TOTAL	5,109	8,070	16,082	15,663	15,788	12,562	13,785	8,993	5,536	4,671	3,305	3,079
MEAN	165	269	519	505	564	405	460	290	185	151	107	103
MAX	288	607	700	810	888	545	529	402	250	183	128	132
MIN	129	144	426	347	394	323	390	188	152	127	94	91
CFSM	.79	1.29	2.48	2.42	2.70	1.94	2.20	1.39	.88	.72	.51	.49
IN.	.91	1.44	2.86	2.79	2.81	2.24	2.45	1.60	.99	.83	.59	.55
AC-FT	10,130	16,010	31,900	31,070	31,320	24,920	27,340	17,840	10,980	9,260	6,560	6,110

CAL YR 1962: TOTAL 105,617 MEAN 289 MAX 826 MIN 104 CFSM 1.38 IN 18.79 AC-FT 209,500
WAT YR 1963: TOTAL 112,643 MEAN 309 MAX 888 MIN 91 CFSM 1.48 IN 20.04 AC-FT 223,400

12-1271. Swamp Creek at Kenmore, Wash.

Location.--Lat 47°45'22", long 122°13'57", in NE¼ sec.12, T.26 N., R.4 E., on right bank on upstream side of Bothell Way crossing at Kenmore, half a mile upstream from mouth.

Drainage area.--23.1 sq mi.

Records available.--October 1963 to September 1965.

Gage.--Digital water-stage recorder and concrete control. Altitude of gage is 30 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (200 cfs), water years 1964-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. [illegible], 1964	1630	* 298	4.27	Jan. 2, 1965	1030	230	4.00	Feb. 5, 1965	2230	* 379	4.91
Jan. 19, 1964	1930	216	3.93	Jan. 30, 1965	1500	290	4.24	Apr. 19, 1965	2215	222	3.96

Annual minimum discharge, water years 1964-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	July 27, Aug. 24	3.4	1.77	1965	July 31, Aug. 1, 2	2.7	1.71

1963-65: Maximum discharge, 379 cfs Feb. 5, 1965 (gage height, 4.91 ft); minimum, 2.7 cfs July 31, Aug. 1, 2, 1965 (gage height, 1.71 ft).

Remarks.--Records excellent. Some minor diversion for irrigation above station. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.5	14	29	202	72	56	25	24	8.5	6.6	5.2	6.6
2	4.5	19	26	206	55	66	22	21	8.8	6.8	5.0	7.7
3	5.5	14	24	130	47	56	21	20	7.7	7.0	5.9	6.4
4	5.0	14	22	92	42	60	43	19	17	6.8	5.7	5.3
5	6.5	12	28	74	38	58	73	21	14	6.4	5.0	5.2
6	6.0	30	64	68	35	55	45	18	11	6.2	4.5	5.3
7	5.5	37	47	55	32	43	36	16	11	5.9	4.1	5.0
8	5.5	35	80	48	30	46	30	16	17	7.7	4.1	5.2
9	5.2	29	138	55	29	50	28	16	13	6.8	5.0	5.0
10	4.6	45	94	46	28	47	26	21	11	5.9	6.4	4.5
11	4.6	28	65	42	27	88	39	19	12	5.0	4.1	4.3
12	4.5	41	48	38	27	74	34	18	12	5.3	4.0	4.1
13	11	68	38	52	35	63	30	19	10	4.8	4.5	4.1
14	9.3	104	36	71	34	57	28	16	9.9	5.7	4.5	4.5
15	6.8	92	46	64	56	50	68	14	8.8	6.2	4.1	4.8
16	5.7	54	78	110	56	42	86	13	25	5.3	4.1	4.8
17	5.5	40	71	152	46	88	58	12	34	5.5	4.0	25
18	6.6	33	62	134	46	79	44	11	49	5.3	6.0	11
19	6.2	87	76	142	38	59	36	10	35	5.2	7.0	14
20	7.0	84	146	173	35	54	31	12	25	5.2	5.5	28
21	12	55	108	131	30	48	28	13	19	5.7	5.0	12
22	26	57	86	104	26	42	36	13	16	5.3	4.5	9.3
23	13	114	91	79	26	38	29	12	13	4.8	4.5	8.0
24	18	98	72	89	26	33	25	12	11	4.5	4.1	7.3
25	14	86	68	114	24	32	23	11	9.9	4.3	4.0	6.6
26	10	78	55	86	23	36	25	9.9	9.1	4.1	5.2	6.2
27	9.0	63	52	76	22	31	24	9.1	8.5	4.1	6.4	5.7
28	26	46	48	60	32	28	24	8.5	8.0	4.0	14	5.9
29	19	38	41	79	31	25	22	8.2	7.5	4.0	7.5	6.2
30	14	33	37	63	------	23	21	7.7	7.0	4.5	11	11
31	12	------	37	78	------	22	------	7.3	------	4.7	7.7	------
TOTAL	293.0	1,548	1,913	2,913	1,048	1,549	1,060	447.7	448.7	169.6	174.6	239.0
MEAN	9.45	51.6	61.7	94.0	36.1	50.0	35.3	14.4	15.0	5.47	5.63	7.97
MAX	26	114	146	206	72	88	86	24	49	7.7	14	28
MIN	4.5	12	22	38	22	22	21	7.3	7.0	4.0	4.0	4.1
CFSM	.409	2.23	2.67	4.07	1.56	2.16	1.53	.623	.649	.237	.244	.345
IN	.47	2.49	3.08	4.69	1.69	2.49	1.71	.72	.72	.27	.28	.38
AC-FT	581	3,070	3,790	5,780	2,080	3,070	2,100	888	890	336	346	474

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 11,803.6 MEAN 32.3 MAX 206 MIN 4.0 CFSM 1.40 IN 18.99 AC-FT 23,410

12-1271. Swamp Creek at Kenmore, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.1	31	80	76	124	76	28	17	8.4	3.8	3.1	4.5
2	7.3	21	60	207	90	59	23	16	7.4	3.9	3.5	4.8
3	6.6	24	50	190	71	49	20	16	7.0	3.8	4.4	4.9
4	6.2	74	42	131	117	41	18	28	6.6	3.6	4.1	4.5
5	5.7	30	34	112	252	36	19	45	6.5	3.6	4.1	4.4
6	5.5	19	28	134	303	32	21	26	6.4	3.5	3.8	4.2
7	5.5	15	26	117	185	29	21	21	5.9	3.7	3.3	4.0
8	8.5	13	32	104	142	27	19	18	6.1	4.9	3.2	4.7
9	9.6	13	34	95	108	25	19	16	6.1	4.7	3.4	5.3
10	8.2	13	43	79	85	24	25	15	5.6	4.6	4.5	4.3
11	7.3	13	45	68	69	23	20	14	10	4.8	4.2	4.6
12	6.6	11	36	57	72	21	18	13	8.6	4.6	5.1	5.0
13	6.6	14	31	51	91	20	22	12	6.7	4.0	4.5	5.0
14	6.6	12	35	52	82	19	21	11	5.9	3.7	3.9	6.3
15	7.0	11	34	51	69	19	18	14	6.0	3.8	3.9	8.3
16	9.9	10	22	50	57	19	19	35	5.7	3.8	3.5	7.6
17	9.1	10	20	46	49	17	17	18	5.2	3.9	3.2	6.1
18	7.5	10	20	41	43	16	16	15	5.1	4.1	3.2	5.9
19	6.8	9.9	20	38	42	16	70	13	5.0	4.2	4.4	5.5
20	7.0	9.6	21	35	42	16	122	13	4.8	7.4	12	5.5
21	6.4	9.3	32	35	42	16	87	12	4.8	5.8	6.3	5.7
22	6.2	10	153	32	78	26	56	11	5.0	5.1	5.0	5.3
23	6.4	14	119	49	69	19	42	11	4.7	4.5	6.3	5.2
24	6.4	73	86	117	57	17	42	11	4.5	4.1	9.5	5.0
25	6.6	40	62	97	48	17	35	10	4.5	3.5	7.9	4.8
26	6.4	40	126	108	66	18	29	9.5	4.5	3.3	7.0	4.9
27	6.2	33	155	150	150	18	25	8.9	4.4	6.0	5.5	5.1
28	6.2	26	117	171	106	19	22	8.7	4.2	5.0	6.6	4.8
29	6.2	26	88	259	------	23	20	8.8	4.1	4.1	5.4	4.9
30	7.3	100	68	268	------	19	18	11	3.9	3.5	5.1	4.7
31	7.7	------	53	181	------	17	------	9.7	------	3.2	4.6	------
TOTAL	218.6	734.8	1,772	3,201	2,709	793	932	487.6	173.6	132.5	154.5	155.8
MEAN	7.05	24.5	57.2	103	96.8	25.6	31.1	15.7	5.79	4.27	4.98	5.19
MAX	9.9	100	155	268	303	76	122	45	10	7.4	12	8.3
MIN	5.5	9.3	20	32	42	16	16	8.7	3.9	3.2	3.1	4.0
CFSM	.305	1.06	2.48	4.46	4.19	1.11	1.35	.680	.251	.185	.216	.225
IN	.35	1.18	2.85	5.15	4.36	1.28	1.50	.79	.28	.21	.25	.25
AC-FT	434	1,460	3,510	6,350	5,370	1,570	1,850	967	344	263	306	309

CAL YR 1964: TOTAL 10,775.0 MEAN 29.4 MAX 206 MIN 4.0 CFSM 1.27 IN 17.35 AC-FT 21,370
WAT YR 1965: TOTAL 11,464.4 MEAN 31.4 MAX 303 MIN 3.1 CFSM 1.36 IN 18.46 AC-FT 22,740

12-1273. Lyon Creek at Lake Forest Park, Wash.

Location.--Lat 47°45'11", long 122°16'35", in NW¼SE¼ sec.10, T.26 N., R.4 E., on right bank in town of Lake Forest Park, 700 ft upstream from mouth.

Drainage area.--3.67 sq mi.

Records available.--August 1963 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 20 ft (from topographic map). Prior to May 13, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for August 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	Sept.16, 1963	8.5	2.28	Sept.19, 29, 30	a 1.7	-
1964	Jan. 1, 1964	105	3.20	Aug. 24,25,Sept.12	1.3	b 1.74
1965	Feb. 5, 1965	157	3.39	Aug. 17, 1965	1.1	c 1.73

a Minimum daily.
b Occurred Sept. 12, 1964.
c Occurred July 25, Aug. 17, 1965.

1963-65: Maximum discharge, 157 cfs Feb. 5, 1965 (gage height, 3.39 ft), from rating curve extended above 60 cfs; minimum, 1.1 cfs Aug. 17, 1965; minimum gage height, 1.28 ft Sept. 30, 1963, result of construction work upstream.

Remarks.--Records excellent. Several small diversions for domestic use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	2.2
2											-	2.1
3											-	2.0
4											-	1.8
5											-	1.8
6											-	1.8
7											-	1.8
8											-	1.9
9											-	1.8
10											-	1.9
11											-	1.9
12											-	1.9
13											-	2.2
14											-	2.4
15											-	2.0
16											-	2.6
17											-	2.6
18											-	2.0
19											-	1.7
20											-	1.9
21											-	1.9
22											-	2.0
23											-	1.9
24											-	1.8
25											-	1.8
26											-	1.9
27											1.8	1.8
28											1.8	1.8
29					------						1.8	1.7
30					------						1.8	1.7
31		------			------		------		------		2.0	------
TOTAL											-	58.6
MEAN											-	1.95
MAX											-	2.6
MIN											-	1.7
CFSM											-	.53
IN.											-	.59
AC-FT											-	116

12-1273. Lyon Creek at Lake Forest Park, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	4.5	4.2	55	9.1	11	4.7	4.9	3.4	2.4	2.2	1.9
2	1.8	4.0	4.2	16	7.1	11	4.0	4.4	2.9	2.6	2.0	2.4
3	1.9	3.5	4.1	11	6.3	7.1	3.8	4.1	2.6	2.4	2.6	2.2
4	2.0	3.5	4.1	9.1	6.1	9.1	15	4.2	7.4	2.4	2.3	1.9
5	2.2	3.0	7.4	10	5.6	7.7	11	4.7	4.3	2.4	2.1	1.9
6	2.1	10	12	10	5.2	7.7	5.4	4.0	4.4	2.4	1.9	1.8
7	2.0	8.0	5.6	8.3	5.1	5.6	4.7	4.0	5.0	2.3	1.8	1.9
8	1.9	6.3	18	7.4	5.1	8.0	4.4	3.8	6.0	2.6	1.8	1.9
9	2.0	7.7	13	7.7	4.9	7.1	4.4	4.4	4.5	2.4	2.0	1.8
10	1.9	11	6.9	5.4	4.9	6.3	4.6	5.1	3.5	2.2	2.0	1.7
11	1.9	5.1	5.6	5.2	4.7	14	5.1	3.7	3.5	2.0	1.8	1.7
12	1.9	14	5.1	4.9	5.2	8.0	4.6	4.1	3.5	1.9	1.8	1.7
13	4.6	16	4.4	13	5.1	6.1	4.4	3.4	3.0	1.9	2.0	1.7
14	2.6	32	4.6	10	5.2	8.0	4.6	3.2	2.5	2.5	1.9	1.8
15	2.2	13	7.1	9.9	11	5.6	18	3.0	3.0	2.3	1.8	1.8
16	2.0	7.4	9.5	20	8.5	5.1	9.5	2.9	6.0	2.1	1.8	1.9
17	2.1	6.6	7.1	25	6.1	20	5.8	2.8	10	2.3	1.8	18
18	2.4	5.6	7.1	14	6.3	8.3	4.9	2.7	15	2.1	4.7	2.9
19	2.1	26	11	24	5.1	6.3	4.4	2.6	10	2.2	2.3	8.5
20	2.8	9.5	24	19	4.7	6.9	4.2	4.4	7.0	2.3	1.7	11
21	5.6	6.3	8.8	16	4.7	6.3	4.6	5.3	5.0	2.4	1.8	3.2
22	6.9	10	10	12	4.4	5.4	7.1	5.7	4.0	2.1	1.8	2.7
23	3.6	25	12	8.5	4.7	5.1	4.7	5.1	3.0	2.1	1.8	2.5
24	5.0	12	8.5	16	5.1	4.7	4.4	5.1	2.6	2.0	1.4	2.5
25	4.0	16	9.1	18	4.4	4.9	4.2	3.6	2.6	1.8	1.7	2.3
26	3.5	14	7.7	9.9	4.2	4.9	4.7	2.6	2.5	1.8	1.8	2.2
27	3.5	8.3	8.3	9.5	4.2	4.7	4.4	2.6	2.5	1.8	3.2	2.2
28	7.0	5.6	7.1	7.4	5.2	4.4	4.6	2.6	2.4	1.8	9.1	2.3
29	5.0	5.1	5.8	14	8.0	4.1	4.6	2.6	2.4	1.9	2.2	2.4
30	4.0	4.6	6.3	8.8	------	4.0	4.4	2.4	2.3	2.1	2.7	5.1
31	3.5	------	8.0	14	------	3.8	------	2.3	------	2.0	2.2	------
TOTAL	95.7	303.6	256.6	419.0	166.2	221.2	175.2	116.3	136.8	67.5	72.0	97.8
MEAN	3.09	10.1	8.28	13.5	5.73	7.14	5.84	3.75	4.56	2.18	2.32	3.26
MAX	7.0	32	24	55	11	20	18	5.7	15	2.6	9.1	18
MIN	1.7	3.0	4.1	4.9	4.2	3.8	3.8	2.3	2.3	1.8	1.4	1.7
CFSM	.84	2.76	2.26	3.68	1.56	1.94	1.59	1.02	1.24	.59	.63	.89
IN.	.97	3.08	2.60	4.25	1.68	2.24	1.78	1.18	1.39	.68	.73	.99
AC-FT	190	602	509	831	330	439	348	231	271	134	143	194

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 2,127.9 MEAN 5.81 MAX 55 MIN 1.4 CFSM 1.58 IN 21.56 AC-FT 4,220

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.7	17	23	25	12	8.2	7.9	3.6	2.8	2.0	1.4	1.6
2	2.5	6.3	11	41	9.2	7.1	4.7	3.7	3.4	2.1	1.8	1.7
3	2.4	17	6.9	22	8.4	6.3	4.3	3.7	3.2	2.0	1.8	1.9
4	2.3	24	5.5	15	28	5.7	4.2	14	3.0	2.1	1.8	2.0
5	2.3	7.7	4.9	21	77	5.4	4.8	11	2.6	2.1	1.7	2.0
6	2.2	5.9	4.5	25	29	5.2	4.7	4.7	2.7	2.2	1.7	1.9
7	2.3	5.2	5.0	16	15	5.0	4.6	4.1	2.7	2.3	1.8	1.9
8	3.3	5.0	7.1	17	14	4.8	4.1	4.0	2.7	2.4	1.4	1.9
9	3.5	5.6	7.4	12	9.7	4.7	4.3	3.7	2.8	2.1	1.5	1.9
10	2.7	5.8	8.2	8.7	9.3	4.6	4.8	3.5	2.9	1.9	1.9	1.9
11	2.5	5.2	6.2	7.6	8.1	4.5	3.9	3.3	6.0	1.9	1.7	2.0
12	2.4	4.2	4.8	6.7	12	4.4	3.8	3.3	3.2	1.8	2.4	2.0
13	2.4	4.5	4.4	6.3	14	4.5	5.3	3.4	2.8	1.9	1.7	2.1
14	2.3	3.4	6.7	6.4	13	4.4	4.1	3.3	2.8	1.8	1.6	2.2
15	2.7	3.0	5.0	5.9	8.7	4.3	3.9	7.2	2.7	1.9	1.4	2.8
16	5.1	2.9	3.7	5.6	7.3	4.5	4.2	11	2.5	1.9	1.4	1.9
17	3.3	2.8	3.5	5.2	6.6	4.1	3.7	3.9	2.4	1.9	1.3	1.7
18	2.4	2.8	3.6	5.1	6.2	4.1	3.6	3.5	2.4	1.8	1.4	1.7
19	2.4	2.7	3.8	5.0	6.6	4.3	42	3.8	2.3	1.8	3.5	1.7
20	2.4	2.7	4.6	4.9	5.8	4.5	16	3.6	2.3	4.0	5.1	1.7
21	2.4	2.6	10	5.5	7.5	4.6	9.4	3.3	2.2	2.1	1.9	1.7
22	2.4	3.3	45	4.9	11	7.0	6.0	3.2	2.1	2.1	1.8	1.8
23	2.4	4.8	17	13	7.1	4.4	5.3	3.1	2.2	1.9	2.6	1.7
24	2.4	32	13	25	6.3	4.2	6.0	3.2	2.1	1.7	2.9	1.7
25	2.4	8.8	9.5	12	5.8	4.3	4.8	3.1	2.1	1.7	2.1	1.7
26	2.4	10	33	17	20	4.7	4.3	3.0	2.4	1.6	1.9	1.8
27	2.3	6.9	17	21	28	4.4	4.1	3.0	2.2	4.3	1.9	1.7
28	2.3	4.9	11	21	11	5.1	3.8	3.1	2.0	2.0	2.2	1.7
29	2.4	18	9.7	36	------	5.9	3.7	3.1	1.9	1.6	1.8	1.6
30	2.8	39	8.3	30	------	4.5	3.6	3.3	1.9	1.5	1.7	1.6
31	2.7	------	6.6	16	------	4.2	------	3.0	------	1.5	1.8	------
TOTAL	81.0	264.0	309.9	463.3	396.6	153.9	189.9	136.7	79.3	63.9	60.9	55.5
MEAN	2.61	8.80	10.0	14.9	14.2	4.96	6.33	4.41	2.64	2.06	1.96	1.85
MAX	5.1	39	45	41	77	8.2	42	14	6.0	4.3	5.1	2.8
MIN	2.2	2.6	3.5	4.9	5.8	4.1	3.6	3.0	1.9	1.5	1.3	1.6
CFSM	.71	2.40	2.72	4.07	3.86	1.35	1.72	1.20	.72	.56	.54	.50
IN.	.82	2.68	3.14	4.69	4.02	1.56	1.92	1.39	.80	.65	.62	.56
AC-FT	161	524	615	919	787	305	377	271	157	127	121	110

CAL YR 1964: TOTAL 2,126.9 MEAN 5.81 MAX 55 MIN 1.4 CFSM 1.58 IN 21.55 AC-FT 4,220
WAT YR 1965: TOTAL 2,254.9 MEAN 6.18 MAX 77 MIN 1.3 CFSM 1.68 IN 22.85 AC-FT 4,470

12-1274. Lake Ballinger near Edmonds, Wash.

Location.--Lat 47°46'45", long 122°19'35", in SW¼ sec.32, T.27 N., R.4 E., at south end of lake, a quarter of a mile southwest of lake outlet and 3 miles southeast of Edmonds.

Drainage area.--5.09 sq mi.

Records available.--January 1961 to June 1963 (fragmentary). July 1963 to September 1965.

Gage.--Staff gage read twice daily; prior to July 1, 1963, read twice weekly. Datum of gage is 275.65 ft above mean sea level (levels by Washington State Department of Conservation from King County Aerial Survey bench mark).

Extremes.--Maximum and minimum gage heights, in feet, for January 1961 to September 1965 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Apr. 15, 1961	2.26	Jan. 28, Mar. 25, 1961	1.46
1962	July 19, 1962	2.11	Jan. 24, 27, 1962	1.00
1963	Mar. 30, 1963	2.24	Oct. 24, 31, Nov. 3, 1962	1.38
1964	June 18, 1964	2.32	Feb. 26, 27, 1964	1.12
1965	Feb. 6, 1965	2.68	Mar. 20, 21, 1965	1.04

1961-65: Maximum gage height observed, 2.68 ft Feb. 6, 1965; minimum observed, 1.00 ft Jan. 24, 27, 1962.

Remarks.--Level of Lake Ballinger is controlled by flashboards in weir at outlet. No known diversion.

GAGE HEIGHT, IN FEET, JANUARY TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				-	1.90	1.68	1.66	-	-	2.00	-	-
2				-	-	-	-	-	-	-	2.10	2.18
3				-	-	-	-	2.14	1.98	-	-	-
4				-	1.80	1.56	-	-	-	-	-	-
5				-	-	-	1.82	-	-	2.15	2.10	-
6				-	-	-	-	2.30	-	-	-	2.16
7				-	-	-	-	-	2.06	-	2.10	-
8				-	1.90	1.84	1.88	-	-	2.18	-	2.14
9				-	-	-	-	-	-	-	2.10	2.16
10				-	-	-	-	2.12	2.08	-	-	-
11				-	1.74	1.66	-	-	-	-	-	-
12				-	-	-	2.20	-	-	2.14	2.10	-
13				-	-	-	-	2.04	-	-	-	2.12
14				-	-	-	-	-	2.10	-	-	-
15				-	2.02	2.08	2.26	-	-	2.12	-	-
16				-	-	-	-	-	-	-	2.10	1.96
17				-	-	-	-	2.00	2.10	-	-	-
18				-	1.90	1.72	-	-	-	-	-	-
19				-	-	-	2.06	-	-	2.10	2.10	-
20				-	-	-	-	2.10	-	-	-	1.84
21				-	-	-	-	-	2.04	-	-	-
22				-	1.68	1.52	2.06	-	-	2.10	-	-
23				-	-	-	-	-	-	-	2.10	1.82
24				-	-	-	-	2.00	2.02	-	-	-
25				1.50	2.24	1.46	-	-	-	-	-	-
26				-	-	-	1.96	-	-	2.10	2.10	-
27				-	-	-	-	2.14	-	-	-	1.80
28				1.46	-	-	-	-	2.00	-	-	-
29				-	------	1.56	2.06	2.18	-	2.10	-	-
30				-	------	-	-	-	-	-	2.10	1.82
31		------		-	------	-	------	2.02	------	-	-	------

12-1274. Lake Ballinger near Edmonds, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	1.70	-	-	-	-	-	-	-	-	1.80	1.84
2	-	-	1.22	-	-	-	-	1.82	1.88	-	-	-
3	-	-	-	1.42	1.24	1.36	-	-	-	-	-	-
4	1.82	1.70	-	-	-	-	1.58	-	-	1.94	1.94	-
5	-	-	-	-	-	-	-	1.66	-	-	-	1.82
6	-	-	1.10	1.38	-	-	-	-	1.92	-	-	-
7	1.90	-	-	-	1.34	1.76	1.70	-	-	2.06	-	-
8	-	1.66	-	-	-	-	-	-	-	-	2.00	1.80
9	-	-	1.10	-	-	-	-	1.48	1.90	-	-	-
10	-	-	-	1.28	1.40	1.62	-	-	-	-	-	-
11	1.78	1.88	-	-	-	-	1.68	-	-	2.06	2.10	-
12	-	-	-	-	-	-	-	1.40	-	-	-	1.98
13	-	-	1.10	1.18	-	-	-	-	1.90	-	-	-
14	1.72	-	-	-	1.42	1.44	1.60	-	-	2.06	-	-
15	-	1.56	-	-	-	-	-	-	-	-	2.10	1.98
16	1.68	-	1.10	-	1.41	-	-	1.40	1.88	-	-	-
17	-	-	-	1.10	1.40	1.38	-	-	-	-	-	-
18	1.66	1.40	-	-	-	-	1.72	-	-	2.10	2.10	-
19	-	-	-	-	-	-	-	1.44	-	2.11	-	1.88
20	-	1.34	1.78	1.06	-	-	-	-	1.88	-	-	-
21	1.70	-	-	-	1.30	1.48	1.72	-	-	2.10	-	-
22	-	1.40	-	-	-	-	-	-	-	-	1.90	1.88
23	-	-	1.70	-	-	-	-	1.56	1.86	-	-	-
24	-	-	-	1.00	1.32	1.58	-	-	-	-	-	-
25	1.76	1.18	-	-	-	-	1.70	-	-	1.90	1.84	-
26	-	-	1.42	-	-	-	-	1.72	-	-	-	1.88
27	-	-	1.34	1.00	-	-	-	-	1.90	-	-	-
28	1.82	-	-	-	1.30	1.48	1.96	-	-	1.84	-	-
29	-	1.20	-	-	------	1.45	-	-	-	-	1.84	1.96
30	-	-	1.26	-	------	-	-	1.82	1.90	-	-	-
31	-	------	-	1.20	------	1.44	------	-	------	-	-	------

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	1.94	-	-	-	-	1.62	1.74	1.88	1.86	1.90
2	-	-	-	1.97	1.52	1.78	-	-	-	1.88	1.86	1.90
3	1.64	1.38	-	-	-	-	1.58	-	-	1.87	1.86	1.90
4	-	-	-	-	-	-	-	1.68	-	1.86	1.86	1.90
5	-	-	1.68	1.78	-	-	-	-	1.88	1.86	1.86	1.88
6	1.58	-	-	-	2.08	1.76	1.66	-	-	1.87	1.86	1.88
7	-	1.42	-	-	-	-	-	-	-	1.88	1.86	1.88
8	-	-	1.56	-	-	-	-	1.62	1.78	1.88	1.84	1.88
9	-	-	-	1.60	1.58	1.76	-	-	-	1.88	1.84	1.88
10	1.60	1.46	-	-	-	-	1.78	-	-	1.88	1.84	1.90
11	-	-	-	-	-	-	-	1.62	-	1.88	1.84	1.92
12	-	-	1.46	1.56	-	-	-	-	1.90	1.88	1.86	1.92
13	1.56	-	-	-	1.48	1.56	1.70	-	-	1.88	1.88	1.92
14	-	1.60	-	-	-	-	-	-	-	1.88	1.87	1.92
15	-	-	1.70	-	-	-	-	1.68	1.90	1.88	1.86	1.92
16	-	-	-	1.50	1.50	1.50	-	-	-	1.90	1.86	1.92
17	1.42	1.56	-	-	-	-	1.60	-	-	1.90	1.84	1.92
18	-	-	-	-	-	1.60	-	1.70	-	1.90	1.84	1.92
19	-	-	1.62	1.50	-	-	-	-	1.88	1.92	1.84	1.92
20	1.40	-	-	-	1.68	1.66	1.60	-	-	1.92	1.84	1.92
21	-	1.54	-	-	-	-	-	-	-	1.92	1.86	1.92
22	-	-	1.58	-	-	-	-	1.72	1.90	1.92	1.86	1.92
23	-	-	-	1.48	1.70	1.58	1.70	-	-	1.92	1.86	1.92
24	1.39	1.48	-	-	-	-	1.54	-	-	1.90	1.88	1.92
25	-	-	-	-	-	-	-	1.72	-	1.90	1.88	1.92
26	-	-	1.48	1.48	-	-	-	-	-	1.88	1.88	1.92
27	1.40	-	-	-	1.82	1.76	1.56	-	-	1.88	1.88	1.92
28	-	1.88	-	-	-	-	-	-	-	1.88	1.88	1.92
29	-	-	1.48	-	------	-	-	1.72	-	1.88	1.88	1.92
30	-	-	-	1.46	------	2.24	-	-	1.88	1.88	1.90	1.92
31	1.38	------	-	-	------	-	------	-	------	1.88	1.90	------
MAX	-	-	-	-	-	-	-	-	-	1.92	1.90	1.92
MIN	-	-	-	-	-	-	-	-	-	1.86	1.84	1.88

12-1274. Lake Ballinger near Edmonds, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.92	1.30	1.32	1.58	1.47	1.21	1.47	2.00	1.92	1.92	1.93	1.94
2	1.92	1.26	1.24	1.92	1.44	1.30	1.51	2.00	1.92	1.92	1.93	1.92
3	1.94	1.26	1.19	2.05	1.39	1.32	1.56	2.00	1.94	1.92	1.94	1.92
4	1.94	1.28	1.18	1.90	1.34	1.30	1.76	2.00	2.00	1.92	1.94	1.92
5	1.96	1.27	1.17	1.72	1.32	1.32	1.95	1.98	2.06	1.92	1.93	1.92
6	1.96	1.39	1.23	1.60	1.27	1.29	2.06	1.96	2.04	1.92	1.92	1.92
7	1.96	1.49	1.34	1.44	1.21	1.30	2.08	1.97	2.02	1.92	1.92	1.92
8	1.96	1.56	1.46	1.40	1.20	1.30	2.06	1.98	2.02	1.92	1.92	1.92
9	1.97	1.54	1.57	1.34	1.19	1.28	2.04	1.98	2.04	1.92	1.92	1.91
10	1.98	1.52	1.61	1.30	1.15	1.26	2.04	1.98	2.01	1.92	1.93	1.90
11	2.02	1.53	1.52	1.29	1.14	1.28	2.06	2.00	2.00	1.92	1.92	1.89
12	2.02	1.61	1.39	1.27	1.14	1.34	2.06	2.00	2.00	1.92	1.92	1.88
13	2.06	1.73	1.31	1.29	1.14	1.36	2.05	2.00	1.98	1.92	1.92	1.88
14	2.08	1.95	1.28	1.30	1.19	1.41	2.06	1.98	1.98	1.92	1.92	1.88
15	2.08	2.07	1.29	1.40	1.23	1.42	2.15	1.98	1.96	1.92	1.92	1.88
16	2.01	2.00	1.39	1.58	1.24	1.40	2.26	1.96	2.03	1.92	1.92	1.90
17	1.94	1.82	1.49	1.89	1.27	1.38	2.19	1.96	2.23	1.92	1.91	2.12
18	1.89	1.62	1.59	2.00	1.28	1.41	2.16	1.94	2.31	1.92	1.95	2.22
19	1.86	1.68	1.70	2.00	1.24	1.42	2.16	1.94	2.25	1.92	1.99	2.29
20	1.83	1.76	1.66	2.11	1.24	1.40	2.18	1.95	2.18	1.92	2.02	2.27
21	1.78	1.72	1.61	1.92	1.21	1.38	2.23	1.95	2.11	1.92	1.98	2.21
22	1.76	1.70	1.54	1.84	1.18	1.40	2.30	1.96	2.08	1.92	1.98	2.15
23	1.58	1.70	1.48	1.66	1.16	1.37	2.26	1.96	2.02	1.92	1.96	2.09
24	1.57	1.73	1.50	1.63	1.18	1.32	2.17	1.98	1.98	1.92	1.96	2.01
25	1.53	1.75	1.44	1.75	1.15	1.27	2.12	1.96	1.98	1.92	1.96	1.98
26	1.47	1.75	1.40	1.70	1.12	1.25	2.08	1.96	1.93	1.92	1.94	1.96
27	1.42	1.70	1.35	1.65	1.12	1.30	2.05	1.94	1.92	1.92	1.94	1.94
28	1.35	1.64	1.32	1.51	1.16	1.37	2.02	1.94	1.92	1.92	1.96	1.94
29	1.30	1.56	1.28	1.55	1.18	1.38	2.02	1.92	1.92	1.94	1.96	1.94
30	1.27	1.42	1.32	1.52	------	1.38	2.02	1.92	1.92	1.94	1.95	1.94
31	1.28	------	1.29	1.53	------	1.41	------	1.92	------	1.93	1.94	------
MAX	2.08	2.07	1.70	2.11	1.47	1.42	2.30	2.00	2.31	1.94	2.02	2.29
MIN	1.27	1.26	1.17	1.27	1.12	1.21	1.47	1.92	1.92	1.92	1.91	1.88

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.92	2.04	2.10	1.93	1.96	1.56	1.10	2.16	1.93	1.88	1.94	2.00
2	1.92	2.07	2.06	1.98	1.83	1.44	1.10	2.08	1.92	1.88	1.96	1.99
3	1.92	2.14	1.91	2.02	1.92	1.36	1.10	2.00	1.92	1.88	1.96	1.98
4	1.92	2.30	1.75	2.04	2.10	1.25	1.10	2.00	1.92	1.88	1.94	1.98
5	1.92	2.17	1.62	2.06	2.46	1.19	1.10	2.00	1.92	1.88	1.94	1.98
6	1.92	1.82	1.52	2.11	2.68	1.18	1.10	2.00	1.92	1.88	1.94	1.98
7	1.94	1.56	1.45	2.14	2.38	1.16	1.12	2.00	1.92	1.88	1.94	1.96
8	1.96	1.45	1.46	2.01	2.19	1.16	1.12	2.00	1.92	1.90	1.93	1.96
9	1.96	1.34	1.44	1.86	1.88	1.16	1.12	2.00	1.94	1.90	1.93	1.96
10	1.96	1.27	1.39	1.75	1.67	1.14	1.10	2.00	1.94	1.91	1.92	1.96
11	1.97	1.23	1.36	1.66	1.56	1.12	1.10	2.00	1.92	1.91	1.93	1.96
12	1.97	1.20	1.34	1.58	1.58	1.10	1.10	1.99	1.92	1.91	1.93	1.96
13	1.96	1.20	1.36	1.51	1.54	1.09	1.12	1.98	1.92	1.92	1.93	1.95
14	1.96	1.18	1.36	1.40	1.50	1.09	1.20	1.98	1.92	1.92	1.93	1.95
15	1.94	1.14	1.33	1.30	1.48	1.08	1.23	1.98	1.92	1.92	1.93	1.95
16	1.96	1.10	1.30	1.23	1.45	1.08	1.26	2.10	1.90	1.94	1.93	1.94
17	1.98	1.08	1.30	1.20	1.36	1.07	1.29	2.09	1.90	1.94	1.93	1.94
18	2.00	1.08	1.30	1.18	1.33	1.06	1.32	2.04	1.88	1.95	1.97	1.94
19	2.00	1.07	1.30	1.23	1.25	1.05	1.57	2.00	1.88	1.95	2.11	1.94
20	1.99	1.06	1.28	1.30	1.20	1.04	2.25	1.98	1.88	1.95	2.10	1.94
21	1.98	1.06	1.36	1.36	1.20	1.04	2.43	1.98	1.88	1.95	2.08	1.94
22	1.96	1.07	1.95	1.41	1.29	1.10	2.51	1.98	1.88	1.96	2.06	1.94
23	1.96	1.10	2.10	1.52	1.37	1.10	2.52	1.97	1.88	1.96	2.04	1.94
24	1.94	1.50	2.04	1.64	1.42	1.09	2.50	1.97	1.88	1.96	2.02	1.94
25	1.94	1.62	2.04	1.70	1.49	1.08	2.50	1.96	1.88	1.97	2.02	1.94
26	1.93	1.68	2.07	1.72	1.57	1.08	2.50	1.96	1.88	1.99	2.04	1.93
27	1.92	1.60	2.16	1.82	1.61	1.10	2.41	1.95	1.88	2.00	2.04	1.93
28	1.92	1.52	2.03	1.92	1.61	1.10	2.34	1.95	1.88	1.98	2.04	1.93
29	1.94	1.48	1.94	2.17	------	1.10	2.25	1.96	1.88	1.98	2.03	1.92
30	1.98	1.98	1.86	2.12	------	1.10	2.20	1.95	1.88	1.96	2.02	1.92
31	2.02	------	1.86	2.04	------	1.10	------	1.94	------	1.96	2.01	------
MAX	2.02	2.30	2.16	2.17	2.68	1.56	2.52	2.16	1.94	2.00	2.11	2.00
MIN	1.92	1.06	1.28	1.18	1.20	1.04	1.10	1.94	1.88	1.88	1.92	1.92

12-1276. McAleer Creek at Lake Forest Park, Wash.

Location.--Lat 47°45'07", long 122°16'48", in SE¼SW¼ sec.10, T.26 N., R.4 E., on right bank 40 ft upstream from N.E. Bothell Way in town of Lake Forest Park and a quarter of a mile upstream from mouth.

Drainage area.--7.80 sq mi.

Records available.--August 1963 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 22.50 ft above mean sea level (levels by municipality of Metropolitan Seattle). Prior to May 12, 1964, graphic water-stage recorder at same site and datum.

Extremes.--Maximum and minimum discharges for August 1963 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1963	Aug. 23, 1963	12	2.47	Aug. 20, 22, 1963	6.6	2.26
1964	Jan. 1, 1964	82	3.23	Oct. 9, 1963	5.6	2.20
1965	Feb. 5, 1965	109	3.39	Aug. 8, 1965	5.3	2.22

1963-65: Maximum discharge, 109 cfs Feb. 5, 1965 (gage height, 3.39 ft); minimum, 5.3 cfs Aug. 8, 1965 (gage height, 2.22 ft).

Remarks.--Records good. Many small diversions for domestic use. Minor regulation by Lake Ballinger.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											-	7.5
2											-	7.5
3											-	7.5
4											-	7.1
5											-	7.0
6											-	7.0
7											-	6.8
8											-	7.1
9											-	7.1
10											-	7.3
11											-	7.5
12											-	7.8
13											-	7.8
14											-	7.8
15											-	7.3
16											-	8.2
17											-	8.0
18											-	7.3
19											-	7.1
20											7.0	7.1
21											7.0	7.0
22											7.0	7.0
23											7.8	7.0
24											8.0	7.0
25											8.0	7.0
26											7.8	7.0
27											7.5	7.0
28											7.3	7.0
29					------						7.5	7.0
30					------						7.5	7.0
31		------			------		------		------		7.3	------
TOTAL											-	217.8
MEAN											-	7.26
MAX											-	8.2
MIN											-	6.8
CFSM											-	.93
IN.											-	1.04
AC-FT											-	432

12-1276. McAleer Creek at Lake Forest Park, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.0	12	13	44	21	15	8.4	9.6	7.8	7.3	6.6	8.0
2	7.0	12	13	37	19	16	8.2	9.4	7.5	7.3	6.6	8.5
3	7.1	12	12	31	17	14	8.0	9.1	7.3	7.3	7.0	7.8
4	7.5	12	12	27	16	16	11	9.1	11	7.1	7.0	7.3
5	7.8	12	13	23	15	15	11	9.4	9.6	7.1	6.8	7.5
6	7.5	18	17	21	14	16	11	8.9	9.1	7.1	6.6	7.3
7	7.1	20	15	18	13	14	11	8.9	8.9	7.3	6.5	7.3
8	7.0	19	19	16	12	14	11	8.7	9.9	7.5	6.5	7.4
9	6.6	18	23	17	12	14	11	8.9	9.1	7.1	6.5	7.3
10	7.1	21	21	15	12	14	11	9.9	8.7	7.1	6.3	7.2
11	7.1	17	18	14	12	21	11	9.4	9.1	7.0	6.1	7.1
12	7.0	23	16	13	12	19	11	9.6	8.7	6.8	6.3	7.1
13	11	29	15	19	11	17	11	8.9	8.5	6.8	6.3	7.3
14	8.7	50	15	19	12	17	11	8.5	8.2	7.1	6.3	7.5
15	8.2	42	15	19	15	15	20	8.2	8.5	7.0	6.3	7.3
16	11	33	18	27	15	14	19	8.0	13	6.8	6.3	8.0
17	12	27	17	36	14	23	15	7.8	15	7.0	6.3	22
18	11	22	17	34	14	19	11	7.8	19	6.8	9.1	12
19	9.9	38	21	39	13	17	9.4	7.5	14	6.6	7.3	14
20	9.9	33	33	40	13	16	8.7	8.2	12	6.8	7.0	15
21	13	27	25	36	12	16	8.7	8.0	10	7.0	6.6	13
22	24	28	25	30	12	15	9.9	8.2	9.4	7.0	6.6	13
23	19	42	26	25	12	14	8.7	7.8	8.9	6.6	6.5	11
24	20	36	24	30	11	12	13	7.5	8.7	6.6	6.6	9.6
25	15	32	22	31	11	12	15	7.8	8.3	6.6	6.6	9.1
26	13	29	19	25	11	12	12	7.5	8.1	6.6	6.8	8.7
27	12	24	18	23	10	11	11	7.1	8.0	6.6	8.9	8.2
28	17	20	17	21	11	8.7	10	7.3	8.0	6.3	11	8.2
29	14	18	16	24	13	8.4	9.6	7.3	8.0	6.3	8.9	8.2
30	12	16	15	21	------	8.4	9.4	7.1	7.8	6.6	8.9	9.6
31	11	------	15	23	------	8.4	------	7.1	------	6.5	8.5	------
TOTAL	337.5	742	565	798	385	451.9	336.0	258.5	290.1	213.6	219.6	281.5
MEAN	10.9	24.7	18.2	25.7	13.3	14.6	11.2	8.34	9.67	6.89	7.08	9.38
MAX	24	50	33	44	21	23	20	9.9	19	7.5	11	22
MIN	6.6	12	12	13	10	8.4	8.0	7.1	7.3	6.3	6.1	7.1
CFSM	1.40	3.17	2.34	3.30	1.70	1.87	1.44	1.07	1.24	.88	.91	1.20
IN.	1.61	3.54	2.69	3.80	1.84	2.15	1.60	1.23	1.38	1.02	1.05	1.34
AC-FT	669	1,470	1,120	1,580	764	896	666	513	575	424	436	558

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 4,878.7 MEAN 13.3 MAX 50 MIN 6.1 CFSM 1.71 IN 23.26 AC-FT 9,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.0	17	36	30	35	22	14	10	7.8	6.2	6.4	6.8
2	8.4	13	30	43	28	20	12	9.8	7.6	6.2	6.6	6.8
3	8.1	22	25	41	24	18	11	9.8	7.6	6.2	6.6	6.8
4	7.8	37	21	35	34	17	11	19	7.6	6.2	6.6	6.8
5	7.6	35	18	35	71	15	11	18	7.3	6.0	6.6	6.8
6	7.3	25	16	38	67	14	11	13	7.3	6.0	6.4	6.6
7	7.3	19	15	34	57	14	11	11	7.0	6.2	6.4	6.6
8	9.0	15	16	31	49	13	11	10	7.0	6.8	6.4	6.6
9	9.2	14	16	27	36	13	11	9.8	7.0	6.4	6.6	6.6
10	8.4	13	16	23	32	12	11	9.2	7.0	6.2	6.8	6.6
11	8.1	11	15	21	28	12	11	9.0	9.8	6.4	6.6	6.6
12	7.6	11	13	19	28	11	11	9.0	8.1	6.2	7.0	6.6
13	7.6	12	13	18	30	11	11	8.7	7.8	6.2	6.6	6.8
14	7.6	11	14	17	31	11	9.0	8.4	7.6	6.2	6.8	7.0
15	8.1	10	12	15	27	11	8.7	13	7.6	6.4	6.6	8.7
16	10	9.8	11	15	24	11	8.7	15	7.3	6.2	6.4	7.0
17	9.5	9.2	9.8	14	22	10	8.1	11	7.0	6.4	6.4	6.8
18	8.7	9.0	9.8	13	20	10	8.1	10	7.0	6.2	6.2	6.8
19	8.1	9.0	9.8	13	18	10	34	9.8	7.0	6.2	9.2	6.8
20	7.6	8.7	11	12	14	9.8	14	9.5	7.0	8.7	11	6.8
21	7.6	8.7	15	12	15	10	13	9.0	7.0	6.8	7.8	6.8
22	7.3	9.5	45	11	17	13	13	8.7	6.8	6.8	7.6	6.8
23	7.3	11	33	19	17	11	14	8.7	6.6	6.6	8.4	6.8
24	7.3	31	29	28	17	11	13	8.4	6.4	6.6	9.0	6.6
25	7.3	19	25	23	16	11	11	8.4	6.4	6.6	8.1	6.8
26	7.0	20	40	27	26	11	15	8.1	6.6	6.4	7.8	6.8
27	7.0	18	34	28	33	11	21	8.1	6.4	8.1	7.6	6.8
28	7.0	16	30	31	25	12	15	8.1	6.2	6.8	7.8	6.8
29	7.0	28	26	48	------	13	13	8.4	6.2	6.6	7.3	6.8
30	7.3	40	23	49	------	11	11	8.4	6.2	6.4	7.0	6.6
31	7.3	------	20	42	------	11	------	8.1	------	6.4	6.8	------
TOTAL	244.4	511.9	647.4	812	841	389.8	376.6	315.4	214.2	201.6	223.6	204.5
MEAN	7.88	17.1	20.9	26.2	30.0	12.6	12.6	10.2	7.14	6.50	7.21	6.82
MAX	10	40	45	49	71	22	34	19	9.8	8.7	11	8.7
MIN	7.0	8.7	9.8	11	14	9.8	8.1	8.1	6.2	6.0	6.2	6.6
CFSM	1.01	2.19	2.68	3.36	3.85	1.61	1.61	1.30	.92	.83	.92	.87
IN.	1.17	2.44	3.09	3.87	4.01	1.86	1.80	1.50	1.02	.96	1.07	.98
AC-FT	485	1,020	1,280	1,610	1,670	773	747	626	425	400	444	406

CAL YR 1964: TOTAL 4,637.9 MEAN 12.7 MAX 45 MIN 6.1 CFSM 1.62 IN 22.11 AC-FT 9,200
WAT YR 1965: TOTAL 4,982.4 MEAN 13.7 MAX 71 MIN 6.0 CFSM 1.75 IN 23.76 AC-FT 9,880

12-1280. Thornton Creek near Seattle, Wash.

Location.--Lat 47°41'45", long 122°16'30", in NW¼SE¼ sec.34, T.26 N., R.4 E., on left bank at highway crossing, a quarter of a mile upstream from mouth and 1½ miles north of Seattle city limits.

Drainage area.--12.1 sq mi (revised).

Records available.--June 1945 to September 1946, May 1961 to September 1965.

Gage.--Water-stage recorder. Concrete control since June 25, 1962. Altitude of gage is 40 ft (from topographic map). June 1945 to September 1946 at datum 0.09 ft higher.

Extremes.--Maximum and minimum discharges for May 1961 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	July 5, 1961	38	1.51	Aug. 7, 1961	1.9	0.44
1962	Sept.28, 1962	96	2.55	Sept. 4, 1962	a 3.7	-
1963	Nov. 25, 1962	231	3.82	July 5, 1963	3.9	1.26
1964	Jan. 1, 1964	173	3.29	July 29, 1964	3.7	1.28
1965	Apr. 19, 1965	237	3.96	July 13, Aug. 18	4.0	1.30

a Minimum daily.

1945-46, 1961-65: Maximum discharge, 237 cfs Apr. 19, 1965 (gage height, 3.96 ft), from rating curve extended above 52 cfs on basis of culvert computation of peak flow; minimum, 1.9 cfs Aug. 7, 1961 (gage height, 0.44 ft).

Remarks.--Records good. Flow partly regulated by supplemental inflow from city of Seattle water supply. Many small diversions for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1								-	7.4	7.4	4.6	12
2								-	6.8	6.8	4.4	7.9
3								-	6.8	5.2	4.4	7.4
4								-	6.8	6.5	4.2	7.4
5								-	6.8	17	5.6	9.4
6								-	9.7	8.2	5.6	7.4
7								-	7.4	6.5	3.9	7.4
8								-	6.0	6.8	3.9	7.1
9								-	5.9	6.2	4.2	6.8
10								-	7.1	4.9	4.2	6.5
11								-	7.4	4.4	4.4	6.8
12								-	5.6	4.6	5.6	6.8
13								-	5.6	4.4	5.9	6.2
14								-	5.2	4.2	4.9	6.8
15								-	5.2	5.4	4.9	7.1
16								-	5.4	5.4	4.9	7.1
17								-	6.5	4.2	4.9	6.8
18								-	6.2	4.2	4.6	6.5
19								6.5	4.9	4.2	5.9	6.5
20								6.8	5.2	4.2	5.4	7.6
21								6.5	5.2	4.4	4.6	7.4
22								7.1	4.9	5.6	4.6	6.8
23								11	4.9	5.6	5.2	6.8
24								7.4	6.5	4.4	4.6	6.8
25								6.8	6.5	4.4	4.6	6.8
26								17	5.4	4.4	5.9	6.5
27								19	5.4	4.4	5.9	6.8
28								12	5.2	4.9	4.4	7.6
29					------			10	5.4	5.9	4.4	7.4
30					------			8.2	5.4	5.9	4.6	7.1
31		------			------		------	7.9	------	4.6	9.4	------
TOTAL								-	182.7	175.2	154.6	217.5
MEAN								-	6.09	5.65	4.99	7.25
MAX								-	9.7	17	9.4	12
MIN								-	4.9	4.2	3.9	6.2
AC-FT								-	362	348	307	431

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1280. Thornton Creek near Seattle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.6	9.1	15	11	11	12	11	11	7.6	6.9	4.4	5.3
2	7.4	8.8	12	21	11	13	10	9.7	11	5.1	4.6	5.5
3	7.4	9.7	11	26	11	12	9.7	15	8.5	5.3	9.0	5.3
4	7.4	7.9	15	19	10	29	14	10	9.0	9.0	14	3.7
5	12	7.6	11	19	9.7	28	12	9.1	14	7.7	10	3.9
6	10	7.6	10	26	12	22	12	8.8	11	7.1	10	4.2
7	12	7.4	15	22	14	17	11	8.8	12	6.4	11	4.1
8	8.8	7.4	13	17	16	21	10	12	11	5.3	8.5	4.6
9	13	22	11	15	15	20	9.7	11	10	4.1	7.4	5.1
10	11	21	10	13	15	15	9.1	9.1	9.0	4.2	6.7	14
11	11	13	9.7	12	13	13	9.4	8.8	8.0	4.1	6.3	9.9
12	14	9.7	9.4	13	12	12	9.4	8.8	7.0	3.9	5.9	7.8
13	9.4	8.8	19	12	15	11	9.4	8.5	9.0	3.9	5.9	16
14	8.8	8.2	15	14	16	11	9.4	8.2	7.0	5.1	5.7	9.0
15	8.5	7.9	16	12	12	10	10	8.8	6.0	5.1	5.7	7.1
16	11	7.9	23	12	11	12	9.1	8.2	6.0	3.9	5.9	6.4
17	7.9	7.9	30	12	11	10	8.8	7.9	6.0	4.2	5.7	6.4
18	7.4	11	23	11	10	10	9.1	8.8	5.0	4.1	5.7	6.1
19	9.1	11	22	9.7	9.4	10	8.8	8.2	5.0	4.3	5.3	6.3
20	8.5	8.5	25	9.0	8.8	18	8.5	7.9	5.0	4.4	4.6	6.1
21	7.4	13	23	8.8	8.5	15	8.5	7.6	5.0	5.3	4.2	6.4
22	8.2	21	21	9.0	10	18	8.5	7.9	5.0	6.4	4.4	7.1
23	13	12	20	9.3	13	15	8.2	15	5.0	4.7	4.2	6.7
24	9.4	11	19	10	9.4	28	11	12	4.0	4.1	4.2	6.1
25	14	10	14	12	8.8	21	9.7	13	4.0	4.6	5.1	6.1
26	22	10	13	12	8.2	15	11	9.4	4.9	4.4	5.5	5.9
27	14	14	12	12	7.9	15	24	8.5	5.5	4.4	5.7	7.8
28	11	24	17	11	9.1	12	14	8.5	4.4	5.3	7.1	27
29	8.5	19	16	11	------	11	12	8.8	4.6	5.3	6.1	15
30	8.2	21	12	10	------	10	10	7.9	6.1	4.4	5.3	9.0
31	7.9	------	12	11	------	11	------	7.4	------	4.4	4.2	------
TOTAL	315.8	357.4	494.1	421.8	317.8	477	317.3	294.6	215.6	157.4	198.3	233.9
MEAN	10.2	11.9	15.9	13.6	11.4	15.4	10.6	9.50	7.19	5.08	6.40	7.80
MAX	22	24	30	26	16	29	24	15	14	9.0	14	27
MIN	7.4	7.4	9.4	8.8	7.9	10	8.2	7.4	4.0	3.9	4.2	3.7
AC-FT	626	709	980	837	630	946	629	584	428	312	393	464

CAL YR 1961: TOTAL MEAN MAX MIN AC-FT
WAT YR 1962: TOTAL 3,801.0 MEAN 10.4 MAX 30 MIN 3.7 AC-FT 7,540

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.8	7.6	27	31	18	15	16	13	6.1	5.5	4.9	6.9
2	8.3	7.6	28	42	36	12	13	12	7.4	5.0	4.9	6.9
3	7.8	7.6	18	29	45	11	15	9.3	6.4	4.7	5.5	6.1
4	7.1	9.2	18	18	42	10	19	9.9	12	5.9	5.9	6.1
5	7.1	11	15	14	32	10	20	24	12	4.6	5.1	6.1
6	8.7	9.0	13	13	27	9.9	31	12	8.3	6.4	5.1	6.1
7	16	10	12	12	21	10	25	12	7.0	11	4.9	5.9
8	24	9.6	12	12	16	11	22	11	7.5	13	4.9	6.1
9	29	11	11	12	15	10	15	9.0	11	7.6	4.9	5.9
10	14	24	10	10	13	9.6	12	8.5	8.0	7.1	5.9	8.4
11	15	26	10	9.3	12	9.3	12	8.5	7.0	6.3	8.3	6.3
12	15	21	11	9.3	12	9.0	13	8.3	6.2	4.9	5.7	5.9
13	15	22	14	9.0	12	9.0	12	8.5	5.8	5.9	5.1	6.7
14	9.3	13	25	15	11	9.0	21	8.1	5.6	13	5.1	6.3
15	8.5	14	43	12	12	9.0	13	8.1	5.4	12	5.1	6.3
16	8.1	11	26	12	11	13	14	7.8	5.2	6.4	4.9	12
17	7.8	13	18	11	12	11	11	7.6	5.0	5.5	5.7	7.6
18	7.6	9.6	14	11	12	9.6	13	7.4	5.0	5.5	5.9	6.7
19	8.1	13	14	9.6	19	9.3	13	6.9	5.0	5.3	6.3	6.7
20	7.6	20	12	9.3	13	9.6	11	6.7	6.0	6.3	6.1	6.4
21	7.4	22	15	9.3	12	9.0	9.9	6.1	8.0	6.3	6.1	6.3
22	7.4	13	12	9.6	11	8.8	10	5.5	9.5	12	6.1	6.7
23	7.4	10	11	9.3	11	8.8	9.6	5.5	8.0	6.3	9.9	6.7
24	7.6	15	10	9.3	10	8.8	9.3	5.7	7.0	5.7	7.6	6.3
25	7.4	50	9.9	9.3	21	10	9.3	6.3	7.0	5.3	7.5	6.1
26	9.5	45	9.6	9.0	16	11	9.0	6.7	7.0	5.1	6.3	6.3
27	7.6	28	10	8.8	12	18	12	5.5	7.5	5.9	6.1	5.9
28	7.1	18	10	8.8	12	36	9.0	5.3	8.0	5.7	5.9	5.9
29	7.1	27	24	8.1	------	42	14	4.9	10	4.6	6.1	5.9
30	7.8	37	42	7.8	------	33	10	6.3	7.0	4.9	6.1	5.9
31	7.8	------	22	18	------	20	------	5.3	------	5.7	6.1	------
TOTAL	315.9	534.2	526.5	407.8	496	411.7	423.1	261.7	220.9	209.4	184.0	197.4
MEAN	10.2	17.8	17.0	13.2	17.7	13.3	14.1	8.44	7.36	6.75	5.94	6.58
MAX	29	50	43	42	45	42	31	24	12	13	9.9	12
MIN	7.1	7.6	9.6	7.8	10	8.8	9.0	4.9	5.0	4.6	4.9	5.9
AC-FT	627	1,060	1,040	809	984	817	839	519	438	415	365	392

CAL YR 1962: TOTAL 4,010.3 MEAN 11.0 MAX 50 MIN 3.7 AC-FT 7,950
WAT YR 1963: TOTAL 4,188.6 MEAN 11.5 MAX 50 MIN 4.6 AC-FT 8,310

Note.--No gage-height record Nov. 20-26. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1280. Thornton Creek near Seattle, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.9	18	9.9	65	17	19	10	9.6	8.5	13	8.5	7.8
2	5.7	12	9.6	26	15	19	9.0	8.5	6.9	9.9	8.1	12
3	7.0	12	9.0	19	13	15	8.0	8.5	6.1	8.3	8.5	7.8
4	6.7	11	9.3	15	13	18	25	9.6	17	7.8	8.1	7.6
5	8.0	8.8	16	17	12	20	17	11	15	7.4	6.9	7.6
6	6.7	32	22	22	12	20	13	8.5	16	6.9	6.7	7.4
7	6.9	22	12	14	12	14	12	8.5	20	6.9	6.9	6.9
8	6.7	16	26	14	12	16	11	8.3	20	7.6	8.3	7.6
9	6.4	17	19	20	12	14	10	9.9	16	6.7	8.1	7.4
10	6.9	18	12	13	12	14	11	9.3	14	6.4	7.1	7.1
11	7.1	12	11	12	12	23	12	8.5	17	7.4	6.9	6.9
12	6.9	29	10	11	13	19	11	11	14	7.1	6.3	7.1
13	18	31	9.9	29	14	15	9.9	9.0	13	6.4	7.1	7.1
14	8.8	45	11	19	13	19	11	9.3	13	8.1	7.4	7.1
15	7.4	21	17	23	24	13	25	8.3	15	7.1	7.4	7.1
16	7.1	15	19	33	19	12	16	8.8	28	6.4	7.1	7.8
17	7.4	16	14	37	15	40	12	8.1	31	7.6	5.9	24
18	7.8	13	16	20	15	20	11	8.1	29	7.4	12	9.9
19	6.9	45	22	35	12	18	9.9	8.5	18	6.1	8.3	10
20	10	20	32	30	12	16	9.9	11	15	7.4	6.9	8.3
21	22	14	17	26	12	16	9.9	8.3	14	7.1	6.7	7.6
22	20	24	19	31	11	14	15	11	13	6.3	7.4	7.6
23	13	43	21	16	11	12	10	8.5	13	6.3	7.1	7.6
24	23	23	17	27	12	11	9.9	8.1	12	6.9	6.3	7.4
25	11	21	16	32	11	11	9.3	7.4	12	7.1	6.7	7.1
26	9.2	26	15	20	11	12	9.6	7.1	12	6.9	6.7	6.9
27	8.4	15	15	19	11	11	9.0	6.3	13	5.9	7.8	6.9
28	34	12	14	17	13	10	9.0	6.1	13	6.3	11	7.4
29	14	11	12	27	18	9.0	9.3	7.1	12	6.3	8.8	7.4
30	10	11	12	19	------	9.0	8.8	7.1	12	7.8	9.3	14
31	8.5	------	15	24	------	8.0	------	6.9	------	7.4	7.8	------
TOTAL	327.4	613.8	479.7	732	389	487.0	353.5	266.2	458.5	226.2	238.1	254.4
MEAN	10.6	20.5	15.5	23.6	13.4	15.7	11.8	8.59	15.3	7.30	7.68	8.48
MAX	34	45	32	65	24	40	25	11	31	13	12	24
MIN	5.7	8.8	9.0	11	11	8.0	8.0	6.1	6.1	5.9	5.9	6.9
AC-FT	649	1,220	951	1,450	772	966	701	528	909	449	472	505

CAL YR 1963: TOTAL 4,232.9 MEAN 11.6 MAX 45 MIN 4.6 AC-FT 8,400
WAT YR 1964: TOTAL 4,825.8 MEAN 13.2 MAX 65 MIN 5.7 AC-FT 9,570

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.2	20	34	28	18	14	17	8.5	6.1	5.3	5.6	6.7
2	8.2	13	22	38	15	12	10	8.5	5.6	5.0	5.3	7.1
3	7.7	23	14	30	14	12	9.3	8.8	5.6	5.7	5.3	6.6
4	7.5	30	12	24	35	11	9.0	23	5.5	5.6	5.5	6.5
5	7.3	12	11	29	65	11	11	24	6.3	5.5	5.5	6.8
6	7.5	10	10	32	24	10	11	10	6.3	4.5	5.5	6.5
7	7.5	9.3	12	26	26	9.9	10	9.0	5.5	4.9	5.8	6.3
8	12	8.8	15	21	24	9.9	9.0	8.8	5.6	6.3	5.6	5.8
9	12	9.9	16	16	18	10	10	8.2	5.5	5.5	5.0	5.3
10	8.2	9.9	17	14	22	9.9	9.0	8.5	5.5	6.1	6.3	5.2
11	8.0	8.8	11	13	16	9.9	8.5	8.0	14	6.3	5.3	6.3
12	8.2	8.8	9.9	12	24	9.6	8.5	7.7	7.5	4.8	8.1	6.3
13	8.0	16	9.6	13	26	9.0	14	7.5	6.9	4.7	6.3	6.7
14	7.5	9.3	17	12	24	9.0	9.3	7.3	5.8	4.7	5.8	8.8
15	7.7	8.5	12	11	18	9.3	9.0	16	5.8	4.8	5.6	20
16	8.2	8.2	9.0	11	15	9.3	14	16	5.6	4.8	5.2	7.1
17	7.7	8.0	8.5	11	14	9.9	8.8	8.8	5.7	5.8	4.8	6.3
18	7.3	8.0	8.8	10	13	10	8.8	8.0	5.6	5.6	4.7	6.3
19	7.3	8.0	9.6	10	14	9.0	65	8.2	6.9	4.8	13	6.3
20	7.1	8.0	15	10	12	9.0	33	7.7	6.9	11	14	6.3
21	7.3	7.7	30	10	15	9.6	20	7.3	5.7	6.3	7.1	6.3
22	7.1	10	59	10	15	14	12	7.3	5.2	5.6	6.5	6.5
23	6.9	16	31	28	12	9.6	11	7.5	5.0	5.2	9.3	6.4
24	7.1	55	25	34	11	8.8	13	7.3	5.0	5.8	8.2	6.3
25	7.3	22	19	19	11	8.8	10	7.1	5.0	5.6	6.9	6.5
26	7.3	23	41	25	36	9.3	9.9	7.3	6.1	5.2	6.7	6.5
27	7.1	19	21	24	33	8.8	9.0	7.1	5.8	6.5	6.5	6.3
28	7.3	11	20	25	17	11	8.8	6.9	4.8	5.5	6.5	6.5
29	7.3	37	18	41	------	13	8.8	8.0	5.3	5.0	6.5	6.7
30	8.2	44	16	38	------	9.3	9.0	8.5	4.7	4.8	6.5	6.5
31	8.0	------	13	24	------	8.8	------	7.1	------	5.6	6.5	------
TOTAL	244.0	482.2	566.4	649	587	314.7	395.7	293.9	180.8	172.8	205.4	207.7
MEAN	7.87	16.1	18.3	20.9	21.0	10.2	13.2	9.48	6.03	5.57	6.63	6.92
MAX	12	55	59	41	65	14	65	24	14	11	14	20
MIN	6.9	7.7	8.5	10	11	8.8	8.5	6.9	4.7	4.5	4.7	5.2
AC-FT	484	956	1,120	1,290	1,160	624	785	583	359	343	407	412

CAL YR 1964: TOTAL 4,697.5 MEAN 12.8 MAX 65 MIN 5.9 AC-FT 9,320
WAT YR 1965: TOTAL 4,299.6 MEAN 11.8 MAX 65 MIN 4.5 AC-FT 8,530

12-1330. South Fork Skykomish River near Index, Wash.

Location.--Lat 47°48'20", long 121°32'40", in NE¼ sec.29, T.27 N., R.10 E., on right bank 600 ft upstream from Sunset Falls, 1 mile southeast of Index, and 2 miles upstream from confluence with North Fork. Discharge measurements made about 2 miles upstream from gage.

Drainage area.--355 sq mi.

Records available.--October 1902 to September 1905, April 1911 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 574.80 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Mar. 15, 1934, at site 300 ft downstream. Oct. 6, 1902, to Sept. 30, 1905, staff gage at datum 0.39 ft higher and Apr. 26, 1911, to Sept. 30, 1913, at datum 1 ft higher. Oct. 1, 1913, to Sept. 13, 1920, staff gage, Sept. 14, 1920, to Oct. 1, 1921, water-stage recorder, and Jan. 23, 1922, to Mar. 14, 1934, staff gage, at present datum.

Average discharge.--57 years, 2,411 cfs (1,745,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (12,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2400	* 24,200	16.17	Jan. 7, 1962	2100	14,400	12.76	Nov. 26, 1963	1930	12,900	12.16
Feb. 21, 1961	1200	20,600	15.05	Apr. 6, 1962	2330	15,200	13.10	Jan. 1, 1964	1530	* 13,800	12.50
Dec. 24, 1961	1030	12,300	11.89	Nov. 20, 1962	0100	* 42,400	20.41	Dec. 1, 1964	0300	17,800	14.10
Jan. 5, 1962	0600	* 17,800	14.14	Feb. 3, 1963	0830	18,000	14.18	Jan. 30, 1965	1900	* 17,900	14.15

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	334	a 1.40	1964	Oct. 12, 13, 1963	360	1.27
1962	Oct. 5,1961,Sept.9	465	1.80	1965	Sept.13, 1965	394	1.86
1963	Sept. 8, 1963	374	1.31				

a Occurred Oct. 5, 6, 1960.

1902-5, 1911-65: Maximum discharge, 55,000 cfs Dec. 12, 1921 (gage height, 22.8 ft, from high watermarks, site then in use), from rating curve extended above 14,000 cfs; minimum, 165 cfs Nov. 29, 1952; minimum gage height, 1.27 ft Oct. 12, 13, 1963.

Flood in 1897 reached a stage about 5 ft higher than that of Dec. 12, 1921 (discharge, about 70,000 cfs).

Remarks.--Records excellent. Small diversions for domestic use. No regulation.

Revisions (water years).--WSP 512: 1903-5, 1911-14. WSP 572: Drainage area. WSP 792: 1934. WSP 1286: 1903-5(M), 1912(M), 1914-29(M), 1931-34(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	420	6,240	1,470	1,090	4,160	4,640	2,420	4,290	6,340	1,940	742	1,900
2	410	4,050	1,510	1,010	4,020	3,660	3,550	5,330	8,000	1,890	732	2,350
3	400	2,990	1,720	952	3,750	2,840	6,370	4,320	8,260	1,890	726	1,320
4	386	2,350	1,750	996	4,280	2,380	4,680	3,430	7,810	1,970	732	974
5	378	1,930	1,500	3,600	6,000	2,120	3,500	2,990	6,080	3,170	720	836
6	400	1,670	1,340	5,540	7,300	2,020	2,910	2,600	6,770	2,830	650	748
7	652	1,470	1,250	3,510	5,760	1,890	2,550	2,330	6,070	2,350	655	645
8	1,220	1,350	1,160	3,020	4,220	1,810	2,500	2,230	4,710	1,960	630	575
9	968	1,210	1,090	3,280	3,830	1,800	2,560	2,440	4,490	1,860	600	535
10	760	3,140	1,010	3,070	4,000	1,750	2,310	3,060	3,900	1,880	570	500
11	671	6,600	984	3,180	3,300	1,770	2,160	3,110	3,960	1,850	550	465
12	1,200	3,570	2,520	3,200	2,960	1,830	2,270	2,770	3,810	1,860	535	440
13	1,140	2,680	2,860	2,820	2,730	1,960	2,640	2,710	3,810	1,850	535	410
14	930	2,460	3,600	5,120	2,500	2,650	2,380	2,670	4,430	1,770	530	392
15	830	2,430	2,590	14,500	2,490	3,660	2,160	2,810	5,600	1,610	525	379
16	913	7,370	2,060	14,200	2,360	3,810	2,080	3,630	6,370	1,490	610	379
17	805	6,520	1,800	6,690	2,200	3,150	2,700	4,560	6,730	1,350	540	374
18	689	6,940	1,860	4,770	2,020	2,740	2,460	5,210	6,190	1,270	510	370
19	619	5,380	3,110	3,640	3,360	2,780	2,270	6,120	5,310	1,220	505	370
20	579	5,910	2,570	2,960	7,100	3,260	2,050	6,890	4,240	1,190	495	510
21	595	4,150	2,050	2,590	16,600	2,820	1,960	6,490	3,480	1,190	475	675
22	1,520	3,100	1,830	2,330	8,440	2,470	1,930	5,200	3,070	1,150	470	515
23	2,160	2,690	1,860	2,120	5,030	2,360	1,870	5,870	3,260	1,100	465	450
24	4,970	4,230	1,870	1,980	4,240	2,390	1,800	4,950	3,250	1,060	455	406
25	2,810	4,560	1,740	1,840	3,520	2,240	1,780	4,650	3,180	974	420	379
26	2,830	3,140	1,600	1,700	2,930	2,160	1,750	6,510	3,010	935	406	361
27	3,310	2,440	1,450	1,580	2,650	2,040	1,700	5,860	2,400	913	384	338
28	4,860	2,040	1,330	1,530	2,430	1,920	1,880	4,830	2,160	880	370	482
29	3,490	1,770	1,260	1,630	------	1,890	3,100	4,870	2,080	830	366	880
30	2,440	1,590	1,200	3,060	------	1,940	4,220	4,830	2,150	792	374	685
31	3,740	------	1,160	4,500	------	2,090	------	4,550	------	764	865	------
TOTAL	47,095	105,970	55,104	112,008	124,180	76,840	78,510	132,110	141,820	47,788	17,182	19,643
MEAN	1,519	3,532	1,778	3,613	4,435	2,479	2,617	4,262	4,727	1,542	554	655
MAX	4,970	7,370	3,600	14,500	16,600	4,640	6,370	6,890	8,260	3,170	865	2,350
MIN	378	1,210	984	952	2,020	1,750	1,700	2,230	2,080	764	366	338
CFSM	4.28	9.95	5.01	10.2	12.5	6.98	7.37	12.0	13.3	4.34	1.56	1.84
IN.	4.93	11.1	5.77	11.7	13.0	8.05	8.22	13.8	14.9	5.01	1.80	2.06
AC-FT	93,410	210,200	109,300	222,200	246,300	152,400	155,700	262,000	281,300	94,790	34,080	38,960

CAL YR 1960: TOTAL 773,103 MEAN 2,112 MAX 7,780 MIN 378 CFSM 5.95 IN 80.99 AC-FT 1,533,000
WAT YR 1961: TOTAL 958,250 MEAN 2,625 MAX 16,600 MIN 338 CFSM 7.40 IN 100.39 AC-FT 1,901,000

12-1330. South Fork Skykomish River near Index, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	830	1,960	2,830	3,520	2,450	913	1,700	2,980	2,890	3,090	1,360	655
2	670	1,780	2,310	4,150	3,170	896	1,810	3,510	3,640	2,910	1,270	630
3	580	1,930	2,060	15,800	4,840	880	1,650	3,580	4,340	2,500	1,280	605
4	515	1,800	2,950	9,110	4,970	869	1,740	3,400	3,520	2,500	1,620	580
5	535	1,530	3,760	6,140	3,820	847	2,070	2,800	3,100	2,560	3,050	555
6	1,750	1,360	2,600	6,280	3,030	836	7,010	2,500	2,860	2,770	2,120	535
7	1,980	1,330	2,110	12,800	2,590	864	9,860	2,260	3,090	2,500	1,820	515
8	1,480	1,270	1,780	11,800	2,280	918	5,110	2,210	4,050	2,780	1,720	500
9	2,340	1,310	1,550	7,420	2,070	886	3,590	2,400	4,230	3,070	1,470	475
10	4,960	3,810	1,340	5,150	1,940	858	2,810	2,630	4,030	2,950	1,290	615
11	2,940	3,940	1,220	3,980	1,860	830	2,380	2,440	3,510	2,750	1,170	1,620
12	4,520	2,740	1,160	3,240	1,750	786	2,200	2,280	3,740	2,610	1,120	1,210
13	6,470	2,200	1,070	2,720	1,670	764	2,480	2,180	3,380	2,370	1,180	952
14	3,640	2,160	996	2,400	1,840	770	3,500	2,120	3,480	2,070	1,040	1,190
15	2,500	1,850	968	2,170	1,780	786	4,360	2,120	4,350	1,960	974	1,070
16	2,000	1,630	957	1,960	1,630	847	3,390	2,120	5,330	1,920	957	896
17	1,720	1,450	984	1,830	1,530	880	2,980	2,410	5,020	1,920	930	770
18	1,440	1,350	990	1,660	1,490	902	3,390	2,380	4,420	1,770	990	710
19	1,260	1,270	1,250	1,510	1,420	935	4,260	2,270	4,300	1,620	1,030	670
20	1,230	1,160	2,930	1,440	1,350	1,030	3,850	2,070	4,360	1,680	957	635
21	1,080	1,130	3,110	1,390	1,270	1,030	3,460	1,970	4,420	1,790	1,030	610
22	1,060	2,810	2,360	1,420	1,250	1,010	3,330	2,080	4,330	1,920	924	585
23	2,100	2,270	4,930	1,410	1,220	1,160	3,560	2,660	4,440	2,020	836	560
24	2,310	1,760	9,970	1,310	1,070	1,930	4,340	3,120	5,030	2,060	770	545
25	1,870	1,450	5,660	1,620	1,030	2,400	3,920	3,120	5,130	2,000	742	525
26	2,110	1,300	3,700	2,580	957	1,920	3,200	3,500	5,140	1,890	726	510
27	2,320	1,250	2,760	2,900	946	1,740	3,200	3,850	3,910	1,770	754	510
28	2,100	1,600	3,140	2,500	940	1,480	3,080	4,500	3,300	1,720	880	896
29	1,720	2,210	5,760	2,180	------	1,340	2,700	4,070	3,490	1,600	825	1,930
30	1,500	2,140	6,030	2,120	------	1,320	2,420	3,310	3,690	1,470	726	1,580
31	1,480	------	4,220	2,320	------	1,440	------	3,020	------	1,410	680	------
TOTAL	63,010	55,750	87,455	126,830	56,163	34,067	103,350	85,860	120,520	67,950	36,241	23,639
MEAN	2,033	1,858	2,821	4,091	2,006	1,099	3,445	2,770	4,017	2,192	1,169	788
MAX	6,470	3,940	9,970	15,800	4,970	2,400	9,860	4,500	5,330	3,090	3,050	1,930
MIN	515	1,130	957	1,310	940	764	1,650	1,970	2,860	1,410	680	475
CFSM	5.73	5.23	7.95	11.5	5.65	3.10	9.70	7.80	11.3	6.17	3.29	2.22
IN.	6.60	5.84	9.16	13.3	5.88	3.57	10.8	8.99	12.6	7.12	3.80	2.48
AC-FT	125,000	110,600	173,500	251,600	111,400	67,570	205,000	170,300	239,000	134,800	71,880	46,890

CAL YR 1961: TOTAL 956,296 MEAN 2,620 MAX 16,600 MIN 338 CFSM 7.38 IN 100.18 AC-FT 1,897,000
WAT YR 1962: TOTAL 860,835 MEAN 2,358 MAX 15,800 MIN 475 CFSM 6.64 IN 90.18 AC-F7 1,707,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,150	748	2,330	6,300	699	2,770	1,720	2,070	3,000	1,550	712	444
2	974	710	2,180	8,550	859	2,440	1,560	2,100	2,820	1,560	681	452
3	1,170	685	2,040	8,660	13,100	2,160	1,490	1,920	2,630	1,430	645	433
4	1,120	685	1,860	5,190	8,630	1,920	2,440	1,730	2,300	1,410	622	433
5	957	1,090	2,660	3,760	9,490	1,760	2,820	2,020	2,580	1,300	604	419
6	880	1,420	6,820	2,980	5,940	1,620	3,730	2,500	2,390	1,210	592	402
7	902	1,180	4,430	2,530	5,310	1,520	3,300	2,290	2,250	1,170	568	391
8	1,880	1,810	4,590	2,340	4,300	1,420	2,660	2,090	2,180	1,300	552	391
9	3,310	1,730	4,430	2,230	3,620	1,350	2,250	1,950	2,410	1,280	548	384
10	2,860	2,080	3,800	1,830	3,110	1,320	1,990	1,820	2,260	1,290	544	394
11	2,060	2,860	3,450	1,600	2,660	1,440	1,830	1,850	2,590	1,400	548	468
12	1,760	2,810	2,950	1,560	2,340	1,350	1,740	1,800	2,990	1,250	576	412
13	1,720	2,320	2,600	1,510	2,110	1,270	1,700	1,700	2,780	1,170	676	546
14	1,560	1,980	3,020	1,410	2,000	1,220	2,160	1,760	2,760	1,140	636	2,380
15	1,420	1,770	5,980	1,340	1,850	1,160	3,000	2,050	3,000	1,170	544	1,290
16	1,340	1,630	5,730	1,260	1,770	1,100	2,320	2,120	3,200	1,080	508	1,040
17	1,230	1,520	4,120	1,190	1,720	1,050	1,990	2,280	2,910	1,020	488	1,020
18	1,230	1,410	3,260	1,120	1,910	1,040	1,840	3,140	2,660	965	476	820
19	1,300	13,100	2,840	1,040	4,050	1,330	1,760	4,100	2,460	925	524	708
20	1,250	25,000	2,500	995	4,530	1,600	1,720	4,790	2,140	870	576	632
21	1,460	8,700	2,530	960	3,090	1,640	1,630	5,340	1,910	830	548	580
22	1,640	5,290	2,480	920	2,520	2,210	1,630	5,220	1,830	1,020	504	572
23	1,390	3,780	2,120	875	2,200	1,970	1,800	4,480	1,680	1,040	520	622
24	1,210	3,130	1,880	848	1,970	1,770	1,650	3,860	1,610	915	645	645
25	1,110	5,260	1,700	820	1,940	1,630	1,550	3,320	1,810	1,020	596	576
26	1,030	7,520	1,570	784	4,300	1,580	1,600	3,080	1,610	880	568	532
27	996	4,780	1,530	753	3,220	1,670	1,540	2,760	1,400	820	516	512
28	935	3,470	2,260	708	2,670	2,060	1,470	3,090	1,310	794	488	496
29	891	2,770	3,490	632	------	2,140	1,770	3,540	1,920	762	468	492
30	847	2,600	7,700	627	------	2,080	2,090	3,760	1,720	717	452	464
31	792	------	7,300	690	------	1,920	------	3,550	------	681	440	------
TOTAL	42,374	113,838	106,150	66,012	101,908	51,510	60,750	88,080	69,110	33,969	17,365	18,950
MEAN	1,367	3,795	3,424	2,129	3,640	1,662	2,025	2,841	2,304	1,096	560	632
MAX	3,310	25,000	7,700	8,660	13,100	2,770	3,730	5,340	3,200	1,560	712	2,380
MIN	792	685	1,530	627	699	1,040	1,470	1,700	1,310	681	440	384
CFSM	3.85	10.7	9.65	6.00	10.3	4.68	5.70	8.00	6.49	3.09	1.58	1.78
IN.	4.44	11.9	11.1	6.92	10.7	5.40	6.36	9.23	7.24	3.56	1.82	1.99
AC-FT	84,050	225,800	210,500	130,900	202,100	102,200	120,500	174,700	137,100	67,380	34,440	37,590

CAL YR 1962: TOTAL 916,982 MEAN 2,512 MAX 25,000 MIN 475 CFSM 7.08 IN 96.06 AC-FT 1,819,000
WAT YR 1963: TOTAL 770,016 MEAN 2,110 MAX 25,000 MIN 384 CFSM 5.94 IN 80.67 AC-FT 1,527,000

12-1330. South Fork Skykomish River near Index, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	436	1,450	2,120	9,340	2,710	1,470	3,240	2,050	10,400	6,380	2,870	1,700
2	426	1,900	1,840	6,160	2,260	1,340	2,680	1,890	9,220	6,980	3,380	1,720
3	416	1,800	1,660	4,430	1,820	1,260	2,210	1,740	7,500	5,630	3,290	1,680
4	408	1,700	1,540	3,630	1,830	1,700	2,100	1,680	7,800	5,190	3,730	1,470
5	405	1,800	1,740	3,080	1,980	1,980	2,020	1,750	9,110	5,680	2,980	1,350
6	460	1,800	2,360	3,500	1,720	1,660	1,840	1,690	8,460	5,340	2,670	1,260
7	422	1,700	2,040	2,820	1,530	1,420	1,970	1,690	7,510	6,310	2,560	1,220
8	388	2,400	1,820	2,300	1,400	1,330	2,150	1,770	7,060	7,760	2,380	1,800
9	377	2,100	1,650	2,090	1,310	1,350	2,320	2,160	7,520	6,560	2,270	1,480
10	370	1,900	1,470	1,980	1,310	1,350	2,640	3,450	8,730	5,390	2,090	1,280
11	363	1,700	1,350	1,860	1,430	1,680	2,860	3,220	8,170	5,960	2,040	1,140
12	360	1,630	1,280	1,680	1,310	1,650	2,780	3,290	6,900	7,360	2,100	1,060
13	433	1,770	1,200	1,560	1,240	1,380	2,780	3,560	6,700	7,420	1,920	1,010
14	600	3,020	1,140	1,460	1,170	1,620	2,460	2,980	6,840	6,660	1,770	965
15	496	2,900	1,280	1,560	1,130	2,910	3,640	2,740	7,180	6,630	1,620	935
16	440	2,650	1,530	3,590	1,160	2,320	2,880	3,060	9,140	6,130	1,540	940
17	408	3,890	1,780	3,180	1,560	2,320	2,320	4,410	7,340	5,030	1,500	1,360
18	408	3,060	1,790	2,530	1,660	2,690	2,030	4,740	6,410	4,590	1,630	1,260
19	402	2,710	2,180	2,200	2,020	2,160	1,900	5,740	5,870	3,820	1,720	1,170
20	469	2,290	2,450	1,960	1,710	1,820	1,930	6,960	5,330	3,930	1,430	2,640
21	1,360	1,910	2,120	1,720	1,550	1,620	1,840	7,620	4,810	4,220	1,350	1,950
22	4,360	1,840	2,180	1,570	1,450	1,470	2,390	6,120	4,730	3,750	1,360	1,760
23	2,950	2,120	4,750	1,440	1,390	1,350	2,070	4,630	6,470	3,130	1,400	1,550
24	4,030	2,250	3,880	1,470	1,360	1,240	1,960	4,220	6,940	3,210	1,410	1,380
25	4,600	2,990	4,100	2,400	1,300	1,200	1,990	3,640	6,330	3,550	1,350	1,300
26	2,780	8,190	3,200	2,060	1,230	1,250	2,230	3,670	6,200	3,600	1,820	1,170
27	2,060	7,580	2,870	1,860	1,160	1,250	2,150	4,630	5,770	3,490	1,920	1,060
28	2,020	4,350	2,650	1,890	1,130	1,190	2,050	6,240	4,840	3,730	2,820	995
29	2,140	3,130	2,300	2,050	1,160	1,300	2,200	6,590	4,220	3,790	2,310	1,050
30	2,000	2,500	2,040	2,080	------	1,750	2,170	7,860	5,090	3,390	2,670	4,370
31	1,700	------	3,750	2,030	------	2,460	------	9,270	------	3,120	2,060	------
TOTAL	38,487	81,030	68,060	81,480	43,990	51,490	69,800	125,060	208,590	157,730	65,960	44,025
MEAN	1,242	2,701	2,195	2,628	1,517	1,661	2,327	4,034	6,953	5,088	2,128	1,468
MAX	4,600	8,190	4,750	9,340	2,710	2,910	3,640	9,270	10,400	7,760	3,730	4,370
MIN	360	1,450	1,140	1,440	1,130	1,190	1,840	1,680	4,220	3,120	1,350	935
CFSM	3.50	7.61	6.18	7.40	4.27	4.68	6.55	11.4	19.6	14.3	5,99	4.13
IN.	4.03	8.49	7.13	8.54	4.61	5.39	7.31	13.1	21.9	16.5	6.91	4.61
AC-FT	76,340	160,700	135,000	161,600	87,250	102,100	138,400	248,100	413,700	312,900	130,800	87,320

CAL YR 1963: TOTAL 695,231 MEAN 1,905 MAX 13,100 MIN 360 CFSM 5.37 IN 72.83 AC-FT 1,379,000
WAT YR 1964: TOTAL 1,035,702 MEAN 2,830 MAX 10,400 MIN 360 CFSM 7.97 IN 108.50 AC-FT 2,054,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,180	1,160	15,900	1,090	5,550	2,430	1,510	3,910	3,810	3,090	1,040	625
2	5,730	1,230	10,800	1,120	3,960	2,110	1,480	3,210	4,630	3,440	1,040	600
3	4,380	1,240	6,190	1,040	3,090	1,950	1,380	2,800	5,470	3,480	1,040	570
4	2,900	2,780	4,260	938	3,180	1,890	1,420	2,740	5,520	3,340	932	545
5	2,250	2,300	3,230	902	5,260	1,850	1,480	2,430	5,940	3,210	860	510
6	1,900	1,760	2,620	866	5,020	1,890	1,430	2,180	5,990	3,110	812	485
7	1,680	1,560	2,230	824	3,640	1,970	1,380	2,050	5,690	3,120	770	460
8	1,800	1,380	3,080	824	3,610	2,050	1,320	2,060	5,520	2,750	765	434
9	1,950	1,290	3,980	765	3,080	2,130	1,480	2,240	5,600	2,190	760	430
10	1,760	1,220	3,660	730	2,540	2,390	1,570	2,920	5,290	1,920	795	422
11	1,540	1,170	2,920	705	2,190	2,670	1,520	3,570	5,600	1,790	806	418
12	1,410	1,100	2,400	675	1,980	2,720	1,530	4,530	4,610	1,680	836	406
13	1,310	1,070	2,230	670	2,670	2,500	1,720	4,720	3,500	1,730	1,400	406
14	1,610	1,020	1,970	836	2,540	2,320	1,730	4,340	3,180	1,850	1,080	1,900
15	1,960	965	1,740	1,320	2,180	2,210	2,160	4,020	2,980	1,860	860	3,210
16	2,050	930	1,400	2,040	2,630	2,120	3,340	6,020	2,930	1,810	765	2,090
17	2,240	905	1,300	2,380	3,560	1,930	3,280	5,030	3,810	1,720	700	1,340
18	1,970	880	1,250	2,290	3,450	1,760	2,730	3,960	3,970	1,610	680	1,050
19	1,750	843	1,350	2,400	3,940	1,600	3,680	3,460	3,490	1,480	675	860
20	1,630	812	1,290	2,600	4,380	1,520	10,500	3,910	3,500	1,390	740	750
21	1,550	780	1,180	2,990	3,450	1,460	8,040	3,720	3,100	1,340	710	690
22	1,410	762	2,400	2,600	2,870	1,480	5,820	3,610	3,020	1,200	645	640
23	1,290	975	3,900	2,200	2,380	1,420	4,600	3,470	3,100	1,170	854	600
24	1,200	6,590	2,410	1,950	2,090	1,300	4,380	3,220	3,260	1,220	986	565
25	1,170	3,820	1,880	1,690	1,910	1,250	4,410	3,250	3,080	1,270	812	540
26	1,090	2,920	1,680	1,770	2,170	1,210	4,920	3,970	2,560	1,310	884	505
27	1,020	2,280	1,490	6,140	4,040	1,170	5,910	5,310	2,230	1,270	878	535
28	975	1,870	1,350	8,250	3,100	1,140	6,590	6,680	2,080	1,210	932	490
29	945	2,030	1,230	10,200	------	1,140	5,610	6,340	2,210	1,130	926	455
30	1,200	13,400	1,180	13,200	------	1,120	4,670	5,420	2,520	1,090	770	442
31	1,340	------	1,100	9,810	------	1,180	------	4,340	------	1,040	665	------
TOTAL	59,190	61,042	93,600	85,815	90,460	55,880	101,590	119,430	118,190	59,820	26,418	22,973
MEAN	1,909	2,035	3,019	2,768	3,231	1,803	3,386	3,853	3,940	1,930	852	766
MAX	5,730	13,400	15,900	13,200	5,550	2,720	10,500	6,680	5,990	3,480	1,400	3,210
MIN	945	762	1,100	670	1,910	1,120	1,320	2,050	2,080	1,040	645	406
CFSM	5.38	5.73	8.51	7.80	9.10	5.08	9.54	10.9	11.1	5.44	2.40	2.16
IN.	6.20	6.39	9.81	8.99	9.48	5.85	10.6	12.5	12.4	6.27	2.77	2.41
AC-FT	117,400	121,100	185,700	170,200	179,400	110,800	201,500	236,900	234,400	118,700	52,400	45,570

CAL YR 1964: TOTAL 1,061,957 MEAN 2,902 MAX 15,900 MIN 762 CFSM 8.17 IN 111.25 AC-FT 2,106,000
WAT YR 1965: TOTAL 894,408 MEAN 2,450 MAX 15,900 MIN 406 CFSM 6.90 IN 93.70 AC-FT 1,774,000

12-1345. Skykomish River near Gold Bar, Wash.

Location.--Lat 47°50'15", long 121°40'00", in SW¼SW¼ sec.9, T.27 N., R.9 E., on right bank 2 miles southeast of Gold Bar and 5 miles upstream from Wallace River and Startup.

Drainage area.--535 sq mi.

Records available.--September 1928 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 209.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 8, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--37 years, 3,912 cfs (2,832,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (19,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2330	* 40,400	15.11	Jan. 7, 1962	2130	23,200	11.97	Nov. 26, 1963	1930	22,600	11.87
Feb. 21, 1961	1130	36,500	14.47	Apr. 6, 1962	2300	24,900	12.32	Jan. 1, 1964	1330	* 24,400	12.21
Dec. 24, 1961	1030	20,000	11.29	Nov. 20, 1962	0130	* 72,000	19.45	Nov. 30, 1964	1830	* 30,400	13.41
Jan. 3, 1962	0600	* 29,600	13.27	Feb. 3, 1963	0830	28,500	13.04	Jan. 30, 1965	1930	28,800	13.11

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 28, 1961	606	3.28	1964	Oct. 12, 1963	635	3.45
1962	Sept. 9, 1962	754	3.48	1965	Sept.30, 1965	712	a 3.52
1963	Sept. 8, 1963	663	3.49				

a Occurred Sept. 13, 1965.

1928-65: Maximum discharge, 88,700 cfs Dec. 21, 1933 (gage height, 21.3 ft), from rating curve extended above 32,000 cfs; minimum, 315 cfs Nov. 29, 1952; minimum gage height, 2.73 ft Dec. 1, 1936.

Remarks.--Records excellent. No regulation. Some small diversions above station. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	714	10,700	2,450	1,770	6,720	7,370	3,780	6,930	10,300	3,060	1,100	3,580
2	690	7,090	2,470	1,650	8,340	6,000	5,720	8,600	12,900	2,960	1,090	4,210
3	669	5,050	2,740	1,550	6,200	4,650	10,300	7,020	13,200	2,990	1,090	2,130
4	641	4,020	2,800	1,590	5,220	3,820	7,570	5,500	12,500	3,180	1,080	1,570
5	634	3,270	2,410	5,710	10,300	3,350	5,610	4,730	11,200	5,110	1,080	1,360
6	648	2,850	2,190	8,840	12,900	3,150	4,570	4,080	10,800	4,770	1,040	1,220
7	1,130	2,480	2,040	5,650	9,860	2,910	3,990	3,640	9,650	3,770	975	1,070
8	1,950	2,310	1,910	4,920	7,110	2,780	3,890	3,480	7,490	3,090	922	975
9	1,540	2,100	1,810	5,300	6,160	2,730	3,990	3,860	7,210	2,940	914	906
10	1,260	4,660	1,700	5,190	6,380	2,670	3,600	4,920	6,330	3,020	898	858
11	1,150	10,600	1,700	5,450	5,320	2,680	3,320	5,110	6,290	3,020	858	810
12	1,950	5,940	4,840	5,450	4,710	2,790	3,530	4,470	6,180	3,070	850	778
13	1,870	4,430	5,220	4,750	4,330	3,040	4,140	4,370	6,290	3,020	850	730
14	1,530	4,080	6,330	8,760	3,930	4,310	3,710	4,270	7,300	2,880	842	698
15	1,390	3,990	4,410	24,300	3,950	6,110	3,300	4,470	9,280	2,570	850	669
16	1,440	11,400	3,460	23,700	3,770	6,220	3,200	5,940	10,500	2,330	993	669
17	1,320	10,700	3,010	10,800	3,510	5,070	4,230	7,300	11,000	2,070	882	655
18	1,170	11,400	3,220	7,620	3,150	4,350	3,860	8,240	10,300	1,930	834	655
19	1,060	8,900	5,410	5,910	5,440	4,430	3,510	9,800	8,760	1,870	818	655
20	1,000	9,740	4,350	4,800	11,600	5,260	3,140	11,000	7,040	1,820	810	778
21	1,030	6,860	3,460	4,120	29,000	4,550	2,930	10,200	5,740	1,850	794	1,030
22	2,900	5,190	3,060	3,730	13,600	3,930	2,860	8,240	5,070	1,750	778	834
23	3,680	4,550	3,070	3,350	8,140	3,750	2,820	9,360	5,450	1,690	762	754
24	9,000	6,560	3,070	3,070	6,930	3,750	2,700	7,890	5,450	1,600	762	690
25	5,070	7,350	2,860	2,850	5,780	3,510	2,670	7,420	5,360	1,450	706	662
26	5,190	5,170	2,640	2,610	4,770	3,180	2,600	10,400	5,050	1,400	690	634
27	5,870	4,020	2,430	2,400	4,270	3,120	2,570	9,360	3,910	1,340	669	620
28	8,630	3,340	2,200	2,270	3,860	2,900	2,900	7,740	3,460	1,300	655	850
29	6,200	2,900	2,060	2,520	------	2,860	5,160	7,890	3,300	1,220	655	1,430
30	4,270	2,610	1,950	5,120	------	2,960	6,860	7,790	3,480	1,160	655	1,140
31	6,540	------	1,890	7,330	------	3,200	------	7,370	------	1,110	1,710	------
TOTAL	82,136	174,260	93,160	183,080	205,250	121,400	123,030	211,390	230,790	75,350	27,612	33,620
MEAN	2,650	5,809	3,005	5,906	7,330	3,916	4,101	6,819	7,693	2,431	891	1,121
MAX	9,000	11,400	6,330	24,300	29,000	7,370	10,300	11,000	13,200	5,110	1,710	4,210
MIN	634	2,100	1,700	1,550	3,150	2,670	2,570	3,480	3,300	1,110	655	620
CFSM	4.95	10.9	5.62	11.0	13.7	7.32	7.67	12.7	14.4	4.54	1.66	2.09
IN.	5.71	12.1	6.48	12.7	14.3	8.44	8.55	14.7	16.0	5.24	1.92	2.34
AC-FT	162,900	345,600	184,800	363,100	407,100	240,800	244,000	419,300	457,800	149,500	54,770	66,680

CAL YR 1960: TOTAL 1,280,628 MEAN 3,499 MAX 13,100 MIN 634 CFSM 6.54 IN 89.02 AC-FT 2,540,000
WAT YR 1961: TOTAL 1,561,078 MEAN 4,277 MAX 29,000 MIN 620 CFSM 7.99 IN 108.52 AC-FT 3,096,000

12-1345. Skykomish River near Gold Bar, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,310	3,150	4,980	5,870	3,910	1,380	2,660	4,840	4,490	4,770	2,100	1,010
2	1,110	2,880	4,040	7,220	5,070	1,340	2,850	5,410	6,440	4,410	1,890	984
3	984	3,100	3,550	26,100	7,720	1,300	2,550	5,870	6,420	3,870	1,940	939
4	890	2,820	4,860	14,200	8,090	1,270	2,730	5,190	5,190	3,870	2,550	898
5	941	2,410	6,420	9,310	6,130	1,250	3,180	4,290	4,670	3,970	5,240	866
6	2,820	2,160	4,450	9,680	4,840	1,240	10,800	3,800	4,490	4,210	3,390	842
7	3,270	2,100	3,570	20,200	4,060	1,270	15,500	3,410	5,390	3,840	2,860	826
8	2,360	2,020	2,990	18,600	3,620	1,380	7,760	3,420	6,470	4,310	2,820	794
9	4,010	2,160	2,580	11,300	3,250	1,320	5,500	3,800	6,540	4,820	2,300	770
10	8,310	6,430	2,240	7,960	3,060	1,270	4,270	4,160	5,890	4,690	1,980	1,050
11	4,710	6,420	2,040	6,290	2,940	1,240	3,570	3,780	5,540	4,350	1,760	2,930
12	7,670	4,450	1,910	5,170	2,780	1,180	3,300	3,500	5,610	4,140	1,670	1,940
13	11,200	3,530	1,800	4,310	2,640	1,140	3,840	3,340	5,320	3,730	1,710	1,580
14	6,110	3,390	1,670	3,860	2,980	1,140	5,450	3,250	5,870	3,180	1,530	2,270
15	4,080	2,910	1,640	3,440	2,850	1,160	6,860	3,280	7,590	3,010	1,430	1,890
16	3,150	2,540	1,650	3,090	2,580	1,240	5,260	3,340	8,140	2,980	1,400	1,510
17	2,620	2,300	1,690	2,880	2,400	1,290	4,650	3,870	7,400	2,960	1,340	1,300
18	2,200	2,150	1,700	2,540	2,330	1,330	5,260	3,750	6,740	2,660	1,490	1,170
19	2,000	2,030	2,190	2,220	2,230	1,390	6,700	3,550	6,600	2,400	1,530	1,090
20	1,940	1,860	4,980	2,040	2,120	1,540	6,050	3,180	6,830	2,550	1,430	1,040
21	1,760	1,840	5,560	1,910	1,960	1,550	5,360	3,070	6,740	2,780	1,580	1,000
22	1,690	4,400	4,140	1,900	1,950	1,520	5,170	3,300	6,650	3,060	1,400	966
23	3,440	3,590	7,830	1,910	1,890	1,730	5,560	4,310	7,130	3,230	1,250	930
24	3,730	2,760	16,100	1,890	1,650	2,960	6,810	5,000	7,790	3,250	1,170	898
25	3,090	2,310	9,260	2,430	1,570	3,890	6,180	4,960	7,990	3,170	1,110	866
26	3,680	2,060	6,070	4,270	1,450	3,020	4,980	5,650	7,470	2,960	1,130	850
27	3,910	2,020	4,510	5,050	1,410	2,720	5,170	6,290	5,780	2,780	1,180	850
28	3,510	2,580	5,310	4,230	1,410	2,290	4,880	7,160	5,090	2,700	1,430	1,490
29	2,850	3,800	10,200	3,570	------	2,070	4,180	6,200	5,540	2,480	1,300	3,750
30	2,440	3,680	10,400	3,440	------	2,030	3,770	5,090	5,740	2,240	1,140	2,700
31	2,410	------	7,060	3,730	------	2,200	------	4,670	------	2,170	1,060	------
TOTAL	104,195	89,850	147,390	200,610	88,890	51,650	160,800	134,730	187,550	105,540	56,110	39,999
MEAN	3,361	2,995	4,755	6,471	3,175	1,666	5,360	4,346	6,252	3,405	1,810	1,333
MAX	11,200	6,430	16,100	26,100	8,090	3,890	15,500	7,160	8,140	4,820	5,240	3,750
MIN	890	1,840	1,640	1,890	1,410	1,140	2,550	3,070	4,490	2,170	1,060	770
CFSM	6.28	5.60	8.89	12.1	5.93	3.11	10.0	8.12	11.7	6.36	3.38	2.49
IN.	7.24	6.25	10.2	13.9	6.18	3.59	11.2	9.37	13.0	7.34	3.90	2.78
AC-FT	206,700	178,200	292,300	397,900	176,300	102,400	318,900	267,200	372,000	209,300	111,300	79,340

CAL YR 1961: TOTAL 1,552,957 MEAN 4,255 MAX 29,000 MIN 620 CFSM 7.95 IN 107.95 AC-FT 3,080,000
WAT YR 1962: TOTAL 1,367,314 MEAN 3,746 MAX 26,100 MIN 770 CFSM 7.00 IN 95.05 AC-FT 2,712,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,900	1,110	3,750	10,200	1,240	4,750	2,660	3,400	4,750	2,500	1,240	764
2	1,550	1,060	3,480	13,700	1,510	4,120	2,440	3,420	4,470	2,580	1,190	780
3	1,900	1,020	3,200	14,000	21,000	3,550	2,340	3,100	4,120	2,320	1,130	772
4	1,900	1,050	2,910	8,260	14,300	3,100	4,080	2,760	3,610	2,300	1,090	740
5	1,550	1,780	4,320	6,080	16,000	2,820	4,610	3,180	4,160	2,120	1,060	726
6	1,540	2,440	11,200	4,820	9,680	2,580	6,150	4,060	3,820	2,010	1,040	712
7	1,510	1,940	7,190	4,120	8,820	2,410	5,370	3,680	3,610	1,940	1,010	684
8	2,970	2,890	7,240	3,770	6,980	2,260	4,330	3,400	3,450	2,110	981	670
9	5,640	2,840	7,010	3,620	5,870	2,160	3,590	3,120	3,860	2,070	981	670
10	4,860	3,600	5,960	3,050	4,980	2,070	3,200	2,900	3,590	2,120	972	684
11	3,320	4,710	5,440	2,600	4,270	2,290	2,930	2,900	4,180	2,290	972	756
12	2,820	4,510	4,710	2,500	3,730	2,110	2,780	2,880	4,840	2,070	1,020	698
13	2,730	3,690	4,180	2,470	3,330	1,990	2,730	2,720	4,430	1,930	1,250	1,100
14	2,400	3,140	5,200	2,340	3,150	1,910	3,420	2,840	4,470	1,910	1,190	3,900
15	2,240	2,790	10,500	2,210	2,880	1,830	4,860	3,250	4,900	1,930	999	2,000
16	2,060	2,570	9,800	2,100	2,790	1,730	3,750	3,380	5,150	1,790	909	1,620
17	1,870	2,370	6,810	1,990	2,700	1,640	3,170	3,590	4,650	1,680	876	1,640
18	1,910	2,170	5,330	1,880	3,020	1,630	2,910	5,070	4,250	1,590	844	1,340
19	2,000	22,700	4,550	1,760	6,340	2,020	2,760	6,610	3,930	1,530	936	1,170
20	1,910	40,200	4,060	1,700	7,110	2,480	2,730	7,830	3,430	1,460	1,040	1,050
21	2,290	12,800	4,120	1,620	4,880	2,530	2,580	8,730	3,090	1,400	981	972
22	2,540	7,940	3,970	1,570	3,950	3,500	2,600	8,420	2,910	1,720	900	936
23	2,160	5,750	3,400	1,510	3,420	3,070	2,840	7,240	2,640	1,720	900	1,060
24	1,850	4,920	2,990	1,480	3,070	2,760	2,640	6,130	2,570	1,510	1,050	1,080
25	1,650	8,480	2,720	1,420	3,110	2,550	2,470	5,240	3,020	1,670	990	963
26	1,540	11,500	2,540	1,370	7,370	2,460	2,540	4,900	2,600	1,460	954	892
27	1,480	7,450	2,470	1,320	5,370	2,610	2,480	4,410	2,240	1,370	884	844
28	1,350	5,440	3,610	1,280	4,410	3,250	2,360	4,940	2,070	1,350	828	828
29	1,290	4,350	5,570	1,160	------	3,400	2,880	5,640	3,100	1,280	804	820
30	1,240	4,230	12,500	1,140	------	3,250	3,400	5,940	2,760	1,230	780	796
31	1,170	------	12,200	1,220	------	2,960	------	5,710	------	1,180	756	------
TOTAL	67,140	181,440	172,930	108,260	165,280	81,790	97,600	141,390	110,670	56,140	30,557	31,667
MEAN	2,166	6,048	5,578	3,492	5,903	2,638	3,253	4,561	3,689	1,811	986	1,056
MAX	5,640	40,200	12,500	14,000	21,000	4,750	6,150	8,730	5,150	2,580	1,250	3,900
MIN	1,170	1,020	2,470	1,140	1,240	1,630	2,340	2,720	2,070	1,180	756	670
CFSM	4.05	11.3	10.4	6.53	11.0	4.93	6.08	8.53	6.90	3.38	1.84	1.97
IN.	4.67	12.6	12.0	7.53	11.5	5.69	6.78	9.83	7.69	3.90	2.12	2.20
AC-FT	133,200	359,900	343,000	214,700	327,800	162,200	193,600	280,400	219,500	111,400	60,610	62,810

CAL YR 1962: TOTAL 1,447,389 MEAN 3,965 MAX 40,200 MIN 770 CFSM 7.41 IN 100.61 AC-FT 2,871,000
WAT YR 1963: TOTAL 1,244,864 MEAN 3,411 MAX 40,200 MIN 670 CFSM 6.37 IN 86.54 AC-FT 2,469,000

12-1345. Skykomish River near Gold Bar, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	748	2,430	3,470	16,800	4,370	2,250	5,070	3,260	16,900	10,300	4,710	2,740
2	733	3,280	3,010	11,200	3,750	2,070	4,180	2,940	14,900	11,300	5,730	2,740
3	712	2,860	2,720	7,170	2,960	1,950	3,380	2,700	11,800	8,990	5,620	2,660
4	712	3,040	2,530	5,940	2,960	2,540	3,260	2,610	12,500	8,290	6,390	2,330
5	719	3,100	2,940	5,020	3,210	3,070	3,130	2,730	15,100	9,200	5,050	2,190
6	764	2,940	4,160	5,500	2,760	2,540	2,820	2,610	13,700	8,590	4,550	2,020
7	726	3,330	3,480	4,510	2,460	2,170	2,990	2,620	12,000	10,400	4,450	1,940
8	684	4,250	3,100	3,640	2,240	2,030	3,320	2,780	11,200	12,500	4,120	2,730
9	670	3,730	2,780	3,300	2,080	2,070	3,550	3,570	11,600	10,400	3,890	2,320
10	649	3,350	2,470	3,120	2,070	2,100	4,020	5,680	14,000	8,650	3,550	2,000
11	649	2,910	2,250	2,910	2,240	2,670	4,410	5,170	12,800	9,740	3,520	1,810
12	635	2,780	2,140	2,610	2,060	2,610	4,310	5,350	11,100	12,100	3,620	1,690
13	1,010	3,320	2,000	2,440	1,950	2,170	4,390	5,710	10,700	12,100	3,250	1,600
14	1,180	5,780	1,930	2,300	1,830	2,540	3,860	4,730	11,000	11,000	2,910	1,530
15	936	5,260	2,150	2,480	1,810	4,630	5,680	4,370	11,500	11,100	2,640	1,500
16	836	4,570	2,570	5,750	1,820	3,660	4,510	4,940	14,700	10,400	2,550	1,510
17	780	6,560	3,010	5,240	2,390	3,750	3,610	7,220	11,700	8,340	2,500	2,340
18	780	5,370	3,040	4,180	2,610	4,370	3,100	7,690	10,400	7,500	2,660	2,200
19	756	4,690	3,640	3,660	3,280	3,450	2,860	9,320	9,500	6,270	2,740	2,050
20	876	3,970	4,180	3,180	2,740	2,850	2,930	11,300	8,540	6,510	2,320	4,650
21	2,580	3,280	3,520	2,760	2,460	2,500	2,820	12,200	7,750	7,060	2,170	3,250
22	8,580	3,170	3,720	2,510	2,260	2,260	3,790	9,890	7,770	6,220	2,280	2,880
23	5,370	3,640	8,680	2,290	2,150	2,070	3,280	7,430	10,700	5,130	2,390	2,500
24	7,180	3,910	6,910	2,400	2,120	1,910	3,090	6,710	11,300	5,350	2,390	2,210
25	7,650	5,130	7,140	4,250	2,010	1,850	3,100	5,750	10,300	6,030	2,290	2,150
26	4,790	14,300	5,480	3,430	1,910	1,940	3,480	5,800	10,100	6,080	3,380	1,910
27	3,470	13,200	4,820	3,050	1,820	1,930	3,400	7,370	9,410	5,980	3,370	1,760
28	3,430	7,140	4,390	3,070	1,780	1,820	3,250	9,950	7,800	6,490	4,940	1,620
29	3,640	5,150	3,770	3,450	1,790	1,940	3,540	10,500	6,610	6,440	4,040	1,760
30	3,170	4,100	3,370	3,400	------	2,610	3,470	12,400	8,340	5,660	4,450	8,920
31	2,700	------	5,730	3,320	------	3,800	------	15,100	------	5,170	3,320	------
TOTAL	68,115	140,540	115,100	134,880	69,890	80,120	108,600	200,400	335,720	259,290	111,790	73,510
MEAN	2,197	4,685	3,713	4,351	2,410	2,585	3,620	6,465	11,190	8,364	3,606	2,450
MAX	8,580	14,300	8,680	16,800	4,370	4,630	5,680	15,100	16,900	12,500	6,390	8,920
MIN	635	2,430	1,930	2,290	1,780	1,820	2,820	2,610	6,610	5,130	2,170	1,500
CFSM	4.11	8.76	6.94	8.13	4.50	4.83	6.77	12.1	20.9	15.6	6.74	4.58
IN.	4.73	9.77	8.00	9.38	4.86	5.57	7.55	13.9	23.3	18.0	7.77	5.11
AC-FT	135,100	278,800	228,300	267,500	138,600	158,900	215,400	397,500	665,900	514,300	221,700	145,800

CAL YR 1963: TOTAL 1,147,109 MEAN 3,143 MAX 21,000 MIN 635 CFSM 5.87 IN 79.74 AC-FT 2,275,000
WAT YR 1964: TOTAL 1,697,955 MEAN 4,639 MAX 16,900 MIN 635 CFSM 8.67 IN 118.03 AC-FT 3,368,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8,600	1,850	26,300	1,730	8,370	3,800	2,280	5,730	5,710	5,020	1,750	1,090
2	11,400	1,930	17,400	1,760	5,890	3,280	2,280	4,750	7,110	5,570	1,730	1,040
3	7,770	1,950	9,470	1,690	4,650	3,040	2,100	4,140	8,450	5,660	1,730	999
4	4,920	4,900	6,510	1,540	4,840	2,930	2,150	4,060	8,730	5,460	1,570	945
5	3,790	3,930	4,980	1,510	8,230	2,860	2,280	3,590	9,350	5,220	1,460	900
6	3,130	2,550	4,040	1,480	7,770	2,930	2,190	3,260	9,440	5,090	1,370	876
7	2,720	2,510	3,450	1,410	5,620	3,070	2,100	3,040	8,900	5,020	1,330	860
8	2,940	2,200	4,880	1,400	5,460	3,250	2,030	3,100	8,620	4,410	1,330	828
9	3,230	2,030	6,270	1,340	4,690	3,370	2,240	3,430	8,790	3,480	1,310	804
10	2,800	1,940	5,780	1,300	3,930	3,800	2,390	4,550	8,230	3,070	1,370	804
11	2,300	1,900	4,610	1,250	3,380	4,230	2,280	5,530	8,700	2,900	1,390	788
12	2,210	1,780	3,800	1,220	3,040	4,270	2,330	6,940	7,090	2,740	1,480	772
13	2,070	1,770	3,590	1,220	4,160	3,910	2,610	7,240	5,370	2,800	2,520	764
14	2,550	1,640	3,200	1,440	3,990	3,640	2,640	6,640	4,840	3,020	1,840	3,040
15	3,120	1,560	2,820	2,230	3,430	3,480	3,370	6,170	4,570	3,050	1,480	4,910
16	3,330	1,510	2,340	3,480	4,120	3,320	5,170	10,100	4,550	2,960	1,330	3,340
17	3,570	1,460	2,100	3,950	5,550	2,970	4,920	7,940	6,030	2,850	1,240	2,030
18	3,050	1,440	2,000	3,770	5,440	2,680	4,100	6,170	6,290	2,640	1,190	1,570
19	2,700	1,380	2,100	3,950	6,080	2,460	5,580	5,460	5,460	2,360	1,200	1,320
20	2,550	1,330	2,000	4,270	7,010	2,330	16,400	6,150	5,480	2,230	1,290	1,160
21	2,400	1,280	1,880	4,840	5,330	2,230	12,300	5,750	4,860	2,140	1,240	1,060
22	2,150	1,250	3,250	4,200	4,470	2,250	8,730	5,550	4,710	1,950	1,140	999
23	2,000	1,670	5,350	3,500	3,700	2,140	6,780	5,460	4,820	1,910	1,370	942
24	1,870	11,100	3,500	3,130	3,280	2,000	6,540	5,050	5,110	2,010	1,580	894
25	1,820	6,340	2,800	2,680	2,990	1,930	6,610	5,150	4,840	2,100	1,370	861
26	1,700	4,860	2,570	2,820	3,420	1,870	7,480	6,290	4,040	2,190	1,590	830
27	1,570	3,710	2,320	9,700	5,980	1,780	9,170	8,420	3,470	2,110	1,530	840
28	1,490	2,970	2,100	12,600	4,880	1,750	10,200	10,500	3,300	2,000	1,700	797
29	1,450	3,230	1,950	18,300	------	1,760	8,420	9,920	3,550	1,870	1,620	756
30	1,870	22,400	1,830	20,500	------	1,700	7,270	8,310	4,140	1,790	1,330	727
31	2,140	------	1,750	15,600	------	1,770	------	6,610	------	1,720	1,200	------
TOTAL	99,210	100,370	146,940	139,810	139,700	86,800	154,940	185,000	184,550	97,340	45,580	37,546
MEAN	3,200	3,346	4,740	4,510	4,989	2,800	5,165	5,968	6,152	3,140	1,470	1,252
MAX	11,400	22,400	26,300	20,500	8,370	4,270	16,400	10,500	9,440	5,660	2,520	4,910
MIN	1,450	1,250	1,750	1,220	2,990	1,700	2,030	3,040	3,300	1,720	1,140	727
CFSM	5.98	6.25	8.86	8.43	9.33	5.23	9.65	11.2	11.5	5.87	2.75	2.34
IN.	6.90	6.98	10.2	9.72	5.71	6.03	10.8	12.9	12.8	6.77	3.17	2.61
AC-FT	196,800	199,100	291,500	277,300	277,100	172,200	307,300	366,900	366,000	193,100	90,410	74,470

CAL YR 1964: TOTAL 1,720,720 MEAN 4,701 MAX 26,300 MIN 1,250 CFSM 8.79 IN 119.61 AC-FT 3,413,000
WAT YR 1965: TOTAL 1,417,786 MEAN 3,884 MAX 26,300 MIN 727 CFSM 7.26 IN 98.56 AC-FT 2,812,000

12-1350. Wallace River at Gold Bar, Wash.

Location.--Lat 47°51'50", long 121°41'45", in NW$\frac{1}{4}$NE$\frac{1}{4}$ sec.6, T.27 N., R.9 E., on right bank 30 ft downstream from highway bridge, a quarter of a mile north of Gold Bar, and 1$\frac{1}{4}$ miles upstream from Olney Creek.

Drainage area.--19.0 sq mi (revised).

Records available.--October 1928 to September 1933, July 1946 to September 1965. Monthly discharge only for some periods, published in WSP 1316.

Gage.--Water-stage recorder. Altitude of gage is 200 ft (from topographic map). December 1928 to Sept. 30, 1933, staff gage 50 ft upstream at different datum. July 25, 1946, to Sept. 19, 1958, water-stage recorder on left bank at present site and datum.

Average discharge.--24 years, 162 cfs (117,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,420 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 24, 1960	0730	1,500	6.59	Jan. 7, 1962	0700	* 2,980	8.02	Sept.19, 1964	2100	1,920	6.90
Nov. 17, 1960	1830	1,590	6.69	Apr. 6, 1962	1700	2,590	7.67				
Feb. 5, 1961	1200	1,720	6.83					Oct. 2, 1964	1100	2,730	7.75
Feb. 21, 1961	0600	* 3,180	8.18	Nov. 19, 1962	1300	* 3,280	8.27	Nov. 24, 1964	0600	1,990	6.99
Apr. 3, 1961	0530	1,540	6.63	Nov. 25, 1962	1700	1,900	6.88	Nov. 30, 1964	1800	2,710	7.69
				Dec. 6, 1962	0200	1,780	6.72	Jan. 29, 1965	0200	* 2,800	7.82
Oct. 9, 1961	1830	2,210	7.32	Feb. 3, 1963	0530	1,780	6.72	Sept.14, 1965	1300	2,160	7.15
Oct. 12, 1961	1600	1,670	6.78								
Dec. 24, 1961	0600	2,370	7.47	Nov. 26, 1963	1400	* 2,900	7.92				
Jan. 3, 1962	1800	2,290	7.40	Jan. 1, 1964	1200	2,820	7.84				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 29, 30	5.8	a 3.22	1964	Oct. 12, 13, 1963	19	3.10
1962	Oct. 5, 1961	22	b 3.46	1965	Aug. 7-10, 1965	16	2.65
1963	Sept.12, 13, 1963	20	3.11				

a Occurred Oct. 6, 1960.
b Occurred Sept. 9, 1962.

1928-33, 1946-65: Maximum discharge, 3,280 cfs Nov. 19, 1962 (gage height, 8.27 ft), from rating curve extended above 540 cfs on basis of slope-area measurement of peak flow; minimum, 5.8 cfs Aug. 25, 29, 30, 1961.

Remarks.--Records good. Flow affected by some natural storage in Wallace Lake. No diversion above station. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1316: 1930(M), 1932-33(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	430	110	62	201	329	303	312	233	45	16	159
2	30	320	116	56	253	230	420	382	259	40	15	166
3	29	234	142	53	174	187	837	240	226	39	14	47
4	27	176	116	55	237	190	299	180	200	39	22	31
5	26	142	93	406	967	141	209	177	174	114	25	29
6	28	120	82	348	882	133	174	159	184	78	18	26
7	110	102	79	212	406	119	153	147	141	62	14	21
8	142	100	79	215	250	113	174	150	108	51	12	18
9	79	89	76	231	237	111	190	203	119	53	10	16
10	59	566	71	212	206	103	159	263	100	47	9.4	14
11	91	391	72	221	176	106	168	223	106	40	9.4	14
12	253	198	301	234	154	108	220	180	98	39	14	12
13	129	164	430	182	133	141	233	177	95	36	12	10
14	98	171	382	428	120	334	187	200	116	32	10	10
15	80	176	187	846	144	523	165	206	138	29	8.6	11
16	71	644	144	434	127	409	174	248	138	26	16	11
17	62	614	138	250	127	255	244	263	136	26	14	11
18	53	491	242	206	116	220	174	274	113	26	10	14
19	48	385	359	166	391	240	144	303	88	25	7.8	14
20	45	414	184	144	1,590	278	124	274	72	24	7.8	28
21	275	253	147	133	2,430	193	116	216	58	21	7.8	40
22	452	201	138	120	642	168	113	177	55	22	7.8	23
23	312	204	142	108	347	200	103	226	65	24	7.8	18
24	728	424	129	96	338	184	103	174	63	23	7.8	15
25	209	300	112	87	274	156	106	180	60	20	7.0	14
26	384	212	102	77	216	153	108	226	60	18	7.0	14
27	441	169	91	69	196	136	106	291	52	17	7.0	13
28	658	142	80	66	184	119	138	203	45	18	6.4	60
29	278	120	74	166	------	116	320	196	42	18	6.4	76
30	198	108	69	441	------	127	295	177	63	17	5.8	92
31	527	------	68	253	------	168	------	168	------	17	72	------
TOTAL	5,954	8,060	4,555	6,577	11,518	5,990	6,259	6,795	3,407	1,086	407.8	1,027
MEAN	192	269	147	212	411	193	209	219	114	35.0	13.2	34.2
MAX	728	644	430	846	2,430	523	837	382	259	114	72	166
MIN	26	89	68	53	116	103	103	147	42	17	5.8	10
CFSM	10.1	14.1	7.73	11.2	21.7	10.2	11.0	11.5	5.98	1.84	.69	1.80
IN.	11.7	15.8	8.92	12.9	22.5	11.7	12.3	13.3	6.67	2.13	.80	2.01
AC-FT	11,810	15,990	9,030	13,050	22,850	11,880	12,410	13,480	6,760	2,150	809	2,040

CAL YR 1960: TOTAL 54,666 MEAN 149 MAX 972 MIN 11 CFSM 7.86 IN 107.00 AC-FT 108,400
WAT YR 1961: TOTAL 61,635.8 MEAN 169 MAX 2,430 MIN 5.8 CFSM 8.89 IN 120.64 AC-FT 122,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1350. Wallace River at Gold Bar, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	80	252	291	184	202	53	171	203	139	79	30	44
2	45	136	165	434	266	50	159	199	318	86	27	41
3	31	162	150	1,730	337	50	136	283	240	75	37	38
4	25	122	280	539	296	52	174	202	171	75	210	34
5	90	98	226	428	190	53	183	156	196	104	708	32
6	209	84	153	436	153	56	1,410	142	174	109	202	29
7	168	88	133	2,410	142	58	811	126	186	97	153	28
8	98	98	111	1,130	142	64	324	139	216	106	174	27
9	710	207	95	491	131	62	230	180	186	95	118	26
10	208	442	82	292	142	56	177	193	145	81	90	164
11	159	196	76	226	139	56	147	147	136	75	75	277
12	543	127	70	186	131	52	147	128	153	69	68	104
13	320	100	65	150	121	50	193	142	142	56	64	99
14	147	103	62	134	168	50	273	128	171	50	53	212
15	100	84	62	123	142	52	312	128	196	50	48	106
16	84	72	68	109	118	60	193	126	186	50	44	81
17	72	67	98	101	109	64	180	139	159	62	42	68
18	60	62	93	88	118	68	216	131	136	50	55	56
19	56	60	126	79	106	68	236	118	136	45	68	52
20	67	53	291	71	99	75	236	104	139	48	53	47
21	63	55	299	69	88	71	240	106	136	55	81	45
22	58	195	209	66	88	71	216	116	131	60	53	42
23	239	103	931	60	84	75	230	165	142	60	45	39
24	162	82	1,280	64	71	138	273	196	150	56	39	38
25	136	70	334	170	66	165	212	190	168	52	37	36
26	259	63	196	388	60	136	162	193	157	47	54	32
27	203	70	138	296	56	136	221	199	116	42	53	36
28	156	184	368	216	53	111	156	226	101	41	137	122
29	119	226	679	186	------	109	139	190	118	38	77	265
30	100	209	401	202	------	118	126	150	104	34	56	104
31	108	------	206	209	------	145	------	136	------	33	46	------
TOTAL	4,875	3,870	7,738	11,267	3,818	2,424	7,883	4,981	4,848	1,980	2,999	2,324
MEAN	157	129	250	363	136	78.2	263	161	162	63.9	96.7	77.5
MAX	710	442	1,280	2,410	337	165	1,410	283	318	109	708	277
MIN	25	53	62	60	53	50	126	104	101	33	27	26
CFSM	8.28	6.79	13.1	19.1	7.18	4.12	13.8	8.46	8.51	3.36	5.09	4.08
IN.	9.54	7.58	15.1	22.1	7.47	4.74	15.4	9.75	9.49	3.88	5.87	4.55
AC-FT	9,670	7,680	15,350	22,350	7,570	4,810	15,640	9,880	9,620	3,930	5,950	4,610

CAL YR 1961: TOTAL 59,549.8 MEAN 163 MAX 2,430 MIN 5.8 CFSM 8.59 IN 116.56 AC-FT 118,100
WAT YR 1962: TOTAL 59,007 MEAN 162 MAX 2,410 MIN 25 CFSM 8.51 IN 115.50 AC-FT 117,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	62	41	170	476	65	214	96	133	71	119	61	28
2	52	38	154	656	105	124	89	141	85	102	51	36
3	94	37	133	546	926	126	94	111	85	89	45	37
4	98	39	133	272	641	111	560	98	77	82	41	29
5	63	119	412	194	555	100	355	202	117	74	39	26
6	68	131	785	156	268	91	405	170	93	70	37	24
7	91	71	306	138	264	87	257	154	80	66	36	23
8	235	99	323	141	191	84	203	136	78	85	33	23
9	321	111	264	136	154	82	167	119	156	80	31	22
10	165	180	227	108	129	77	141	111	113	119	30	21
11	118	190	220	93	108	87	131	108	100	133	28	22
12	104	159	167	91	94	77	131	102	108	104	28	21
13	101	131	162	89	87	71	129	94	87	89	29	122
14	86	121	260	80	104	70	191	98	84	85	27	156
15	95	104	574	82	89	66	200	136	85	87	25	66
16	88	97	292	79	100	62	133	121	80	80	23	86
17	73	90	197	72	98	58	111	131	71	70	22	84
18	71	81	156	70	156	57	113	159	65	65	22	64
19	68	1,590	159	64	372	146	115	167	62	60	50	56
20	62	1,170	146	61	200	133	115	173	65	56	65	51
21	85	342	180	58	136	143	111	165	85	55	53	46
22	113	220	148	57	113	185	143	136	124	94	47	44
23	88	173	124	55	98	126	173	106	93	71	41	62
24	71	176	108	53	89	106	129	89	104	64	56	51
25	62	697	98	51	227	102	119	78	222	70	47	44
26	58	520	91	48	440	104	129	78	108	60	42	40
27	56	285	91	47	165	133	124	76	91	55	38	36
28	52	203	220	45	183	165	113	87	87	50	34	33
29	48	165	278	40	------	133	148	93	256	47	32	32
30	45	191	858	39	------	119	154	89	156	46	29	30
31	42	------	568	51	------	108	------	78	------	46	28	------
TOTAL	2,835	7,571	8,004	4,148	6,157	3,347	5,079	3,739	3,088	2,373	1,170	1,415
MEAN	91.5	252	258	134	220	108	169	121	103	76.5	37.7	47.2
MAX	321	1,590	858	656	926	214	560	202	256	133	65	156
MIN	42	37	91	39	65	57	89	76	62	46	22	21
CFSM	4.81	13.3	13.6	7.04	11.6	5.68	8.91	6.35	5.42	4.03	1.99	2.48
IN.	5.55	14.8	15.7	8.12	12.1	6.55	9.94	7.32	6.04	4.64	2.29	2.77
AC-FT	5,620	15,020	15,880	8,230	12,210	6,640	10,070	7,420	6,120	4,710	2,320	2,810

CAL YR 1962: TOTAL 60,934 MEAN 167 MAX 2,410 MIN 26 CFSM 8.79 IN 119.27 AC-FT 120,900
WAT YR 1963: TOTAL 48,926 MEAN 134 MAX 1,590 MIN 21 CFSM 7.05 IN 95.77 AC-FT 97,040

12-1350. Wallace River at Gold Bar, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27	111	151	1,460	208	94	326	162	628	286	134	129
2	26	178	136	492	164	82	205	143	458	264	230	148
3	24	120	126	272	143	80	167	131	358	212	178	122
4	31	141	122	222	164	129	172	129	578	196	233	102
5	33	129	216	184	162	126	170	146	641	208	164	92
6	46	136	254	222	134	111	153	131	569	202	136	82
7	34	187	184	175	120	96	162	131	422	272	124	84
8	29	258	156	148	111	94	175	141	442	286	109	136
9	26	196	136	138	104	92	181	280	466	212	113	90
10	24	181	126	131	109	90	264	410	470	202	100	77
11	21	153	115	129	113	129	216	289	398	247	98	68
12	20	196	106	115	98	115	193	289	366	282	92	61
13	109	272	100	106	92	102	208	300	334	244	90	56
14	65	440	96	104	84	124	215	222	354	230	80	53
15	42	275	167	129	84	233	394	205	370	346	71	53
16	37	212	261	382	86	162	254	259	574	289	68	58
17	33	410	338	258	106	240	196	342	414	181	66	233
18	42	240	296	199	233	258	167	330	418	153	80	124
19	36	247	326	170	222	190	153	378	386	136	80	296
20	61	190	362	153	159	162	156	494	306	159	61	303
21	108	167	244	134	141	141	148	560	258	244	56	184
22	541	178	254	122	129	126	212	342	278	159	62	219
23	268	275	466	111	124	113	164	254	370	129	64	151
24	264	289	310	122	117	102	156	247	314	138	58	126
25	175	605	398	359	106	98	156	208	289	156	58	113
26	136	1,390	236	205	98	106	175	240	275	141	176	98
27	117	484	250	196	88	98	162	346	247	136	194	86
28	184	272	226	181	86	96	159	386	205	148	318	78
29	164	208	184	222	84	113	184	350	199	134	256	150
30	129	178	170	181	------	190	170	506	268	120	199	500
31	120	------	318	187	------	240	------	605	------	115	146	------
TOTAL	2,972	8,318	6,830	7,209	3,669	4,132	5,813	8,956	11,655	6,227	3,894	4,072
MEAN	95.9	277	220	233	127	133	194	289	389	201	126	136
MAX	541	1,390	466	1,460	233	258	394	605	641	346	318	500
MIN	20	111	96	104	84	80	148	129	199	115	56	53
CFSM	5.05	14.6	11.6	12.2	6.66	7.02	10.2	15.2	20.4	10.6	6.61	7.14
IN.	5.82	16.3	13.4	14.1	7.18	8.09	11.4	17.5	22.8	12.2	7.62	7.97
AC-FT	5,890	16,500	13,550	14,300	7,280	8,200	11,530	17,760	23,120	12,350	7,720	8,080

CAL YR 1963: TOTAL 48,636 MEAN 133 MAX 1,390 MIN 20 CFSM 7.01 IN 95.20 AC-FT 96,470
WAT YR 1964: TOTAL 73,747 MEAN 201 MAX 1,460 MIN 20 CFSM 10.6 IN 144.35 AC-FT 146,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	354	84	1,920	75	352	191	116	165	168	109	21	39
2	990	100	1,370	115	260	157	98	140	218	105	21	36
3	264	104	426	92	209	150	86	127	224	101	21	35
4	164	394	254	78	242	150	90	137	218	92	20	31
5	126	162	187	75	527	150	101	114	224	80	18	28
6	106	117	153	73	359	154	90	103	212	80	17	26
7	92	117	136	68	254	163	82	103	200	77	17	25
8	148	96	212	64	263	163	69	114	200	64	16	23
9	156	88	230	61	212	168	86	132	177	49	16	22
10	115	86	219	56	179	188	94	174	165	48	21	21
11	100	86	156	53	160	194	84	203	165	55	21	21
12	90	80	134	48	134	179	84	227	132	51	76	20
13	84	80	126	48	352	157	103	200	103	48	149	20
14	100	73	117	73	233	144	103	174	105	54	49	578
15	134	69	106	187	197	140	157	165	103	49	31	345
16	167	66	85	318	266	132	221	375	114	45	25	203
17	138	66	72	268	408	116	163	242	137	42	22	127
18	111	68	80	216	362	101	137	177	130	38	20	98
19	104	64	76	222	464	92	280	182	109	31	20	78
20	94	61	73	264	424	86	690	269	109	35	55	66
21	84	61	71	244	275	90	472	209	92	38	35	59
22	77	58	182	170	230	96	269	191	96	32	26	49
23	71	178	167	138	188	86	212	212	96	30	51	44
24	66	680	115	136	163	77	266	185	94	32	67	38
25	66	202	96	117	147	71	257	171	80	31	49	35
26	61	167	109	144	179	67	289	194	64	30	101	31
27	58	136	104	648	342	64	331	269	57	28	75	29
28	54	120	90	1,450	218	62	334	292	62	25	140	27
29	54	204	82	1,840	------	66	233	236	75	24	88	25
30	156	1,520	77	1,590	------	67	203	233	96	22	60	24
31	96	------	71	667	------	77	------	182	------	21	46	------
TOTAL	4,480	5,387	7,296	9,598	7,599	3,798	5,800	5,897	4,025	1,566	1,394	2,203
MEAN	145	180	235	310	271	123	193	190	134	50.5	45.0	73.4
MAX	990	1,520	1,920	1,840	527	194	690	375	224	109	149	578
MIN	54	58	71	48	134	62	69	103	57	21	16	20
CFSM	7.61	9.45	12.4	16.3	14.3	6.45	10.2	10.0	7.06	2.66	2.37	3.86
IN.	8.77	10.5	14.3	18.8	14.9	7.43	11.4	11.5	7.88	3.07	2.73	4.31
AC-FT	8,890	10,680	14,470	19,040	15,070	7,530	11,500	11,700	7,980	3,110	2,760	4,370

CAL YR 1964: TOTAL 72,790 MEAN 199 MAX 1,920 MIN 53 CFSM 10.5 IN 142.48 AC-FT 144,400
WAT YR 1965: TOTAL 59,043 MEAN 162 MAX 1,920 MIN 16 CFSM 8.51 IN 115.57 AC-FT 117,100

12-1373. Spada Lake near Startup, Wash.

Location.--Lat 47°58'30", long 121°41'10", in NW¼ sec.29, T.29 N., R.9 E., on right bank at Culmback Dam on Sultan River, 2 miles downstream from South Fork and 8 miles north of Startup.

Drainage area.--68.3 sq mi.

Records available.--April to September 1965.

Gage.--Staff gage usually read twice daily. Datum of gage is at mean sea level (levels by Snohomish County P.U.D. No. 1).

Extremes.--Maximum contents observed during period, 36,660 acre-ft May 16 (elevation, 1,362.70 ft); minimum not determined since reservoir was first filled.

Remarks.--Reservoir is formed by earthfill dam completed to elevation 1,402 ft in 1965; storage began Apr. 5, 1965. Capacity, 34,500 acre-ft between elevation 1,250 and 1,360 ft. Figures given herein represent total contents. Water is used to supplement city of Everett water supply.

MONTH-END ELEVATION AND CONTENTS, APRIL TO SEPTEMBER 1965

Date	Elevation (feet)	Contents (acre-feet)†	Change in contents (acre-feet)	Date	Elevation (feet)	Contents (acre-feet)†	Change in contents (acre-feet)
Apr. 30, 1965......	1,361.2	35,460	+35,460	July 31, 1965.......	1,330.6	15,500	-10,800
May 31............	1,361.05	35,340	-120	Aug. 31............	1,341.0	21,200	+5,700
June 30............	1,349.0	26,300	-9,040	Sept.30............	1,340.7	21,020	-180

† Contents based on elevation at 2400 hours.

12-1375. Sultan River near Startup, Wash.

Location.--Lat 47°58'30", long 121°46'30", in SW¼NE¼ sec.28, T.29 N., R.8 E., on left bank 1½ miles upstream from intake of Everett water-supply system and 7½ miles north of Startup.

Drainage area.--74.5 sq mi.

Records available.--May 1934 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 750 ft (from topographic map). Prior to July 2, 1934, staff gage at same site and datum.

Average discharge.--31 years, 797 cfs (577,000 acre-ft per year), adjusted for storage in Spada Lake since April 1965.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (8,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1830	8,180	11.43	Nov. 20, 1962	0130	* 20,300	14.76	Jan. 1, 1964	1130	11,500	12.58
Jan. 15, 1961	2100	16,200	13.80	Dec. 5, 1962	2300	8,100	11.40				
Feb. 21, 1961	0730	* 20,000	14.70	Feb. 3, 1963	0430	14,800	13.45	Oct. 2, 1964	1100	8,380	11.51
								Nov. 24, 1964	0530	11,300	12.50
Jan. 3, 1962	0200	* 13,100	13.02	Oct. 22, 1963	-	9,200	11.80	Nov. 30, 1964	1130	10,700	12.29
Apr. 5, 1962	2200	8,200	11.42	Nov. 26, 1963	1500	* 14,400	13.35	Jan. 28, 1965	2400	8,550	11.55
								Jan. 30, 1965	1500	* 11,400	12.54

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 30, 1961	51	3.27	1964	Oct. 12, 1963	93	3.60
1962	Sept.21, 1962	121	3.79	1965	Aug. 10, 1965	3.9	2.02
1963	Jan. 30, 1963	85	3.54				

1934-65: Maximum discharge, 34,600 cfs Feb. 9, 1951 (gage height, 17.22 ft, from high watermark in well), from rating curve extended above 5,000 cfs on basis of slope-area measurement of peak flow; minimum, 3.9 cfs Aug. 10, 1965 (gage height, 2.02 ft).

Remarks.--Records excellent except those below 20 cfs, which are fair. Flow regulated by Spada Lake (see station 12-1373) for storage beginning Apr. 5, 1965. No diversion above station.

Revisions (water years).--WSP 1182: 1935, 1936(M), 1937-39, 1940(M), 1941, 1943(P), 1943-49. WSP 1216: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	170	2,930	484	315	1,370	2,500	1,060	1,500	1,150	302	106	1,600
2	160	1,650	492	268	1,800	1,300	1,600	1,820	1,340	276	104	1,400
3	150	1,130	660	248	1,160	900	3,130	1,260	1,260	284	104	600
4	140	815	596	367	1,220	750	1,430	910	1,150	300	106	400
5	130	645	473	2,580	3,570	650	955	855	1,000	596	106	300
6	200	556	407	2,210	4,070	620	745	685	1,000	535	102	220
7	700	473	377	1,280	2,020	600	630	592	820	434	95	180
8	800	438	377	1,310	1,290	650	735	567	630	327	91	160
9	600	386	377	1,500	1,140	700	750	750	666	310	88	150
10	400	1,550	350	1,660	1,000	650	630	1,070	575	310	82	140
11	350	1,960	389	1,730	851	700	639	982	583	310	78	130
12	800	980	2,400	1,560	795	750	835	755	579	324	77	120
13	600	775	2,060	1,190	710	1,000	955	700	579	310	74	110
14	500	900	1,940	2,430	622	1,800	715	750	685	287	70	101
15	400	917	1,050	9,400	810	2,200	587	770	875	254	70	96
16	350	3,220	740	4,610	735	1,800	596	1,000	970	232	107	94
17	300	3,270	672	1,830	632	1,200	955	1,100	988	201	100	91
18	260	2,820	1,080	1,280	564	800	720	1,200	900	186	89	94
19	230	2,310	2,020	922	2,460	900	604	1,340	715	180	79	94
20	200	2,300	1,140	750	7,200	1,200	523	1,330	551	184	74	200
21	464	1,280	790	668	13,100	895	503	1,070	427	182	69	270
22	1,660	912	663	592	2,630	775	492	890	404	167	65	180
23	1,910	992	650	520	1,410	955	448	1,090	458	172	63	150
24	3,850	1,730	609	466	1,270	895	434	855	462	156	63	130
25	1,480	1,500	536	414	960	740	424	815	448	142	62	120
26	2,180	950	500	374	800	705	411	1,160	417	137	61	110
27	2,280	705	442	335	700	622	404	1,260	324	135	58	100
28	3,120	576	383	312	600	547	515	950	269	130	54	800
29	1,580	496	350	687	------	535	1,350	920	284	123	52	1,000
30	1,020	442	323	2,120	------	571	1,400	855	374	113	51	600
31	2,490	------	312	1,660	------	695	------	820	------	109	870	------
TOTAL	29,474	39,608	23,642	45,588	55,489	29,605	25,175	30,621	20,883	7,708	3,270	9,740
MEAN	951	1,320	763	1,471	1,982	955	839	988	696	249	105	325
MAX	3,850	3,270	2,400	9,400	13,100	2,500	3,130	1,820	1,340	596	870	1,600
MIN	130	386	312	248	564	535	404	567	269	109	51	91
CFSM	12.8	17.7	10.2	19.7	26.6	12.8	11.3	13.3	9.34	3.34	1.42	4.36
IN.	14.7	19.8	11.8	22.8	27.7	14.8	12.6	15.3	10.4	3.85	1.63	4.86
AC-FT	58,460	78,560	46,890	90,420	110,100	58,720	49,930	60,740	41,420	15,290	6,490	19,320

CAL YR 1960: TOTAL 276,077 MEAN 754 MAX 4,680 MIN 94 CFSM 10.1 IN 137.82 AC-FT 547,600
WAT YR 1961: TOTAL 320,803 MEAN 879 MAX 13,100 MIN 51 CFSM 11.8 IN 160.14 AC-FT 636,300

12-1375. Sultan River near Startup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	500	845	1,810	1,210	1,200	194	756	1,260	580	536	251	254
2	350	596	960	2,460	1,500	188	732	1,180	1,370	487	226	234
3	200	685	825	8,970	1,800	183	601	1,510	1,350	452	282	212
4	150	547	1,780	2,920	1,400	181	703	1,170	951	473	762	194
5	300	444	1,490	2,010	1,000	190	771	837	980	560	1,800	177
6	900	389	850	2,140	800	203	4,470	685	822	548	858	166
7	700	398	639	6,260	700	219	3,480	593	816	494	756	153
8	500	424	511	3,980	660	288	1,440	614	997	584	968	144
9	3,000	724	424	1,860	600	260	980	756	934	584	671	137
10	1,500	2,160	362	1,200	700	236	751	827	746	528	494	484
11	700	1,240	321	901	660	212	627	694	658	509	408	1,110
12	2,300	795	292	722	610	192	614	605	727	491	373	544
13	1,400	600	272	601	560	185	776	694	676	415	357	558
14	850	539	252	544	907	192	1,180	610	811	366	296	1,030
15	500	440	264	473	694	192	1,410	580	974	351	265	662
16	350	380	274	428	552	257	968	552	997	335	249	476
17	300	341	287	392	484	296	827	601	837	382	251	389
18	270	318	259	338	494	308	962	589	718	323	348	323
19	240	302	713	282	431	329	1,110	544	722	288	389	279
20	300	264	1,700	238	392	385	1,060	487	756	329	335	251
21	386	296	1,400	221	354	344	1,070	469	746	379	459	228
22	232	725	1,050	220	348	323	985	491	737	421	335	212
23	1,590	495	3,180	220	326	402	1,030	680	791	452	273	192
24	945	383	4,490	250	279	872	1,250	869	869	455	241	173
25	725	318	1,660	600	246	896	1,140	816	940	431	219	162
26	1,330	287	994	2,000	221	649	869	848	980	395	361	156
27	1,260	350	735	1,700	210	662	871	901	742	360	354	175
28	895	876	1,630	1,300	198	484	1,010	974	580	351	657	574
29	626	1,050	4,000	1,100	------	442	907	842	604	308	459	1,570
30	507	1,140	2,690	1,200	------	473	776	667	671	276	351	837
31	499	------	1,440	1,400	------	597	------	593	------	262	293	------
TOTAL	24,305	18,351	37,554	48,140	18,326	10,834	34,126	23,538	25,172	13,125	14,341	12,056
MEAN	784	612	1,211	1,553	655	349	1,138	759	839	423	463	402
MAX	3,000	2,160	4,490	8,970	1,800	896	4,470	1,510	1,370	584	1,800	1,570
MIN	150	264	252	220	198	181	601	469	580	262	219	137
CFSM	10.5	8.21	16.3	20.8	8.79	4.69	15.3	10.2	11.3	5.68	6.21	5.39
IN.	12.1	9.16	18.7	24.0	9.15	5.41	17.0	11.8	12.6	6.55	7.16	6.02
AC-FT	48,210	36,400	74,490	95,480	36,350	21,490	67,690	46,690	49,930	26,030	28,440	23,910

CAL YR 1961: TOTAL 308,280 MEAN 845 MAX 13,100 MIN 51 CFSM 11.3 IN 153.90 AC-FT 611,500
WAT YR 1962: TOTAL 279,868 MEAN 767 MAX 8,970 MIN 137 CFSM 10.3 IN 139.71 AC-FT 555,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	504	194	725	2,840	202	1,140	484	600	360	550	270	111
2	395	179	700	4,000	534	830	417	750	450	450	220	161
3	588	165	622	3,240	6,490	645	527	560	400	400	200	167
4	540	256	544	1,540	3,730	548	2,150	500	370	370	180	134
5	407	833	2,330	1,050	3,070	470	1,460	700	560	340	170	121
6	395	851	3,710	785	1,540	417	1,840	1,000	476	320	160	110
7	431	552	1,610	650	1,370	383	1,310	850	407	300	150	104
8	1,060	843	1,630	614	1,020	392	998	720	392	400	145	99
9	1,810	890	1,390	552	825	344	800	620	532	350	139	98
10	1,040	1,240	1,180	448	632	323	654	560	452	450	136	104
11	725	1,450	1,180	359	528	380	580	520	488	600	130	104
12	600	1,060	956	344	452	323	556	480	568	500	125	96
13	672	912	998	323	401	298	544	470	476	420	120	538
14	536	835	2,120	312	476	285	740	480	473	370	115	400
15	588	690	3,370	310	420	278	1,130	650	512	450	110	300
16	500	618	1,910	290	488	260	750	550	470	370	110	400
17	417	572	1,190	268	544	243	604	600	410	330	110	350
18	445	524	868	245	805	245	600	700	370	300	140	300
19	420	7,770	770	227	2,000	678	622	800	330	270	180	260
20	386	7,200	668	213	1,520	750	636	950	380	250	245	230
21	496	1,840	740	198	868	735	568	800	500	240	229	220
22	456	1,170	632	194	627	956	618	650	600	500	181	200
23	456	835	512	187	520	686	800	550	500	350	155	310
24	377	930	504	181	445	560	636	470	600	300	211	280
25	323	2,960	377	173	810	512	544	420	950	320	185	250
26	300	2,800	344	157	2,240	500	560	400	450	270	177	220
27	290	1,500	387	151	1,080	632	528	400	350	230	157	200
28	262	992	1,430	141	934	1,000	484	450	330	210	139	180
29	240	735	1,970	120	------	846	600	550	850	200	127	160
30	222	884	4,680	120	------	681	850	450	650	190	121	150
31	204	------	3,390	189	------	572	------	400	------	190	112	------
TOTAL	16,085	42,280	43,437	20,421	34,571	16,912	23,590	18,600	14,656	10,790	4,949	6,357
MEAN	519	1,409	1,401	659	1,235	546	786	600	489	348	160	212
MAX	1,810	7,770	4,680	4,000	6,490	1,140	2,150	1,000	950	600	270	538
MIN	204	165	344	120	202	243	417	400	330	190	110	96
CFSM	6.96	18.9	18.8	8.84	16.6	7.32	10.6	8.05	6.56	4.67	2.14	2.84
IN.	8.03	21.1	21.7	10.2	17.3	8.44	11.8	9.29	7.32	5.39	2.47	3.17
AC-FT	31,900	83,860	86,160	40,500	68,570	33,540	46,790	36,890	29,070	21,400	9,820	12,610

CAL YR 1962: TOTAL 301,460 MEAN 826 MAX 8,970 MIN 137 CFSM 11.1 IN 150.49 AC-FT 597,900
WAT YR 1963: TOTAL 252,648 MEAN 692 MAX 7,770 MIN 96 CFSM 9.29 IN 126.12 AC-FT 501,100

Note.--No gage-height record Apr. 29 to June 5, June 16 to Aug. 7.

12-1375. Sultan River near Startup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	120	568	592	6,130	1,410	576	1,560	740	2,450	1,310	813	681
2	110	1,060	516	2,280	884	398	986	627	2,030	1,310	1,270	735
3	125	690	476	1,370	658	404	730	552	1,640	1,050	1,070	632
4	140	690	462	1,220	884	917	805	556	2,080	950	1,420	524
5	150	645	835	980	900	654	710	640	2,410	1,010	1,020	473
6	200	695	1,090	1,120	654	456	622	568	2,150	974	840	417
7	150	1,070	740	755	540	371	686	564	1,790	1,240	765	428
8	130	1,190	596	584	470	365	765	600	1,690	1,460	654	584
9	115	884	508	532	438	371	840	1,020	1,770	1,150	705	448
10	98	846	431	560	528	380	1,220	1,620	1,930	992	645	374
11	98	654	374	516	576	614	1,170	1,240	1,700	1,200	609	338
12	96	900	341	431	452	492	1,130	1,310	1,510	1,450	592	312
13	731	1,380	310	417	401	359	1,070	1,330	1,450	1,360	528	295
14	300	2,230	308	401	359	727	1,070	1,010	1,480	1,310	470	285
15	200	1,500	740	636	359	1,290	1,520	944	1,540	1,760	410	280
16	170	1,280	944	2,030	389	785	895	1,210	2,030	1,760	398	308
17	150	1,800	1,160	1,200	556	1,190	686	1,690	1,640	1,180	398	1,070
18	190	1,200	1,030	835	1,090	1,160	584	1,660	1,600	944	442	636
19	170	1,000	1,220	705	900	740	560	1,890	1,490	780	445	780
20	300	800	1,560	636	600	560	596	2,330	1,250	862	362	1,300
21	500	668	1,020	484	520	476	700	2,460	1,080	1,180	344	895
22	3,500	780	1,490	420	476	428	1,160	2,030	1,130	934	374	922
23	1,400	1,340	2,900	374	445	377	700	1,360	1,480	730	417	658
24	1,300	1,250	1,660	590	428	341	640	1,340	1,440	770	410	540
25	880	2,110	2,080	2,040	392	332	654	1,120	1,280	890	486	512
26	720	6,470	1,240	968	365	365	785	1,180	1,270	851	1,320	431
27	620	2,720	1,250	928	338	350	795	1,640	1,110	830	1,120	380
28	840	1,350	1,020	900	335	359	750	1,810	950	922	1,530	341
29	790	917	790	1,310	344	480	917	1,660	846	878	1,280	564
30	740	710	830	1,030	------	873	815	2,150	1,110	770	1,200	3,760
31	614	------	2,040	1,060	------	1,160	------	2,440	------	720	830	------
TOTAL	15,647	39,397	30,553	33,442	16,691	18,350	26,121	41,291	47,326	33,527	23,167	19,903
MEAN	505	1,313	986	1,079	576	592	871	1,332	1,578	1,082	747	663
MAX	3,500	6,470	2,900	6,130	1,410	1,290	1,560	2,460	2,450	1,760	1,530	3,760
MIN	96	568	308	374	335	332	560	552	846	720	344	280
CFSM	6.78	17.6	13.2	14.5	7.73	7.95	11.7	17.9	21.2	14.5	10.0	8.91
IN.	7.81	19.7	15.3	16.7	8.33	9.16	13.0	20.6	23.6	16.7	11.6	9.94
AC-FT	31,040	78,140	60,600	66,330	33,110	36,400	51,810	81,900	93,870	66,500	45,950	39,480

CAL YR 1963: TOTAL 236,443 MEAN 648 MAX 6,490 MIN 96 CFSM 8.70 IN 118.03 AC-FT 469,000
WAT YR 1964: TOTAL 345,415 MEAN 944 MAX 6,470 MIN 96 CFSM 12.7 IN 172.43 AC-FT 685,100

12-1375. Sultan River near Startup, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,700	448	8,420	322	1,420	710	516	900	710	266	5.0	277
2	3,920	492	4,980	452	948	590	428	690	870	304	4.9	277
3	1,670	523	1,790	318	730	575	361	630	1,010	400	4.2	270
4	984	2,510	1,120	273	1,430	585	379	834	1,010	400	4.0	268
5	700	1,100	795	277	3,220	575	263	675	1,070	404	4.0	268
6	552	685	630	280	1,810	605	28	565	1,070	531	4.3	266
7	468	610	528	246	1,120	645	26	512	990	1,330	4.6	264
8	658	472	1,250	240	1,250	665	24	524	990	1,450	4.9	264
9	730	416	1,450	223	858	690	38	575	990	1,430	4.7	261
10	548	391	1,630	207	665	816	40	765	846	1,410	5.3	259
11	444	420	984	201	528	888	30	918	876	1,380	5.5	257
12	382	373	740	196	528	816	28	1,090	755	1,350	24	257
13	367	349	775	203	1,660	700	31	1,060	544	1,330	105	257
14	532	310	585	330	928	625	31	912	476	1,310	259	403
15	882	282	476	852	770	580	40	858	464	866	296	328
16	984	268	367	1,550	1,400	540	64	2,460	480	352	291	301
17	765	268	330	1,350	1,720	444	40	1,810	645	625	291	190
18	590	270	315	1,110	1,420	379	32	1,190	690	620	291	236
19	536	253	298	1,200	1,850	343	146	972	560	484	293	275
20	464	238	284	1,410	1,680	315	163	1,240	544	101	320	268
21	388	231	277	1,470	1,070	322	116	1,120	488	8.5	301	169
22	343	227	824	960	750	340	62	960	650	6.4	296	150
23	315	814	831	710	615	308	758	900	520	5.2	303	282
24	291	4,730	508	710	508	277	1,120	810	894	4.4	308	284
25	286	1,550	397	544	464	259	1,110	710	1,300	4.2	305	284
26	261	1,040	544	795	948	246	1,220	765	1,480	4.0	308	282
27	240	675	472	3,620	2,070	242	1,480	1,080	1,460	4.0	301	264
28	229	504	364	4,880	1,040	255	1,610	1,330	1,010	4.3	315	246
29	227	1,530	325	4,870	------	322	1,270	1,240	396	4.4	305	246
30	583	9,110	275	6,460	------	298	1,050	1,050	302	4.7	301	246
31	492	------	282	2,750	------	328	------	870	------	4.9	289	------
TOTAL	22,531	31,089	32,846	39,009	33,400	15,283	12,504	30,015	24,090	16,398.0	5,553.4	7,899
MEAN	727	1,036	1,060	1,258	1,193	493	417	968	803	529	179	263
MAX	3,920	9,110	8,420	6,460	3,220	888	1,610	2,460	1,480	1,450	320	403
MIN	227	227	275	196	464	242	24	512	302	4.0	4.0	150
CFSM	9.76	13.9	14.2	16.9	16.0	6.62	5.59	13.0	10.8	7.10	2.40	3.53
IN.	11.2	15.5	16.4	19.5	16.7	7.63	6.24	15.0	12.0	8.19	2.77	3.94
AC-FT	44,690	61,660	65,150	77,370	66,250	30,310	24,800	59,530	47,780	32,520	11,020	15,670
(†)	0	0	0	0	0	0	+35,460	-120	-9,040	-10,800	+5,700	-180
MEAN‡	727	1,036	1,060	1,258	1,193	493	1,013	966	651	353	272	260
CFSM‡	9.76	13.9	14.2	16.9	16.0	6.62	13.6	13.0	8.74	4.74	3.65	3.49
IN ‡	11.25	15.52	16.40	19.47	16.67	7.63	15.17	14.95	9.75	5.47	4.21	3.90
AC-FT‡	44,690	61,660	65,150	77,370	66,250	30,310	60,260	59,410	38,740	21,720	16,720	15,490

OBSERVED

CAL YR 1964: TOTAL 346,284 MEAN 946 MAX 9,110 MIN 227 CFSM 12.7 IN 172.86 AC-FT 686,800
WAT YR 1965: TOTAL 270,617.4 MEAN 741 MAX 9,110 MIN 4.0 CFSM 9.95 IN 135.09 AC-FT 536,800

ADJUSTED ‡

CAL YR 1964: MEAN 946 CFSM 14.2 IN 172.86 AC-FT 686,800
CAL YR 1965: MEAN 770 CFSM 10.3 IN 140.39 AC-FT 557,800

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† Change in contents, in acre-feet, in Spada Lake.
‡ Adjusted for change in contents for Spada Lake.

12-1410. Woods Creek near Monroe, Wash.

Location.--Lat 47°52'20", long 121°55'10", in NW¼SW¼ sec.33, T.28 N., R.7 E., on right bank 0.4 mile downstream from West Fork and 2 miles northeast of Monroe.

Drainage area.--56.4 sq mi (revised).

Records available.--July 1946 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 100 ft (from topographic map). Prior to June 6, 1957, at site 0.4 mile upstream at same datum.

Average discharge.--19 years, 156 cfs (112,900 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 2[illegible], 1960	0030	750	3.40	Jan. 7, 1962	1600	* 1,660	5.02	Dec. 16, 1963a	-	-	-
Nov. 24, 1960	2030	* 1,050	3.91								
Feb. 6, 1961	1830	772	3.44	Nov. 26, 1962	0600	* 926	3.71	Dec. 2, 1964	1300	1,410	4.52
Feb. 22, 1961	0030	712	3.33	Dec. 3, 1962	0330	756	3.41	Jan. 29, 1965	0830	* 2,260	6.73
Feb. 25, 1961	0130	896	3.66	Jan. 3, 1963	0400	761	3.42	Feb. 6, 1965	0800	994	3.78
Dec. 13, 1961a	-	1,100	4.00	Dec. 7, 1963a	-	* 1,030	3.88				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.15, 1961	16	1.16	1964	Oct. 3, 1963	20	1.20
1962	July 30, 31, 1962	16	1.19	1965	July 31, Aug. 1, 6, 7, 1965	a 21	-
1963	Aug. 17, 18, 1963	20	1.20				

a Minimum daily.

1946-65: Maximum discharge, 2,260 cfs Jan. 29, 1965 (gage height, 6.73 ft); minimum, 10 cfs Aug. 26, 1958 (gage height, 1.11 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. Several small diversions above station for farm use. No regulation.

Revisions (water years).--WSP 1636: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	30	226	199	133	264	508	135	140	85	31	22	35
2	28	203	176	123	293	513	170	167	78	30	22	32
3	27	182	176	117	260	405	236	150	72	28	21	27
4	27	150	188	119	257	345	222	167	66	27	23	26
5	25	135	163	175	393	297	191	250	63	54	24	23
6	28	126	150	236	706	321	170	260	63	62	24	22
7	44	108	140	212	662	301	155	215	70	44	23	21
8	76	100	132	206	482	264	176	185	62	37	22	21
9	55	93	128	243	385	282	197	185	58	34	19	20
10	45	208	121	232	337	257	194	203	55	31	19	19
11	47	329	121	232	301	250	179	200	54	33	19	19
12	76	260	164	232	349	260	218	176	52	30	19	18
13	55	243	167	215	365	313	321	155	49	27	18	18
14	47	317	218	212	337	361	285	152	45	25	18	18
15	41	385	194	333	389	477	243	142	44	25	19	18
16	37	565	176	464	464	414	209	130	44	24	22	20
17	37	565	167	454	575	337	185	119	40	24	22	18
18	35	570	206	401	550	274	170	110	37	23	21	19
19	34	486	260	333	605	236	191	102	35	22	20	20
20	33	640	229	278	605	215	176	89	34	22	19	22
21	35	684	200	240	621	209	167	83	36	22	19	20
22	49	570	180	206	630	191	158	79	33	22	19	19
23	76	678	161	182	464	206	145	100	32	22	19	19
24	123	932	152	161	632	197	135	89	35	23	18	19
25	93	872	155	148	822	179	128	78	32	23	19	19
26	123	580	155	138	600	173	123	78	32	24	19	18
27	126	410	150	123	526	170	117	164	32	26	19	19
28	164	321	138	119	464	152	115	128	30	26	18	20
29	155	264	128	158	------	140	126	115	29	24	17	25
30	130	226	123	240	------	132	142	102	33	23	17	25
31	135	------	128	285	------	128	------	95	------	23	25	------
TOTAL	2,036	11,428	5,145	6,950	13,338	8,507	5,379	4,408	1,430	891	625	639
MEAN	65.7	381	166	224	476	274	179	142	47.7	28.7	20.2	21.3
MAX	164	932	260	464	822	513	321	260	85	62	25	35
MIN	25	93	121	117	257	128	115	78	29	22	17	18
CFSM	1.16	6.75	2.94	3.98	8.45	4.87	3.18	2.52	.85	.51	.36	.38
IN.	1.34	7.54	3.39	4.58	8.80	5.61	3.55	2.91	.94	.59	.41	.42
AC-FT	4,040	22,670	10,200	13,790	26,460	16,870	10,670	8,740	2,840	1,770	1,240	1,270

CAL YR 1960: TOTAL 49,821 MEAN 136 MAX 932 MIN 17 CFSM 2.41 IN 32.85 AC-FT 98,820
WAT YR 1961: TOTAL 60,776 MEAN 167 MAX 932 MIN 17 CFSM 2.95 IN 40.08 AC-FT 120,500

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1410. Woods Creek near Monroe, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	74	161	280	119	95	155	89	93	32	17	22
2	22	81	155	250	117	93	140	85	117	34	18	22
3	20	79	152	220	115	93	130	110	232	30	22	22
4	19	78	158	280	112	115	130	132	229	29	38	22
5	22	72	264	353	110	179	128	112	257	31	70	21
6	35	63	222	418	106	206	179	104	240	34	60	20
7	41	60	250	1,420	108	197	203	95	191	33	47	19
8	31	54	290	1,170	106	206	173	95	158	30	44	19
9	28	58	230	739	106	229	155	106	142	29	36	19
10	37	130	190	482	117	209	145	108	128	29	30	39
11	32	128	150	357	128	194	132	98	115	28	27	74
12	34	108	125	297	119	179	126	95	104	26	26	45
13	43	93	150	264	117	164	119	110	110	26	28	44
14	32	83	220	236	158	150	112	115	106	25	25	60
15	29	78	310	260	209	142	117	110	91	24	25	47
16	28	70	450	243	182	138	110	108	81	23	22	43
17	27	65	650	260	161	130	102	98	76	27	23	38
18	25	65	1,000	226	142	121	95	91	78	26	23	35
19	29	68	900	206	135	128	91	87	63	24	23	32
20	58	74	800	179	123	158	93	83	57	22	22	33
21	49	72	900	158	115	197	89	78	52	21	22	32
22	44	98	750	145	115	236	83	76	48	19	21	32
23	76	102	620	140	126	271	78	93	45	19	21	31
24	83	100	700	140	117	353	79	158	41	18	19	28
25	65	89	780	140	110	454	81	167	40	17	19	27
26	119	83	670	152	104	361	78	148	40	17	22	25
27	121	83	580	164	98	321	104	132	40	17	27	28
28	104	95	500	150	91	278	104	123	40	17	33	42
29	85	121	430	140	------	240	95	121	35	17	32	72
30	74	132	370	130	------	203	89	117	33	17	30	54
31	66	------	310	123	------	176	------	104	------	17	26	------
TOTAL	1,501	2,556	13,437	9,722	3,466	6,216	3,515	3,348	3,082	758	898	1,047
MEAN	48.4	85.2	433	314	124	201	117	108	103	24.5	29.0	34.9
MAX	121	132	1,000	1,420	209	454	203	167	257	34	70	74
MIN	19	54	125	123	91	93	78	76	33	17	17	19
CFSM	.86	1.51	7.69	5.56	2.19	3.56	2.08	1.91	1.82	.43	.51	.62
IN.	.99	1.69	8.86	6.41	2.29	4.10	2.32	2.21	2.03	.50	.59	.69
AC-FT	2,980	5,070	26,650	19,280	6,870	12,330	6,970	6,640	6,110	1,500	1,780	2,080

CAL YR 1961: TOTAL 59,661 MEAN 163 MAX 1,000 MIN 17 CFSM 2.90 IN 39.34 AC-FT 118,300
WAT YR 1962: TOTAL 49,546 MEAN 136 MAX 1,420 MIN 17 CFSM 2.41 IN 32.67 AC-FT 98,270

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	37	678	418	83	155	194	112	29	44	25	25
2	40	36	717	560	91	194	167	117	31	38	25	28
3	51	34	662	706	197	164	152	108	31	35	24	27
4	45	37	468	490	291	145	209	102	34	32	23	27
5	40	45	381	357	459	132	203	106	51	31	23	26
6	38	49	329	274	365	123	264	110	47	30	23	24
7	41	44	268	229	293	112	289	106	38	31	23	23
8	54	45	226	212	236	106	254	104	36	48	22	22
9	104	55	197	218	194	100	229	95	44	43	22	22
10	102	68	173	182	167	93	194	89	43	51	22	22
11	81	93	152	152	148	100	173	79	38	45	22	22
12	76	104	135	132	132	104	150	81	37	41	23	22
13	68	121	126	128	121	91	140	76	38	38	22	32
14	63	123	123	123	115	89	138	68	35	34	22	49
15	63	119	191	132	108	89	155	66	31	35	22	35
16	58	135	212	142	108	87	150	65	29	33	21	30
17	54	135	185	130	106	83	140	60	27	30	20	30
18	52	145	164	123	117	78	164	55	27	28	23	27
19	54	194	152	115	128	91	232	49	26	27	49	25
20	49	522	138	108	140	102	222	47	27	28	45	24
21	47	490	152	104	126	91	194	44	34	29	33	23
22	45	349	161	100	115	87	170	41	45	34	28	24
23	44	293	142	95	110	85	164	41	43	32	27	25
24	41	264	128	91	104	95	148	41	41	31	31	27
25	40	566	119	89	110	91	135	37	57	30	30	25
26	41	844	110	85	212	91	123	35	49	28	29	23
27	43	575	108	79	176	98	108	34	44	26	28	23
28	40	397	142	76	158	138	102	33	45	25	26	22
29	40	329	182	70	------	218	104	33	57	25	26	22
30	38	405	382	70	------	257	110	32	49	25	25	24
31	37	------	428	74	------	232	------	32	------	25	24	------
TOTAL	1,632	6,653	7,731	5,864	4,710	3,721	5,177	2,098	1,163	1,032	808	780
MEAN	52.6	222	249	189	168	120	173	67.7	38.8	33.3	26.1	26.0
MAX	104	844	717	706	459	257	289	117	57	51	49	49
MIN	37	34	108	70	83	78	102	32	26	25	20	22
CFSM	.93	3.93	4.42	3.35	2.98	2.13	3.06	1.20	.69	.59	.46	.46
IN.	1.08	4.39	5.10	3.87	3.11	2.45	3.41	1.38	.77	.68	.53	.51
AC-FT	3,240	13,200	15,330	11,630	9,340	7,380	10,270	4,160	2,310	2,050	1,600	1,550

CAL YR 1962: TOTAL 48,068 MEAN 132 MAX 1,420 MIN 17 CFSM 2.34 IN 31.70 AC-FT 95,340
WAT YR 1963: TOTAL 41,369 MEAN 113 MAX 844 MIN 20 CFSM 2.01 IN 27.28 AC-FT 82,050

12-1410. Woods Creek near Monroe, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	58	191	580	294	252	170	199	83	65	30	43
2	22	68	158	640	252	310	155	213	83	62	34	41
3	21	68	142	500	230	306	144	193	75	61	36	41
4	22	62	135	400	226	372	180	177	87	57	36	36
5	25	62	200	370	230	530	278	177	99	56	34	34
6	25	72	500	410	219	585	244	158	99	53	30	33
7	24	135	750	420	186	440	216	147	106	50	28	33
8	23	173	640	350	164	354	193	138	158	47	30	43
9	23	142	650	300	158	377	180	138	144	47	28	38
10	22	152	500	290	152	382	183	170	122	43	29	34
11	24	150	400	436	155	552	209	152	114	42	27	32
12	22	138	310	386	144	539	233	147	111	39	27	30
13	28	179	250	334	144	436	255	152	101	37	27	29
14	36	268	230	400	144	404	264	135	104	39	27	28
15	33	321	400	413	193	490	458	127	99	46	26	28
16	27	257	700	575	209	377	557	119	138	43	25	29
17	25	254	650	650	209	488	534	109	186	39	24	65
18	28	271	520	600	290	585	404	101	213	37	28	62
19	27	341	450	512	294	458	322	94	244	36	34	54
20	30	373	650	526	248	354	263	101	219	35	28	79
21	41	289	470	431	219	310	237	133	186	36	27	69
22	79	274	420	350	193	263	302	209	155	36	25	67
23	66	346	370	302	173	240	263	209	138	34	24	64
24	60	389	350	302	155	202	226	199	127	32	24	57
25	55	428	370	418	141	199	206	170	106	31	26	51
26	51	393	360	404	133	248	199	147	94	30	51	46
27	48	377	320	342	124	230	193	130	87	29	53	43
28	60	301	280	302	130	209	202	119	85	28	51	42
29	74	257	260	314	144	189	193	109	77	28	54	42
30	63	215	240	282	------	173	186	99	71	28	53	81
31	58	------	280	282	------	161	------	92	------	28	48	------
TOTAL	1,164	6,813	12,146	12,821	5,553	11,015	7,649	4,563	3,711	1,274	1,024	1,374
MEAN	37.5	227	392	414	191	355	255	147	124	41.1	33.0	45.8
MAX	79	428	750	650	294	585	557	213	244	65	54	81
MIN	21	58	135	282	124	161	144	92	71	28	24	28
CFSM	.67	4.03	6.95	7.33	3.40	6.30	4.52	2.61	2.19	.73	.59	.81
IN.	.77	4.49	8.01	8.45	3.66	7.26	5.04	3.01	2.45	.84	.68	.91
AC-FT	2,310	13,510	24,090	25,430	11,010	21,850	15,170	9,050	7,360	2,530	2,030	2,730

CAL YR 1963: TOTAL 45,476 MEAN 125 MAX 750 MIN 20 CFSM 2.21 IN 29.99 AC-FT 90,200
WAT YR 1964: TOTAL 69,107 MEAN 189 MAX 750 MIN 21 CFSM 3.35 IN 45.57 AC-FT 137,100

Note.--No gage-height record Dec. 5 to Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	193	67	605	234	800	396	90	108	61	28	21	25
2	152	83	1,210	560	620	333	92	105	55	26	22	25
3	133	81	815	600	513	288	83	100	52	27	23	24
4	106	270	504	464	508	250	81	146	49	26	23	23
5	92	270	360	374	695	218	79	172	46	26	22	23
6	81	199	270	320	950	202	83	140	44	26	21	23
7	71	161	230	302	760	183	86	127	43	26	21	23
8	67	138	226	297	650	166	81	116	42	26	22	23
9	94	119	270	297	555	152	83	108	39	25	23	22
10	85	116	360	260	477	140	108	97	38	26	27	23
11	77	119	454	230	405	133	95	92	44	28	27	23
12	69	111	360	190	374	124	90	86	44	27	28	23
13	64	124	310	180	482	116	92	81	42	26	30	24
14	62	116	262	206	495	110	90	76	39	26	27	34
15	65	109	262	242	508	105	88	79	39	25	26	46
16	71	99	220	246	555	97	92	130	39	25	25	46
17	64	94	180	238	550	90	90	113	38	26	25	37
18	59	87	158	220	459	90	83	97	36	24	26	30
19	57	85	146	215	410	86	123	90	37	25	27	26
20	53	81	136	215	400	83	315	100	36	27	30	26
21	51	77	143	284	364	79	377	92	34	27	25	25
22	47	75	338	324	450	92	284	83	36	26	23	24
23	46	81	400	302	423	86	214	90	33	26	29	24
24	48	192	315	459	360	76	234	86	32	26	32	23
25	46	223	254	459	320	74	198	74	32	23	29	22
26	43	223	351	446	310	76	162	70	32	23	31	25
27	42	248	472	605	504	74	140	63	31	22	29	24
28	41	226	410	1,120	486	76	130	61	31	22	44	24
29	41	219	333	2,090	------	90	119	57	29	22	37	25
30	46	386	274	1,490	------	86	110	74	29	22	28	23
31	51	------	250	1,120	------	81	------	64	------	21	26	------
TOTAL	2,217	4,479	10,878	14,589	14,383	4,252	3,992	2,977	1,182	781	829	788
MEAN	71.5	149	351	471	514	137	133	96.0	39.4	25.2	26.7	26.3
MAX	193	386	1,210	2,090	950	396	377	172	61	28	44	46
MIN	41	67	136	180	310	74	79	57	29	21	21	22
CFSM	1.27	2.65	6.22	8.34	9.11	2.43	2.36	1.70	.70	.45	.47	.47
IN.	1.46	2.95	7.17	9.62	9.48	2.80	2.63	1.96	.78	.51	.55	.52
AC-FT	4,400	8,880	21,580	28,940	28,530	8,430	7,920	5,900	2,340	1,550	1,640	1,560

CAL YR 1964: TOTAL 66,558 MEAN 182 MAX 1,210 MIN 24 CFSM 3.22 IN 43.89 AC-FT 132,000
WAT YR 1965: TOTAL 61,347 MEAN 168 MAX 2,090 MIN 21 CFSM 2.98 IN 40.45 AC-FT 121,700

12-1413. Middle Fork Snoqualmie River near Tanner, Wash.

Location.--Lat 47°29'30", long 121°38'30", in SW¼SE¼ sec.10, T.23 N., R.9 E., on left bank half a mile downstream from Granite Creek and 7 miles east of North Bend.

Drainage area.--154 sq mi.

Records available.--February 1961 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 780 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (8,000 cfs), February 1961 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	1100	* 14,000	10.50	Apr. 6, 1962	1930	9,940	9.06	Jan. 1, 1964	1530	9,180	8.77
Dec. 24, 1961	0830	10,500	9.26	Nov. 19, 1962	2400	* 22,800	13.14	Nov. 24, 1964	1030a	9,050	-
Jan. 3, 1962	0430	* 11,600	9.66	Feb. 3, 1963	0700	15,900	11.10	Dec. 1, 1964	1400a	13,900	-
Jan. 7, 1962	0900	10,000	9.10					Jan. 29, 1965	0130	* 15,800	11.05
				Nov. 26, 1963	1800	* 9,520	8.90	Apr. 20, 1965	0500	8,660	8.57

a About.

Annual minimum discharge, February 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28, 29, 30	140	1.15	1964	Oct. 10, 1963	a 165	-
1962	Sept. 9, 1962	236	1.55	1965	Sept.12, 1965	a 198	-
1963	Sept.30, 1963	a 188	-				

a Minimum daily.

1961-65: Maximum discharge, 22,800 cfs Nov. 19, 1962 (gage height, 13.14 ft); minimum, 140 cfs Aug. 28, 29, 30, 1961 (gage height, 1.15 ft).

Flood of Nov. 23, 1959, reached a stage of 18.7 ft, from floodmarks (discharge, 49,000 cfs, result of slope-area measurement at site 6 miles downstream).

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1					1,700	2,840	1,420	2,320	2,520	710	284	1,470
2					2,300	1,890	2,520	2,710	3,510	725	279	1,770
3					1,600	1,370	4,920	2,070	3,410	755	284	770
4					1,600	1,100	2,550	1,570	3,060	825	287	512
5					2,500	971	1,710	1,460	2,700	1,680	287	430
6					3,500	953	1,360	1,260	2,670	1,330	279	382
7					3,000	941	1,170	1,120	2,370	983	257	324
8					1,800	880	1,360	1,070	1,770	808	236	284
9					1,700	880	1,670	1,280	1,780	765	231	260
10					1,800	803	1,290	1,670	1,560	808	228	239
11					1,500	814	1,170	1,560	1,600	814	218	223
12					1,300	896	1,590	1,320	1,470	847	208	208
13					1,300	1,200	2,340	1,260	1,540	847	208	196
14					1,200	1,920	1,750	1,380	1,760	808	208	184
15				† 9,330	1,310	2,350	1,330	1,460	2,460	685	213	179
16		† 6,610			1,190	2,240	1,340	1,870	2,750	594	236	176
17					1,140	1,620	1,690	2,320	2,870	528	218	176
18					1,010	1,400	1,360	2,600	2,510	493	198	172
19			† 2,230		2,220	1,450	1,150	3,000	2,080	486	196	174
20					5,420	1,660	1,000	3,190	1,580	476	196	449
21					10,500	1,300	930	2,670	1,310	493	188	451
22					3,920	1,130	913	2,180	1,200	479	181	321
23					2,260	1,150	830	2,730	1,340	458	176	262
24					2,110	1,170	847	2,030	1,320	434	179	223
25		† 2,510			1,710	1,070	864	2,000	1,290	376	169	200
26					1,360	1,020	858	2,830	1,230	354	158	188
27					1,240	941	820	2,670	930	360	151	179
28					1,170	852	930	2,050	814	342	142	255
29					------	830	1,960	2,080	798	321	142	486
3					------	880	2,470	2,010	750	296	144	395
31		------			------	989	------	1,940	------	284	474	------
TOTAL					63,360	39,510	46,112	61,680	56,952	20,164	6,855	11,538
MEAN					2,263	1,275	1,537	1,990	1,898	650	221	385
MAX					10,500	2,840	4,920	3,190	3,510	1,680	474	1,770
MIN					1,010	803	820	1,070	750	284	142	172
CFSM					14.7	8.28	9.98	12.9	12.3	4.22	1.44	2.50
IN.					15.3	9.54	11.1	14.9	13.8	4.87	1.66	2.79
AC-FT					125,700	78,370	91,460	122,300	113,000	39,990	13,600	22,890

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† Result of discharge measurement.

12-1413. Middle Fork Snoqualmie River near Tanner, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	444	1,770	1,350	1,670	1,190	354	930	1,800	1,140	1,270	564	380
2	373	1,260	1,060	2,500	1,500	342	935	1,880	1,640	1,280	512	350
3	316	1,320	1,080	9,730	2,040	333	781	1,850	1,790	1,070	540	320
4	273	1,080	1,860	4,260	1,740	342	924	1,550	1,570	1,090	1,030	310
5	271	869	1,800	2,770	1,340	366	1,130	1,240	1,560	1,210	2,910	290
6	486	745	1,230	3,280	1,080	402	5,130	1,110	1,370	1,950	1,410	276
7	902	740	1,010	8,380	941	440	5,260	983	1,400	1,440	1,090	268
8	803	770	852	5,630	891	500	2,230	1,010	1,770	1,430	1,040	257
9	1,610	919	730	3,250	814	476	1,530	1,240	1,790	1,460	836	239
10	3,140	2,780	625	2,010	798	430	1,220	1,370	1,610	1,370	690	487
11	1,730	2,120	564	1,530	781	402	1,010	1,200	1,410	1,280	607	1,230
12	2,870	1,410	528	1,260	710	369	995	1,080	1,500	1,170	589	666
13	4,170	1,100	496	1,060	666	357	1,240	1,080	1,300	1,010	634	560
14	1,810	1,210	462	930	814	363	1,810	1,020	1,340	880	540	750
15	1,190	983	472	836	750	389	2,040	977	1,730	830	490	661
16	913	820	540	760	656	430	1,450	971	2,170	830	479	508
17	755	715	749	715	607	451	1,280	1,100	1,920	820	468	434
18	620	652	661	616	625	458	1,530	1,100	1,710	740	536	389
19	548	602	1,280	528	572	462	1,840	1,020	1,660	652	594	363
20	496	540	2,550	482	528	496	1,600	896	1,680	690	536	348
21	451	528	1,950	482	493	490	1,540	864	1,730	786	602	330
22	440	2,600	920	500	540	479	1,480	953	1,700	852	512	318
23	1,560	1,500	3,990	504	520	532	1,610	1,290	1,740	886	448	298
24	1,470	1,070	7,790	493	444	1,090	1,940	1,510	1,960	896	389	282
25	1,160	847	3,090	934	412	1,400	1,700	1,480	1,950	874	370	271
26	1,400	725	1,860	1,830	379	1,040	1,350	1,570	2,150	803	360	265
27	1,430	776	1,370	1,690	360	935	1,820	1,730	1,550	735	400	276
28	1,200	1,210	1,990	1,320	360	755	1,560	1,940	1,310	735	620	858
29	935	1,370	3,680	1,090	------	685	1,390	1,630	1,420	690	580	1,300
30	792	1,210	2,930	1,090	------	690	1,230	1,300	1,540	602	500	947
31	830	------	1,910	1,170	------	776	------	1,180	------	589	430	------
TOTAL	35,388	34,241	51,379	63,300	22,551	17,034	50,485	39,924	49,110	30,920	21,306	14,231
MEAN	1,142	1,141	1,657	2,042	805	549	1,683	1,288	1,637	997	687	474
MAX	4,170	2,780	7,790	9,730	2,040	1,400	5,260	1,940	2,170	1,950	2,910	1,300
MIN	271	528	462	482	360	333	781	864	1,140	589	360	239
CFSM	7.41	7.41	10.8	13.3	5.23	3.57	10.9	8.36	10.6	6.48	4.46	3.08
IN.	8.55	8.27	12.4	15.3	5.45	4.11	12.2	9.64	11.9	7.47	5.15	3.44
AC-FT	70,190	67,920	101,900	125,600	44,730	33,790	100,100	79,190	97,410	61,330	42,260	28,230

CAL YR 961: TOTAL MEAN MAX MIN CFSM IN AC-FT.
WAT YR 962: TOTAL 429,869 MEAN 1,178 MAX 9,730 MIN 239 CFSM 7.65 IN 103.81 AC-FT 852,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	656	369	1,200	3,160	409	1,480	891	1,320	1,190	847	426	240
2	540	345	1,110	4,960	964	1,220	770	1,350	1,230	808	392	250
3	752	330	1,020	4,960	10,200	1,020	792	1,180	1,150	715	354	250
4	680	339	924	2,360	4,080	874	2,510	1,040	983	675	351	240
5	556	580	2,330	1,660	4,660	755	2,140	1,650	1,510	620	330	230
6	550	695	4,050	1,330	2,660	685	2,620	1,660	1,310	568	310	210
7	650	540	2,210	1,140	2,360	630	1,950	1,490	1,130	556	300	193
8	2,500	902	2,330	1,100	1,930	594	1,090	1,300	1,080	725	290	191
9	3,200	913	2,130	1,160	1,720	560	1,170	1,150	1,420	720	280	188
10	2,180	1,270	1,810	924	1,340	540	1,010	1,070	1,260	781	270	191
11	1,450	1,770	1,670	715	1,120	556	930	1,040	1,310	886	260	191
12	1,170	1,560	1,390	705	959	528	913	1,030	1,540	750	250	262
13	1,040	1,130	1,230	648	847	490	1,010	953	1,380	670	265	493
14	918	965	1,680	638	836	476	1,590	1,000	1,280	625	260	814
15	953	864	3,270	648	760	458	1,690	1,210	1,340	700	250	695
16	842	792	2,450	630	820	426	1,220	1,060	1,460	630	240	440
17	725	735	1,660	576	808	406	1,020	1,190	1,300	564	225	382
18	725	685	1,310	536	1,200	402	1,020	1,690	1,060	528	220	304
19	755	10,300	1,160	493	2,590	688	1,010	2,120	918	500	330	268
20	705	11,200	1,040	465	2,500	830	959	2,310	786	465	380	236
21	858	3,560	1,110	444	1,510	874	902	2,450	770	444	350	223
22	1,080	2,060	1,100	420	1,160	1,160	1,080	2,160	786	552	320	223
23	847	1,490	891	398	965	896	1,170	1,720	685	576	350	262
24	666	1,310	776	392	830	770	1,000	1,510	634	486	400	273
25	598	3,500	690	376	917	725	930	1,320	1,050	508	360	233
26	552	3,860	634	357	2,500	760	947	1,230	781	458	340	210
27	524	2,130	625	342	1,680	891	930	1,090	620	430	320	200
28	479	1,530	1,400	330	1,320	1,200	864	1,260	560	423	300	193
29	444	1,240	1,960	282	------	1,200	1,210	1,440	1,350	406	280	191
30	426	1,370	5,680	287	------	1,150	1,410	1,510	1,080	369	260	188
31	398	------	4,390	366	------	1,030	------	1,410	------	366	250	------
TOTAL	28,419	58,334	55,230	32,802	54,245	24,274	36,748	43,913	32,953	18,351	9,513	8,464
MEAN	917	1,944	1,782	1,058	1,937	783	1,225	1,417	1,098	592	307	282
MAX	3,200	11,200	5,680	4,960	10,200	1,480	2,620	2,450	1,540	886	426	814
MIN	398	330	625	282	409	402	770	953	560	366	220	188
CFSM	5.95	12.6	11.6	6.87	12.6	5.08	7.95	9.20	7.13	3.84	1.99	1.83
IN.	6.86	14.1	13.3	7.92	13.1	5.86	8.87	10.6	7.96	4.43	2.30	2.04
AC-FT	56,370	115,700	109,500	65,060	107,600	48,150	72,890	87,100	65,360	36,400	18,870	16,790

CAL YR 1962: TOTAL 450,844 MEAN 1,235 MAX 11,200 MIN 239 CFSM 8.02 IN 108.88 AC-FT 894,200
WAT YR 1963: TOTAL 493,246 MEAN 1,105 MAX 11,200 MIN 188 CFSM 7.17 IN 97.38 AC-FT 799,800

12-1413. Middle Fork Snoqualmie River near Tanner, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	198	720	977	6,080	1,940	803	2,120	1,070	6,030	3,040	1,580	1,080
2	193	1,230	814	3,510	1,480	685	1,580	959	4,610	3,040	1,810	1,120
3	188	947	745	2,010	1,190	680	1,240	847	3,420	2,340	1,900	1,080
4	191	1,320	715	1,620	1,260	1,220	1,140	836	4,310	2,210	2,050	850
5	184	1,240	1,040	1,450	1,210	1,170	1,100	940	5,040	2,470	1,510	730
6	220	1,140	1,510	2,140	959	913	995	910	4,380	2,340	1,370	650
7	198	1,340	1,170	1,550	814	730	1,070	890	4,340	3,010	1,360	900
8	181	1,980	889	1,240	730	690	1,230	940	4,000	3,560	1,250	1,600
9	169	1,460	836	1,150	680	710	1,320	1,500	4,000	2,730	1,150	1,060
10	165	1,230	715	1,280	798	776	1,660	2,100	4,470	2,290	1,070	803
11	167	1,020	638	1,240	971	1,030	1,640	1,790	3,780	2,740	1,080	680
12	174	995	584	1,020	755	913	1,410	1,810	3,380	3,560	1,120	602
13	266	1,100	544	902	695	705	1,230	1,980	3,400	3,380	1,020	556
14	321	2,080	524	836	661	1,060	1,300	1,550	3,520	3,020	902	524
15	257	1,730	776	998	666	2,020	2,680	1,440	3,620	3,140	776	500
16	223	1,610	1,190	2,100	760	1,350	1,590	1,730	5,400	2,820	725	490
17	206	2,470	1,580	1,700	918	1,660	1,240	2,540	4,290	2,160	710	1,110
18	254	1,690	1,370	1,440	1,410	1,690	1,050	2,590	4,430	1,890	842	880
19	246	1,500	1,540	1,250	1,540	1,210	995	3,200	3,530	1,600	864	923
20	327	1,200	1,750	1,170	1,100	977	1,010	4,120	3,000	1,760	670	2,430
21	770	935	1,270	983	896	852	965	4,270	2,650	1,940	630	1,400
22	2,930	989	1,290	886	808	781	1,420	3,240	2,500	1,690	661	1,360
23	1,820	1,400	2,010	798	750	695	1,110	2,190	3,500	1,390	685	1,130
24	1,860	1,480	1,640	1,010	700	634	1,020	1,960	3,250	1,470	715	941
25	1,960	2,480	1,810	3,110	652	598	1,010	1,660	2,800	1,650	685	908
26	1,300	5,860	1,360	1,580	612	616	1,260	1,770	2,790	1,650	1,390	781
27	959	4,230	1,420	1,390	568	620	1,210	2,540	2,330	1,620	1,590	661
28	1,090	2,090	1,300	1,340	568	598	1,190	3,280	1,910	1,700	2,420	598
29	1,140	1,510	1,100	1,710	594	740	1,250	3,310	1,730	1,770	1,770	665
30	947	1,200	995	1,590	------	1,190	1,140	4,340	2,390	1,580	2,040	2,570
31	770	------	1,420	1,540	------	1,670	------	5,480	------	1,600	1,420	------
TOTAL	19,874	50,176	35,522	50,623	26,685	29,986	39,175	67,782	108,800	71,160	37,765	29,582
MEAN	641	1,673	1,146	1,633	920	967	1,306	2,187	3,627	2,295	1,218	986
MAX	2,930	5,860	2,010	6,080	1,940	2,020	2,680	5,480	6,030	3,560	2,420	2,570
MIN	165	720	524	798	568	598	965	836	1,730	1,390	630	490
CFSM	4.16	10.9	7.44	10.6	5.98	6.28	8.48	14.2	23.5	14.9	7.91	6.40
IN.	4.80	12.1	8.59	12.2	6.44	7.24	9.46	16.4	26.3	17.2	9.12	7.14
AC-FT	39,420	99,520	70,460	100,400	52,930	59,480	77,700	134,400	215,800	141,100	74,910	58,680

CAL YR 1963: TOTAL 366,835 MEAN 1,005 MAX 10,200 MIN 165 CFSM 6.53 IN 88.59 AC-FT 727,600
WAT YR 1964: TOTAL 567,130 MEAN 1,550 MAX 6,080 MIN 165 CFSM 10.1 IN 136.96 AC-FT 1,125,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,370	616	12,000	640	2,700	1,070	755	1,540	1,490	1,380	454	313
2	4,080	770	7,730	700	1,900	924	670	1,260	1,940	1,480	454	296
3	2,530	882	3,300	650	1,500	858	584	1,080	2,360	1,450	423	287
4	1,490	2,060	1,960	600	1,700	842	598	1,130	2,330	1,420	389	268
5	1,110	1,450	1,440	570	3,100	830	643	1,060	2,410	1,390	354	254
6	902	1,000	1,170	550	2,300	858	598	941	2,450	1,310	342	239
7	776	850	977	530	1,640	918	560	880	2,280	1,320	330	223
8	999	730	2,120	510	1,850	977	532	891	2,180	1,150	336	213
9	1,140	661	2,380	490	1,470	1,020	616	995	2,220	852	330	208
10	1,060	630	2,250	470	1,180	1,200	648	1,320	2,040	760	366	208
11	842	590	1,480	450	983	1,310	594	1,620	2,190	858	363	206
12	720	552	1,190	440	930	1,260	598	2,000	1,720	720	437	198
13	666	540	1,090	430	2,220	1,100	675	1,980	1,260	735	737	206
14	820	520	941	550	1,560	1,010	685	1,780	1,160	820	524	2,210
15	1,210	508	820	1,220	1,380	953	977	1,680	1,080	836	385	2,460
16	1,370	472	648	2,090	1,970	902	1,620	2,720	1,100	803	342	1,530
17	1,360	472	564	2,070	2,730	781	1,340	2,000	1,520	740	318	858
18	1,070	468	584	1,810	2,170	685	1,080	1,490	1,560	680	307	620
19	935	434	572	1,860	2,400	630	2,340	1,370	1,380	616	321	500
20	869	423	540	1,970	2,110	594	6,910	1,810	1,450	580	465	434
21	776	412	600	2,020	1,570	584	4,030	1,620	1,290	572	395	385
22	680	412	3,420	1,560	1,330	661	2,490	1,560	1,240	508	327	363
23	612	800	3,120	1,240	1,190	584	1,880	1,510	1,260	500	506	348
24	568	5,920	1,600	1,070	941	516	2,070	1,360	1,300	552	666	316
25	544	2,800	1,130	930	852	500	2,080	1,320	1,240	594	490	304
26	493	1,500	1,020	1,130	1,120	476	2,330	1,640	995	612	560	293
27	458	1,100	900	5,350	2,080	458	2,920	2,370	858	568	493	284
28	430	850	735	9,960	1,390	465	3,250	3,020	814	524	508	268
29	416	1,500	648	10,200	------	486	2,380	2,530	935	479	490	249
30	648	9,230	643	11,100	------	479	2,370	2,160	1,130	468	395	236
31	760	------	640	5,670	------	528	------	1,660	------	451	342	------
TOTAL	32,694	39,152	58,212	68,830	48,176	24,459	48,823	50,297	47,202	25,728	13,149	14,777
MEAN	1,055	1,305	1,878	2,220	1,721	789	1,627	1,622	1,573	830	424	493
MAX	4,080	9,230	12,000	11,100	3,100	1,310	6,910	3,020	2,450	1,480	737	2,460
MIN	416	412	540	430	852	458	532	880	814	451	307	198
CFSM	6.85	8.47	12.2	14.4	11.2	5.12	10.6	10.5	10.2	5.39	2.75	3.20
IN.	7.90	9.45	14.1	16.6	11.6	5.91	11.8	12.1	11.4	6.21	3.18	3.57
AC-FT	64,850	77,660	115,500	136,500	95,560	48,510	96,840	99,760	93,620	51,030	26,080	29,310

CAL YR 1964: TOTAL 591,616 MEAN 1,616 MAX 12,000 MIN 412 CFSM 10.5 IN 142.87 AC-FT 1,173,000
WAT YR 1965: TOTAL 471,499 MEAN 1,292 MAX 12,000 MIN 198 CFSM 8.39 IN 113.86 AC-FT 935,200

12-1420. North Fork Snoqualmie River near Snoqualmie Falls, Wash.

Location.--Lat 47°37'00", long 121°42'30", in NW¼NW¼ sec.31, T.25 N., R.9 E., on left bank 1 mile upstream from Calligan Creek, 7½ miles northeast of town of Snoqualmie Falls, 8½ miles northeast of Snoqualmie, and 9½ miles upstream from confluence with Middle Fork.

Drainage area.--64.0 sq mi.

Records available.--August 1929 to October 1949. Annual maximum water years 1950-60. February 1961 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,130 ft (from topographic map). Prior to Oct. 19, 1949, at site 1,500 ft downstream at different datum. October 1949 to February 1961, crest-stage gage only at former site and datum.

Average discharge.--24 years (1929-49, 1961-65), 494 cfs (357,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,000 cfs), water years 1950-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
(a)	-	*b11,000	15.1	Dec. 9, 1956	-	*b 6,860	12.57	Apr. 6, 1962	2000	4,630	8.48
Feb. 9, 1951	-	*b13,200	16.2	Nov. 12, 1958	-	*b 7,220	12.83	Nov. 19, 1962	1700	* 9,700	11.28
								Feb. 3, 1963	0830	5,530	9.07
Feb. 4, 1952	-	*b 4,420	10.5	Nov. 22, 1959	-	*b13,700	16.47				
								Nov. 26, 1963	1830	* 4,560	8.43
Jan. 23, 1953	-	*b 6,340	12.2	Feb. 21, 1961	-	* 7,460	13.00				
								Nov. 24, 1964	0830	4,350	8.05
Dec. 9, 1953	-	*b 9,520	14.29	Dec. 24, 1961	1000	4,010	8.03	Nov. 30, 1964	1430	5,850	9.03
				Jan. 3, 1962	0400	4,910	8.68	Jan. 29, 1965	0230	* 6,590	9.44
Dec. 11, 1955	-	*b12,200	15.72	Jan. 7, 1962	0800	* 5,370	8.97				

a Nov. 27, 1949, or Mar. 4, 1950.
b Revised.

Annual minimum discharge, February 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 31, 1961	43	1.90	1964	Oct. 12, 1963	78	2.19
1962	Sept. 9, 1962	100	2.42	1965	Sept.13, 1965	73	2.16
1963	Sept.12, 13, 1963	73	2.15				

1929-65: Maximum discharge, 15,800 cfs Feb. 26, 1932 (gage height, 17.5 ft, site and datum then in use), from rating curve extended above 2,200 cfs on basis of slope-area measurement at gage height 16.47 ft.

1929-49, 1961-65: Minimum discharge observed, 30 cfs Sept. 17-19, 1929.

Remarks.--Records excellent. No regulation or diversion above station.

Revisions (water years).--WSP 1346: 1930-31(M), 1932, 1935, 1936-37(M), 1938, 1939-42(M), 1944, 1945-46(P), 1947, 1948(P), 1949(M). WSP 1736: 1932-34(M), 1935, 1938(M), 1943-45(M), 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1					-	1,150	595	934	862	210	74	572
2					-	754	1,220	1,200	1,000	207	72	733
3					-	529	2,110	862	922	205	71	266
4					-	433	1,090	615	826	210	70	181
5					-	384	665	570	743	404	67	157
6					-	363	529	500	765	334	65	143
7					-	344	456	456	675	269	65	124
8					-	337	516	452	496	221	62	110
9					-	340	700	574	524	203	60	102
10					-	325	538	770	480	195	59	96
11					-	325	488	670	468	187	57	91
12					-	344	657	520	430	183	56	86
13					-	492	904	504	444	174	56	81
14					-	834	610	606	524	162	55	78
15				† 2,940	-	1,13	496	610	660	151	54	74
16		† 1,150	† 438		-	1,020	492	732	716	139	59	73
17					-	710	748	938	738	136	60	71
18					-	583	538	898	645	126	57	68
19					-	578	448	966	512	119	54	68
20					† 2,940	726	388	998	416	115	52	140
21					-	529	370	826	337	110	51	174
22					-	456	365	660	315	106	48	118
23					-	484	334	874	354	103	48	103
24					-	547	340	650	340	100	46	96
25		† 1,030			630	480	354	601	331	96	47	91
26					529	448	350	826	315	92	47	85
27					472	416	350	880	242	89	47	81
28					433	377	398	660	216	86	45	132
29					------	363	870	685	205	82	44	242
30					------	360	998	625	223	80	43	212
31		------			------	416	------	574	------	76	90	------
TOTAL					-	16,577	18,822	22,136	15,724	4,970	1,783	4,648
MEAN					-	535	627	714	524	160	57.5	155
MAX					-	1,150	2,110	1,200	1,000	404	90	733
MIN					-	325	334	452	205	76	43	68
CFSM					-	8.36	9.80	11.2	8.19	2.51	.90	2.42
IN.					-	9.63	10.9	12.9	9.14	2.89	1.04	2.70
AC-FT					-	32,880	37,330	43,910	31,190	9,860	3,540	9,220

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† Result of discharge measurement.

12-1420. North Fork Snoqualmie River near Snoqualmie Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	252	784	725	740	534	166	461	681	401	379	157	155
2	177	503	485	1,180	695	160	449	788	669	417	144	140
3	146	566	433	3,640	920	157	361	800	720	337	162	130
4	127	465	648	1,600	725	160	458	665	611	361	387	120
5	146	358	719	1,200	539	177	640	485	740	445	1,420	117
6	800	306	457	1,590	429	191	2,500	425	630	730	593	113
7	714	315	383	4,050	413	199	1,980	375	593	508	461	108
8	383	351	322	2,140	421	221	878	383	700	494	477	104
9	904	415	283	1,290	390	208	616	544	640	481	341	101
10	1,460	1,340	247	848	375	193	490	625	534	421	271	180
11	824	878	228	640	379	185	413	477	469	386	233	540
12	1,240	526	214	530	334	173	421	433	508	368	221	288
13	1,490	401	208	445	309	168	584	469	425	306	258	223
14	620	457	197	394	365	168	842	425	441	269	212	361
15	409	354	201	358	354	173	854	401	588	263	189	297
16	328	300	225	322	303	191	557	394	665	250	175	223
17	283	266	297	303	280	203	503	445	580	250	170	191
18	240	245	271	266	300	210	620	421	503	228	191	172
19	216	233	476	235	277	216	725	386	512	214	223	158
20	201	212	1,250	212	247	237	620	337	534	233	203	146
21	193	203	1,030	205	225	228	630	331	534	252	263	141
22	185	1,110	638	205	230	221	640	368	516	269	212	136
23	856	606	2,080	205	225	230	680	528	548	277	180	129
24	670	4 5	3,020	210	197	383	806	635	620	271	170	122
25	490	318	1,230	288	185	566	650	630	616	252	160	116
26	725	280	760	850	172	453	494	630	735	230	155	111
27	616	297	566	776	170	417	828	616	557	216	180	114
28	498	580	948	575	172	328	650	680	461	205	270	312
29	379	725	1,610	469	------	297	490	570	503	189	250	521
30	318	584	1,230	490	------	303	437	449	485	175	200	342
31	328	------	782	552	------	358	------	401	------	168	170	------
TOTAL	16,218	14,383	22,163	26,808	10,165	7,540	21,277	15,797	17,038	9,844	8,698	5,911
MEAN	523	479	715	865	363	243	709	510	568	318	281	197
MAX	1,490	1,340	3,020	4,050	920	566	2,500	800	740	730	1,420	540
MIN	127	203	197	205	170	157	361	331	401	168	144	101
CFSM	8.17	7.49	11.2	13.5	5.67	3.80	11.1	7.96	8.87	4.96	4.38	3.08
IN.	9.42	8.36	12.9	15.6	5.91	4.38	12.4	9.18	9.90	5.72	5.05	3.43
AC-FT	32,170	28,530	43,960	53,170	20,160	14,960	42,200	31,330	33,790	19,530	17,250	11,720

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 175,842 MEAN 482 MAX 4,050 MIN 101 CFSM 7.53 IN 102.18 AC-FT 348,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	223	129	490	1,200	208	526	311	502	329	432	168	99
2	187	125	470	2,000	352	432	274	486	342	365	152	100
3	257	119	414	1,870	3,260	368	271	418	345	314	141	102
4	242	122	372	910	1,490	320	1,210	355	296	285	134	98
5	197	266	1,070	630	1,600	288	1,000	576	536	258	129	92
6	191	297	1,900	502	874	266	1,200	695	421	242	122	88
7	218	225	922	435	814	247	814	570	342	232	117	86
8	779	444	982	435	610	237	640	474	329	285	112	83
9	1,180	390	850	463	522	224	518	410	538	305	106	82
10	719	565	715	362	428	217	456	368	442	311	105	79
11	465	908	700	291	355	224	432	352	428	358	102	77
12	368	665	558	280	308	213	421	352	502	296	100	74
13	344	473	522	277	280	201	421	358	418	252	105	100
14	300	398	795	263	282	195	595	332	393	240	103	622
15	277	354	1,530	266	263	188	705	400	418	258	99	274
16	260	322	1,040	255	288	178	463	414	410	247	92	302
17	230	288	650	237	299	168	390	418	352	217	89	296
18	228	277	506	220	514	164	379	558	326	201	89	210
19	247	3,960	463	204	1,140	246	400	650	302	188	134	172
20	228	3,180	438	195	918	368	379	665	269	176	166	148
21	263	1,050	456	188	534	410	352	685	288	168	154	134
22	309	680	452	182	410	562	404	625	339	280	130	127
23	245	514	362	174	345	396	590	486	311	266	139	172
24	208	478	311	168	299	326	452	418	282	217	182	168
25	187	1,300	280	164	331	296	393	352	574	247	166	137
26	175	1,610	258	156	1,340	317	410	339	368	206	154	125
27	173	850	250	148	650	390	407	308	294	186	136	116
28	160	590	468	145	498	542	358	358	274	170	124	108
29	149	478	815	129	------	474	463	414	786	158	116	103
30	141	562	2,520	127	------	407	574	418	574	150	108	100
31	136	------	1,640	166	------	352	------	368	------	150	103	------
TOTAL	9,286	21,619	23,199	13,042	19,212	9,742	15,682	14,124	11,828	7,660	3,877	4,474
MEAN	300	721	748	421	686	314	523	456	394	247	125	149
MAX	1,180	3,960	2,520	2,000	3,260	562	1,210	695	786	432	182	622
MIN	136	119	250	127	208	164	271	308	269	150	89	74
CFSM	4.68	11.3	11.7	6.57	10.7	4.91	8.17	7.12	6.16	3.86	1.95	2.33
IN.	5.40	12.6	13.5	7.58	11.2	5.66	9.11	8.21	6.87	4.45	2.25	2.60
AC-FT	18,420	42,880	46,010	25,870	38,110	19,320	31,100	28,010	23,460	15,190	7,690	8,870

CAL YR 1962: TOTAL 177,182 MEAN 485 MAX 4,050 MIN 101 CFSM 7.58 IN 102.96 AC-FT 351,400
WAT YR 1963: TOTAL 153,745 MEAN 421 MAX 3,960 MIN 74 CFSM 6.58 IN 89.34 AC-FT 304,900

12-1420. North Fork Snoqualmie River near Snoqualmie Fall, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	96	326	414	2,430	720	294	1,080	414	1,770	928	501	450
2	93	550	365	1,240	542	269	665	368	1,400	922	770	438
3	91	404	339	745	446	269	502	332	1,070	725	675	418
4	93	571	323	600	466	518	482	332	1,530	700	814	339
5	98	510	486	514	522	514	460	418	1,770	705	582	296
6	102	470	645	640	421	396	410	372	1,490	680	490	269
7	98	575	460	554	390	329	438	376	1,670	886	452	258
8	91	1,220	400	449	335	302	502	404	1,510	1,010	393	664
9	87	695	348	421	320	291	526	631	1,510	775	368	438
1	83	582	305	410	320	294	705	1,010	1,490	660	339	335
11	80	470	274	407	355	348	705	745	1,250	808	326	288
12	80	478	255	352	310	348	558	780	1,130	994	329	258
13	149	566	242	332	290	296	490	886	1,070	904	323	234
14	182	1,020	232	323	280	370	484	605	1,150	844	294	217
15	127	700	368	352	280	868	1,120	570	1,170	1,020	255	206
16	112	590	691	1,160	285	574	670	723	1,680	958	242	201
17	106	1,000	890	785	317	736	502	1,040	1,510	675	234	494
18	106	665	730	562	556	770	432	1,010	1,570	570	294	382
19	108	630	838	478	700	526	407	1,190	1,320	494	339	418
20	145	510	1,020	470	466	435	418	1,450	1,020	554	252	1,210
21	358	418	635	400	390	382	390	1,680	850	685	227	582
22	1,620	446	719	375	352	339	542	1,130	826	562	227	570
23	862	724	1,200	350	332	302	428	820	1,140	446	227	449
24	949	770	755	424	320	277	404	820	1,040	474	217	368
25	946	1,35	790	1,750	291	271	404	695	916	526	208	323
26	546	2,680	550	808	274	269	482	735	934	506	416	285
27	404	1,690	635	665	255	271	446	1,060	765	486	620	255
28	547	832	554	615	247	263	432	1,240	640	534	1,100	234
29	574	600	460	780	244	308	474	1,120	590	522	780	256
30	452	486	414	680	------	552	446	1,500	802	452	800	1,010
31	365	------	694	625	------	780	------	1,760	------	442	530	------
TOTAL	9,750	22,528	17,031	20,696	11,026	12,761	16,004	26,216	36,583	21,447	13,624	12,145
MEAN	315	751	549	668	380	412	533	846	1,219	692	439	405
MAX	1,620	2,680	1,200	2,430	720	868	1,120	1,760	1,770	1,020	1,100	1,210
MIN	80	326	232	323	244	263	390	332	590	442	208	201
CFSM	4.91	11.7	8.58	10.4	5.94	6.43	8.34	13.2	19.1	10.8	6.87	6.33
IN.	5.67	13.1	9.90	12.0	6.41	7.42	9.30	15.2	21.3	12.5	7.92	7.06
AC-FT	19,340	44,680	33,780	41,050	21,870	25,310	31,740	52,000	72,560	42,540	27,020	24,090

CAL YR 1963: TOTAL 148,950 MEAN 408 MAX 3,260 MIN 74 CFSM 6.38 IN 86.55 AC-FT 295,400
WAT YR 1964: TOTAL 219,811 MEAN 601 MAX 2,680 MIN 80 CFSM 9.38 IN 127.73 AC-FT 436,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	665	265	4,430	257	1,110	464	368	565	474	399	102	119
2	1,140	336	2,980	282	772	406	326	460	661	410	97	111
3	811	339	1,290	268	610	378	270	406	744	396	97	108
4	460	1,290	808	237	820	372	265	448	694	388	95	99
5	352	672	590	232	1,630	365	282	396	738	359	92	95
6	296	420	464	230	1,120	375	260	362	727	346	87	89
7	262	362	399	214	716	396	240	342	666	339	82	85
8	372	305	880	210	732	410	230	352	661	279	79	82
9	424	279	1,050	204	595	420	265	388	656	232	77	79
1	372	279	940	193	487	492	308	523	575	219	82	78
11	296	265	615	189	420	532	270	615	630	228	95	76
12	257	247	474	181	399	496	262	744	492	214	126	74
13	237	242	410	183	1,060	420	302	705	352	212	311	76
14	299	221	365	252	754	382	305	605	330	226	195	1,280
15	460	206	326	612	590	362	424	550	320	221	140	1,630
16	448	197	262	1,110	744	346	688	1,110	330	201	116	810
17	528	199	250	968	1,260	302	546	700	460	195	102	399
18	392	201	252	820	1,060	270	416	518	448	183	93	287
19	349	189	237	862	1,120	247	941	482	378	164	93	230
20	317	183	226	934	989	242	2,650	722	396	160	150	197
21	276	175	228	922	694	244	1,560	610	333	179	141	175
22	242	175	1,120	625	555	287	934	585	339	154	116	160
23	221	346	1,250	482	452	252	694	585	352	147	189	145
24	208	2,300	600	436	399	226	880	510	349	147	282	133
25	210	886	432	375	372	216	844	474	323	145	214	124
26	193	620	464	427	456	210	898	570	262	141	290	117
27	181	456	444	1,780	1,040	201	1,070	826	260	133	279	114
28	169	365	359	3,850	620	201	1,140	968	254	122	214	108
29	167	637	311	4,390	------	219	808	802	284	117	187	105
30	339	4,380	284	4,620	------	216	672	732	346	111	154	102
31	368	------	265	2,190	------	242	------	555	------	103	136	------
TOTAL	11,311	17,037	23,005	28,535	21,576	10,191	19,118	18,210	13,834	6,870	4,513	7,287
MEAN	365	568	742	920	771	329	637	587	461	222	146	243
MAX	1,140	4,380	4,430	4,620	1,630	532	2,650	1,110	744	410	311	1,630
MIN	167	175	226	181	372	201	230	342	254	103	77	74
CFSM	5.70	8.87	11.6	14.4	12.0	5.14	9.96	9.18	7.21	3.46	2.27	3.80
IN.	6.57	9.90	13.4	16.6	12.5	5.92	11.1	10.6	8.04	3.99	2.62	4.23
AC-FT	22,440	33,790	45,630	56,600	42,800	20,210	37,920	36,120	27,440	13,630	8,950	14,450

CAL YR 1964: TOTAL 221,855 MEAN 606 MAX 4,430 MIN 167 CFSM 9.47 IN 128.92 AC-FT 440,000
WAT YR 1965: TOTAL 181,487 MEAN 497 MAX 4,620 MIN 74 CFSM 7.77 IN 105.46 AC-FT 360,000

12-1422. Calligan Creek near Snoqualmie, Wash.

Location.--Lat 47°36'05", long 121°41'15", in SW¼SW¼ sec.32, T.25 N., R.9 E., on right bank half a mile downstream from Calligan Lake outlet, 1½ miles upstream from mouth, and 8 miles northeast of Snoqualmie.

Drainage area.--7.31 sq mi.

Records available.--August 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 2,210 ft (from topographic map).

Extremes.--Maximum and minimum discharges for August 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (200 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Aug. 28, 1964	1500	* 121	2.01	Aug. 25, 1964	12	1.00
1965	Dec. 2, 1964	0100	544	4.07	Aug. 4-12, 1965	0	-
	Jan. 29, 1965	0530	* 985	4.77			

1964-65: Maximum discharge, 985 cfs Jan. 29, 1965 (gage height, 4.77 ft), from rating curve extended above 450 cfs; no flow Aug. 4-12, 1965.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow affected by natural storage in Calligan Lake. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, 1964

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	66	7	-	29	13	-	26	19	22	50	25	12	46
2	-	56	8	-	44	14	-	23	20	20	94	26	29	39
3	-	49	9	-	47	15	-	20	21	18	84	27	58	34
4	-	43	10	-	41	16	-	19	22	16	74	28	113	30
5	-	36	11	-	36	17	-	40	23	15	66	29	109	27
6	-	30	12	-	30	18	-	51	24	13	55	30	102	35
												31	84	--

	AUG.	SEPT.
TOTAL	-	1,320
MEAN	-	44.0
MAX	-	94
MIN	-	19
CFSM	-	6.02
IN	-	6.72
AC-FT	-	2,620

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	39	24	346	26	185	50	21	82	70	20	.80	8.1
2	55	29	426	30	121	45	26	70	70	20	.50	6.9
3	72	33	222	28	88	35	22	60	74	20	.20	5.7
4	60	58	148	25	74	36	21	55	73	20	.10	4.7
5	49	64	105	23	85	34	21	53	72	20	0	3.8
6	41	54	78	20	90	33	20	48	72	19	0	3.5
7	36	48	62	19	77	33	19	43	68	18	0	2.5
8	36	42	64	19	70	34	18	41	67	16	0	1.9
9	41	36	90	18	62	36	18	41	63	14	0	1.3
10	41	33	96	17	52	39	20	47	60	14	0	.90
11	37	30	81	15	44	44	20	56	58	13	0	.70
12	32	26	69	14	41	46	19	68	52	13	0	.50
13	28	26	58	14	72	45	20	73	44	12	1.9	.50
14	26	23	49	15	81	42	20	72	37	10	3.2	24
15	30	20	44	25	72	39	24	69	33	9.4	3.0	106
16	34	18	35	55	70	36	38	80	30	8.6	2.5	116
17	37	17	30	90	97	33	44	78	31	7.7	2.1	84
18	36	16	26	91	106	29	42	70	31	6.9	1.6	60
19	33	15	23	92	109	25	54	64	30	6.1	1.4	45
20	30	14	22	98	113	21	131	77	30	5.7	5.0	35
21	26	14	23	106	96	22	165	78	28	6.1	7.3	27
22	23	14	40	91	80	27	136	78	26	6.1	6.9	22
23	20	16	85	77	66	24	108	77	26	5.7	9.0	18
24	18	64	70	67	54	21	106	74	25	5.4	14	15
25	18	78	58	54	46	19	108	68	23	4.7	14	13
26	16	70	50	50	44	17	103	66	21	4.1	15	9.9
27	14	63	42	78	54	16	111	73	20	3.5	17	8.6
28	13	52	36	326	58	15	121	85	18	3.0	16	7.3
29	12	50	32	784	------	15	109	87	18	2.3	14	6.1
30	18	57	29	572	------	15	96	88	18	1.9	12	5.0
31	25	------	27	366	------	17	------	81	------	1.3	9.4	------
TOTAL	996	1,104	2,566	3,305	2,207	943	1,781	2,102	1,288	317.5	156.90	642.90
MEAN	32.1	36.8	82.8	107	78.8	30.4	59.4	67.8	42.9	10.2	5.06	21.4
MAX	72	78	426	784	185	50	165	88	74	20	17	116
MIN	12	14	22	14	41	15	18	41	18	1.3	0	.50
CFSM	4.40	5.03	11.3	14.6	10.8	4.16	8.12	9.28	5.87	1.40	.69	2.93
IN.	5.07	5.62	13.1	16.8	11.2	4.80	9.06	10.7	6.55	1.62	.80	3.27
AC-FT	1,980	2,190	5,090	6,560	4,380	1,870	3,530	4,170	2,550	630	311	1,280

CAL YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1965: TOTAL 17,409.30 MEAN 47.7 MAX 784 MIN 0 CFSM 6.52 IN 88.57 AC-FT 34,530

Note.--No gage-height record Dec. 16 to Jan. 17.

12-1423. Hancock Creek near Snoqualmie, Wash.

Location.--Lat 47°34'20", long 121°41'15", in SE¼SE¼ sec.8, T.24 N., R.9 E., on left bank 300 ft downstream from Lake Hancock outlet, 1½ miles upstream from mouth, and 7 miles northeast of Snoqualmie.

Drainage area.--7.67 sq mi.

Records available.--August 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 2,165 ft (from topographic map).

Extremes.--Maximum and minimum discharges for August 1964 to September 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (200 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1964	Aug. 28, 1964	1030	* 213	2.15	Sept.16, 1964	24	0.89
1965	Dec. 2, 1964	0100	467	3.97	Aug. 8, 9, 10, 1965	2.0	.32
	Jan. 29, 1965	0430	* 548	a 4.63			
	Apr. 20, 1965	1400	213	2.09			

a Maximum gage height, 4.80 ft Jan. 29, 1965 (backwater from debris).

1964-65: Maximum discharge, 548 cfs Jan. 29, 1965 (gage height, 4.63 ft); maximum gage height, 4.80 ft Jan. 29, 1965 (backwater from debris); minimum discharge, 2.0 cfs Aug. 8, 9, 10, 1965 (gage height, 0.32 ft).

Remarks.--Records good except those above 150 cfs, which are fair. Natural regulation by Lake Hancock. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, 1964

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	65	7	-	32	13	-	31	19	-	50	25	-	46
2	-	56	8	-	50	14	-	29	20	-	127	26	-	41
3	-	48	9	-	56	15	-	27	21	-	98	27	-	36
4	-	42	10	-	46	16	-	24	22	-	79	28	192	32
5	-	37	11	-	40	17	-	43	23	-	66	29	143	30
6	-	34	12	-	34	18	-	54	24	-	54	30	112	34
												31	82	-
TOTAL													-	1,441
MEAN													-	48.0
MAX													-	127
MIN													-	24
CFSM													-	6.26
IN													-	6.99
AC-FT													-	2,860

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	24	403	29	152	61	26	78	70	20	3.8	11
2	54	28	386	32	103	48	32	64	70	21	3.4	10
3	70	33	203	31	75	41	28	54	78	21	3.2	9.8
4	52	79	114	28	68	36	27	48	76	20	3.2	8.6
5	42	77	80	27	98	35	27	47	73	19	2.8	7.8
6	36	56	58	24	109	34	26	41	72	18	2.6	7.0
7	32	48	46	24	81	35	25	37	68	16	2.6	6.2
8	33	40	52	24	72	37	23	35	67	15	2.2	5.4
9	37	35	79	23	62	38	23	37	64	14	2.0	5.1
10	40	32	87	21	49	43	27	46	56	13	3.2	4.8
11	35	30	74	20	42	49	27	61	56	14	4.0	4.4
12	32	28	59	13	38	52	25	76	51	14	5.8	4.4
13	30	27	50	18	72	49	27	83	42	12	11	4.0
14	28	24	43	19	86	44	29	80	37	11	13	38
15	30	23	40	31	70	41	36	73	33	10	11	127
16	34	21	34	71	70	38	58	103	31	9.0	9.0	123
17	37	21	31	91	103	35	62	93	32	8.2	7.4	72
18	35	20	29	91	111	31	52	72	33	7.0	6.6	47
19	31	20	27	91	111	27	75	65	31	5.8	5.8	34
20	29	19	26	95	116	25	200	81	30	6.2	13	27
21	28	18	26	98	92	25	183	86	29	7.8	16	21
22	24	18	48	80	76	32	132	86	27	8.2	14	18
23	24	20	107	68	59	30	98	88	26	7.4	16	16
24	23	95	85	59	48	25	101	81	25	7.0	24	15
25	22	99	62	48	41	23	109	70	24	6.2	21	13
26	21	71	56	43	41	21	108	68	21	5.8	21	12
27	19	58	50	76	73	20	117	81	20	5.4	23	12
28	19	47	43	304	76	19	132	100	19	5.4	21	11
29	18	45	36	454	------	18	114	98	19	4.8	18	9.8
30	19	249	33	337	------	18	95	100	19	4.4	16	9.0
31	24	------	31	262	------	19	------	86	------	4.0	14	------
TOTAL	998	1,405	2,498	2,638	2,194	1,049	2,044	2,218	1,299	340.6	319.6	693.3
MEAN	32.2	46.8	80.6	85.1	78.4	33.8	68.1	71.5	43.3	11.0	10.3	23.1
MAX	70	249	403	454	152	61	200	103	78	21	24	127
MIN	18	18	26	13	38	18	23	35	19	4.0	2.0	4.0
CFSM	4.20	6.11	10.5	11.1	10.2	4.41	8.88	9.33	5.65	1.43	1.34	3.01
IN.	4.84	6.81	12.1	12.8	10.6	5.09	9.91	10.8	6.30	1.65	1.55	3.36
AC-FT	1,980	2,790	4,950	5,230	4,350	2,080	4,050	4,400	2,580	676	634	1,380

CAL YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1965: TOTAL 17,696.5 MEAN 48.5 MAX 454 MIN 2.0 CFSM 6.32 IN 85.81 AC-FT 35,100

12-1430. North Fork Snoqualmie River near North Bend, Wash.

Location.--Lat 47°32'20", long 121°44'20", in SW¼NE¼ sec.26, T.24 N., R.8 E., on right bank 2 miles upstream from confluence with Middle Fork and 3½ miles northeast of North Bend.

Drainage area.--95.7 sq mi. Prior to October 1960 (for site 1¾ miles downstream) 103 sq mi (revised).

Records available.--July 1907 to September 1926, February 1929 to September 1938, October 1960 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 470 ft (from river-profile map). Prior to Sept. 2, 1912, staff gage and Sept. 2, 1912, to Sept. 26, 1916, water-stage recorder, at site 1¾ miles downstream at different datum. Sept. 27, 1916, to June 3, 1926, and Feb. 14, 1929, to Sept. 30, 1938, water-stage recorder at present site at different datum (records represent flow past measuring section 1¾ miles downstream).

Average discharge.--33 years, 700 cfs (506,800 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,300 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 11, 1960	1500	4,150	6.84	Dec. 24, 1961	1030	5,040	7.32	Nov. 26, 1963	1930	* 6,120	7.85
Nov. 16, 1960	1300	4,900	7.25	Jan. 3, 1962	0530	6,580	8.03	Jan. 1, 1964	1430	4,350	6.95
Jan. 16, 1961	0100	6,020	7.81	Jan. 7, 1962	0830	* 8,080	8.63				
Feb. 21, 1961	1300	* 8,750	8.90	Apr. 6, 1962	2130	6,100	7.84	Nov. 24, 1964	0930	4,330	6.94
Apr. 3, 1961	0930	4,690	7.14					Nov. 30, 1964	1530	7,250	8.30
				Nov. 19, 1962	1800	* 12,600	10.28	Jan. 29, 1965	0400	* 11,100	9.77
Oct. 9, 1961	2400	3,900	6.69	Feb. 3, 1963	0900	7,180	8.27				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 30, 1961	56	2.06	1964	Oct 12, 1963	98	2.35
1962	Sept. 9, 1962	134	2.57	1965	Sept.13, 1965a	102	2.31
1963	Sept.12, 13, 1963	98	2.40				

a About.

1907-26, 1929-38, 1960-65: Maximum discharge, 15,800 cfs Nov. 23 or 24, 1909 (gage height, 15.5 ft, from graph based on gage readings, site and datum then in use), from rating curve extended above 2,300 cfs; minimum, 54 cfs Aug. 31, Sept. 1, 1930, Sept. 1, 1934.

Remarks.--Records excellent. No regulation or diversion above station.

Revisions (water years).--WSP 1346: 1909-12(M), 1914(M), 1916-17(M), 1918, 1920(M), 1922, 1923-24(M), 1925, 1926(M), 1932, 1933-34(M), 1935, 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	145	2,080	566	352	1,150	1,710	871	1,500	1,260	293	94	635
2	140	1,200	614	327	1,630	1,250	1,830	1,910	1,450	289	91	1,010
3	138	936	706	308	1,020	902	3,280	1,470	1,370	282	88	382
4	132	734	692	312	1,180	741	1,880	1,060	1,230	282	86	254
5	128	602	549	1,960	2,360	659	1,190	952	1,090	520	85	221
6	130	516	485	2,170	2,610	620	918	838	1,140	475	83	201
7	254	460	450	1,300	1,890	578	778	762	1,020	386	80	168
8	566	432	436	1,070	1,230	549	838	734	778	315	78	149
9	436	404	422	1,200	1,130	549	1,140	902	815	289	76	136
10	327	1,380	399	1,020	1,190	516	902	1,190	762	274	73	126
11	308	2,450	404	1,000	886	527	822	1,070	727	257	72	118
12	1,070	1,080	1,320	986	792	549	1,070	870	659	247	70	111
13	659	792	1,140	800	741	762	1,510	830	666	228	68	104
14	485	778	1,900	1,570	672	1,290	1,070	986	748	212	67	97
15	417	830	961	3,370	785	1,730	878	1,020	900	195	68	96
16	399	3,130	706	3,130	770	1,590	862	1,180	978	181	76	94
17	339	2,720	614	1,520	678	1,110	1,230	1,340	1,010	173	76	89
18	289	2,580	895	1,160	614	918	936	1,420	902	161	71	89
19	257	1,620	1,610	870	1,210	952	785	1,540	748	152	67	88
20	237	2,050	961	727	3,010	1,140	685	1,580	602	145	65	212
21	260	1,280	713	646	6,310	846	640	1,290	490	142	64	244
22	952	978	626	584	2,720	755	608	1,060	455	136	62	166
23	1,350	978	640	522	1,610	800	560	1,350	490	132	61	140
24	2,430	2,260	626	382	1,440	900	590	1,030	480	128	61	128
25	1,070	1,920	584	441	1,170	800	596	944	450	122	60	118
26	1,350	1,150	516	404	910	750	608	1,220	432	116	60	111
27	1,400	870	480	368	830	650	590	1,410	348	111	59	106
28	2,460	713	427	364	755	600	659	1,110	304	107	58	137
29	1,420	614	395	728	------	580	1,360	1,080	293	104	57	308
30	918	554	373	1,620	------	572	1,600	995	315	99	57	264
31	1,360	------	364	1,560	------	640	------	902	------	96	214	------
TOTAL	21,826	38,091	21,574	32,771	41,293	26,535	31,286	35,545	22,912	6,649	2,347	6,102
MEAN	704	1,270	696	1,057	1,475	856	1,043	1,147	764	214	75.7	203
MAX	2,460	3,130	1,900	3,370	6,310	1,730	3,280	1,910	1,450	520	214	1,010
MIN	128	404	364	308	614	516	560	734	293	96	57	88
CFSM	7.36	13.3	7.27	11.0	15.4	8.94	10.9	12.0	7.98	2.24	.79	2.13
IN.	8.48	14.8	8.38	12.7	16.0	10.3	12.2	13.8	8.90	2.58	.91	2.37
AC-FT	43,290	75,550	42,790	65,000	81,900	52,630	62,050	70,500	45,450	13,190	4,660	12,100

CAL YR 1960: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 286,931 MEAN 786 MAX 6,310 MIN 57 CFSM 8.21 IN 111.50 AC-FT 569,100

12-1430. North Fork Snoqualmie River near North Bend, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	323	1,030	952	986	741	240	590	918	596	500	195	221
2	234	734	692	1,430	936	234	590	1,130	920	554	179	204
3	189	778	646	4,860	1,260	228	495	1,130	1,030	460	189	189
4	161	672	869	2,460	1,030	237	586	995	910	470	431	176
5	181	532	1,000	1,790	778	271	862	741	1,100	566	2,050	163
6	930	460	678	2,370	633	285	2,920	640	986	1,050	916	156
7	886	465	566	6,100	590	289	2,940	572	886	755	685	147
8	527	500	495	3,250	596	308	1,370	549	1,010	692	706	142
9	937	560	436	2,090	549	300	944	734	936	652	527	136
10	2,200	1,760	390	1,380	532	282	706	870	792	578	427	224
11	1,210	1,210	360	1,050	538	268	608	713	692	527	364	699
12	1,660	762	339	854	480	250	608	640	734	495	331	417
13	2,160	596	327	720	446	240	822	672	620	432	373	323
14	944	640	308	633	510	237	1,140	633	620	382	312	480
15	640	527	312	560	490	240	1,220	584	778	364	278	422
16	516	450	356	510	432	254	830	566	902	344	250	335
17	446	404	465	480	404	271	720	614	800	339	240	285
18	382	377	432	427	427	278	854	614	692	315	268	250
19	339	352	657	386	399	285	1,010	602	692	296	304	228
20	315	323	1,620	348	364	312	886	522	713	304	289	212
21	296	308	1,380	344	339	312	854	495	706	323	360	198
22	282	1,340	918	339	344	304	894	527	692	339	308	186
23	1,040	815	2,530	323	344	312	944	692	706	352	268	176
24	870	572	3,820	319	300	461	1,130	952	792	348	237	166
25	678	470	1,790	408	278	720	952	927	778	323	218	156
26	970	417	1,110	1,340	257	602	741	927	952	300	212	149
27	854	441	830	1,040	247	560	1,170	902	734	274	237	152
28	720	755	1,140	800	247	460	995	978	620	260	366	354
29	572	952	2,020	666	------	422	741	854	633	240	344	626
30	485	800	1,630	685	------	417	659	685	633	218	278	441
31	490	------	1,360	762	------	475	------	614	------	209	244	------
TOTAL	22,437	20,002	30,128	39,410	14,491	10,354	29,781	22,992	23,655	13,261	12,386	8,013
MEAN	724	667	972	1,271	518	334	993	742	789	428	400	267
MAX	2,200	1,760	3,820	6,100	1,260	720	2,940	1,130	1,100	1,050	2,050	699
MIN	161	308	308	319	247	228	495	495	596	209	179	136
CFSM	7.56	6.97	10.2	13.3	5.41	3.49	10.4	7.75	8.24	4.47	4.18	2.79
IN.	8.72	7.77	11.7	15.3	5.63	4.02	11.6	8.93	9.19	5.15	4.81	3.11
AC-FT	44,500	39,670	59,760	78,170	28,740	20,540	59,070	45,600	46,920	26,300	24,570	15,890

CAL YR 1961: TOTAL 278,007 MEAN 762 MAX 6,310 MIN 57 CFSM 7.96 IN 108.04 AC-FT 551,400
WAT YR 1962: TOTAL 246,910 MEAN 676 MAX 6,100 MIN 136 CFSM 7.07 IN 95.95 AC-FT 489,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	308	168	718	1,550	286	770	479	738	432	654	244	137
2	260	161	692	2,470	401	660	422	712	442	552	225	137
3	331	152	612	2,570	4,080	570	418	630	474	474	207	137
4	331	154	552	1,280	2,000	501	1,510	552	408	422	193	128
5	274	296	1,230	923	2,120	458	1,350	770	789	375	187	122
6	271	344	2,360	738	1,220	422	1,640	986	642	349	179	116
7	308	278	1,270	636	1,110	394	1,190	832	523	328	170	112
8	948	465	1,300	618	874	371	954	725	490	394	160	108
9	1,600	446	1,170	666	758	349	784	630	830	408	156	104
10	1,090	644	1,110	534	630	336	680	564	686	427	148	103
11	666	1,050	978	450	540	332	636	529	630	501	144	101
12	527	792	804	410	468	328	618	546	699	427	141	99
13	460	590	744	400	422	308	612	506	612	371	144	112
14	417	510	1,020	384	422	300	804	501	552	344	144	630
15	390	470	1,960	380	398	286	970	570	552	380	137	340
16	368	441	1,420	371	427	271	706	606	540	362	130	334
17	327	399	954	344	448	264	588	600	484	316	122	371
18	312	377	744	324	680	254	582	758	437	293	124	261
19	331	4,750	680	300	1,360	320	594	867	403	271	187	213
20	304	4,460	642	286	1,320	490	570	888	366	257	210	187
21	331	1,480	654	275	811	540	534	902	389	244	207	168
22	377	994	673	264	636	738	582	846	453	350	181	158
23	323	758	552	248	540	570	797	680	432	358	187	195
24	278	673	474	241	468	484	660	588	389	293	241	213
25	250	1,590	427	231	463	442	582	501	748	320	225	168
26	231	2,180	394	225	1,630	474	600	468	552	278	207	153
27	228	1,220	371	213	946	570	690	432	453	257	187	144
28	212	881	594	204	738	738	540	474	413	241	170	133
29	198	712	977	175	------	699	666	518	1,010	228	158	126
30	186	804	3,200	170	------	612	811	529	860	213	148	122
31	176	------	2,250	220	------	540	------	479	------	216	139	------
TOTAL	12,613	28,239	31,426	18,100	26,196	14,391	22,479	19,927	16,690	10,903	5,402	5,432
MEAN	407	941	1,014	584	936	464	749	643	556	352	174	181
MAX	1,600	4,750	3,200	2,570	4,080	770	1,640	986	1,010	654	244	630
MIN	176	152	371	170	286	254	418	432	366	213	122	99
CFSM	4.25	9.84	10.6	6.10	9.78	4.85	7.83	6.72	5.81	3.68	1.82	1.89
IN.	4.90	11.0	12.2	7.03	10.2	5.59	8.74	7.74	6.49	4.24	2.10	2.11
AC-FT	25,020	56,010	62,330	35,900	51,960	28,540	44,590	39,520	33,100	21,630	10,710	10,770

CAL YR 1962: TOTAL 246,621 MEAN 676 MAX 6,100 MIN 136 CFSM 7.06 IN 95.84 AC-FT 489,200
WAT YR 1963: TOTAL 211,798 MEAN 580 MAX 4,750 MIN 99 CFSM 6.06 IN 82.31 AC-FT 420,100

12-1430. North Fork Snoqualmie River near North Bend, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	120	448	630	2,750	1,030	448	1,390	624	2,470	1,170	606	600
2	116	715	552	1,840	846	427	1,000	576	2,030	1,180	938	600
3	112	570	512	1,110	706	398	784	529	1,540	994	839	576
4	118	745	484	909	692	637	725	506	2,030	902	1,060	474
5	122	718	661	764	775	758	706	624	2,510	938	777	468
6	128	650	881	902	642	606	636	576	2,170	888	660	371
7	124	777	673	811	570	518	648	570	2,570	1,070	606	358
8	112	1,580	588	673	518	474	718	594	2,330	1,230	529	836
9	106	1,040	523	630	484	468	758	767	2,110	1,030	490	630
10	103	874	463	618	495	458	970	1,340	2,100	867	453	484
11	99	725	422	606	540	540	1,000	1,110	1,780	986	422	413
12	99	699	394	540	468	558	839	1,090	1,590	1,180	422	366
13	148	790	366	512	453	499	744	1,250	1,490	1,100	418	328
14	231	1,340	353	490	422	501	686	938	1,560	1,030	389	304
15	153	994	523	529	422	1,060	1,450	860	1,590	1,210	344	289
16	137	832	902	1,450	427	797	1,050	978	2,320	1,180	320	278
17	128	1,240	1,170	1,070	458	975	811	1,370	2,220	888	308	692
18	141	946	1,150	818	670	1,090	692	1,340	2,440	758	366	582
19	137	902	1,150	725	946	790	636	1,560	1,970	654	458	535
20	156	764	1,410	712	699	666	636	1,970	1,520	699	349	1,630
21	422	636	946	594	594	588	594	2,350	1,230	846	304	895
22	1,760	635	975	540	546	529	751	1,630	1,170	744	296	818
23	1,070	944	1,500	490	512	474	654	1,200	1,500	606	293	673
24	1,160	1,060	1,030	549	495	432	612	1,150	1,400	612	282	558
25	1,190	1,680	1,070	2,110	458	418	600	1,020	1,240	660	268	501
26	732	3,300	818	1,190	427	408	692	1,030	1,240	648	494	437
27	558	2,480	881	1,000	403	413	666	1,390	1,070	612	777	389
28	672	1,240	790	923	394	398	636	1,670	916	648	1,540	353
29	751	909	680	1,110	394	448	686	1,520	839	642	1,030	344
30	618	738	612	1,020	------	702	673	2,000	1,030	576	1,070	1,110
31	512	------	888	923	------	1,010	------	2,390	------	564	758	------
TOTAL	12,035	30,972	23,997	28,908	16,481	18,479	23,443	36,522	51,975	27,112	17,866	16,892
MEAN	388	1,032	774	933	568	596	781	1,178	1,733	875	576	563
MAX	1,760	3,300	1,500	2,750	1,030	1,090	1,450	2,390	2,570	1,230	1,540	1,630
MIN	99	448	353	490	394	398	594	506	839	564	268	278
CFSM	4.06	10.8	8.09	9.74	5.94	6.23	8.17	12.3	18.1	9.14	6.02	5.88
IN.	4.68	12.0	9.33	11.2	6.40	7.18	9.11	14.2	20.2	10.5	6.94	6.56
AC-FT	23,870	61,430	47,600	57,340	32,690	36,650	46,500	72,440	103,100	53,780	35,440	33,500

CAL YR 1963: TOTAL 206,524 MEAN 566 MAX 4,080 MIN 99 CFSM 5.91 IN 80.26 AC-FT 409,600
WAT YR 1964: TOTAL 304,682 MEAN 832 MAX 3,300 MIN 99 CFSM 8.70 IN 118.40 AC-FT 604,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	825	375	5,830	408	1,730	738	474	800	712	490	130	161
2	1,570	463	4,300	453	1,230	642	448	660	881	501	129	148
3	1,030	474	1,960	432	978	588	380	594	994	490	129	142
4	666	1,480	1,230	384	1,110	570	366	648	930	490	125	135
5	529	916	916	366	1,970	552	384	600	962	448	121	130
6	448	630	751	362	1,320	552	362	546	954	422	116	125
7	398	546	636	336	1,050	570	336	512	895	418	111	120
8	506	468	1,070	328	1,030	588	320	518	874	358	106	115
9	606	422	1,380	320	881	600	362	558	874	300	105	112
10	564	418	1,270	300	744	680	418	712	770	278	111	110
11	458	394	930	293	648	732	380	825	832	296	121	108
12	398	366	744	278	612	712	370	1,000	692	275	147	106
13	366	362	648	275	1,330	624	400	978	512	264	357	104
14	418	328	576	358	1,110	570	450	881	468	278	242	1,750
15	600	308	512	765	888	529	460	811	453	271	177	2,000
16	612	289	422	1,380	1,020	506	860	1,430	448	248	150	1,000
17	692	286	375	1,280	1,640	448	760	1,010	588	238	130	550
18	558	289	380	1,150	1,480	408	600	790	588	226	121	400
19	495	275	365	1,160	1,520	371	1,100	732	512	203	121	340
20	458	261	344	1,230	1,430	358	3,000	1,010	529	198	172	290
21	398	257	349	1,240	1,050	353	2,000	909	458	223	185	260
22	353	254	1,320	916	881	418	1,350	867	448	195	152	230
23	324	452	1,670	758	738	371	1,000	888	458	185	215	210
24	308	2,450	916	692	648	328	1,250	797	453	182	358	190
25	308	1,170	699	600	588	316	1,200	718	432	177	271	175
26	286	874	712	582	680	304	1,300	784	362	175	340	165
27	264	686	699	1,980	1,330	289	1,500	1,050	344	166	366	155
28	248	564	570	5,270	930	289	1,650	1,230	340	156	275	150
29	241	818	501	7,430	------	308	1,200	1,090	362	148	242	142
30	378	5,130	453	6,680	------	300	960	1,030	418	140	203	136
31	506	------	422	3,380	------	324	------	839	------	134	177	------
TOTAL	15,811	22,005	32,950	41,386	30,566	14,938	25,640	25,817	18,543	8,573	5,705	9,759
MEAN	510	734	1,063	1,335	1,092	482	855	833	618	277	184	325
MAX	1,570	5,130	5,830	7,430	1,970	738	3,000	1,430	994	501	366	2,000
MIN	241	254	344	275	588	289	320	512	340	134	105	104
CFSM	5.33	7.66	11.1	14.0	11.4	5.04	8.93	8.70	6.46	2.89	1.92	3.40
IN.	6.14	8.55	12.8	16.1	11.9	5.81	9.96	10.0	7.21	3.33	2.22	3.79
AC-FT	31,360	43,650	65,360	82,090	60,630	29,630	50,860	51,210	36,780	17,000	11,320	19,360

CAL YR 1964: TOTAL 308,444 MEAN 843 MAX 5,830 MIN 241 CFSM 8.81 IN 119.86 AC-FT 611,800
WAT YR 1965: TOTAL 251,693 MEAN 690 MAX 7,430 MIN 104 CFSM 7.21 IN 97.81 AC-FT 499,200

12-1434. South Fork Snoqualmie River above Alice Creek, near Garcia, Wash.

Location.--Lat 47°24'50", long 121°35'10", in SW¼SW¼ sec.6, T.22 N., R.10 E., on left bank 0.4 mile upstream from Alice Creek, 1.8 miles southeast of Garcia, and 11 miles southeast of North Bend.

Drainage area.--41.6 sq mi.

Records available.--October 1960 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 1,480 ft above mean sea level (river-profile survey).

Average discharge.--5 years, 303 cfs (219,400 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 11, 1960	1230	1,680	6.02	Apr. 6, 1962	2030	* 2,660	7.68	May 31, 1964	2300	1,620	7.78
Nov. 16, 1960	0930	1,770	6.14								
Jan. 15, 1961	2300	2,860	7.88	Nov. 19, 1962	2300	* 7,090	11.96	Nov. 24, 1964	1000	1,730	8.00
Feb. 21, 1961	1200	* 3,010	8.03	Jan. 3, 1963	0100	1,920	7.38	Dec. 1, 1964	1330	2,870	9.73
				Feb. 3, 1963	0830	3,740	10.71	Jan. 29, 1965	0300	* 3,980	10.98
Dec. 24, 1961	0600	2,410	7.40					Apr. 20, 1965	0530	1,670	8.60
Jan. 3, 1962	1600	2,070	7.01	Nov. 26, 1963	2400	* 1,920	8.32				
Jan. 7, 1962	1000	1,630	6.46	Jan. 1, 1964	1330	1,920	8.32				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 1960	35	a 3.10	1964	Oct. 10, 11, 1963	35	3.16
1962	Sept.27, 1962	43	3.18	1965	Sept.12, 13, 1965	39	3.31
1963	Sept.29, 1963	37	3.18				

a Occurred Aug. 29, 30, 1961.

1960-65: Maximum discharge, 7,090 cfs Nov. 19, 1962 (gage height, 11.96 ft); minimum, 35 cfs Oct. 5, 1960, Oct. 10, 11, 1963; minimum gage height, 3.10 ft Aug. 29, 30, 1961.

Floods in November and December 1959 reached stages of 14.7 and 13.4 ft, respectively, from floodmarks (discharges not determined).

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	42	878	190	108	506	642	378	645	836	170	54	261
2	38	650	210	100	640	478	625	704	970	167	53	282
3	36	515	250	87	506	384	996	575	914	164	51	132
4	36	411	238	98	496	319	650	465	830	164	50	89
5	35	327	198	512	738	284	492	416	732	354	50	74
6	37	278	167	737	914	267	411	359	698	222	48	66
7	69	241	152	545	710	247	367	327	615	181	45	58
8	195	222	132	474	545	241	402	327	501	152	44	53
9	130	198	128	535	570	231	470	371	496	148	44	50
10	100	691	108	456	555	219	375	492	452	142	43	46
11	93	954	102	429	488	225	343	470	460	140	42	45
12	238	496	176	456	434	225	402	406	424	135	41	44
13	210	375	207	416	416	260	442	393	452	128	41	41
14	164	327	335	810	363	371	380	406	540	118	41	40
15	150	371	247	1,710	359	460	331	465	625	105	42	41
16	150	1,170	204	1,410	323	506	331	590	660	98	48	42
17	120	908	190	742	292	416	416	704	676	87	45	40
18	98	914	187	575	264	371	363	776	575	83	43	41
19	79	704	247	460	524	393	323	908	465	81	42	40
20	74	737	207	384	896	429	281	932	375	79	40	83
21	92	540	190	327	2,220	359	267	788	319	78	39	79
22	241	411	176	284	989	323	260	676	303	74	39	57
23	402	355	176	250	635	315	241	794	311	74	38	49
24	666	788	187	241	600	307	247	630	295	69	38	44
25	384	640	198	219	483	292	250	676	281	66	37	42
26	483	424	176	204	393	288	257	818	254	64	37	42
27	311	323	164	192	355	267	254	698	201	61	37	41
28	830	267	150	190	323	247	292	610	187	59	36	75
29	580	228	130	204	------	247	590	635	187	57	36	100
30	424	204	125	377	------	260	671	610	176	55	36	78
31	720	------	122	550	------	284	------	625	------	55	91	------
TOTAL	7,227	15,547	5,669	14,082	16,537	10,157	12,107	18,291	14,810	3,630	1,371	2,175
MEAN	233	518	183	454	591	328	404	590	494	117	44.2	72.5
MAX	830	1,170	335	1,710	2,220	642	996	932	970	354	91	282
MIN	35	198	102	87	264	219	241	327	176	55	36	40
CFSM	5.60	12.5	4.40	10.9	14.2	7.88	9.70	14.2	11.9	2.81	1.06	1.74
IN.	6.46	13.9	5.07	12.6	14.8	9.08	10.8	16.4	13.2	3.25	1.23	1.94
AC-FT	14,330	30,840	11,240	27,930	32,800	20,150	24,010	36,280	29,380	7,200	2,720	4,310

CAL YR 1960: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 121,603 MEAN 333 MAX 2,220 MIN 35 CFSM 8.01 IN 108.71 AC-FT 241,200

12-1434. South Fork Snoqualmie River above Alice Creek, near Garcia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	79	438	257	450	400	108	218	437	317	237	71	65
2	64	327	234	700	470	104	228	470	428	282	68	61
3	55	315	244	1,790	550	97	209	480	406	224	75	57
4	50	267	464	830	450	97	257	424	349	221	119	55
5	59	228	456	770	380	95	321	357	341	228	309	53
6	148	204	335	770	320	100	1,330	329	333	341	177	52
7	204	192	284	1,400	290	102	1,190	297	370	271	152	51
8	148	176	244	1,140	260	108	605	309	460	257	157	50
9	288	178	216	794	240	102	437	353	455	250	124	49
10	546	479	187	590	230	95	349	374	406	234	106	71
11	331	470	170	470	220	89	297	341	357	209	95	160
12	497	347	161	401	209	85	289	313	370	194	93	95
13	633	288	150	345	203	84	349	305	333	174	91	85
14	343	323	145	301	234	85	520	293	349	152	84	95
15	244	267	138	264	218	93	565	293	455	150	78	89
16	198	228	138	240	197	100	419	301	490	144	74	76
17	164	201	140	224	185	102	388	341	432	139	78	68
18	140	190	135	197	191	106	470	333	388	124	85	63
19	130	176	248	166	180	110	545	293	370	115	88	61
20	118	158	460	157	171	117	465	264	374	120	86	60
21	105	155	380	150	157	110	437	271	370	122	87	58
22	108	597	341	155	163	108	437	297	361	120	76	56
23	241	388	897	150	147	112	495	361	361	117	70	55
24	234	288	1,660	170	132	210	570	388	378	115	67	52
25	213	241	742	250	124	257	465	410	357	110	64	50
26	228	213	520	350	112	224	378	442	337	97	68	50
27	284	198	396	400	110	203	475	485	271	89	71	51
28	260	222	480	350	110	174	401	505	247	85	93	151
29	216	231	794	330	------	163	345	424	268	80	84	244
30	192	228	704	320	------	166	309	349	260	76	75	182
31	201	------	550	350	------	182	------	329	------	73	70	------
TOTAL	6,721	8,213	12,270	14,974	6,653	3,888	13,763	11,168	10,993	5,150	3,035	2,365
MEAN	217	274	396	483	238	125	459	360	366	166	97.9	78.8
MAX	633	597	1,660	1,790	550	257	1,330	505	490	341	309	244
MIN	50	155	135	150	110	84	209	264	247	73	64	49
CFSM	5.21	6.58	9.51	11.6	5.71	3.01	11.0	8.66	8.81	3.99	2.35	1.90
IN.	6.01	7.34	11.0	13.4	5.95	3.48	12.3	9.98	9.83	4.60	2.71	2.11
AC-FT	13,330	16,290	24,340	29,700	13,200	7,710	27,300	22,150	21,800	10,210	6,020	4,690

CAL YR 1961: TOTAL 120,364 MEAN 330 MAX 2,220 MIN 36 CFSM 7.93 IN 107.60 AC-FT 238,700
WAT YR 1962: TOTAL 99,193 MEAN 272 MAX 1,790 MIN 49 CFSM 6.53 IN 88.68 AC-FT 196,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	127	95	270	1,000	126	424	192	303	249	142	73	49
2	108	91	230	1,570	159	340	178	315	258	132	66	50
3	163	87	205	1,370	2,050	327	175	270	225	116	64	48
4	145	93	210	675	932	291	348	243	212	109	61	46
5	117	144	360	464	1,010	230	442	306	303	100	60	45
6	117	150	768	376	653	218	634	365	249	96	59	43
7	162	127	492	358	624	200	488	330	225	95	59	42
8	361	218	580	297	541	190	365	297	215	118	57	42
9	771	209	533	285	460	182	303	270	238	120	56	41
10	605	264	460	240	379	178	273	264	225	116	54	41
11	400	301	406	210	321	175	255	258	232	132	52	40
12	330	289	340	200	285	161	252	252	246	113	52	40
13	290	234	309	210	261	150	252	240	222	105	61	52
14	250	203	358	195	246	148	351	261	215	102	58	63
15	260	185	572	180	228	140	460	297	220	122	53	60
16	240	174	520	168	228	132	309	285	215	111	52	56
17	210	168	404	154	220	126	261	340	185	102	51	56
18	198	157	348	146	273	126	249	520	168	95	57	51
19	197	2,580	327	134	590	152	246	614	150	88	90	46
20	191	2,970	294	126	598	161	238	664	136	84	111	44
21	203	903	330	122	404	170	230	674	136	80	90	43
22	206	540	330	118	324	215	255	591	132	93	69	44
23	177	416	282	109	282	205	267	472	120	88	68	47
24	155	362	243	107	255	185	243	376	122	84	76	46
25	142	648	220	103	273	178	228	327	152	82	64	44
26	134	773	205	98	797	182	235	294	128	76	61	41
27	129	492	210	95	492	208	225	288	111	72	57	39
28	120	382	297	90	404	252	218	318	107	69	54	38
29	112	327	442	80	------	238	300	348	192	68	52	38
30	106	309	1,330	70	------	228	330	334	168	68	50	38
31	104	------	1,060	100	------	212	------	297	------	68	48	------
TOTAL	6,830	13,891	12,926	9,450	13,415	6,324	8,802	11,013	5,756	3,046	1,935	1,373
MEAN	220	463	417	305	479	204	293	355	192	98.3	62.4	45.8
MAX	771	2,970	1,330	1,570	2,050	424	634	674	303	142	111	63
MIN	104	87	205	70	126	126	175	240	107	68	48	38
CFSM	5.30	11.1	10.0	7.33	11.5	4.90	7.05	8.54	4.61	2.36	1.50	1.10
IN.	6.11	12.4	11.6	8.45	12.0	5.65	7.87	9.85	5.15	2.72	1.73	1.23
AC-FT	13,550	27,550	25,640	18,740	26,610	12,540	17,460	21,840	11,420	6,040	3,840	2,720

CAL YR 1962: TOTAL 105,636 MEAN 289 MAX 2,970 MIN 49 CFSM 6.96 IN 94.44 AC-FT 209,500
WAT YR 1963: TOTAL 94,761 MEAN 260 MAX 2,970 MIN 38 CFSM 6.24 IN 84.72 AC-FT 188,000

12-1434. South Fork Snoqualmie River above Alice Creek, near Garcia, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	37	168	277	1,360	264	202	463	302	1,470	815	314	204
2	36	253	242	844	234	175	375	277	1,200	779	317	204
3	36	218	215	506	199	162	326	261	964	610	363	188
4	37	266	196	404	207	234	311	258	1,160	604	358	162
5	38	248	210	360	210	248	291	277	1,260	637	311	146
6	43	226	264	488	183	207	280	261	1,140	607	266	137
7	38	248	234	366	168	180	297	272	1,100	797	250	146
8	36	329	212	302	153	170	332	294	992	844	234	242
9	36	300	191	277	148	165	363	405	988	630	223	199
10	35	269	168	258	155	160	444	657	1,140	548	202	165
11	35	234	150	234	168	202	450	544	988	693	202	146
12	38	218	146	210	150	194	390	554	892	833	194	132
13	50	215	139	194	146	162	343	554	920	757	183	124
14	53	371	134	178	137	229	350	435	972	657	162	119
15	44	358	148	196	134	343	584	410	996	617	148	113
16	39	358	168	294	144	288	407	494	1,400	519	141	109
17	38	541	199	272	168	332	334	718	1,080	438	139	183
18	41	375	188	245	220	381	302	764	1,110	390	165	170
19	41	352	207	223	261	302	294	948	864	358	153	178
20	56	280	215	210	223	258	300	1,080	718	384	130	390
21	113	242	199	188	204	234	294	1,080	617	381	126	253
22	415	231	210	175	196	212	358	829	685	332	124	274
23	266	272	305	158	188	188	305	587	964	300	124	237
24	364	350	326	158	191	172	285	535	904	320	117	204
25	401	600	426	266	180	168	283	466	804	337	115	199
26	250	1,300	329	229	170	160	332	500	779	329	160	175
27	191	1,240	326	207	160	155	320	707	624	323	196	158
28	196	584	300	199	158	162	320	936	509	334	326	144
29	202	395	272	223	160	199	340	980	512	332	258	162
30	188	320	248	220	------	274	323	1,160	700	288	314	499
31	168	------	311	215	------	366	------	1,390	------	294	248	------
TOTAL	3,561	11,361	7,155	9,659	5,279	6,884	10,396	18,935	28,452	16,087	6,563	5,762
MEAN	115	379	231	312	182	222	347	611	948	519	212	192
MAX	415	1,300	426	1,360	264	381	584	1,390	1,470	844	363	499
MIN	35	168	134	158	134	155	280	258	509	288	115	109
CFSM	2.76	9.10	5.55	7.49	4.38	5.34	8.33	14.7	22.8	12.5	5.09	4.62
IN.	3.18	10.2	6.40	8.64	4.72	6.15	9.29	16.9	25.4	14.4	5.87	5.15
AC-FT	7,060	22,530	14,190	19,160	10,470	13,650	20,620	37,560	56,430	31,910	13,020	11,430

CAL YR 1963: TOTAL 83,191 MEAN 228 MAX 2,050 MIN 35 CFSM 5.48 IN 74.37 AC-FT 165,000
WAT YR 1964: TOTAL 130,094 MEAN 355 MAX 1,470 MIN 35 CFSM 8.54 IN 116.30 AC-FT 258,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	372	113	2,330	160	713	262	192	449	462	255	69	55
2	614	155	1,590	165	508	236	180	366	588	256	70	52
3	420	196	905	160	393	220	169	324	647	242	68	51
4	288	363	564	139	414	218	178	324	600	238	64	48
5	239	302	404	132	564	217	192	286	626	218	60	47
6	210	237	332	126	480	224	180	256	621	209	59	45
7	185	207	288	119	370	233	171	243	571	200	56	44
8	215	183	454	117	431	247	167	247	557	175	55	43
9	223	165	561	109	340	264	194	292	546	137	56	42
10	204	150	564	103	282	306	195	404	511	144	62	42
11	178	146	384	100	247	350	185	506	525	153	59	42
12	160	137	326	96	238	352	194	600	385	135	68	41
13	150	134	305	102	412	320	213	586	298	135	105	41
14	172	132	269	126	342	298	215	536	280	139	70	235
15	229	115	239	188	294	288	308	491	262	135	60	256
16	242	111	210	248	376	276	491	634	294	128	55	196
17	250	111	195	253	588	239	389	486	383	122	51	124
18	215	109	180	223	548	217	312	387	352	114	49	94
19	191	103	170	212	571	201	594	387	312	103	51	77
20	172	100	165	207	557	190	1,320	513	320	105	73	69
21	162	94	165	218	444	186	936	486	292	103	60	63
22	146	96	470	210	366	194	673	475	272	94	54	59
23	137	134	660	196	296	182	564	462	274	92	77	56
24	130	1,040	398	183	260	169	606	406	274	92	89	52
25	124	554	305	170	239	164	629	423	251	90	70	50
26	115	413	272	250	300	157	707	527	215	92	66	49
27	107	308	242	1,180	438	151	820	685	190	87	63	49
28	102	256	218	2,280	320	148	856	767	190	80	89	48
29	96	269	194	2,940	------	144	673	650	209	76	92	45
30	126	1,430	180	2,440	------	142	557	613	232	74	70	44
31	126	------	168	1,310	------	151	------	484	------	70	60	------
TOTAL	6,300	7,863	13,707	14,462	11,331	6,946	13,060	14,295	11,539	4,293	2,050	2,159
MEAN	203	262	442	467	405	224	435	461	385	138	66.1	72.0
MAX	614	1,430	2,330	2,940	713	352	1,320	767	647	256	105	256
MIN	96	94	165	96	238	142	167	243	190	70	49	41
CFSM	4.89	6.30	10.6	11.2	9.73	5.39	10.5	11.1	9.25	3.33	1.59	1.73
IN.	5.63	7.03	12.3	12.9	10.1	6.21	11.7	12.8	10.3	3.84	1.83	1.93
AC-FT	12,500	15,600	27,190	28,680	22,470	13,780	25,900	28,350	22,890	8,520	4,070	4,280

CAL YR 1964: TOTAL 135,887 MEAN 371 MAX 2,330 MIN 94 CFSM 8.92 IN 121.48 AC-FT 269,500
WAT YR 1965: TOTAL 108,005 MEAN 296 MAX 2,940 MIN 41 CFSM 7.11 IN 96.56 AC-FT 214,200

12-1436. South Fork Snoqualmie River at Edgewick, Wash.

Location.--Lat 47°27'10", long 121°43'00", in NE¼ sec.25, T.23 N., R.8 E., on left bank at downstream side of highway bridge in Edgewick, 3 miles downstream from Change Creek.

Drainage area.--65.9 sq mi.

Records available.--July to October 1962, March 1963 to September 1965 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 577.14 ft above mean sea level, datum of 1929.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,150 cfs), July to October 1962, March 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 9, 1962	-	* 1,000	3.14	June 1, 1964	0030	2,180	3.98	Jan. 29, 1965	0500	* 6,370	5.96
Nov. 26, 1963	2100	2,730	4.32	Nov. 24, 1964	1200	2,610	4.25	Apr. 20, 1965	0630	2,450	4.08
Jan. 1, 1964	1630	* 2,910	4.42	Dec. 1, 1964	1500	4,340	5.15				

Annual minimum discharge, July to October 1962, March 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	Sept. 9, 1962	82	1.25	1964	Oct. 10, 11, 1963	58	1.14
1963	Sept.27-30, 1963	60	1.17	1965	Sept.13, 1965	63	.84

1962-65: Maximum discharge, 6,370 cfs Jan. 29, 1965 (gage height, 5.96 ft), from rating curve extended above 4,000 cfs; minimum, 58 cfs Oct. 10, 11, 1963; minimum gage height, 0.84 ft Sept. 13, 1965.

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JULY TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1										334	109	103
2										329	107	99
3										264	113	95
4										256	142	93
5										264	352	93
6										400	246	91
7										338	202	89
8										312	211	88
9										304	180	86
10										287	157	111
11										264	144	205
12										242	139	152
13										221	139	137
14										199	132	147
15										195	122	142
16										189	116	125
17										186	118	113
18										172	129	107
19										160	132	99
20										160	127	95
21										160	129	93
22										157	122	91
23										157	113	89
24										155	111	88
25										152	107	86
26										139	109	84
27										132	116	89
28										127	139	177
29					------					122	132	287
30					------					116	118	221
31		------			------		------		------	113	105	------
TOTAL										6,606	4,418	3,575
MEAN										213	143	119
MAX										400	352	287
MIN										113	105	84
CFSM										3.23	2.16	1.81
IN.										3.73	2.49	2.02
AC-FT										13,100	8,760	7,090

12-1436. South Fork Snoqualmie River at Edgewick, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1962, MARCH TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	169					600	321	452	321	232	132	76
2	152					480	287	474	325	211	118	77
3	189					430	287	430	304	189	107	76
4	180					380	556	385	260	177	101	71
5	160					350	648	435	420	163	95	68
6	160					330	865	544	366	155	91	68
7	208					310	729	508	321	150	89	66
8	468					300	576	462	295	177	84	64
9	865					290	502	420	325	183	82	64
10	764					280	446	395	308	183	81	63
11	496					280	415	390	321	208	77	64
12	-					264	405	376	334	186	79	63
13	-					238	400	357	304	169	79	76
14	-					232	490	371	287	166	79	95
15	-					218	622	415	291	205	72	95
16	-					208	479	410	287	195	69	89
17	-					195	415	446	256	177	66	86
18	-					189	400	570	232	166	71	77
19	-					224	395	667	215	155	120	72
20	-					242	385	722	195	150	144	69
21	-					242	366	729	192	144	129	64
22	-					299	395	674	192	163	107	64
23	-					291	435	563	180	157	103	68
24	-					272	395	496	177	147	111	68
25	-					264	366	430	215	147	101	63
26	-					272	366	390	192	137	95	63
27	-					304	352	357	172	129	89	61
28	-					390	334	390	160	122	84	60
29	-				------	405	410	420	279	118	81	61
30	-				------	400	479	410	276	113	77	60
31	-	------			------	357	------	385	------	116	76	------
TOTAL	-					9,536	13,521	14,473	8,002	5,090	2,889	2,111
MEAN	-					308	451	467	267	164	93.2	70.4
MAX	-					600	865	729	420	232	144	95
MIN	-					189	287	357	160	113	66	60
CFSM	-					4.67	6.84	7.08	4.05	2.49	1.41	1.07
IN.	-					5.38	7.63	8.17	4.52	2.87	1.63	1.19
AC-FT	-					18,910	26,820	28,710	15,870	10,100	5,730	4,190

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	61	252	424	1,840	526	330	752	451	2,010	1,000	387	303
2	60	376	368	1,32	440	294	615	408	1,610	974	434	290
3	60	334	330	800	360	282	508	372	1,260	784	445	274
4	61	440	303	643	390	397	484	368	1,530	760	456	243
5	63	410	330	570	410	424	456	392	1,720	800	382	220
6	68	362	434	792	334	348	424	368	1,520	752	344	206
7	66	407	387	622	308	303	445	377	1,540	912	330	210
8	61	622	339	496	282	290	496	408	1,370	1,030	299	353
9	60	578	312	445	270	282	550	533	1,300	800	278	316
10	60	446	278	429	282	278	650	888	1,480	708	262	262
11	58	380	258	387	308	372	692	784	1,300	808	250	228
12	61	343	243	344	278	339	596	776	1,160	974	250	206
13	77	334	232	316	266	282	520	792	1,180	904	235	196
14	91	522	228	299	246	348	490	643	1,220	808	220	187
15	76	544	254	325	250	538	872	596	1,250	784	203	177
16	69	514	325	550	258	451	650	678	1,850	685	190	168
17	68	785	382	514	294	522	520	938	1,480	582	187	270
18	69	622	372	434	372	650	451	983	1,560	538	213	266
19	71	589	398	403	445	484	424	1,190	1,170	473	213	246
20	84	484	484	372	377	403	429	1,420	974	508	180	563
21	166	410	403	325	339	358	418	1,520	856	520	171	398
22	563	390	403	308	316	325	526	1,190	888	451	174	398
23	435	468	556	282	312	290	451	872	1,200	387	171	358
24	462	514	556	326	312	270	413	816	1,150	408	166	308
25	602	739	671	685	294	262	408	700	1,010	440	160	299
26	395	1,65	563	479	282	254	479	722	992	418	193	270
27	304	1,590	550	434	266	250	473	956	824	413	246	243
28	308	924	514	408	262	246	468	1,250	708	429	440	220
29	308	615	456	526	262	286	496	1,290	571	424	363	228
30	295	496	408	468	------	403	468	1,530	840	377	479	587
31	264	------	479	462	------	550	------	1,860	------	377	382	------
TOTAL	5,446	16,970	12,240	16,604	9,341	11,111	15,624	26,071	37,623	20,228	8,743	8,493
MEAN	176	566	395	536	322	358	521	841	1,254	653	282	283
MAX	602	1,650	671	1,840	526	650	872	1,860	2,010	1,030	496	587
MIN	58	252	228	282	246	246	408	368	671	377	160	168
CFSM	2.67	8.58	5.99	8.13	4.89	5.44	7.90	12.8	19.0	9.90	4.28	4.30
IN.	3.07	9.58	6.91	9.37	5.27	6.27	8.82	14.7	21.2	11.4	4.93	4.79
AC-FT	10,800	33,660	24,280	32,930	18,530	22,040	30,990	51,710	74,620	40,120	17,340	16,850

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 188,494 MEAN 515 MAX 2,010 MIN 58 CFSM 7.82 IN 106.37 AC-FT 373,900

12-1436. South Fork Snoqualmie River at Edgewick, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	563	187	3,540	244	1,210	460	284	627	585	332	106	86
2	757	239	2,380	248	850	420	276	531	710	337	106	82
3	643	288	1,280	241	678	390	256	476	815	323	104	80
4	451	570	827	220	684	380	264	481	731	314	96	76
5	368	496	618	210	914	375	284	440	738	297	91	74
6	316	382	508	200	801	380	272	400	780	276	90	72
7	282	334	440	187	652	390	256	370	724	268	87	70
8	308	290	567	187	724	405	248	370	690	240	85	67
9	325	270	750	175	603	430	284	410	678	199	86	67
10	308	250	788	169	514	476	293	520	633	196	92	65
11	270	239	598	161	445	525	272	639	658	226	90	65
12	246	224	498	155	430	537	280	773	537	190	96	65
13	232	224	460	164	704	498	306	766	420	184	137	65
14	263	203	411	200	621	465	302	697	395	184	113	206
15	339	193	360	324	543	445	400	645	375	181	92	395
16	368	187	330	476	645	430	615	822	380	169	82	332
17	387	187	305	476	922	390	543	671	486	163	79	205
18	339	180	285	420	874	356	455	549	470	151	78	154
19	303	171	265	392	882	323	737	531	410	140	78	132
20	278	163	255	387	866	302	1,990	664	420	140	106	113
21	258	157	255	401	710	297	1,380	645	390	129	92	106
22	235	160	750	368	609	310	970	627	365	132	82	99
23	220	224	1,040	337	503	284	780	615	365	129	104	92
24	206	1,530	525	311	470	260	801	549	370	126	129	88
25	200	888	440	282	410	252	829	549	351	126	108	84
26	190	715	396	342	470	236	914	639	302	129	99	82
27	177	514	346	1,450	717	226	1,080	822	260	129	94	80
28	168	408	311	3,330	549	222	1,140	978	256	121	121	78
29	166	468	290	4,700	------	219	914	858	256	113	134	74
30	187	2,160	267	3,890	------	216	759	794	302	108	111	72
31	206	------	252	2,270	------	222	------	652	------	106	92	------
TOTAL	9,559	12,501	20,337	22,917	19,000	11,121	18,184	19,110	14,852	5,858	3,060	3,326
MEAN	308	417	656	739	679	359	606	616	495	189	98.7	111
MAX	757	2,160	3,540	4,700	1,210	537	1,990	978	815	337	137	395
MIN	166	157	252	155	410	216	248	370	256	106	78	65
CFSM	4.68	6.32	9.95	11.2	10.3	5.44	9.20	9.35	7.51	2.87	1.50	1.68
IN.	5.39	7.05	11.5	12.9	10.7	6.28	10.3	10.8	8.38	3.31	1.73	1.88
AC-FT	18,960	24,800	40,340	45,460	37,690	22,060	36,070	37,900	29,460	11,620	6,070	6,600

CAL YR 1964: TOTAL 196,235 MEAN 536 MAX 3,540 MIN 157 CFSM 8.14 IN 110.74 AC-FT 389,200
WAT YR 1965: TOTAL 159,825 MEAN 438 MAX 4,700 MIN 65 CFSM 6.64 IN 90.20 AC-FT 317,000

12-1437. Boxley Creek near Cedar Falls, Wash.

Location.--Lat 47°26'00", long 121°45'05", in NE¼SW¼ sec.35, T.23 N., R.8 E., on left bank 1½ miles east of Cedar Falls and 2½ miles upstream from mouth.

Drainage area.--1.57 sq mi.

Records available.--August 1945 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,220 ft (from topographic map).

Average discharge.--20 years, 27.9 cfs (20,200 acre-ft per year).

Extremes.--Maximum and minimum discharges for August 1945 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1945	Aug. 27, 28, 1945	a 6.0	-	Sept.30, 1945	b 2.1	-
1946	June 15, 1946	156	2.00	Oct. 18,20,21, 1945	b 1.6	-
1947	Dec. 22, 23, 1946	182	2.05	Sept.23-30, 1947	b .90	-
1948	Nov. 17, 18, 1947	156	2.00	Oct. 12, 14, 1947	b .60	-
1949	May 26, 1949	175	2.18	Oct.20-22,28-30,1948	b 1.5	-
1950	Jan. 3, 1950	105	1.96	Oct. 23-26, 1949	b .90	-
1951	Feb. 17, 1951	141	1.96	(c)	-	-
1952	June 11, 12, 1952	24	1.50	(d)	b .40	-
1953	Feb. 11, 1953	173	2.05	Many days	b .10	-
1954	Dec. 25, 26, 1953	110	1.88	Nov. 9, 1953	.20	e 0.59
1955	June 26, 1955	107	1.76	Many days	b .60	-
1956	(f)	105	g 1.68	Apr. 14-17, 1956	b 3.6	-
1957	Dec. 29, 1956	125	2.02	Nov. 3-9, 1956	b 1.8	-
1958	(h)	32	i 1.58	Nov. 21-23, 1957	b .40	-
1959	Nov. 28, 29, 1958	123	1.83	Oct. 16, 17, 1958	b .30	-
1960	Dec. 2, 3, 1959	66	1.71	Sept.30, 1960	b 1.0	-
1961	Mar. 4, 5, 1961	61	1.68	(j)	.40	k .73
1962	Jan. 22, 23, 24, 25	43	m 1.57	Nov. 21, 1961	.10	.71
1963	Jan. 13, 1963	83	1.77	(n)	1.6	.85
1964	Jan. 13-19, 24-26	57	1.70	(p)	.90	.79
1965	Feb. 19, 1965	52	1.64	Sept.30, 1965	1.4	.87

a Maximum daily.
b Minimum daily.
c Not determined; probably occurred during period of no gage-height record Sept. 19-30, 1951.
d Oct. 26-28, Oct. 30 to Nov. 2, Nov. 5-9, 1951.
e Occurred Nov. 12, 13, 1953.
f Dec. 29, 1955, May 23, 25, 26, 1956.
g Occurred Dec. 29, 1955.
h Part or all of each day May 5-11, May 16 to June 2, 1958.
i Part or all of each day May 20-25, 27, 29, 1958.
j Nov. 7-10, 11-13, 14, 15, 1960.
k Occurred Nov. 9, 1960.
m Maximum gage height for year, 1.71 ft July 2, 1962, backwater from debris.
n Part or all of each day Oct. 27 to Nov. 4, 1962.
p Part or all of each day Nov. 15, 16, 18-24, 1963.

1945-65: Maximum discharge, 182 cfs Dec. 22, 23, 1946; maximum gage height, 2.18 ft May 26, 1949; minimum discharge, 0.10 cfs for many days in 1953, Nov. 21, 1961.

Remarks.--Records good. No regulation or diversion above station. Flow is mostly seepage from Chester Morse Lake.

DISCHARGE, IN CUBIC FEET PER SECOND, 1945

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	5.0	6	-	4.4	11	-	3.8	16	-	3.4	21	-	3.1	26	-	2.6
2	-	4.8	7	-	4.2	12	-	3.6	17	-	3.2	22	-	2.7	27	6.0	2.4
3	-	4.6	8	-	4.0	13	-	3.6	18	-	3.1	23	-	2.7	28	6.0	2.3
4	-	4.8	9	-	3.8	14	-	3.4	19	-	3.1	24	-	2.7	29	5.7	2.2
5	-	4.4	10	-	4.0	15	-	3.6	20	-	3.4	25	-	2.7	30	5.5	2.1
															31	5.2	-
TOTAL																-	103.7
MEAN																-	3.46
MAX																-	6.0
MIN																-	2.1
AC-FT																-	2.06

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1945 TO SEPTEMBER 1946

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.0	1.7	28	11	26	7.4	11	9.0	134	106	62	16
2	1.9	2.0	28	11	26	7.4	11	10	130	102	62	16
3	1.9	1.8	30	11	25	6.8	11	11	134	102	62	15
4	1.8	2.2	28	11	22	6.8	10	12	121	102	59	15
5	1.8	2.1	28	11	22	6.5	9.8	13	125	102	57	14
6	1.8	2.0	28	11	22	6.5	9.4	14	121	102	55	14
7	1.7	2.0	28	13	20	6.2	9.4	15	121	102	54	13
8	1.8	1.9	27	14	20	6.2	9.1	18	125	99	54	13
9	1.8	2.0	26	15	19	6.2	9.1	20	125	90	52	13
10	1.7	2.1	26	17	18	6.2	9.1	21	121	90	52	12
11	1.7	2.1	25	19	17	6.2	9.1	23	116	90	50	12
12	1.7	2.6	24	21	15	6.5	8.4	26	112	86	48	11
13	1.7	3.1	23	24	15	6.8	7.8	30	134	86	48	11
14	1.7	4.0	22	27	14	7.4	7.8	32	143	86	47	10
15	1.7	4.6	22	30	13	8.1	7.4	37	143	83	45	10
16	1.7	5.7	22	31	13	8.7	7.1	39	138	80	43	9.0
17	1.7	6.2	22	33	12	9.4	6.8	43	143	80	42	9.0
18	1.6	7.1	22	33	11	9.8	6.5	45	147	78	38	8.0
19	1.8	8.1	21	33	11	11	6.5	45	143	75	37	8.0
20	1.6	9.8	20	34	11	11	6.2	48	130	75	33	8.0
21	1.6	12	20	34	9.8	12	6.2	54	130	73	31	7.0
22	1.7	14	19	34	9.1	13	6.0	57	134	73	28	7.0
23	1.7	17	18	35	9.1	13	5.7	68	134	68	26	6.0
24	1.8	20	17	35	9.1	14	6.0	78	134	68	26	6.0
25	1.8	23	17	34	8.7	14	6.0	75	138	68	23	5.0
26	2.0	27	16	33	8.4	13	6.0	73	130	66	22	5.0
27	1.9	27	15	32	8.4	13	6.5	75	125	66	20	4.4
28	1.8	27	16	30	7.8	13	7.1	102	121	64	18	4.4
29	1.8	27	15	28	------	12	7.4	106	116	64	18	4.2
30	1.8	27	13	27	------	12	8.0	125	112	64	17	4.0
31	1.7	------	12	27	------	11	------	134	------	64	17	------
TOTAL	54.7	294.1	678	759	422.4	291.1	237.4	1,458.0	3,880	2,554	1,246	290.0
MEAN	1.76	9.80	21.9	24.5	15.1	9.39	7.91	47.0	129	82.4	40.2	9.67
MAX	2.0	27	30	35	26	14	11	134	147	106	62	16
MIN	1.6	1.7	12	11	7.8	6.2	5.7	9.0	112	64	17	4.0
AC-FT	109	583	1,340	1,510	838	577	471	2,890	7,700	5,070	2,470	575

CAL YR 1945: TOTAL MEAN MAX MIN AC-FT
WAT YR 1946: TOTAL 12,164.7 MEAN 33.3 MAX 147 MIN 1.6 AC-FT 24,130

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1946 TO SEPTEMBER 1947

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.0	2.1	6.0	106	59	50	26	32	25	14	11	2.6
2	4.0	2.0	6.5	102	62	48	27	32	24	14	11	2.4
3	3.8	1.9	7.4	96	64	48	27	33	24	13	10	2.3
4	4.0	1.9	8.4	93	66	47	28	33	23	13	9.8	2.2
5	3.8	1.9	9.8	90	68	45	28	33	23	13	9.4	2.1
6	3.6	1.9	11	83	68	43	28	34	23	13	9.1	2.1
7	3.6	1.9	13	80	71	42	28	34	22	13	8.7	2.0
8	3.4	1.9	14	78	71	40	28	34	22	13	8.4	1.9
9	3.4	1.9	15	75	73	39	30	34	22	13	8.1	1.9
10	3.2	1.9	18	71	71	38	30	34	22	13	7.8	1.7
11	3.1	1.8	20	68	68	37	28	34	21	14	7.4	1.6
12	3.1	1.8	23	66	68	35	28	34	21	14	7.4	1.5
13	2.9	1.7	27	64	68	35	28	34	21	14	6.8	1.4
14	2.9	1.7	28	64	66	34	28	33	20	14	6.5	1.3
15	2.7	1.6	34	62	64	34	28	33	20	14	6.2	1.3
16	2.6	1.7	45	57	64	33	28	33	20	14	6.0	1.5
17	2.6	2.1	59	55	62	32	30	32	20	14	5.5	1.3
18	2.4	2.3	80	55	59	31	30	32	20	14	5.2	1.2
19	2.4	2.4	112	54	57	30	30	32	19	14	5.0	1.1
20	2.6	2.6	134	52	57	28	30	31	19	14	4.8	1.1
21	2.6	2.6	147	48	56	28	30	31	19	14	4.6	1.0
22	2.6	2.9	152	48	56	28	30	30	19	14	4.4	1.0
23	2.4	3.1	161	48	55	28	30	28	18	14	4.2	.90
24	2.4	3.2	161	47	54	27	30	28	18	14	4.0	.90
25	2.7	3.8	156	47	53	26	28	28	17	14	3.8	.90
26	2.4	4.2	152	45	53	26	28	27	17	14	3.6	.90
27	2.3	4.8	143	45	52	26	30	27	17	13	3.4	.90
28	2.2	5.0	138	47	52	26	30	26	16	13	3.2	.90
29	2.2	5.2	125	48	------	26	31	26	15	12	3.1	.90
30	2.1	5.5	121	50	------	26	31	26	15	12	2.9	.90
31	2.1	------	116	54	------	26	------	25	------	12	2.7	------
TOTAL	90.1	79.3	2,243.1	1,998	1,737	1,062	866	963	602	418	194.0	43.70
MEAN	2.91	2.64	72.4	64.5	62.0	34.3	28.9	31.1	20.1	13.5	6.26	1.46
MAX	4.0	5.5	161	106	73	50	31	34	25	14	11	2.6
MIN	2.1	1.6	6.0	45	52	26	26	25	15	12	2.7	.90
AC-FT	179	157	4,450	3,960	3,450	2,110	1,720	1,910	1,190	829	385	87

CAL YR 1946: TOTAL 13,550.4 MEAN 37.1 MAX 161 MIN 1.6 AC-FT 26,880
WAT YR 1947: TOTAL 10,296.20 MEAN 28.2 MAX 161 MIN .90 AC-FT 20,420

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1947 TO SEPTEMBER 1948

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.80	3.8	83	80	57	37	20	7.8	23	97	44	10
2	.90	6.2	83	78	54	35	19	7.8	26	100	42	9.9
3	.80	9.4	80	75	54	35	19	7.8	29	100	42	9.6
4	.80	14	75	75	54	37	18	7.8	32	97	40	8.7
5	.80	19	73	73	52	37	17	8.4	38	94	39	8.5
6	.80	23	73	75	50	37	16	9.1	44	91	38	8.0
7	.80	28	73	75	48	38	15	8.7	46	91	38	7.7
8	.70	37	73	75	47	38	15	8.7	56	88	35	7.2
9	.80	42	71	73	47	37	14	8.7	56	88	33	6.9
10	.70	48	71	73	45	37	14	8.7	61	86	32	6.4
11	.70	55	71	73	45	37	13	8.7	63	83	32	6.2
12	.60	73	71	75	43	35	12	8.7	61	80	30	6.0
13	.70	83	71	73	42	34	11	9.1	63	78	29	5.5
14	.60	90	68	75	42	33	11	9.1	68	76	28	5.3
15	.80	99	68	75	40	32	11	9.4	61	76	27	5.1
16	.90	121	66	75	40	32	10	10	61	73	25	4.9
17	.90	138	66	73	40	31	9.8	11	63	68	24	4.6
18	1.1	138	64	73	39	30	9.4	11	60	66	23	4.2
19	1.3	125	64	71	38	30	9.1	11	61	63	22	4.2
20	1.1	130	64	71	38	28	8.7	12	63	61	21	4.0
21	1.0	130	64	71	38	30	8.7	12	66	58	20	3.9
22	1.0	125	64	68	38	28	8.7	13	61	58	19	3.9
23	1.0	112	66	66	38	28	8.4	13	61	56	18	3.7
24	.90	121	66	66	38	27	8.7	14	61	56	17	3.6
25	.90	125	66	64	38	26	8.4	15	61	54	16	3.4
26	.90	106	66	64	38	25	8.4	15	61	53	15	3.4
27	.90	96	68	64	38	23	8.1	16	61	53	14	3.2
28	1.0	83	73	64	37	22	8.1	18	70	51	13	3.1
29	1.2	86	73	62	37	22	7.8	19	83	49	12	2.9
30	1.6	86	73	59	------	21	7.8	20	86	48	12	2.8
31	2.4	------	78	57	------	20	------	22	------	46	11	------
TOTAL	29.40	2,352.4	2,185	2,191	1,255	962	355.1	360.5	1,706	2,238	811	166.8
MEAN	.95	78.4	70.5	70.7	43.3	31.0	11.8	11.6	56.9	72.2	26.2	5.56
MAX	2.4	138	83	80	57	38	20	22	86	100	44	10
MIN	.60	3.8	64	57	37	20	7.8	7.8	23	46	11	2.8
AC-FT	58	4,670	4,330	4,350	2,490	1,910	704	715	3,380	4,440	1,610	331

CAL YR 1947: TOTAL 12,450.50 MEAN 34.1 MAX 138 MIN .60 AC-FT 24,700
WAT YR 1948: TOTAL 14,612.20 MEAN 39.9 MAX 138 MIN .60 AC-FT 28,980

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1948 TO SEPTEMBER 1949

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.6	1.6	4.0	25	5.9	2.7	10	15	86	61	41	10
2	2.5	1.7	4.6	25	5.7	2.7	10	17	86	60	40	9.6
3	2.4	1.8	4.8	24	5.4	2.7	9.9	18	86	61	39	9.3
4	2.6	1.7	5.0	24	5.2	2.7	9.9	19	83	58	39	8.7
5	2.5	1.8	5.4	22	5.0	2.7	9.9	21	80	56	36	8.2
6	2.5	1.8	6.4	22	4.8	2.7	9.9	22	78	56	35	7.7
7	2.4	1.8	7.4	21	4.6	2.7	9.9	24	78	56	34	7.1
8	2.2	1.8	8.7	20	4.4	2.9	9.9	25	80	56	33	6.6
9	2.1	1.8	11	19	4.4	3.0	9.9	28	80	54	33	6.2
10	2.0	1.8	14	18	4.4	3.2	9.3	30	80	54	32	5.7
11	1.9	1.8	15	17	4.0	3.3	9.0	33	86	54	31	5.2
12	1.8	1.8	19	15	3.8	3.5	9.0	36	80	54	30	5.0
13	1.8	1.8	21	14	3.5	3.7	9.0	40	76	54	28	4.8
14	1.8	2.1	24	13	3.5	4.0	8.7	45	76	54	27	4.4
15	1.7	2.0	24	13	3.3	4.3	8.7	53	76	54	26	4.0
16	1.7	2.1	24	12	4.6	4.6	8.4	56	76	53	24	3.7
17	1.7	2.2	26	12	5.2	4.9	7.9	73	76	53	23	3.3
18	1.6	2.2	27	11	4.4	5.3	7.9	88	76	53	22	3.3
19	1.6	2.4	28	11	3.8	5.8	7.9	102	76	51	21	3.2
20	1.5	2.4	28	10	3.5	6.3	8.2	111	76	49	20	3.0
21	1.5	2.4	28	9.9	3.5	7.0	8.2	111	76	49	19	2.9
22	1.5	2.5	28	9.6	3.5	7.9	8.2	102	76	49	18	2.7
23	1.6	2.5	28	9.0	3.3	8.4	8.4	102	73	49	17	2.6
24	1.6	2.6	28	8.7	3.2	9.0	8.7	102	73	48	16	2.5
25	1.6	2.7	28	8.2	3.0	9.3	9.3	111	73	48	15	2.4
26	1.6	2.7	28	8.2	3.0	9.3	9.9	149	70	48	14	2.2
27	1.6	2.9	28	7.7	2.9	9.6	10	94	68	46	14	2.1
28	1.5	3.5	28	7.1	2.9	9.6	11	88	66	44	13	2.0
29	1.5	3.3	27	6.9	------	9.9	12	88	63	44	12	2.0
30	1.5	3.8	26	6.6	------	10	13	86	63	42	12	1.9
31	1.6	------	26	6.2	------	10	------	86	------	41	11	------
TOTAL	58.0	67.3	610.3	436.1	114.7	173.7	282.0	1,975	2,292	1,609	775	142.3
MEAN	1.87	2.24	19.7	14.1	4.10	5.60	9.40	63.7	76.4	51.9	25.0	4.74
MAX	2.6	3.8	28	25	5.9	10	13	149	86	61	41	10
MIN	1.5	1.6	4.0	6.2	2.9	2.7	7.9	15	63	41	11	1.9
AC-FT	115	133	1,210	865	228	345	559	3,920	4,550	3,190	1,540	282

CAL YR 1948: TOTAL 10,781.0 MEAN 29.5 MAX 100 MIN 1.5 AC-FT 21,380
WAT YR 1949: TOTAL 8,535.4 MEAN 23.4 MAX 149 MIN 1.5 AC-FT 16,930

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1949 TO SEPTEMBER 1950

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	1.1	14	91	58	44	73	70	70	83	53	39
2	1.5	1.1	16	94	57	45	73	70	70	83	53	38
3	1.5	1.1	18	102	56	49	70	68	70	83	53	38
4	1.6	1.1	22	102	55	53	68	68	70	83	53	36
5	1.6	1.1	27	102	54	56	68	66	70	80	53	36
6	1.4	1.2	35	102	53	60	66	63	70	80	53	35
7	1.4	1.2	44	102	52	68	66	61	70	78	51	34
8	1.2	1.2	49	102	51	78	68	60	73	76	49	34
9	1.5	1.3	56	100	49	88	68	60	76	73	48	33
10	1.4	1.4	60	97	48	91	66	58	76	73	48	32
11	1.3	1.6	66	94	46	97	66	58	73	73	48	32
12	1.1	1.9	70	91	45	100	66	56	73	73	46	32
13	1.0	2.0	70	91	44	100	63	56	73	70	46	31
14	1.0	2.5	73	86	42	100	63	54	73	68	46	30
15	1.2	2.9	78	80	42	97	63	54	73	68	48	30
16	1.1	3.2	80	78	42	94	63	54	70	68	46	29
17	1.1	3.3	80	76	41	94	63	56	70	66	45	29
18	1.0	3.7	80	73	41	91	63	56	70	66	45	28
19	1.0	4.0	83	70	40	91	63	58	70	63	44	28
20	1.0	4.2	86	68	40	88	66	58	73	61	44	26
21	1.0	4.6	83	66	39	86	68	60	73	61	44	25
22	1.0	5.7	83	61	39	83	70	61	76	61	44	25
23	.90	6.6	83	60	39	83	70	63	76	58	41	23
24	.90	8.2	83	58	41	80	73	63	78	56	41	22
25	.90	9.0	80	58	41	80	73	66	80	56	41	22
26	.90	10	78	58	41	60	76	68	80	56	40	21
27	1.0	10	80	58	41	78	76	70	83	56	40	20
28	1.3	11	83	58	42	78	73	70	83	54	39	20
29	1.0	11	83	58	------	78	73	70	80	54	39	19
30	1.0	12	83	58	------	78	73	70	83	54	39	19
31	1.1	------	86	58	------	76	------	70	------	53	39	------
TOTAL	36.60	129.2	2,012	2,452	1,279	2,464	2,050	1,935	2,225	2,087	1,419	866
MEAN	1.18	4.31	64.9	79.1	45.7	79.5	68.3	62.4	74.2	67.3	45.8	28.9
MAX	1.7	12	86	102	58	100	76	70	83	83	53	39
MIN	.90	1.1	14	58	39	44	63	54	70	53	39	19
AC-FT	73	256	3,990	4,860	2,540	4,890	4,070	3,840	4,410	4,140	2,810	1,720

CAL YR 1949: TOTAL 9,977.60 MEAN 27.3 MAX 149 MIN .90 AC-FT 19,790
WAT YR 1950: TOTAL 18,954.80 MEAN 51.9 MAX 102 MIN .90 AC-FT 37,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1950 TO SEPTEMBER 1951

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	17	75	98	53	69	18	13	39	61	19	3.8
2	17	17	80	104	56	64	18	13	43	58	19	3.6
3	17	18	90	101	53	61	17	13	47	58	18	3.4
4	16	19	90	98	53	58	17	13	49	56	17	3.3
5	16	20	84	94	53	56	16	13	53	56	16	3.1
6	16	20	87	94	53	53	16	13	56	56	16	2.9
7	15	21	90	94	53	49	16	14	61	53	15	2.8
8	14	22	87	90	53	49	15	14	61	53	14	2.6
9	14	23	90	87	58	47	15	14	64	51	13	2.5
10	14	26	87	84	58	45	15	15	64	49	13	2.5
11	13	27	84	80	61	41	14	16	64	49	12	2.3
12	13	29	84	77	61	39	14	16	64	47	12	2.2
13	12	31	80	75	69	37	14	16	64	45	11	2.0
14	12	35	77	72	87	35	14	16	64	41	10	1.9
15	11	39	77	69	108	33	13	16	64	39	9.9	1.8
16	11	41	77	66	119	32	13	16	64	35	9.3	1.8
17	11	43	75	66	133	31	13	17	64	33	9.0	1.6
18	11	45	75	64	128	29	12	17	66	32	8.4	1.4
19	11	47	75	64	128	28	12	17	66	29	7.9	1.3
20	11	49	72	61	124	28	12	18	66	29	7.6	
21	11	49	69	61	112	27	12	18	66	28	7.1	
22	11	51	69	58	101	26	12	19	66	27	6.9	
23	11	51	69	58	87	24	12	19	66	26	6.4	
24	11	51	69	58	84	24	12	20	66	25	5.9	
25	12	51	69	58	75	22	12	21	66	24	5.7	
26	12	53	72	58	69	22	12	22	66	24	5.2	
27	13	58	75	56	66	21	12	24	61	23	5.2	
28	14	58	80	53	72	21	12	26	61	22	5.0	
29	14	64	87	51	------	20	12	28	61	22	4.6	
30	15	69	90	53	------	20	13	31	61	20	4.4	1.5
31	16	------	94	56	------	19	------	35	------	20	4.0	------
TOTAL	413	1,144	2,479	2,258	2,227	1,130	415	563	1,823	1,191	317.5	61.3
MEAN	13.3	38.1	80.0	T2.8	79.5	36.5	13.8	18.2	60.8	38.4	10.2	2.04
MAX	18	69	94	104	133	69	18	35	66	61	19	3.8
MIN	11	17	69	51	53	19	12	13	39	20	4.0	-
AC-FT	819	2,270	4,920	4,480	4,420	2,240	823	1,120	3,620	2,360	630	122

CAL YR 1950: TOTAL 20,813 MEAN 57.0 MAX 102 MIN 11 AC-FT 41,280
WAT YR 1951: TOTAL 14,021.8 MEAN 38.4 MAX 133 MIN - AC-FT 27,810

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1951 TO SEPTEMBER 1952

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.4	.40	8.4	15	6.2	11	6.2	8.7	19	16	9.6	3.1
2	1.0	.40	9.0	15	5.9	11	6.2	8.7	20	15	9.6	3.0
3	1.0	.50	9.9	15	5.7	11	5.9	9.0	20	15	9.4	2.8
4	1.0	.50	11	15	6.2	11	5.9	9.0	20	15	9.2	2.7
5	.80	.40	11	15	5.7	11	5.7	9.3	21	15	8.9	2.6
6	.80	.40	11	15	5.5	11	5.7	9.9	22	15	8.7	2.6
7	.80	.40	12	14	5.2	11	5.5	11	22	15	8.4	2.4
8	.80	.40	12	14	4.8	11	5.5	11	22	14	7.9	2.3
9	.80	.40	13	14	4.6	11	5.5	11	23	14	7.6	2.2
10	.80	.50	13	13	4.6	11	5.7	12	23	14	7.4	2.1
11	.80	.60	14	13	4.4	11	5.7	12	24	14	7.1	1.9
12	.70	.50	14	13	4.2	11	5.7	13	23	14	6.9	1.9
13	.70	.60	14	12	4.2	11	5.9	13	22	14	6.6	1.8
14	.70	.60	15	12	4.4	10	5.9	13	22	14	6.4	1.7
15	.60	.60	15	11	4.6	9.9	6.2	14	22	13	6.2	1.7
16	.60	.60	16	11	4.8	9.6	6.2	14	22	13	5.9	1.6
17	.60	.60	16	10	4.8	9.6	6.2	14	21	13	5.5	1.5
18	.60	.60	16	9.9	5.0	9.3	6.4	14	20	13	5.2	1.5
19	.60	.80	16	9.6	5.5	9.0	6.6	15	20	12	5.0	1.4
20	.60	1.0	16	9.3	5.9	8.7	6.6	15	20	12	4.8	1.4
21	.60	1.2	17	8.7	6.4	8.7	6.9	16	19	12	4.6	1.3
22	.70	1.5	17	8.4	7.1	8.4	6.9	16	19	11	4.4	1.3
23	.70	1.9	16	8.2	7.6	8.2	7.1	16	18	11	4.2	1.3
24	.50	2.5	16	7.9	8.2	8.2	7.1	16	18	11	4.2	1.2
25	.50	3.1	16	7.6	8.7	7.9	7.4	16	17	11	4.0	1.1
26	.40	3.6	16	7.1	9.3	7.6	7.4	16	17	11	3.9	1.1
27	.40	4.4	16	6.9	9.6	7.4	7.9	17	17	11	3.7	1.0
28	.40	5.2	16	6.6	9.9	7.1	7.9	17	16	10	3.6	1.0
29	.50	6.6	16	6.4	10	6.9	8.2	17	16	10	3.4	1.0
30	.40	7.4	15	6.9	------	6.6	8.4	18	16	10	3.2	1.0
31	.40	------	15	6.6	------	6.4	------	19	------	10	3.2	------
TOTAL	21.20	48.20	438.3	337.1	179.0	292.5	194.4	420.6	601	398	188.7	53.5
MEAN	.68	1.61	14.1	10.9	6.17	9.44	6.48	13.6	20.0	12.8	6.09	1.78
MAX	1.4	7.4	17	15	10	11	8.4	19	24	16	9.6	3.1
MIN	.40	.40	8.4	6.4	4.2	6.4	5.5	8.7	16	10	3.2	1.0
AC-FT	42	96	869	669	355	580	386	834	1,190	789	374	106

CAL YR 1951: TOTAL 10,493.50 MEAN 28.7 MAX 133 MIN .40 AC-FT 20,810
WAT YR 1952: TOTAL 3,172.50 MEAN 8.67 MAX 24 MIN .40 AC-FT 6,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1952 TO SEPTEMBER 1953

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.0	.50	.20	.10	1.9	74	19	12	31	35	35	16
2	1.0	.50	.50	.20	3.4	72	18	12	31	35	35	16
3	1.0	.50	.60	.10	9.6	67	18	12	31	35	34	15
4	1.0	.50	.50	.10	24	65	18	12	32	35	34	14
5	1.0	.40	.50	.10	51	65	17	12	32	35	34	13
6	1.0	.40	.40	.10	84	65	17	13	32	35	34	13
7	.90	.40	.50	.10	108	61	16	14	32	35	32	12
8	.90	.40	.50	.20	119	61	16	14	32	35	32	11
9	.90	.40	.40	.40	128	59	15	15	32	35	32	10
10	.80	.40	.40	.20	149	56	15	15	32	35	31	9.6
11	.80	.40	.40	.40	165	49	15	16	32	35	31	8.9
12	.80	.30	.50	.30	161	45	15	17	32	35	30	8.3
13	.80	.30	.10	.30	165	44	15	18	32	35	30	7.7
14	.80	.30	.10	.30	157	41	14	19	32	35	29	7.1
15	.80	.30	.10	.30	145	38	14	20	32	35	29	6.8
16	.80	.30	.20	.30	138	38	14	21	32	35	28	6.4
17	.80	.20	.20	.40	138	37	14	22	34	35	28	5.9
18	.70	.20	.20	.50	132	35	14	23	34	35	27	5.7
19	.70	.20	.10	.60	125	32	14	24	34	35	27	5.3
20	.70	.20	.10	.60	122	31	14	25	34	35	27	4.8
21	.70	.30	.20	.60	109	30	14	26	34	35	27	4.4
22	.70	.20	.10	.70	107	29	13	26	35	35	27	4.2
23	.70	.20	.10	1.0	101	28	13	27	35	35	26	3.8
24	.70	.30	.10	.90	96	27	13	28	35	35	25	3.5
25	.70	.40	.10	.90	90	26	13	29	35	35	24	3.2
26	.60	.40	.10	.80	85	25	13	30	35	35	23	3.0
27	.60	.40	.10	.70	81	23	12	30	35	35	21	2.9
28	.60	.40	.10	.70	76	22	12	30	35	35	20	2.9
29	.60	.30	.20	.80	------	20	12	30	35	35	19	2.6
30	.60	.30	.10	.80	------	20	12	30	35	35	18	2.6
31	.50	------	.10	1.3	------	19	------	31	------	35	17	------
TOTAL	24.20	10.30	7.80	14.80	2,870.9	1,304	439	653	994	1,085	866	229.6
MEAN	.78	.34	.25	.48	103	42.1	14.6	21.1	33.1	35.0	27.9	7.65
MAX	1.0	.50	.60	1.3	165	74	19	31	35	35	35	16
MIN	.50	.20	.10	.10	1.9	19	12	12	31	35	17	2.6
AC-FT	48	20	15	29	5,690	2,590	871	1,300	1,970	2,150	1,720	455

CAL YR 1952: TOTAL 2,707.10 MEAN 7.40 MAX 24 MIN .10 AC-FT 5,370
WAT YR 1953: TOTAL 8,498.60 MEAN 23.3 MAX 165 MIN .10 AC-FT 16,860

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1953 TO SEPTEMBER 1954

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.4	.40	.50	104	62	72	48	55	86	92	75	22
2	2.2	.40	.50	104	62	75	48	58	86	92	72	21
3	2.0	.40	.70	98	60	75	48	55	86	92	72	19
4	1.9	.40	.70	95	60	75	46	55	86	92	72	19
5	1.7	.40	.80	92	60	75	46	55	89	89	72	18
6	1.6	.40	1.0	86	58	78	46	55	89	86	72	17
7	1.4	.40	1.0	80	58	80	46	55	92	89	70	17
8	1.3	.40	1.3	78	53	80	44	53	89	89	68	15
9	1.3	.30	2.2	75	51	80	42	51	89	89	65	15
10	1.3	.30	2.2	78	50	80	42	51	89	89	65	14
11	1.1	.30	2.4	83	50	80	41	51	89	89	62	13
12	.90	.30	2.4	86	50	80	42	51	89	89	60	11
13	.80	.40	2.2	86	50	78	41	51	89	89	53	8.9
14	.80	.40	2.4	89	50	78	42	51	89	89	51	8.4
15	.70	.60	2.8	89	50	78	42	51	86	89	50	8.1
16	.70	.60	4.2	86	50	78	42	51	80	86	48	7.5
17	.70	.60	8.9	86	50	78	44	51	80	83	46	7.0
18	.80	.60	19	80	50	75	46	53	78	80	44	6.2
19	.70	.60	39	80	50	75	46	55	78	86	42	5.6
20	.70	.60	58	75	50	72	48	60	80	80	41	5.2
21	.60	.70	70	72	51	70	50	62	83	80	39	5.0
22	.60	.80	78	70	51	70	50	68	80	80	36	4.6
23	.60	.60	85	68	51	70	51	70	80	80	35	4.5
24	.50	.60	90	68	51	68	51	72	83	80	33	4.2
25	.40	.80	101	68	55	62	51	72	86	80	32	3.9
26	.40	.60	101	65	58	60	51	75	86	80	31	3.7
27	.40	.70	104	62	60	58	53	80	83	78	30	3.7
28	.40	.70	107	62	68	53	53	80	86	78	26	3.4
29	.30	.80	101	62	------	51	53	83	98	75	24	3.3
30	.40	.60	104	62	------	50	53	83	95	75	23	3.3
31	.40	------	104	62	------	48	------	86	------	75	22	------
TOTAL	30.00	15.70	1,197.20	2,451	1,519	2,202	1,406	1,899	2,579	2,620	1,531	297.5
MEAN	.97	.52	38.6	79.1	54.3	71.0	46.9	61.3	86.0	84.5	49.4	9.92
MAX	2.4	.80	107	104	68	80	53	86	98	92	75	22
MIN	.30	.30	.50	62	50	48	41	51	78	75	22	3.3
AC-FT	60	31	2,370	4,860	3,010	4,370	2,790	3,770	5,120	5,200	3,040	590

CAL YR 1953: TOTAL 9,699.20 MEAN 26.6 MAX 165 MIN .10 AC-FT 19,240
WAT YR 1954: TOTAL 17,747.40 MEAN 48.6 MAX 107 MIN .30 AC-FT 35,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1954 TO SEPTEMBER 1955

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.0	.70	.60	19	32	58	17	11	12	98	83	58
2	2.8	.70	.60	18	31	58	15	10	13	95	83	55
3	2.6	.70	.60	18	31	55	15	10	14	98	80	53
4	2.6	.60	.60	19	31	53	15	9.6	15	95	80	53
5	2.4	.70	.60	19	31	53	14	9.3	16	95	80	51
6	2.4	.60	.60	19	32	50	13	9.0	18	101	83	51
7	2.2	.60	.60	20	35	46	13	9.0	19	104	83	51
8	2.2	.60	.60	21	37	41	13	9.0	22	101	80	51
9	2.1	.60	.70	22	35	37	13	8.7	23	101	80	50
10	2.1	.60	.70	22	35	36	12	8.7	26	101	80	48
11	2.0	.60	.80	23	36	36	12	8.7	29	98	78	46
12	1.8	.60	1.0	23	37	33	11	8.1	31	98	78	44
13	1.6	.60	1.0	24	39	33	11	7.8	33	98	75	44
14	1.6	.60	1.4	26	41	32	11	7.8	37	89	78	42
15	1.6	.60	1.6	28	42	31	11	7.5	39	86	78	41
16	1.6	.70	2.2	30	50	30	11	7.2	48	86	75	37
17	1.6	.70	3.0	32	51	30	11	7.2	65	86	75	37
18	1.5	.80	4.4	32	55	29	11	7.0	68	83	75	36
19	1.3	.90	5.9	31	58	28	10	7.0	70	83	72	35
20	1.1	.70	7.3	31	60	27	10	6.8	70	80	72	35
21	1.1	.70	8.7	31	60	26	10	6.8	72	80	75	35
22	1.0	.70	10	31	60	25	11	6.8	95	83	72	33
23	1.0	.60	11	31	62	24	11	6.8	101	83	72	32
24	.90	.60	12	32	62	23	11	7.0	95	83	75	31
25	.90	.70	13	32	62	22	11	7.5	98	80	70	30
26	1.0	.70	14	31	65	20	11	8.1	101	80	70	29
27	.90	.60	15	31	62	19	11	8.7	95	78	68	27
28	.90	.60	15	32	60	19	11	9.0	98	78	65	26
29	.90	.60	17	32	------	19	11	9.6	96	78	65	25
30	.80	.60	18	32	------	17	11	11	98	80	62	23
31	.70	------	19	32	------	17	------	11	------	80	58	------
TOTAL	50.20	19.60	187.50	824	1,292	1,027	358	261.7	1,617	2,759	2,320	1,209
MEAN	1.62	.65	6.05	26.6	46.1	33.1	11.9	8.44	53.9	89.0	74.8	40.3
MAX	3.0	.90	19	32	65	58	17	11	101	104	83	58
MIN	.70	.60	.60	18	31	17	10	6.8	12	78	58	23
AC-FT	100	39	372	1,630	2,560	2,040	710	519	3,210	5,470	4,600	2,400

CAL YR 1954: TOTAL 16,761.80 MEAN 45.9 MAX 104 MIN .60 AC-FT 33,250
WAT YR 1955: TOTAL 11,925.00 MEAN 32.7 MAX 104 MIN .60 AC-FT 23,650

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1955 TO SEPTEMBER 1956

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	7.9	55	92	38	13	4.7	5.8	92	98	70	52
2	21	8.2	55	92	38	13	4.5	6.3	92	98	70	49
3	20	8.2	58	92	38	13	4.3	7.3	86	98	70	49
4	20	8.5	62	86	37	13	4.3	8.5	80	92	70	47
5	20	8.5	62	80	37	12	4.1	9.7	80	86	66	45
6	19	8.8	62	75	35	12	4.1	11	80	86	66	45
7	18	8.8	66	70	34	11	4.0	12	86	86	66	45
8	18	9.4	66	70	33	11	4.0	13	86	92	62	47
9	17	11	58	70	30	10	4.0	16	86	92	62	47
10	16	12	58	70	29	9.4	3.8	18	80	86	58	43
11	14	13	62	70	29	8.8	3.8	21	80	80	58	41
12	13	13	66	70	28	8.5	3.8	23	80	80	58	38
13	13	16	62	70	27	8.2	3.7	26	80	86	58	35
14	12	19	66	70	26	7.9	3.6	29	80	86	55	33
15	12	22	70	70	24	7.3	3.6	30	80	86	55	29
16	11	28	75	70	23	7.0	3.6	35	75	80	55	27
17	11	34	75	66	22	6.8	3.6	45	75	80	55	24
18	9.7	39	80	62	22	6.5	3.7	55	75	80	55	22
19	9.4	49	86	58	20	6.3	3.7	70	80	80	55	20
20	9.1	52	86	55	19	6.3	3.8	80	80	80	52	19
21	8.8	55	92	52	18	6.0	3.8	86	80	80	52	18
22	8.5	55	92	49	18	6.0	3.8	86	75	80	55	17
23	8.2	55	92	47	17	6.0	3.8	98	80	75	55	16
24	8.2	58	92	45	16	6.0	4.0	98	80	75	55	15
25	8.2	58	98	43	16	6.0	4.0	98	86	70	55	14
26	7.9	55	98	41	15	5.8	4.1	105	92	70	55	13
27	7.9	55	98	39	14	5.6	4.1	92	92	70	55	13
28	7.9	55	98	38	14	5.3	4.5	86	92	70	58	12
29	8.5	55	98	38	13	5.1	4.9	92	92	70	58	12
30	8.5	55	98	38	------	5.1	5.1	86	92	70	55	11
31	8.2	------	98	38	------	4.9	------	86	------	70	52	------
TOTAL	396.0	932.3	2,384	1,926	730	252.8	120.8	1,534.6	2,494	2,532	1,821	898
MEAN	12.8	31.1	76.9	62.1	25.2	8.15	4.03	49.5	83.1	81.7	58.7	29.9
MAX	22	58	98	92	38	13	5.1	105	92	98	70	52
MIN	7.9	7.9	55	38	13	4.9	3.6	5.8	75	70	52	11
AC-FT	785	1,850	4,730	3,820	1,450	501	240	3,040	4,950	5,020	3,610	1,780

CAL YR 1955: TOTAL 15,380.0 MEAN 42.1 MAX 104 MIN 6.8 AC-FT 30,510
WAT YR 1956: TOTAL 16,021.5 MEAN 43.8 MAX 105 MIN 3.6 AC-FT 31,780

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1956 TO SEPTEMBER 1957

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	2.0	14	97	30	9.6	7.3	11	34	32	20	8.3
2	9.6	2.0	15	94	29	9.3	7.0	12	34	32	20	8.0
3	9.3	1.8	16	90	28	9.0	6.8	12	34	31	20	7.7
4	8.6	1.8	17	87	27	9.0	6.8	13	34	31	20	7.7
5	8.0	1.8	17	80	26	8.6	6.8	13	34	31	19	7.3
6	7.3	1.8	17	78	25	8.6	6.5	14	34	30	18	7.3
7	6.8	1.8	18	74	24	9.0	6.5	14	34	29	18	7.0
8	6.5	1.8	19	70	24	9.0	6.2	15	34	29	17	6.8
9	6.0	1.8	20	68	23	8.6	6.2	16	34	28	17	6.5
10	5.8	2.0	21	66	22	8.3	6.0	16	34	28	16	6.2
11	5.2	2.0	21	64	20	8.0	6.0	17	35	28	16	6.2
12	5.0	2.3	20	61	20	8.0	6.0	18	35	28	16	6.0
13	4.8	2.3	20	59	19	7.7	6.0	19	35	28	15	5.8
14	4.5	2.7	20	56	18	7.7	6.0	20	37	28	14	5.8
15	4.5	2.9	21	52	18	7.7	6.0	20	35	27	14	5.5
16	4.1	3.5	22	50	17	7.3	6.0	22	35	27	13	5.2
17	4.1	3.9	24	48	16	7.0	6.0	22	34	27	13	5.2
18	3.9	4.3	28	46	16	7.0	6.0	24	33	26	13	5.0
19	3.5	4.8	34	43	15	7.0	6.0	24	33	26	13	4.8
20	3.5	5.2	50	39	14	7.3	6.2	25	33	25	13	4.5
21	3.5	5.8	59	38	13	7.3	6.5	26	34	25	12	4.5
22	3.5	6.2	59	38	13	7.3	6.8	27	33	24	11	4.3
23	3.3	7.0	63	39	13	7.3	7.0	28	33	24	11	4.1
24	2.9	8.0	83	39	12	7.7	7.3	28	32	24	11	4.1
25	2.7	8.6	97	39	12	7.7	8.0	29	32	23	11	3.9
26	2.5	9.6	101	38	11	7.7	8.6	30	32	23	10	3.7
27	2.3	11	101	37	11	7.7	9.3	31	33	22	9.6	3.7
28	2.2	11	110	35	11	7.7	9.6	32	32	22	9.6	3.5
29	2.2	12	120	33	------	7.7	11	32	32	21	9.3	3.5
30	2.2	13	115	32	------	7.3	11	33	32	21	8.6	3.3
31	2.2	------	101	32	------	7.3	------	33	------	20	8.6	------
TOTAL	150.5	144.7	1,443	1,722	527	246.4	211.4	676	1,010	820	436.7	165.4
MEAN	4.85	4.82	46.5	55.5	18.8	7.95	7.05	21.8	33.7	26.5	14.1	5.51
MAX	10	13	120	97	30	9.6	11	33	37	32	20	8.3
MIN	2.2	1.8	14	32	11	7.0	6.0	11	32	20	8.6	3.3
AC-FT	299	287	2,860	3,420	1,050	489	419	1,340	2,000	1,630	866	328

CAL YR 1956: TOTAL 14,047.4 MEAN 38.4 MAX 120 MIN 1.8 AC-FT 27,860
WAT YR 1957: TOTAL 7,553.1 MEAN 20.7 MAX 120 MIN 1.8 AC-FT 14,980

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1957 TO SEPTEMBER 1958

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.9	.90	.60	2.9	13	21	13	25	32	26	14	3.9
2	2.7	.80	.60	3.3	13	21	13	28	32	25	13	3.7
3	2.7	.80	.60	3.5	14	22	12	29	31	25	13	3.4
4	2.9	.70	.60	3.7	15	22	12	30	31	25	13	3.1
5	2.5	.70	.60	4.1	15	22	12	31	31	25	12	2.7
6	2.3	.70	.70	4.5	16	23	12	32	31	25	12	2.7
7	2.2	.70	.60	5.0	17	23	11	32	31	24	11	2.5
8	2.2	.70	.60	5.5	17	23	11	32	31	24	11	2.5
9	2.0	.70	.60	6.0	18	23	11	32	30	24	11	2.4
10	2.0	.60	.60	6.2	19	23	11	32	30	23	9.6	2.2
11	2.0	.70	.60	6.5	20	23	11	32	30	23	9.3	2.0
12	1.9	.80	.60	7.0	20	23	11	31	30	22	8.6	1.8
13	2.0	1.0	.60	7.0	20	23	11	31	30	22	8.6	1.8
14	1.9	.70	.70	8.0	20	23	11	31	30	22	8.0	1.8
15	1.9	.70	.60	8.3	20	22	11	32	30	21	7.7	1.7
16	1.9	.60	.60	8.6	20	22	12	32	30	21	7.3	1.6
17	1.8	.50	.60	8.6	20	20	12	32	30	20	7.0	1.5
18	1.8	.50	.70	8.6	20	20	12	32	29	20	6.8	1.5
19	1.8	.50	.80	8.6	20	20	13	32	29	20	6.5	1.4
20	1.5	.50	.80	8.6	20	18	13	32	29	20	6.2	1.4
21	1.5	.40	.90	8.3	20	18	13	32	29	18	6.0	1.3
22	1.5	.40	.90	8.3	20	17	13	32	29	18	5.8	1.2
23	1.5	.40	1.0	8.6	20	17	13	32	28	17	5.5	1.1
24	1.4	.50	1.2	9.0	20	16	13	32	28	17	5.2	1.0
25	1.4	.50	1.4	9.0	20	16	14	32	28	16	5.2	.90
26	1.6	.50	1.5	9.3	20	15	15	32	28	15	5.0	.80
27	1.2	.60	1.6	9.6	20	15	17	32	28	15	4.8	.80
28	1.1	.60	1.9	11	20	14	18	32	27	15	4.5	.80
29	1.0	.50	1.9	11	------	14	20	32	27	15	4.3	.80
30	1.0	.60	2.3	12	------	13	23	32	26	14	4.1	.80
31	1.0	------	2.7	13	------	13	------	32	------	14	4.1	------
TOTAL	57.1	18.80	30.00	233.6	517	605	394	972	885	631	250.1	55.10
MEAN	1.84	.63	.97	7.54	18.5	19.5	13.1	31.4	29.5	20.4	8.07	1.84
MAX	2.9	1.0	2.7	13	20	23	23	32	32	26	14	3.9
MIN	1.0	.40	.60	2.9	13	13	11	25	26	14	4.1	.80
AC-FT	113	37	60	463	1,030	1,200	781	1,930	1,760	1,250	496	109

CAL YR 1957: TOTAL 5,920.80 MEAN 16.2 MAX 97 MIN .40 AC-FT 11,740
WAT YR 1958: TOTAL 4,648.70 MEAN 12.7 MAX 32 MIN .40 AC-FT 9,220

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.90	.80	99	53	51	32	23	28	35	35	36	26
2	.80	.90	94	53	53	31	23	28	35	35	35	25
3	.80	1.3	90	53	55	31	22	31	35	36	35	24
4	.80	1.8	79	53	53	30	21	32	35	36	35	23
5	.80	2.5	76	55	53	29	21	33	35	36	35	22
6	.80	3.7	76	55	51	28	22	33	35	36	35	21
7	.90	4.7	76	53	47	27	23	33	35	36	34	21
8	.90	5.5	73	51	45	26	24	33	36	36	34	20
9	.50	6.4	70	49	45	26	24	34	36	36	34	19
10	.40	7.4	73	47	45	25	26	35	36	36	34	18
11	.40	8.8	73	45	45	25	27	35	36	36	34	18
12	.40	11	73	45	44	25	27	36	36	36	33	18
13	.40	12	67	45	44	24	28	36	36	36	33	17
14	.40	12	73	45	42	24	29	38	36	38	33	17
15	.40	13	76	45	40	23	29	36	36	38	33	17
16	.30	16	79	45	40	23	29	36	38	38	33	17
17	.30	20	83	45	39	23	29	38	38	38	33	17
18	.40	30	79	44	39	23	29	38	36	38	33	17
19	.50	38	79	44	39	23	29	38	36	39	32	18
20	.40	40	76	44	39	23	29	38	36	39	32	18
21	.40	38	76	44	39	23	29	38	36	39	31	18
22	.40	47	73	44	38	23	28	38	36	39	31	19
23	.40	55	73	44	38	23	28	38	36	39	31	19
24	.40	60	65	44	35	22	28	38	36	39	30	19
25	.40	70	62	44	33	22	28	36	36	39	30	20
26	.40	86	60	44	33	22	28	36	36	39	30	21
27	.40	103	55	44	33	22	28	36	35	38	30	22
28	.40	123	55	45	32	22	28	36	36	38	30	22
29	.40	113	55	47	------	22	28	36	35	36	29	22
30	.40	108	55	47	------	22	28	35	35	36	28	22
31	.60	------	55	49	------	22	------	35	------	36	28	------
TOTAL	16.10	1,038.80	2,248	1,465	1,190	766	795	1,091	1,074	1,152	1,004	597
MEAN	.52	34.6	72.5	47.3	42.5	24.7	26.5	35.2	35.8	37.2	32.4	19.9
MAX	.90	123	99	55	55	32	29	38	38	39	36	26
MIN	.30	.80	55	44	32	22	21	28	35	35	28	17
AC-FT	32	2,060	4,460	2,910	2,360	1,520	1,580	2,160	2,130	2,280	1,990	1,180

CAL YR 1958: TOTAL 7,845.70 MEAN 21.5 MAX 123 MIN .30 AC-FT 15,560
WAT YR 1959: TOTAL 12,436.90 MEAN 34.1 MAX 123 MIN .30 AC-FT 24,670

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	47	59	38	9.9	11	6.1	17	21	44	27	4.8
2	23	47	63	36	9.6	11	5.8	18	22	43	26	4.5
3	24	47	66	35	9.2	11	5.8	18	23	43	25	4.2
4	26	45	63	35	8.8	11	5.8	18	25	43	24	4.0
5	27	45	61	33	8.5	11	5.8	18	26	43	22	3.7
6	29	44	59	32	8.5	11	5.8	19	28	41	21	3.5
7	29	44	57	30	8.1	11	5.8	19	29	40	20	3.5
8	30	42	54	29	7.8	11	5.8	18	30	40	20	3.3
9	31	40	52	28	7.4	11	5.8	18	32	39	19	2.8
10	31	39	50	28	7.8	11	6.1	18	35	38	18	2.8
11	32	39	48	28	7.4	11	6.4	17	36	38	17	2.6
12	32	39	46	26	7.4	11	6.8	17	38	36	16	2.4
13	32	36	44	25	7.4	11	7.1	17	39	36	15	2.4
14	33	36	41	24	7.8	11	7.4	17	40	35	14	2.3
15	34	35	43	23	7.4	11	7.4	16	41	35	14	2.1
16	34	34	40	22	7.4	9.9	8.1	16	41	35	13	1.9
17	34	34	39	21	7.4	9.9	8.8	16	41	34	12	1.9
18	34	33	38	21	7.4	9.6	9.2	16	41	34	11	1.7
19	36	32	38	20	7.8	9.2	9.9	16	41	34	11	1.7
20	38	33	39	19	8.1	8.8	12	16	41	32	9.9	1.6
21	38	32	39	18	8.1	8.5	12	16	43	32	9.6	1.5
22	39	31	40	17	8.5	8.5	13	16	43	32	8.8	1.4
23	39	31	43	16	8.8	8.1	14	16	44	31	8.5	1.3
24	39	31	43	15	9.2	7.8	14	16	44	31	7.8	1.3
25	39	31	41	15	9.6	7.4	15	16	44	31	7.4	1.3
26	40	33	41	14	9.6	7.4	15	17	44	30	7.1	1.2
27	40	36	41	13	9.9	7.1	16	17	46	29	6.8	1.2
28	44	44	41	12	11	6.8	16	17	46	28	6.4	1.1
29	45	50	41	12	11	6.8	16	19	44	28	5.8	1.1
30	47	57	40	11	------	6.4	17	20	44	27	5.5	1.0
31	47	------	40	11	------	6.4	------	20	------	27	5.2	------
TOTAL	1,069	1,167	1,450	707	246.8	293.6	289.7	535	1,112	1,089	433.8	70.1
MEAN	34.5	38.9	46.8	22.8	8.51	9.47	9.66	17.3	37.1	35.1	14.0	2.34
MAX	47	57	66	38	11	11	17	20	46	44	27	4.8
MIN	23	31	38	11	7.4	6.4	5.8	16	21	27	5.2	1.0
AC-FT	2,120	2,310	2,880	1,400	490	582	575	1,060	2,210	2,160	860	139

CAL YR 1959: TOTAL 12,820 MEAN 35.1 MAX 66 MIN 17 AC-FT 25,430
WAT YR 1960: TOTAL 8,463.0 MEAN 23.1 MAX 66 MIN 1.0 AC-FT 16,790

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.0	.60	2.8	13	26	54	44	29	29	44	29	6.0
2	.90	.60	4.0	12	26	55	44	28	30	44	28	5.2
3	.80	.50	6.4	11	26	57	44	28	31	44	28	4.8
4	.80	.50	8.5	11	26	57	41	28	31	44	27	4.2
5	.80	.50	11	11	27	59	40	27	32	44	26	4.2
6	.90	.50	15	9.9	27	59	39	27	34	44	26	4.0
7	.90	.40	19	9.2	27	57	38	27	35	44	25	3.7
8	.90	.40	21	8.8	28	57	38	27	38	44	23	3.3
9	.80	.40	24	8.5	28	57	38	26	39	43	21	3.0
10	.80	.50	26	8.1	28	57	36	26	40	43	20	2.8
11	.80	.40	26	7.8	28	57	36	26	41	43	20	2.6
12	.80	.40	27	7.4	28	57	36	26	41	41	19	2.6
13	.70	.50	28	7.1	29	57	36	26	43	41	17	2.4
14	.60	.50	28	6.8	30	57	35	26	43	41	17	2.3
15	.60	.60	28	6.8	31	57	35	25	44	41	15	2.1
16	.60	.60	27	7.1	31	55	35	25	44	40	15	1.9
17	.60	.70	26	7.1	31	55	35	25	44	39	14	1.9
18	.60	.80	26	7.1	32	55	35	26	44	39	13	1.9
19	.50	.90	26	7.4	35	55	34	25	44	39	12	1.6
20	.50	1.0	25	7.8	36	55	34	25	44	38	11	1.6
21	.50	1.0	23	8.5	39	55	34	25	44	38	11	1.4
22	.50	1.1	22	9.2	39	55	34	26	44	36	9.9	1.3
23	.60	1.2	21	11	39	55	32	26	44	36	9.6	1.3
24	.60	1.7	20	12	39	54	32	26	44	36	8.8	1.3
25	.60	1.7	19	14	40	52	21	26	44	35	8.5	1.3
26	.60	1.7	18	16	41	52	31	26	44	32	8.5	1.3
27	.60	1.6	17	17	44	48	30	26	44	32	7.8	1.2
28	.60	1.6	16	20	50	46	30	27	44	32	7.4	1.3
29	.60	1.7	15	21	------	46	29	27	44	31	6.8	1.3
30	.60	2.1	14	24	------	46	29	28	44	30	6.4	1.2
31	.60	------	13	25	------	44	------	28	------	29	6.1	------
TOTAL	21.30	26.70	602.7	352.6	911	1,682	1,055	819	1,211	1,207	496.8	75.0
MEAN	.69	.89	19.4	11.4	32.5	54.3	35.2	26.4	40.4	38.9	16.0	2.50
MAX	1.0	2.1	28	25	50	59	44	29	44	44	29	6.0
MIN	.50	.40	2.8	6.8	26	44	21	25	29	29	6.1	1.2
AC-FT	42	53	1,200	699	1,810	3,340	2,090	1,620	2,400	2,390	985	149

CAL YR 1960: TOTAL 5,412.20 MEAN 14.8 MAX 46 MIN .40 AC-FT 10,730
WAT YR 1961: TOTAL 8,460.10 MEAN 23.2 MAX 59 MIN .40 AC-FT 16,780

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.2	.20	.30	.60	36	8.1	1.4	4.5	25	35	34	16
2	.90	.20	.30	.80	35	7.8	1.3	6.1	26	36	34	15
3	.90	.20	.50	1.0	32	7.4	1.3	7.8	26	36	32	15
4	.90	.20	.50	.80	30	7.1	1.2	9.2	26	38	32	14
5	.90	.20	.40	.90	29	6.8	1.1	11	26	38	31	13
6	.70	.20	.40	.90	29	6.1	1.3	13	26	38	31	13
7	.70	.20	.40	1.0	28	5.8	1.2	15	26	38	31	12
8	.90	.20	.40	1.0	27	5.5	1.1	17	27	38	30	11
9	.90	.20	.30	1.1	26	5.2	1.1	18	27	38	30	11
10	.90	.30	.30	1.3	24	4.8	1.0	19	28	38	29	11
11	.70	.20	.20	2.1	22	4.2	1.0	20	28	38	29	9.9
12	.70	.20	.20	4.0	21	4.0	1.0	20	29	38	28	9.6
13	.70	.20	.20	7.4	21	3.7	1.0	21	30	38	28	9.2
14	.60	.20	.20	12	20	3.5	.90	22	30	38	27	8.8
15	.60	.20	.30	18	19	3.5	.90	23	31	38	26	8.5
16	.60	.20	.30	23	17	3.3	.90	24	31	36	26	8.1
17	.40	.20	.60	29	17	3.0	.80	24	31	36	26	7.8
18	.40	.20	.50	34	16	2.8	.80	25	31	35	25	7.1
19	.40	.20	.80	36	15	2.8	.80	25	32	35	24	6.8
20	.30	.20	1.0	38	14	2.6	.90	25	32	35	23	6.4
21	.30	.20	.80	39	13	2.4	.90	25	34	35	22	6.1
22	.30	.40	1.0	41	12	2.3	.90	25	34	35	21	5.8
23	.30	.20	1.0	43	11	2.1	1.0	26	35	35	21	5.5
24	.20	.20	1.1	41	11	2.1	1.0	26	35	34	20	5.2
25	.20	.20	1.0	41	9.9	2.1	1.1	26	35	34	20	4.8
26	.30	.20	1.1	40	9.2	2.1	1.3	25	35	34	19	4.5
27	.30	.30	1.1	40	8.8	1.9	1.6	25	35	34	18	4.5
28	.20	.40	1.0	40	8.5	1.7	1.9	25	35	34	17	4.5
29	.20	.30	1.0	40	------	1.7	2.4	25	36	34	17	4.0
30	.20	.30	.80	39	------	1.6	3.3	25	35	34	16	3.7
31	.20	------	.60	38	------	1.6	------	25	------	34	16	------
TOTAL	17.00	6.80	18.60	654.90	561.4	119.6	36.40	627.6	917	1,117	783	261.8
MEAN	.55	.23	.60	21.1	20.1	3.86	1.21	20.2	30.6	36.0	25.3	8.73
MAX	1.2	.40	1.1	43	36	8.1	3.3	26	36	38	34	16
MIN	.20	.20	.20	.60	8.5	1.6	.80	4.5	25	34	16	3.7
AC-FT	34	13	37	1,300	1,110	237	72	1,240	1,820	2,220	1,550	519

CAL YR 1961: TOTAL 7,851.80 MEAN 21.5 MAX 59 MIN .20 AC-FT 15,570
WAT YR 1962: TOTAL 5,121.10 MEAN 14.0 MAX 43 MIN .20 AC-FT 10,160

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	1.6	2.6	55	34	26	9.9	6.8	3.3	14	9.9	7.1
2	3.5	1.6	3.0	55	34	26	9.6	7.1	3.3	13	9.9	6.8
3	3.5	1.6	3.5	55	34	26	8.8	7.4	3.3	13	9.6	6.4
4	3.3	1.7	4.2	57	31	26	8.8	7.4	3.5	13	9.6	6.8
5	3.0	1.7	5.8	61	30	26	8.1	7.8	3.7	13	9.6	6.4
6	3.0	1.7	7.8	63	28	26	7.8	7.8	3.7	13	9.6	6.1
7	2.8	1.7	11	69	28	26	7.4	7.8	3.7	13	9.2	6.1
8	3.0	1.9	13	75	27	24	7.1	7.8	4.0	13	9.2	5.8
9	3.0	1.9	17	78	26	24	6.8	7.8	4.5	13	9.2	6.1
10	2.8	1.9	21	80	26	23	6.1	7.4	4.8	13	9.2	5.8
11	2.8	1.9	26	80	26	23	5.8	7.4	5.2	12	9.2	5.8
12	2.6	2.1	30	80	26	23	5.5	7.1	5.5	12	9.2	5.5
13	2.4	2.1	35	83	26	22	5.2	7.1	6.1	12	8.8	5.5
14	2.3	1.9	39	80	26	21	5.2	6.8	6.4	12	8.8	5.2
15	2.3	1.9	40	78	26	21	4.8	6.4	6.8	12	8.5	5.5
16	2.1	1.7	44	72	26	21	4.5	6.4	7.4	11	8.5	5.2
17	1.9	1.7	48	66	27	20	4.5	6.4	7.8	11	8.1	4.8
18	1.9	1.6	52	63	27	20	4.5	6.1	8.1	11	8.5	4.8
19	1.7	2.1	54	57	28	19	4.5	5.8	8.8	11	8.5	4.5
20	1.7	2.1	54	54	28	19	4.5	5.5	9.6	11	8.1	4.8
21	1.7	2.1	57	50	27	18	4.5	5.2	11	11	8.1	4.5
22	1.7	2.1	55	48	27	17	4.5	4.8	11	9.9	8.1	4.5
23	1.7	1.9	57	46	27	16	4.8	4.8	11	9.9	8.1	4.2
24	1.7	2.1	57	44	27	15	5.2	4.5	12	9.9	7.8	4.0
25	1.7	2.3	57	43	27	15	5.2	4.2	12	9.6	7.8	4.0
26	1.7	2.4	57	41	27	14	5.5	4.0	13	9.6	7.4	4.0
27	1.6	2.4	57	40	26	13	5.8	4.0	13	9.6	7.4	3.7
28	1.6	2.3	57	40	27	13	5.8	3.7	13	9.9	7.1	3.7
29	1.6	2.4	57	39	------	12	6.4	3.5	13	9.9	7.1	3.7
30	1.6	2.6	59	36	------	12	6.4	3.5	14	9.9	7.1	3.7
31	1.6	------	57	35	------	11	------	3.5	------	9.9	7.1	------
TOTAL	71.3	59.0	1,137.9	1,823	779	618	183.5	185.8	232.5	355.1	264.3	155.0
MEAN	2.30	1.97	36.7	58.8	27.8	19.9	6.12	5.99	7.75	11.5	8.53	5.17
MAX	3.5	2.6	59	83	34	26	9.9	7.8	14	14	9.9	7.1
MIN	1.6	1.6	2.6	35	26	11	4.5	3.5	3.3	9.6	7.1	3.7
AC-FT	141	117	2,260	3,620	1,550	1,230	364	369	461	704	524	307

CAL YR 1962: TOTAL 6,346.90 MEAN 17.4 MAX 59 MIN .60 AC-FT 12,590
WAT YR 1963: TOTAL 5,864.4 MEAN 16.1 MAX 83 MIN 1.6 AC-FT 11,630

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1437. Boxley Creek near Cedar Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	1.3	1.0	12	35	29	25	19	35	54	46	28
2	3.5	1.2	1.0	12	36	29	24	20	36	54	46	27
3	3.5	1.2	1.0	12	39	29	23	20	38	54	46	27
4	3.3	1.1	1.0	11	40	29	23	20	40	52	46	26
5	3.3	1.1	1.1	12	41	29	22	20	43	52	46	26
6	3.3	1.1	1.2	12	41	29	21	20	43	52	46	26
7	3.0	1.2	1.3	12	41	28	21	21	46	52	46	25
8	3.0	1.2	1.4	12	41	28	21	21	48	50	46	25
9	3.0	1.1	1.7	12	41	28	20	21	48	50	46	24
10	2.8	1.1	2.1	13	41	28	20	21	48	48	46	23
11	2.8	1.1	2.8	14	41	29	20	21	48	48	44	22
12	2.6	1.0	3.5	15	41	29	19	21	54	48	44	21
13	2.6	1.0	4.8	16	41	28	18	21	57	48	44	21
14	2.4	1.0	5.8	17	41	29	18	22	57	48	44	20
15	2.3	1.0	7.1	18	41	29	18	22	57	48	44	19
16	2.3	1.0	8.5	20	40	29	18	22	57	48	44	18
17	2.3	1.0	9.6	23	39	29	18	22	57	48	43	18
18	2.1	.90	10	24	36	29	18	23	57	46	41	17
19	2.1	1.0	12	26	35	28	18	23	55	46	40	16
20	2.1	.90	12	27	35	28	18	24	52	48	39	15
21	2.3	.90	12	28	34	28	18	24	54	48	39	14
22	2.3	.90	12	29	32	28	18	25	52	48	33	13
23	1.9	1.0	12	30	31	28	18	26	52	50	36	12
24	1.7	1.0	12	32	30	27	18	26	57	50	35	12
25	1.7	1.0	12	35	30	27	18	27	57	50	32	11
26	1.6	1.1	12	34	29	27	18	28	55	48	34	10
27	1.4	1.1	12	34	29	26	18	29	55	48	32	9.9
28	1.6	1.1	12	34	29	26	18	30	55	46	31	9.2
29	1.4	1.0	11	34	29	26	19	31	55	46	30	8.8
30	1.4	1.0	11	35	------	26	19	31	55	46	30	8.8
31	1.3	------	11	35	------	25	------	32	------	46	29	------
TOTAL	74.4	31.60	217.9	680	1,059	867	585	733	1,523	1,520	1,253	553.7
MEAN	2.40	1.05	7.03	21.9	36.5	28.0	19.5	23.6	50.8	49.0	40.4	18.5
MAX	3.5	1.3	12	35	41	29	25	32	57	54	46	28
MIN	1.3	.90	1.0	11	29	25	18	19	35	46	29	8.8
AC-FT	148	63	432	1,350	2,100	1,720	1,160	1,450	3,020	3,010	2,490	1,100

CAL YR 1963: TOTAL 4,920.10 MEAN 13.5 MAX 83 MIN .90 AC-FT 9,760
WAT YR 1964: TOTAL 9,097.60 MEAN 24.9 MAX 57 MIN .90 AC-FT 18,040

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.1	4.5	4.0	29	12	46	21	5.8	19	20	20	9.6
2	7.8	4.5	4.0	30	11	46	20	6.1	19	20	20	9.2
3	7.1	4.5	3.5	29	11	44	20	6.1	19	20	20	8.8
4	6.8	4.8	3.3	29	12	44	19	6.4	19	20	20	8.5
5	6.4	4.5	2.8	29	16	44	18	6.8	19	21	20	8.1
6	6.1	4.5	2.8	28	19	41	18	7.1	19	21	20	7.8
7	5.8	4.5	2.6	28	24	40	17	7.4	19	21	20	7.4
8	5.5	4.5	2.8	27	29	40	17	8.1	19	21	19	7.1
9	5.5	4.5	2.8	27	31	39	16	8.5	19	21	19	6.4
10	5.2	4.2	3.0	26	34	38	15	9.2	19	21	19	6.1
11	4.8	4.2	3.3	26	35	36	14	9.9	19	21	18	5.5
12	4.8	4.0	4.2	25	43	36	13	11	19	21	18	5.2
13	4.5	4.0	5.8	23	46	35	12	12	19	21	18	4.8
14	4.2	4.0	8.1	22	46	32	11	12	19	21	18	4.8
15	4.2	3.7	10	21	46	31	11	14	19	21	18	4.8
16	4.2	3.7	12	20	48	30	9.9	14	19	21	18	4.0
17	4.2	3.7	15	18	48	29	9.2	14	19	21	17	3.7
18	4.2	3.5	18	18	50	29	8.5	16	19	22	17	3.5
19	4.2	3.3	21	17	50	29	8.5	16	19	21	17	3.3
20	4.2	3.3	23	16	50	28	8.1	17	20	21	16	3.0
21	4.2	3.3	25	14	50	28	7.4	17	20	21	15	2.8
22	4.2	3.3	28	14	50	27	7.1	18	20	21	15	2.6
23	4.2	3.3	28	12	48	26	6.8	18	20	21	14	2.4
24	4.2	3.7	28	12	48	26	6.4	18	20	21	14	2.4
25	4.2	3.5	29	11	46	25	6.1	19	20	21	12	2.3
26	4.2	3.5	29	11	48	25	5.8	19	20	21	12	2.1
27	4.2	3.5	29	12	48	24	5.5	19	20	21	12	1.9
28	4.2	3.0	29	13	46	24	5.5	19	20	21	11	1.7
29	4.2	3.3	29	16	------	23	5.8	19	20	21	11	1.6
30	4.5	3.5	29	14	------	22	5.8	20	20	21	10	1.6
31	4.5	------	29	12	------	22	------	20	------	20	9.9	------
TOTAL	154.6	116.3	464.0	629	1,045	1,009	348.4	413.4	581	647	507.9	143.0
MEAN	4.99	3.88	15.0	20.3	37.3	32.5	11.6	13.3	19.4	20.9	16.4	4.77
MAX	8.1	4.8	29	30	50	46	21	20	20	22	20	9.6
MIN	4.2	3.0	2.6	11	11	22	5.5	5.8	19	20	9.9	1.6
AC-FT	307	231	920	1,250	2,070	2,000	691	820	1,150	1,280	1,010	284

CAL YR 1964: TOTAL 9,508.6 MEAN 26.0 MAX 57 MIN 2.6 AC-FT 18,860
WAT YR 1965: TOTAL 6,058.6 MEAN 16.6 MAX 50 MIN 1.6 AC-FT 12,020

12-1438. Rattlesnake Lake at Cedar Falls, Wash.

Location.--Lat 47°25'40", long 121°46'30", in SW¼SW¼ sec.34, T.23 N., R.8 E., on south shore 0.6 mile northeast of Cedar Falls.

Drainage area.--1.86 sq mi.

Records available.--November to December 1945 (fragmentary), January 1953 to September 1960, October 1960 to September 1965.

Gage.--Staff gage read once daily. Datum of gage is 7.25 ft above mean sea level, datum of 1929, supplementary adjustments of 1947 and 1960 (levels by city of Seattle).

Extremes.--Maximum and minimum elevations, in feet, for January 1953 to September 1965 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Elevation	Date	Elevation
1953	Mar. 15, 1953..............	909.90	Jan. 9, 1953...............	a 852.80
1954	Jan. 16-18, 1954...........	910.68	Nov. 26, 1953...............	872.00
1955	July 31 to Aug. 6, 9, 10....	910.22	Dec. 12, 1954...............	872.15
1956	Dec. 13-15, 1955...........	911.40	May 4, 1956...............	896.80
1957	Jan. 3, 1957..............	910.66	Nov. 17, 1956...............	b 889.95
1958	May 30, 31, 1958...........	906.35	Dec. 22, 23, 1957............	868.60
1959	Jan. 26, 1959..............	911.40	Oct. 31, 1958...............	869.20
1960	Nov. 25, 26, 1959...........	911.80	Sept.30, 1960...............	888.40
1961	Mar. 16, 1961..............	910.87	Nov. 15, 1960...............	877.10
1962	Aug. 5-11, 1962...........	904.20	Dec. 16, 1961...............	866.38
1963	Jan. 15, 16, 1963..........	910.32	Nov. 16, 1962...............	884.75
1964	June 21, 1964..............	910.56	Nov. 27, 1963...............	882.06
1965	Feb. 1, 1965..............	911.14	Sept.30, 1965...............	891.02

a May have been less during period of no gage-height record Jan. 10, 11, 1953.
b May have been less during period of no gage-height record Nov. 16, 1956.

1945, 1953-65: Maximum elevation observed, 911.80 ft Nov. 25, 26, 1959; minimum observed, 852.80 ft Jan. 9, 1953.

Remarks.--No regulation or diversion.

Cooperation.--Gage readings furnished by city of Seattle.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	888.00	878.00	886.10	901.26	903.92	910.75	910.04	909.24	906.50	907.12	906.04	900.19
2	887.60	878.00	886.45	901.30	904.30	910.76	910.03	909.19	906.42	907.14	906.00	899.97
3	887.20	877.98	886.80	901.30	904.58	910.86	910.10	909.15	906.36	907.13	905.95	899.56
4	886.80	877.98	887.25	901.34	904.90	910.83	910.10	909.08	906.31	907.10	905.88	899.20
5	886.40	877.98	887.69	901.46	905.20	910.82	910.15	909.08	906.28	907.15	905.79	898.75
6	886.08	877.80	888.15	901.63	905.58	910.76	910.15	909.05	906.27	907.18	905.70	898.50
7	885.70	877.60	888.80	901.86	905.98	910.70	910.12	909.02	906.34	907.17	905.59	898.05
8	885.39	877.60	889.30	902.06	906.40	910.66	910.08	908.98	906.35	907.13	905.47	897.61
9	884.98	877.35	890.08	902.30	906.75	910.65	910.08	908.94	906.37	907.11	905.35	897.18
10	884.58	877.58	890.78	902.46	907.08	910.62	910.04	908.90	906.43	907.07	905.24	896.74
11	884.19	877.55	891.44	902.60	907.32	910.65	910.02	908.84	906.50	907.03	905.09	896.28
12	883.88	877.40	892.22	902.74	907.54	910.66	910.02	908.72	906.56	907.00	904.96	895.85
13	883.50	877.22	892.95	902.85	907.76	910.70	910.06	908.58	906.62	906.93	904.81	895.35
14	883.12	877.16	893.68	902.94	907.80	910.78	910.18	908.50	906.66	906.88	904.66	894.82
15	882.75	877.10	894.40	903.00	908.25	910.84	910.20	908.40	906.72	906.84	904.48	894.37
16	882.38	877.18	895.05	903.08	908.51	910.87	910.16	908.28	906.76	906.78	904.34	893.88
17	882.00	877.15	895.78	903.17	908.78	910.83	910.14	908.15	906.82	906.74	904.13	893.39
18	881.65	877.80	896.42	903.26	909.01	910.78	910.08	908.02	906.84	906.68	903.94	892.90
19	881.20	878.15	897.06	903.30	909.26	910.74	910.00	907.88	906.86	906.65	903.74	892.44
20	880.80	878.92	897.65	903.40	909.52	910.70	909.96	907.74	906.88	906.62	903.51	891.94
21	880.40	879.60	898.18	903.45	909.92	910.60	909.94	907.62	906.90	906.56	903.31	891.42
22	880.08	880.35	898.68	903.45	910.42	910.55	909.83	907.48	906.93	906.50	903.08	890.90
23	879.80	881.00	899.14	903.47	910.68	-	909.76	907.38	906.95	906.42	902.84	890.38
24	879.48	881.75	899.53	903.40	910.78	910.52	909.71	907.25	906.94	906.38	902.57	889.85
25	879.15	882.75	899.96	903.43	910.80	910.38	909.64	907.13	906.98	906.38	902.30	889.20
26	878.88	883.72	900.23	903.40	910.77	910.30	909.58	907.00	906.99	906.36	902.00	888.80
27	878.62	884.50	900.46	903.40	910.76	910.27	909.51	906.93	907.00	906.30	901.73	888.25
28	878.42	884.95	900.66	903.40	910.70	910.20	909.40	906.83	907.03	906.26	902.42	887.86
29	878.33	885.40	900.82	903.60	------	910.18	909.36	906.75	907.06	906.22	901.12	887.40
30	878.10	885.80	901.00	903.70	------	910.10	909.33	906.66	907.09	906.16	900.78	886.90
31	878.00	------	901.14	903.85	------	910.08	------	906.58	------	906.08	900.51	------
MAX	888.00	885.80	901.14	903.85	910.80	-	910.20	909.24	907.09	907.18	906.04	900.19
MIN	878.00	877.10	886.10	901.26	903.92	-	909.33	906.58	906.27	906.08	900.51	886.90

12-1438. Rattlesnake Lake at Cedar Falls, Wash.--Continued

ELEVATION, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	886.54	875.20	868.00	871.03	895.98	901.13	893.20	885.75	899.58	903.30	904.08	902.40
2	886.00	874.88	867.80	871.22	896.70	900.95	892.86	886.20	899.80	903.38	904.06	902.28
3	885.50	874.58	867.70	-	897.30	900.85	892.50	886.67	900.20	903.40	904.10	902.15
4	885.00	874.30	867.50	871.95	897.94	900.62	892.09	887.18	900.28	903.40	904.10	901.90
5	884.54	874.00	867.40	872.50	898.52	900.50	891.70	887.71	900.38	903.50	904.20	901.78
6	884.20	873.75	867.20	873.22	898.94	900.30	891.38	888.28	900.58	903.68	904.20	901.60
7	883.70	873.45	867.20	873.84	899.38	900.12	891.04	888.86	900.70	903.74	904.20	901.40
8	883.20	873.20	867.10	874.46	899.74	899.88	890.80	889.50	900.84	903.78	904.20	901.20
9	-	872.90	866.90	875.16	900.10	899.78	890.54	890.06	901.00	903.80	904.20	901.00
10	-	872.70	866.85	875.84	900.36	899.66	890.24	890.65	901.16	903.89	904.20	900.82
11	-	872.40	866.80	876.56	900.60	899.26	889.92	891.22	901.30	903.90	904.20	900.70
12	881.85	872.20	866.70	877.35	900.82	899.02	889.50	891.86	901.42	903.90	904.16	900.48
13	881.50	871.80	866.60	878.00	901.00	898.72	889.19	892.46	901.60	903.94	904.12	900.28
14	881.10	871.60	866.50	878.86	901.22	898.40	888.80	893.20	901.78	903.96	904.10	900.08
15	880.75	871.40	866.40	879.70	901.30	898.10	888.40	893.58	901.92	903.98	904.04	899.82
16	880.40	870.90	866.38	880.55	901.40	897.75	888.00	894.10	902.06	904.00	904.00	899.60
17	880.08	870.60	866.40	881.55	901.53	897.40	887.60	894.66	902.20	904.04	903.96	899.36
18	879.68	870.40	866.40	882.50	901.60	897.05	887.20	895.16	902.30	904.06	903.90	899.10
19	879.50	870.20	866.40	883.65	901.66	896.70	886.86	895.66	902.40	904.06	903.86	898.84
20	879.20	870.00	866.40	884.66	901.68	896.35	886.58	896.08	902.50	904.06	903.78	898.58
21	878.80	869.80	866.40	885.70	901.68	896.00	886.20	896.48	902.60	904.06	903.70	898.32
22	878.40	869.80	866.40	886.76	901.70	895.66	885.90	896.84	902.70	904.06	903.60	898.02
23	878.10	869.30	866.50	887.76	901.68	895.28	885.58	897.20	902.78	904.08	903.50	897.72
24	877.80	869.10	866.96	888.84	901.65	894.70	885.30	897.54	902.84	904.08	903.40	897.44
25	877.50	868.85	867.80	889.86	901.56	894.68	885.08	897.90	902.90	904.06	903.30	897.12
26	877.10	868.65	868.80	890.86	901.46	894.48	884.90	898.18	903.00	904.06	903.18	896.80
27	876.80	868.45	869.50	891.92	901.34	894.36	885.00	898.44	903.08	904.06	903.20	896.56
28	876.50	868.35	870.00	892.74	901.20	894.24	885.04	898.70	903.12	904.06	903.06	896.30
29	876.05	868.20	870.35	893.62	------	894.06	885.20	898.98	903.20	904.06	902.90	896.06
30	875.08	868.00	870.63	894.46	------	893.88	885.41	899.20	903.28	904.08	902.76	895.76
31	875.40	------	870.83	895.26	------	893.54	------	899.40	------	904.07	902.64	------
MAX	886.54	875.20	870.83	-	901.70	901.13	893.20	899.40	903.28	904.08	904.20	902.40
MIN	875.08	868.00	866.38	-	895.98	893.54	884.90	885.75	899.58	903.30	902.64	895.76

ELEVATION, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	895.40	887.20	888.74	906.74	909.36	909.29	905.80	900.10	895.16	894.08	895.48	893.90
2	895.10	887.10	889.12	907.46	909.70	909.36	905.68	900.00	894.86	894.20	895.44	893.80
3	894.82	886.66	889.46	908.12	909.92	909.34	905.50	899.94	894.58	894.36	895.40	893.70
4	894.50	886.40	889.66	908.76	910.08	909.34	905.50	899.80	894.30	894.48	895.38	893.60
5	894.18	886.20	890.22	909.38	910.20	909.36	905.34	899.78	894.16	894.58	895.35	893.48
6	893.88	885.96	890.66	909.60	910.22	909.36	905.36	899.78	893.90	894.70	895.31	893.36
7	893.60	885.70	891.12	909.90	910.26	909.32	905.34	899.70	893.66	894.82	895.28	893.22
8	893.40	885.60	891.72	910.08	910.30	909.25	905.24	899.68	893.44	894.90	895.26	893.10
9	893.22	885.44	892.30	910.26	910.08	909.20	905.14	899.62	893.30	895.02	895.24	892.96
10	893.18	885.28	892.80	910.30	909.96	909.12	904.96	899.60	893.12	895.14	895.20	892.82
11	893.08	885.18	893.50	910.30	909.80	909.04	904.74	899.54	892.98	895.20	895.18	892.72
12	892.80	885.06	894.10	910.30	909.64	908.98	904.48	899.46	892.90	895.26	895.14	892.60
13	892.68	885.00	894.72	-	909.52	908.84	904.20	899.40	892.80	895.30	895.14	892.50
14	892.42	884.96	895.51	-	909.48	908.74	903.96	899.30	892.70	895.34	895.12	892.38
15	892.20	884.92	896.16	910.32	909.38	908.60	903.64	899.18	892.66	895.46	895.08	892.22
16	891.60	884.75	896.80	910.32	909.30	908.48	903.36	899.10	892.66	895.50	895.06	892.10
17	891.70	884.96	897.52	910.30	909.24	908.28	903.06	898.92	892.66	895.52	895.00	892.00
18	891.46	884.96	898.66	910.30	909.24	908.10	902.76	898.75	892.66	895.54	894.96	891.80
19	891.18	884.96	899.06	910.28	909.22	907.96	902.50	898.64	892.70	895.56	894.94	891.68
20	890.90	885.26	899.64	910.24	909.22	907.78	902.20	898.40	892.78	895.58	894.90	891.50
21	890.60	885.62	900.30	910.20	909.22	907.60	901.90	898.20	892.88	895.60	894.82	891.32
22	890.34	885.96	900.96	910.18	909.22	907.46	901.64	897.92	892.98	895.62	894.78	891.16
23	890.02	886.20	901.52	910.18	909.22	907.26	901.40	897.68	893.10	895.62	894.70	891.00
24	889.84	886.40	902.06	910.09	909.20	907.04	901.20	897.44	893.18	895.62	894.62	890.80
25	889.45	886.70	902.58	910.04	909.18	906.86	901.00	897.18	893.30	895.62	894.58	890.62
26	889.10	886.98	903.08	910.00	909.26	906.62	900.84	896.90	893.40	895.60	894.50	890.48
27	888.76	887.36	903.56	909.94	909.22	906.46	900.64	896.60	893.54	895.58	894.40	890.30
28	888.48	887.76	904.10	909.90	909.22	906.28	900.50	896.32	893.68	895.64	894.30	890.12
29	888.16	888.08	904.62	909.86	------	906.18	900.32	896.04	893.85	895.52	894.20	889.96
30	887.82	888.40	905.30	909.80	------	906.08	900.24	895.74	893.94	895.48	894.12	889.80
31	887.50	------	906.00	909.70	------	905.95	------	895.44	------	895.46	894.02	------
MAX	895.40	888.40	906.00	-	910.30	909.36	905.80	900.10	895.16	895.62	895.48	893.90
MIN	887.50	884.75	888.74	-	909.18	905.95	900.24	895.44	892.66	894.08	894.02	889.80

Note.--Gage usually read between 0600 to 1115 hours.

12-1438. Rattlesnake Lake at Cedar Falls, Wash.--Continued

ELEVATION, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	889.60	883.18	882.50	896.14	908.90	909.04	908.62	906.04	906.22	910.02	907.96	906.98
2	889.42	883.16	882.50	896.80	909.18	908.98	908.56	905.90	906.46	910.00	907.90	906.96
3	889.20	883.00	882.52	897.56	909.40	908.90	908.48	905.82	906.62	909.94	907.86	906.94
4	889.04	882.84	882.48	898.20	909.56	908.82	908.40	905.68	906.86	909.90	907.82	906.90
5	888.90	882.64	882.46	898.64	909.70	908.74	908.42	905.62	907.16	909.82	907.76	906.86
6	888.64	882.50	882.40	899.18	909.80	908.74	908.32	905.56	907.38	909.73	907.72	906.82
7	888.42	882.44	882.64	899.62	909.88	908.68	908.26	905.48	907.66	909.66	907.70	906.74
8	888.22	882.52	882.64	900.02	909.90	908.62	908.16	905.42	907.98	909.58	907.66	906.72
9	888.02	882.58	882.86	900.46	909.90	908.54	908.08	905.36	908.30	909.54	907.62	906.66
10	887.80	882.68	883.20	900.76	909.80	908.56	908.00	905.34	908.52	909.49	907.54	906.56
11	887.60	882.68	883.50	901.08	909.84	908.58	907.90	905.28	908.82	909.46	907.50	906.50
12	887.36	882.70	883.88	901.30	909.82	908.62	907.80	905.26	909.06	909.38	907.48	906.38
13	887.10	882.74	884.35	901.50	909.84	908.64	907.68	905.26	909.22	909.26	907.52	906.26
14	886.90	882.80	884.82	901.78	909.84	908.64	907.58	905.22	909.36	909.16	907.50	906.12
15	886.66	882.76	885.38	901.98	909.82	908.66	907.56	905.20	909.50	909.12	907.50	905.94
16	886.40	882.68	885.92	902.20	909.80	908.70	907.56	905.16	909.64	909.06	907.46	905.80
17	886.16	882.66	886.54	902.60	909.78	908.78	907.52	905.12	909.82	908.94	907.40	905.80
18	885.92	882.50	887.28	903.00	909.82	908.92	907.46	905.08	910.08	908.88	907.36	905.64
19	885.66	882.46	888.02	903.30	909.88	909.02	907.36	905.02	910.34	908.80	907.38	905.50
20	885.40	882.44	888.90	903.38	909.88	900.14	907.20	905.00	910.52	908.70	907.34	905.42
21	885.20	882.38	889.64	904.10	909.88	909.22	907.08	905.06	910.56	908.66	907.30	905.28
22	885.14	882.36	890.34	904.40	909.84	909.20	907.06	905.14	910.54	908.58	907.26	905.18
23	884.94	882.34	891.14	904.60	909.76	909.24	906.92	905.28	910.50	908.50	907.22	905.06
24	884.74	882.24	891.82	904.90	909.70	909.12	906.80	905.38	910.42	908.46	907.08	904.94
25	884.58	882.12	892.50	905.60	909.60	909.08	906.66	905.50	910.36	908.44	907.06	904.82
26	884.40	882.10	893.08	906.48	909.46	909.02	906.54	905.62	910.26	908.38	907.04	904.60
27	884.18	882.06	893.70	907.16	909.34	908.98	906.44	905.72	910.22	908.30	907.02	904.38
28	884.06	882.16	894.26	907.62	909.24	908.88	906.32	905.82	910.10	908.22	907.06	904.12
29	883.90	882.28	894.76	908.00	909.14	908.72	906.24	905.86	910.14	908.12	907.02	903.84
30	883.60	882.46	895.20	908.30	------	908.68	906.12	906.06	910.08	908.06	907.08	903.60
31	883.42	------	895.62	908.56	------	908.62	------	906.08	------	908.02	907.02	------
MAX	889.60	883.18	895.62	908.56	909.90	909.24	908.62	906.08	910.56	910.02	907.96	906.98
MIN	883.42	882.06	882.40	896.14	908.90	908.54	906.12	905.00	906.22	908.02	907.02	903.60

Note.--Gage usually read between 0600 to 1115 hours.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	903.40	895.24	894.18	903.80	911.14	910.56	908.58	903.04	901.56	900.92	900.78	899.38
2	903.20	895.14	894.92	904.22	911.02	910.46	908.50	902.80	901.60	900.92	900.72	899.28
3	903.02	894.92	895.70	904.40	-	910.40	908.36	902.56	901.64	900.90	900.72	899.16
4	902.80	894.88	896.22	904.76	-	910.38	908.20	902.32	901.67	900.90	900.72	899.02
5	902.62	894.76	896.52	904.90	910.40	910.32	908.02	902.16	901.69	900.88	900.70	898.82
6	902.34	894.68	896.52	905.36	910.28	910.26	907.84	901.94	901.68	900.87	900.67	898.64
7	902.12	894.62	896.62	905.44	910.18	910.24	907.60	901.72	901.68	900.86	900.64	898.40
8	901.84	894.52	896.62	905.62	910.14	910.18	907.48	901.54	901.66	900.84	900.62	898.20
9	901.54	894.40	896.56	904.76	910.18	910.10	907.32	901.32	901.60	900.84	900.58	898.08
10	901.22	894.30	896.42	905.82	910.20	910.06	907.16	901.20	901.56	900.84	900.58	897.82
11	900.90	894.22	896.32	905.92	910.22	910.02	906.94	901.02	901.50	900.88	900.56	897.60
12	900.54	894.10	896.20	906.00	910.22	909.92	906.70	900.90	901.45	900.90	900.54	897.38
13	900.20	894.02	896.12	906.04	910.42	909.90	906.48	900.82	901.40	900.90	900.52	897.10
14	899.90	893.92	896.12	906.06	910.60	909.88	906.29	900.72	901.34	900.92	900.48	896.98
15	899.58	893.84	896.20	906.08	910.72	909.80	906.06	900.64	901.26	900.96	900.44	896.64
16	899.30	893.80	896.28	906.16	910.80	909.76	905.86	900.60	901.20	900.99	900.40	896.48
17	898.98	893.56	896.30	906.28	910.84	909.68	905.64	900.66	901.18	900.98	900.34	896.18
18	898.66	893.44	896.32	906.34	910.82	909.60	905.36	900.62	901.14	900.98	900.28	895.82
19	898.40	893.30	896.80	906.40	910.80	909.56	905.14	900.68	901.08	900.98	900.22	895.48
20	898.02	893.16	-	906.48	910.82	909.48	905.04	900.74	901.02	900.98	900.25	895.08
21	897.72	893.00	-	906.52	910.74	909.42	904.94	900.80	900.98	900.98	900.18	894.34
22	897.44	892.82	898.20	906.58	910.78	909.42	904.80	900.86	900.98	900.97	900.10	894.36
23	897.20	892.68	898.80	906.62	910.70	909.36	904.68	900.98	900.98	900.96	900.02	893.96
24	896.96	892.70	899.66	906.58	910.62	909.30	904.58	901.06	900.98	900.94	900.00	893.60
25	896.76	892.80	900.40	906.62	910.58	909.24	904.40	901.14	900.98	900.92	899.94	893.18
26	896.48	893.10	901.10	906.46	910.20	909.14	904.20	901.20	900.98	900.91	899.88	892.76
27	896.12	893.38	901.72	906.60	910.54	909.02	904.12	901.28	900.98	900.90	899.84	892.34
28	895.94	893.60	902.26	907.30	910.56	908.94	903.76	901.32	900.98	900.88	899.80	891.90
29	895.72	893.70	902.70	908.90	------	908.88	903.50	901.36	900.96	900.86	899.72	891.48
30	895.58	893.80	903.12	910.40	------	908.80	903.30	901.48	900.96	900.84	899.58	891.02
31	895.40	------	903.50	911.08	------	908.68	------	901.52	------	900.80	899.44	------
MAX	903.40	895.24	903.50	911.08	-	910.56	908.58	903.04	901.69	900.99	900.78	899.38
MIN	895.40	892.68	894.18	903.80	-	908.68	903.30	900.60	900.96	900.80	899.44	891.02

Note.--Gage usually read between 0600 to 1115 hours.

12-1440. South Fork Snoqualmie River at North Bend, Wash.

Location.--Lat 47°29'15", long 121°47'05", in SE¼ sec.9, T.23 N., R.8 E., on left bank a quarter of a mile south of North Bend and 2¼ miles upstream from mouth.

Drainage area.--81.7 sq mi.

Records available.--July 1907 to September 1926, February 1929 to September 1938, June 1945 to April 1950, October 1960 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 432.47 ft above mean sea level, datum of 1929. Prior to Apr. 11, 1950, staff gage or water-stage recorder at several sites within half a mile downstream from present site at various datums. Oct. 1, 1960, to Mar. 10, 1965, at datum 5.00 ft higher.

Average discharge.--37 years (1907-26, 1929-38, 1945-49, 1960-65), 547 cfs (396,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,200 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	0300	3,950	5.24	Nov. 20, 1962	0200	* 9,280	8.08	Nov. 24, 1964	1200	2,730	a 6.52
Feb. 21, 1961	1430	* 5,340	6.09	Jan. 3, 1963	0400	2,320	3.90	Dec. 1, 1964	1530	5,120	a 8.24
				Feb. 3, 1963	1230	4,330	5.38	Jan. 29, 1965	0600	* 6,980	a10.13
Dec. 24, 1961	1030	* 4,040	5.30					Apr. 20, 1965	0730	2,660	a 6.57
Jan. 3, 1962	1930	3,170	4.70	Nov. 26, 1963	2300	2,630	4.16				
Jan. 7, 1962	1430	2,330	4.04	Jan. 1, 1964	1800	* 3,080	4.51				
Apr. 6, 1962	2400	3,410	4.87	June 1, 1964	0230	2,200	3.80				

a Present datum.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 4, 5, 1960	a 80	-	1964	Oct. 10, 11, 1963	83	0.87
1962	Oct. 5, 1961	120	1.01	1965	Sept.13, 1965	101	3.51
1963	(b)	90	c .88				

a Minimum daily.
b Oct. 31, 1962, Sept. 30, 1963.
c Occurred Oct. 31, 1962.

1907-26, 1929-38, 1945-50, 1960-65: Maximum discharge recorded, 9,280 cfs Nov. 20, 1962 (gage height, 13.09 ft, present datum), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; maximum gage height, 15.2 ft, from high watermark, present datum, Oct. 25, 1934; minimum discharge, 63 cfs Oct. 22, 1925.

Flood of Nov. 22, 1959, reached a stage of 14.49 ft, present datum, from floodmarks (discharge, 13,000 cfs, slope-area measurement).

Remarks.--Records excellent except those for Oct. 1 to Dec. 20, 1960, and those for periods of no gage-height record, which are fair. City of North Bend diverts about 0.4 cfs daily from Clough Creek for municipal use. No regulation.

Revisions (water years).--WSP 1316: 1918(M), 1919(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	95	1,300	450	345	906	1,320	623	986	1,120	320	164	293
2	90	1,100	550	325	1,170	1,090	994	1,110	1,320	311	162	500
3	85	900	650	300	954	914	1,730	972	1,300	311	159	255
4	80	700	600	310	906	794	1,240	791	1,190	306	156	196
5	80	550	500	845	1,150	728	906	749	1,060	501	156	176
6	100	450	450	1,410	1,560	721	756	665	1,030	414	156	162
7	143	400	400	1,070	1,370	679	672	610	953	330	153	150
8	280	370	350	906	1,030	651	721	584	780	298	150	142
9	220	350	330	1,030	970	637	874	627	775	284	148	137
10	190	1,000	310	898	1,040	602	728	790	711	280	145	132
11	182	1,500	300	818	898	595	658	777	733	267	142	130
12	350	1,100	550	866	818	623	749	686	671	263	137	122
13	330	850	600	794	834	728	866	659	685	255	137	117
14	271	750	778	1,110	770	874	749	674	762	247	134	117
15	253	900	650	1,840	786	1,030	665	717	875	235	137	117
16	260	1,700	506	2,610	749	1,100	637	852	928	228	140	117
17	220	1,490	480	1,470	707	938	735	1,020	950	221	132	117
18	200	1,590	460	1,100	651	818	686	1,120	838	218	130	115
19	190	1,300	650	874	1,030	794	623	1,280	713	214	124	115
20	180	1,350	550	735	1,600	874	560	1,370	608	207	122	135
21	200	1,100	500	644	3,750	778	524	1,180	537	204	120	159
22	350	834	470	588	2,260	707	512	967	485	200	120	134
23	600	778	452	530	1,360	672	476	1,160	498	200	117	124
24	986	1,500	458	500	1,280	658	482	961	485	194	120	117
25	693	1,330	482	464	1,100	637	490	923	467	188	117	112
26	721	930	440	434	930	616	491	1,170	449	182	117	110
27	700	700	410	410	882	588	474	1,050	376	179	115	110
28	1,200	600	386	398	818	548	511	919	350	173	112	122
29	1,000	550	365	452	------	524	841	935	340	170	110	170
30	750	500	350	672	------	524	1,090	914	335	167	110	150
31	850	------	350	930	------	548	------	884	------	164	164	------
TOTAL	11,849	28,472	14,777	25,678	32,279	23,310	22,063	28,102	22,324	7,731	4,206	4,653
MEAN	382	949	477	828	1,153	752	735	907	744	249	136	155
MAX	1,200	1,700	778	2,610	3,750	1,320	1,730	1,370	1,320	501	164	500
MIN	80	350	300	300	651	524	474	584	335	164	110	110
CFSM	4.68	11.6	5.83	10.1	14.1	9.20	9.00	11.1	9.11	3.05	1.66	1.90
IN.	5.39	13.0	6.73	11.7	14.7	10.6	10.0	12.8	10.2	3.52	1.91	2.12
AC-FT	23,500	56,470	29,310	50,930	64,020	46,230	43,760	55,740	44,280	15,330	8,340	9,230

CAL YR 1960: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1961: TOTAL 225,444 MEAN 618 MAX 3,750 MIN 80 CFSM 7.56 IN 102.62 AC-FT 447,200

12-1440. South Fork Snoqualmie River at North Bend, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	148	589	449	808	596	235	398	678	492	381	167	156
2	140	537	414	864	713	232	431	778	629	461	176	153
3	130	485	431	2,650	935	228	398	778	657	376	188	148
4	124	431	647	1,800	860	232	437	727	582	365	218	145
5	138	365	830	1,240	713	235	537	629	576	370	460	142
6	207	330	596	1,280	596	239	1,470	576	556	550	335	137
7	284	306	511	1,960	524	243	2,050	524	576	473	293	137
8	243	288	437	1,780	473	255	1,020	530	692	431	293	134
9	289	284	386	1,310	431	255	755	589	699	408	259	132
10	853	628	345	988	420	243	622	636	650	386	232	159
11	524	741	311	808	398	235	537	588	556	360	214	251
12	600	556	293	713	376	228	498	544	589	330	210	200
13	988	455	280	622	365	224	563	524	530	311	210	182
14	570	467	267	570	437	224	755	511	530	284	194	191
15	398	414	263	518	420	224	875	492	629	275	188	173
16	325	365	275	479	376	235	685	492	734	271	182	170
17	280	330	355	473	350	239	596	544	657	263	185	162
18	251	306	325	425	350	243	671	544	589	251	191	153
19	232	293	424	381	340	247	808	504	563	239	194	148
20	218	267	875	355	320	263	713	455	556	239	185	145
21	200	263	822	350	306	259	650	455	556	239	191	142
22	200	903	636	355	325	259	657	485	544	239	182	140
23	370	706	1,260	350	306	267	720	550	537	235	173	137
24	386	524	3,140	355	275	424	838	615	563	228	167	132
25	350	425	1,480	437	263	608	720	643	550	224	162	130
26	398	376	980	582	251	511	602	657	563	218	164	127
27	479	355	762	671	247	461	785	692	461	204	173	132
28	467	376	808	636	243	398	706	755	408	197	191	214
29	386	420	1,230	576	------	360	602	657	420	194	185	340
30	335	408	1,290	563	------	345	550	550	425	188	170	280
31	325	------	950	576	------	355	------	518	------	176	162	------
TOTAL	10,838	13,193	22,072	25,475	12,209	9,006	21,649	18,220	17,069	9,366	6,494	4,992
MEAN	350	440	712	822	436	291	722	588	569	302	209	166
MAX	988	903	3,140	2,650	935	608	2,050	778	734	550	460	340
MIN	124	263	263	350	243	224	398	455	408	176	162	127
CFSM	4.28	5.38	8.71	10.1	5.34	3.56	8.83	7.19	6.96	3.70	2.56	2.04
IN.	4.93	6.01	10.0	11.6	5.56	4.10	9.85	8.29	7.77	4.26	2.96	2.27
AC-FT	21,500	26,170	43,780	50,530	24,220	17,860	42,940	36,140	33,860	18,580	12,880	9,900

CAL YR 1961: TOTAL 216,449 MEAN 593 MAX 3,750 MIN 110 CFSM 7.26 IN 98.53 AC-FT 429,300
WAT YR 1962: TOTAL 170,583 MEAN 467 MAX 3,140 MIN 124 CFSM 5.72 IN 77.65 AC-FT 338,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	214	170	611	1,340	252	806	432	540	400	282	163	122
2	194	164	578	1,990	330	706	390	566	395	260	156	125
3	235	162	514	1,910	2,640	611	395	520	380	239	149	122
4	228	164	460	1,240	1,590	546	692	454	340	231	143	116
5	197	218	611	950	1,590	502	806	514	496	214	140	108
6	207	235	1,340	798	1,160	466	1,050	644	432	210	140	111
7	251	210	942	713	1,050	438	910	604	380	210	137	111
8	572	298	966	657	942	410	727	546	355	235	134	108
9	1,050	311	974	644	814	390	624	508	380	250	134	108
10	958	437	846	578	706	380	559	478	355	250	134	108
11	636	589	748	490	624	375	526	466	370	270	131	108
12	524	596	664	472	559	360	508	449	375	250	134	106
13	443	467	604	490	508	345	502	427	345	235	134	116
14	386	392	664	466	490	340	585	438	330	230	137	134
15	398	350	910	454	454	320	755	484	330	270	128	137
16	360	330	998	444	460	305	592	484	325	250	125	134
17	320	320	798	416	444	292	514	508	296	230	119	128
18	311	306	692	390	526	287	502	650	274	220	122	119
19	306	2,400	644	370	846	330	490	762	252	210	163	113
20	288	4,790	604	360	1,070	345	484	814	231	200	180	103
21	298	1,540	604	340	762	340	454	854	226	190	177	98
22	306	990	664	330	630	395	478	783	222	214	153	103
23	275	755	572	315	559	390	526	671	214	210	149	106
24	243	671	520	305	508	365	490	592	207	196	153	106
25	228	1,040	478	296	502	355	454	514	243	191	146	100
26	218	1,460	449	287	1,100	355	454	472	226	180	140	98
27	214	998	449	274	886	390	438	432	210	173	134	95
28	197	783	678	269	734	478	416	466	203	166	128	93
29	188	664	769	243	------	520	478	502	305	163	122	93
30	178	699	1,790	207	------	526	572	496	320	160	122	90
31	146	------	1,670	247	------	478	------	466	------	160	122	------
TOTAL	10,569	22,509	23,811	18,285	22,736	13,146	16,803	17,104	9,417	6,749	4,349	3,319
MEAN	341	750	768	590	812	424	560	552	314	218	140	111
MAX	1,050	4,790	1,790	1,990	2,640	806	1,050	854	496	282	180	137
MIN	146	162	449	207	252	287	390	427	203	160	119	90
CFSM	4.17	9.18	9.40	7.22	9.94	5.19	6.86	6.75	3.84	2.66	1.72	1.35
IN.	4.81	10.2	10.8	8.32	10.3	5.98	7.65	7.79	4.29	3.07	1.98	1.51
AC-FT	20,960	44,650	47,230	36,270	45,100	26,070	33,330	33,930	18,680	13,390	8,630	6,580

CAL YR 1962: TOTAL 181,369 MEAN 497 MAX 4,790 MIN 127 CFSM 6.08 IN 82.56 AC-FT 359,700
WAT YR 1963: TOTAL 168,797 MEAN 462 MAX 4,790 MIN 90 CFSM 5.66 IN 76.84 AC-FT 334,800

12-1440. South Fork Snoqualmie River at North Bend, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	90	300	540	1,900	790	502	902	598	2,050	1,130	530	470
2	88	432	472	1,560	699	472	783	546	1,700	1,120	580	375
3	88	395	422	998	618	444	657	508	1,370	942	590	320
4	90	502	390	822	624	559	637	496	1,580	894	640	310
5	90	490	410	748	637	624	618	540	1,790	942	570	285
6	95	454	540	1,010	566	533	559	508	1,620	878	515	265
7	93	496	484	838	520	478	578	514	1,660	1,010	500	270
8	88	727	438	685	490	460	630	540	1,510	1,120	475	540
9	85	618	395	637	466	454	685	664	1,400	918	440	500
10	85	552	360	637	490	472	783	1,010	1,610	798	400	435
11	85	472	335	578	533	566	846	926	1,440	886	370	365
12	85	432	320	514	484	540	762	910	1,310	1,050	370	305
13	100	410	300	484	472	472	678	934	1,310	1,020	335	275
14	116	618	296	454	444	526	650	783	1,340	918	305	260
15	100	650	330	484	449	713	1,050	727	1,360	910	280	245
16	93	624	416	727	460	637	838	783	1,910	814	260	230
17	93	950	484	720	502	713	699	1,060	1,640	706	250	440
18	95	769	466	650	572	862	624	1,090	1,720	664	295	420
19	95	727	496	618	671	685	585	1,290	1,340	592	295	400
20	111	618	624	572	592	604	585	1,520	1,160	624	250	700
21	180	520	520	520	533	546	566	1,630	1,050	657	235	570
22	608	502	520	496	508	508	699	1,380	1,050	590	240	530
23	490	585	664	454	490	466	618	1,050	1,330	520	235	500
24	484	624	671	540	484	432	572	966	1,310	560	230	430
25	678	822	769	1,060	460	432	559	854	1,170	620	225	410
26	460	1,650	685	790	438	410	637	854	1,160	570	360	360
27	355	1,700	671	706	422	490	637	1,040	1,010	570	460	320
28	365	982	630	650	416	390	618	1,340	886	590	610	270
29	370	755	572	776	416	422	644	1,360	838	580	515	300
30	355	624	514	727	------	533	618	1,580	990	510	645	740
31	325	------	566	720	------	692	------	1,880	------	510	550	------
TOTAL	6,535	20,000	15,280	23,075	15,246	16,547	20,317	29,881	41,614	24,213	12,555	11,840
MEAN	211	667	493	744	526	534	677	964	1,387	781	405	395
MAX	678	1,700	769	1,900	790	862	1,050	1,880	2,050	1,130	645	740
MIN	85	300	296	454	416	390	559	496	838	510	225	230
CFSM	2.58	8.16	6.03	9.11	6.43	6.53	8.29	11.8	17.0	9.56	4.96	4.83
IN.	2.97	9.10	6.96	10.5	6.94	7.53	9.25	13.6	18.9	11.0	5.72	5.39
AC-FT	12,960	39,670	30,310	45,770	30,240	32,820	40,300	59,270	82,540	48,030	24,900	23,480

CAL YR 1963: TOTAL 153,723 MEAN 421 MAX 2,640 MIN 85 CFSM 5.15 IN 69.98 AC-FT 304,900
WAT YR 1964: TOTAL 237,103 MEAN 648 MAX 2,050 MIN 85 CFSM 7.93 IN 107.93 AC-FT 470,300

Note.--No gage-height record July 22 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	680	230	4,000	300	1,600	640	358	770	630	364	160	134
2	900	260	2,730	310	1,100	580	358	659	732	369	160	127
3	780	350	1,500	300	800	520	343	596	838	358	160	124
4	580	620	900	280	820	500	337	589	792	353	157	121
5	460	540	700	260	1,000	500	353	555	792	337	153	118
6	410	470	580	250	900	510	348	516	808	318	147	115
7	360	420	520	240	740	520	332	485	762	312	144	112
8	370	350	680	230	800	540	322	472	718	298	144	110
9	290	310	900	220	720	560	343	491	718	260	140	107
10	260	300	950	210	600	600	358	589	666	256	150	107
11	330	290	800	200	500	637	343	688	695	270	147	104
12	310	280	620	190	540	644	348	815	589	247	157	104
13	300	270	550	220	740	609	380	822	485	238	182	101
14	320	260	500	300	660	575	369	762	454	238	167	185
15	370	250	440	420	620	555	436	710	431	234	147	385
16	410	240	400	540	740	542	637	868	425	230	137	353
17	430	230	360	580	1,100	503	602	755	510	222	137	247
18	90	220	340	520	1,050	460	522	630	510	213	130	205
19	350	210	320	480	1,050	436	758	596	448	209	134	178
20	320	200	310	480	1,000	414	2,190	710	460	205	153	157
21	300	190	300	490	900	402	1,600	703	431	209	147	147
22	230	200	800	450	760	408	1,150	688	414	197	137	140
23	260	350	1,100	410	640	385	916	674	402	193	150	134
24	250	1,700	900	380	580	364	900	616	414	190	178	127
25	240	1,050	580	350	540	353	916	609	396	186	160	118
26	230	800	500	450	620	343	972	681	358	186	150	110
27	220	520	450	1,600	860	327	1,130	845	322	178	147	112
28	210	460	390	3,560	740	327	1,220	996	308	175	167	112
29	210	800	350	5,300	------	322	1,040	940	318	171	182	110
30	230	2,500	330	4,440	------	312	900	845	337	164	160	107
31	260	------	310	2,800	------	312	------	718	------	160	144	------
TOTAL	11,510	14,870	24,110	26,760	22,720	14,700	20,781	21,393	16,163	7,540	4,728	4,411
MEAN	371	496	778	863	811	474	693	690	539	243	153	147
MAX	900	2,500	4,000	5,300	1,600	644	2,190	996	838	369	182	385
MIN	210	190	300	190	500	312	322	472	308	160	130	101
CFSM	4.54	6.07	9.52	10.6	9.93	5.80	8.48	8.45	6.59	2.98	1.87	1.80
IN.	5.24	6.77	11.0	12.2	10.3	6.69	9.46	9.74	7.36	3.43	2.15	2.01
AC-FT	22,830	29,490	47,820	53,080	45,060	29,160	41,220	42,430	32,060	14,960	9,380	8,750

CAL YR 1964: TOTAL 245,778 MEAN 672 MAX 4,000 MIN 190 CFSM 8.22 IN 111.88 AC-FT 487,500
WAT YR 1965: TOTAL 189,696 MEAN 520 MAX 5,300 MIN 101 CFSM 6.36 IN 86.35 AC-FT 376,200

Note.--No gage-height record Oct. 1 to Nov. 23, Dec. 4 to Jan. 27, Feb. 1 to Mar. 10.

12-1445. Snoqualmie River near Snoqualmie, Wash.

Location.--Lat 47°32'45", long 121°50'35", in SW¼SW¼ sec.19, T.24 N., R.8 E., on left bank an eighth of a mile downstream from Snoqualmie Falls, half a mile upstream from Tokul Creek, and 1½ miles northwest of Snoqualmie.

Drainage area.--375 sq mi.

Records available.--May 1898 to July 1899; August to September 1899 (monthly discharge only); January to July 1900, September 1902 to July 1904; August to September 1904 (monthly discharge only); October 1904 to September 1905 and November to December 1906 (gage height only); August 1907 to May 1926 (monthly discharge only); June 1926 to September 1927; October 1927 to September 1932 (monthly discharge only); August 1958 to September 1965. Published as "near Snoqualmie Falls" 1904-6.

Gage.--Digital water-stage recorder. Altitude of gage is 120 ft (from river-profile map). Prior to Nov. 3, 1902, and Nov. 1 to Dec. 31, 1906, staff gages above and below Snoqualmie Falls at different datums. Nov. 3, 1902, to Sept. 30, 1905, staff gage at site 4 miles upstream and 300 ft downstream from South Fork at different datum. June 4, 1926, to Sept. 30, 1927, and Aug. 14, 1958, to Nov. 22, 1963, graphic water-stage recorder at present site and datum.

Average discharge.--35 years (1898-99, 1902-4, 1907-32, 1958-65), 2,533 cfs (1,834,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	26,600	14.55	Oct. 7, 1960	12	-0.39
1962	Jan. 7, 1962	18,800	12.99	Oct. 4, 5, 1961	22	a .08
1963	Nov. 20, 1962	43,200	17.35	Aug. 27, 1963	113	1.53
1964	Jan. 1, 1964	15,900	12.29	Oct. 10, 1963	170	1.97
1965	Jan. 29, 1965	35,800	16.16	July 24, 1965	81	1.19

a Occurred Oct. 5, 1961.

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Aug. 30, 1961	328	1964	Oct. 8, 1963	334
1962	Sept. 9, 1962	560	1965	Sept. 8, 1965	374
1963	Aug. 31, 1963	293			

1898-1900, 1902-4, 1926-27, 1958-65: Maximum discharge, 61,000 cfs Nov. 23, 1959 (gage height, 19.78 ft); minimum, 9.7 cfs Aug. 14, 27, 1958 (gage height, -0.53 ft); minimum daily, 88 cfs Aug. 8, 1960.

Remarks.--Records excellent. Medium and low flows affected by powerplant above station. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	575	7,280	2,050	1,460	4,480	6,070	2,860	4,820	5,020	1,250	588	1,880
2	519	4,940	2,210	1,400	5,970	4,940	5,350	5,990	6,230	1,360	583	3,670
3	520	3,800	2,520	1,200	4,390	3,780	9,410	4,860	6,290	1,530	584	1,710
4	515	2,860	2,620	1,220	4,390	3,040	6,280	3,740	5,630	1,280	615	1,090
5	486	1,500	2,130	5,040	6,730	2,710	4,270	3,480	4,960	2,550	595	873
6	496	2,070	1,900	7,850	8,900	2,610	3,370	2,980	4,810	2,490	550	794
7	822	1,770	1,720	5,050	7,070	2,530	2,850	2,710	4,580	1,910	530	670
8	1,630	1,700	1,630	4,160	4,800	2,410	2,960	2,620	3,520	1,520	512	644
9	1,590	1,570	1,560	4,580	4,420	2,400	4,040	2,880	3,400	1,510	496	524
10	1,250	3,420	1,410	4,040	4,870	2,240	3,250	3,850	3,080	1,490	466	541
11	1,010	8,800	1,380	3,820	3,910	2,280	2,840	3,730	3,060	1,370	480	487
12	2,380	4,400	3,850	3,960	3,480	2,390	3,410	3,070	2,830	1,420	480	482
13	2,150	3,120	3,550	3,400	3,430	2,980	5,040	2,920	2,870	1,420	472	448
14	1,580	2,950	5,300	5,230	3,250	4,300	4,090	3,160	3,240	1,400	464	470
15	1,360	3,130	3,520	11,600	3,460	5,430	3,200	3,360	4,140	1,310	458	442
16	1,260	9,640	2,560	14,600	3,340	5,370	2,980	3,980	4,580	1,120	560	448
17	1,300	8,000	2,270	6,890	3,040	4,140	3,940	4,760	4,840	983	470	434
18	1,040	9,180	2,760	5,000	2,730	3,540	3,310	5,210	4,420	941	490	416
19	898	6,090	4,780	3,850	4,620	3,540	2,810	5,890	3,760	930	426	422
20	848	7,170	3,300	3,120	9,610	4,100	2,530	6,390	2,900	874	429	758
21	868	5,130	2,630	2,740	20,000	3,260	2,350	5,590	2,430	924	464	938
22	2,220	3,960	2,290	2,510	10,900	2,840	2,260	4,420	2,220	853	404	674
23	3,800	3,780	2,280	2,270	6,130	2,880	2,070	5,430	2,320	872	403	552
24	6,990	6,990	2,300	2,070	5,670	2,920	2,100	4,440	2,270	820	398	514
25	3,960	7,270	2,270	1,940	4,820	2,710	2,120	3,970	2,250	759	403	505
26	3,970	6,350	2,160	1,770	3,980	2,550	2,100	5,330	2,280	705	388	453
27	4,520	3,380	1,920	1,610	3,610	2,520	2,050	5,290	1,770	722	379	442
28	6,970	2,750	1,720	1,570	3,250	2,240	2,170	4,380	1,410	718	376	524
29	4,900	2,420	1,510	2,120	------	2,130	3,920	4,280	1,370	662	354	1,020
30	3,280	2,150	1,520	4,570	------	2,200	5,390	4,120	1,490	609	328	847
31	4,120	------	1,450	5,390	------	2,390	------	3,860	------	610	814	------
TOTAL	67,827	137,570	75,070	126,030	155,250	99,440	105,320	131,510	103,970	36,912	14,959	23,672
MEAN	2,188	4,586	2,422	4,065	5,545	3,208	3,511	4,242	3,466	1,191	483	789
MAX	6,990	9,640	5,300	14,600	20,000	6,070	9,410	6,390	6,290	2,550	814	3,670
MIN	486	1,500	1,380	1,200	2,730	2,130	2,050	2,620	1,370	609	328	416
AC-FT	134,500	272,900	148,900	250,000	307,900	197,200	208,900	260,800	206,200	73,210	29,670	46,950

CAL YR 1960: TOTAL 891,726 MEAN 2,436 MAX 9,640 MIN 88 AC-FT 1,769,000
WAT YR 1961: TOTAL 1,077,530 MEAN 2,952 MAX 20,000 MIN 328 AC-FT 2,137,000

12-1445. Snoqualmie River near Snoqualmie, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	943	3,020	2,910	3,850	2,630	992	2,000	3,260	2,310	2,220	962	780
2	801	2,750	2,430	4,150	3,100	984	2,100	4,140	2,940	2,420	940	748
3	666	2,610	2,340	15,700	4,380	920	1,770	3,840	3,720	2,040	952	717
4	615	2,400	3,080	9,620	3,910	981	2,110	3,680	3,200	1,950	1,410	690
5	628	2,050	4,160	6,130	3,040	1,080	1,710	2,830	3,240	2,100	5,240	610
6	1,910	1,770	2,750	6,970	2,510	1,130	6,150	2,520	2,950	3,460	2,840	618
7	2,670	1,610	2,330	14,900	2,270	1,150	10,100	2,300	2,790	2,870	2,160	598
8	1,810	1,680	1,990	11,100	2,120	1,180	5,250	2,200	3,480	2,600	2,120	594
9	2,020	1,760	1,770	7,270	2,010	1,290	3,670	2,630	3,560	2,630	1,730	560
10	6,390	4,680	1,570	4,940	1,870	1,150	2,840	3,000	3,100	2,490	1,450	694
11	3,740	4,660	1,490	3,900	1,910	1,100	2,450	2,680	2,720	2,300	1,270	2,190
12	4,190	3,070	1,320	3,200	1,750	867	2,310	2,450	2,810	2,130	1,190	1,490
13	7,420	2,380	1,260	2,720	1,620	1,010	2,670	2,430	2,550	1,920	1,260	1,210
14	3,720	2,460	1,180	2,460	1,930	943	3,780	2,360	2,520	1,670	1,100	1,470
15	2,470	2,150	1,170	2,250	1,930	1,130	4,460	2,220	2,980	1,590	1,010	1,440
16	1,850	1,830	1,320	2,060	1,680	1,070	3,240	2,180	3,960	1,600	935	1,140
17	1,670	1,690	1,910	1,960	1,490	1,140	2,740	2,370	3,500	1,510	957	974
18	1,380	1,470	1,920	1,730	1,590	1,150	3,020	2,400	3,020	1,410	979	875
19	1,210	1,460	2,390	1,540	1,560	1,160	3,910	2,300	2,930	1,300	1,110	800
20	1,120	1,280	5,510	1,310	1,380	1,190	3,420	2,040	2,940	1,290	1,050	771
21	1,030	1,190	4,750	1,480	1,300	1,290	3,070	1,950	2,980	1,340	1,170	744
22	974	4,490	3,310	1,500	1,310	1,220	3,130	2,060	2,930	1,450	1,060	708
23	2,580	3,560	7,280	1,280	1,420	1,290	3,240	2,540	2,940	1,490	918	682
24	2,960	2,470	14,300	1,310	1,180	1,980	4,000	3,190	3,360	1,520	845	658
25	2,390	2,010	7,360	1,720	1,100	3,150	3,660	3,140	3,340	1,460	766	622
26	2,850	1,730	4,680	3,180	984	2,500	2,850	3,240	3,800	1,380	771	618
27	2,890	1,620	3,430	3,680	997	2,260	3,730	3,420	2,870	1,250	880	626
28	2,610	2,260	4,000	2,940	988	1,900	3,660	3,820	2,440	1,240	1,140	1,250
29	2,100	2,900	6,930	2,510	------	1,800	2,910	3,370	2,500	1,170	1,100	2,430
30	1,790	2,570	6,530	2,460	------	1,720	2,630	2,710	2,680	1,060	935	1,920
31	1,740	------	4,440	2,620	------	1,640	------	2,430	------	996	825	------
TOTAL	71,137	71,580	111,810	132,440	53,959	42,367	102,580	85,700	91,060	55,856	41,075	29,227
MEAN	2,295	2,386	3,607	4,272	1,927	1,367	3,419	2,765	3,035	1,802	1,325	974
MAX	7,420	4,680	14,300	15,700	4,380	3,150	10,100	4,140	3,960	3,460	5,240	2,430
MIN	615	1,190	1,170	1,280	984	867	1,710	1,950	2,310	996	766	560
AC-FT	141,100	142,000	221,800	262,700	107,000	84,030	203,500	170,000	180,600	110,800	81,470	57,970

CAL YR 1961: TOTAL 1,051,590 MEAN 2,881 MAX 20,000 MIN 328 AC-FT 2,086,000
WAT YR 1962: TOTAL 888,791 MEAN 2,435 MAX 15,700 MIN 560 AC-FT 1,763,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,310	790	3,010	6,370	1,440	3,460	2,050	2,680	2,070	2,070	918	559
2	1,070	748	2,810	9,120	1,270	2,900	1,780	2,650	2,040	1,850	845	572
3	1,320	717	2,570	9,500	16,000	2,500	1,690	2,450	2,070	1,650	776	554
4	1,370	730	2,270	5,520	9,050	2,190	4,310	2,130	1,740	1,500	740	505
5	1,140	1,120	3,450	3,970	9,050	2,010	4,360	2,590	2,690	1,460	722	511
6	1,110	1,360	8,360	3,080	5,710	1,830	5,410	3,500	2,470	1,260	690	508
7	1,260	1,150	4,980	2,640	5,050	1,700	4,420	2,980	2,040	1,260	674	502
8	3,140	1,640	4,880	2,450	4,240	1,610	3,430	2,650	1,910	1,490	646	468
9	5,950	1,770	4,720	2,610	3,680	1,520	2,780	2,340	2,450	1,580	626	441
10	4,820	2,380	4,080	2,190	2,930	1,450	2,450	2,140	2,340	1,610	622	461
11	3,020	3,640	3,780	1,770	2,500	1,440	2,270	2,050	2,290	1,820	610	456
12	2,480	3,300	3,160	1,740	2,310	1,390	2,160	2,030	2,510	1,610	618	441
13	2,150	2,510	2,750	1,770	1,970	1,290	2,110	1,920	2,380	1,420	646	485
14	1,930	2,100	3,420	1,720	1,920	1,250	2,660	1,890	2,170	1,360	654	1,110
15	1,910	1,920	6,020	1,640	1,780	1,220	3,680	2,140	2,170	1,530	602	1,010
16	1,750	1,790	5,530	1,660	1,850	1,140	2,690	2,270	2,290	1,480	556	860
17	1,550	1,640	3,900	1,550	1,840	1,090	2,250	2,240	2,110	1,240	532	1,050
18	1,470	1,570	3,010	1,430	2,370	1,060	2,190	2,890	1,870	1,140	524	746
19	1,540	11,400	2,700	1,320	4,240	1,290	2,180	3,780	1,730	1,180	762	648
20	1,420	27,700	2,550	1,220	5,500	1,780	2,110	4,060	1,570	1,020	842	592
21	1,550	7,790	2,490	1,210	3,500	1,780	2,000	4,280	1,530	1,000	820	542
22	1,880	4,720	2,740	1,160	2,680	2,360	2,020	4,090	1,610	1,190	724	532
23	1,630	3,400	2,270	1,030	2,310	2,020	2,560	3,200	1,480	1,380	714	556
24	1,340	2,840	1,990	1,050	2,030	1,810	2,280	2,740	1,410	1,100	875	696
25	1,210	5,310	1,810	1,070	1,920	1,660	2,030	2,370	2,190	1,170	830	560
26	1,140	8,800	1,670	969	7,380	1,690	2,030	2,210	1,830	1,050	780	529
27	1,090	5,170	1,590	935	4,150	1,890	2,010	1,980	1,490	979	669	480
28	1,010	3,740	2,570	956	3,070	2,460	1,860	2,130	1,330	860	603	498
29	935	2,920	3,610	808	------	2,640	2,170	2,410	2,610	870	558	472
30	886	3,280	10,000	694	------	2,560	2,770	2,510	2,540	840	574	472
31	805	------	8,950	964	------	2,350	------	2,380	------	835	293	------
TOTAL	55,186	117,945	117,640	74,116	111,740	57,340	78,710	81,680	60,930	40,804	21,045	17,816
MEAN	1,780	3,932	3,795	2,391	3,991	1,850	2,624	2,635	2,031	1,316	679	594
MAX	5,950	27,700	10,000	9,500	16,000	3,460	5,410	4,280	2,690	2,070	918	1,110
MIN	805	717	1,590	694	1,270	1,060	1,690	1,890	1,330	835	293	441
AC-FT	109,500	233,900	233,300	147,000	221,600	113,700	156,100	162,000	120,900	80,930	41,740	35,340

CAL YR 1962: TOTAL 925,035 MEAN 2,534 MAX 27,700 MIN 560 AC-FT 1,835,000
WAT YR 1963: TOTAL 834,952 MEAN 2,288 MAX 27,700 MIN 293 AC-FT 1,656,000

12-1445. Snoqualmie River near Snoqualmie, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	457	1,580	2,420	9,970	4,150	1,950	4,700	2,390	10,100	5,350	2,590	2,240
2	444	2,350	2,130	8,190	3,390	1,800	3,750	2,190	8,520	5,520	3,550	2,110
3	422	2,100	1,920	4,800	2,720	1,710	2,880	2,030	6,480	4,460	3,220	2,100
4	446	2,490	1,750	3,810	2,700	2,500	2,650	1,910	7,510	4,110	4,050	1,780
5	441	2,660	2,050	3,170	2,970	2,810	2,620	2,250	9,330	4,450	2,950	1,590
6	500	2,340	3,050	4,330	2,480	2,380	2,350	2,070	8,220	4,180	2,560	1,450
7	474	2,610	2,580	3,720	2,190	2,040	2,410	2,030	8,470	4,920	2,450	1,370
8	334	4,680	2,200	2,860	2,000	1,870	2,660	2,100	8,110	6,060	2,250	2,650
9	506	3,440	1,950	2,640	1,830	1,910	2,810	2,630	7,340	4,950	2,060	2,300
10	403	2,860	1,740	2,670	1,920	1,960	3,520	4,630	8,180	4,100	1,970	1,790
11	367	2,470	1,620	2,600	2,280	2,400	3,780	4,130	7,050	4,560	1,860	1,550
12	398	2,270	1,500	2,230	1,590	2,360	3,240	4,010	6,320	5,680	1,930	1,360
13	433	2,440	1,410	2,060	1,830	1,970	2,810	4,400	6,210	5,530	1,820	1,260
14	742	4,140	1,320	1,960	1,780	2,110	2,580	3,470	6,370	4,960	1,730	1,180
15	636	3,780	1,560	2,000	1,720	4,220	5,430	3,040	6,540	5,220	1,530	1,120
16	477	3,200	2,650	4,500	1,810	3,140	3,940	3,420	9,360	4,940	1,420	1,080
17	491	4,780	3,330	4,100	2,050	3,470	2,980	4,940	8,260	3,920	1,380	2,070
18	517	3,860	3,260	3,350	2,690	4,170	2,560	5,030	8,870	3,460	1,480	2,050
19	512	3,430	3,440	2,900	3,470	3,030	2,360	5,870	7,080	2,870	1,770	1,660
20	550	2,900	4,270	2,840	2,610	2,510	2,360	7,180	5,830	3,040	1,500	4,910
21	1,280	2,400	3,230	2,430	2,240	2,220	2,240	8,770	4,870	3,520	1,290	3,090
22	5,090	2,400	2,860	2,170	2,070	2,020	2,940	6,670	4,650	3,120	1,290	2,770
23	3,620	3,180	4,660	1,980	1,930	1,850	2,580	4,910	6,210	2,550	1,300	2,440
24	3,400	3,600	3,830	2,190	1,940	1,680	2,340	4,390	6,290	2,580	1,310	2,050
25	4,100	5,000	4,030	7,100	1,770	1,620	2,250	3,880	5,490	2,810	1,240	1,910
26	2,650	9,900	3,170	4,490	1,690	1,630	2,630	3,760	5,420	2,860	1,980	1,720
27	2,040	10,000	3,160	3,600	1,570	1,590	2,620	4,790	4,670	2,740	2,680	1,520
28	2,120	5,110	2,920	3,380	1,550	1,580	2,550	6,390	4,010	2,870	4,690	1,360
29	2,400	3,670	2,560	3,940	1,550	1,710	2,660	6,060	3,570	2,950	3,420	1,300
30	2,120	2,850	2,270	3,860	------	2,330	2,560	7,380	4,430	2,720	4,020	3,950
31	1,780	------	2,860	3,510	------	3,450	------	9,090	------	2,650	2,860	------
TOTAL	40,150	108,490	81,700	113,350	64,890	71,990	87,760	135,810	203,760	123,650	70,150	59,730
MEAN	1,295	3,616	2,635	3,656	2,238	2,322	2,925	4,381	6,792	3,989	2,263	1,991
MAX	5,090	10,000	4,660	9,970	4,150	4,220	5,430	9,090	10,100	6,060	4,690	4,910
MIN	334	1,580	1,320	1,960	1,550	1,580	2,240	1,910	3,570	2,550	1,240	1,080
AC-FT	79,640	215,200	162,000	224,800	128,700	142,800	174,100	269,400	404,200	245,300	139,100	118,500

CAL YR 1963: TOTAL 774,521 MEAN 2,122 MAX 16,000 MIN 293 AC-FT 1,536,000
WAT YR 1964: TOTAL 1,161,430 MEAN 3,173 MAX 10,100 MIN 334 AC-FT 2,304,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,250	1,340	21,000	1,700	7,200	2,850	1,690	3,370	2,800	2,150	843	666
2	5,940	1,550	17,700	1,900	4,960	2,530	1,660	2,770	3,480	2,320	813	629
3	5,020	1,630	8,060	1,900	3,950	2,330	1,480	2,430	4,210	2,280	772	605
4	2,980	4,180	5,020	1,600	4,060	2,240	1,430	2,500	4,130	2,220	726	581
5	2,290	3,370	3,760	1,550	6,390	2,170	1,510	2,410	4,160	2,180	674	542
6	1,920	2,340	2,970	1,460	5,720	2,170	1,450	2,200	4,270	2,030	648	524
7	1,670	2,000	2,560	1,370	4,160	2,240	1,350	2,030	4,010	2,030	626	482
8	1,880	1,750	3,540	1,370	4,340	2,310	1,290	2,020	3,770	1,860	620	374
9	2,270	1,590	5,160	1,310	3,780	2,360	1,420	2,100	3,880	1,530	620	416
10	2,150	1,530	4,950	1,240	3,070	2,590	1,580	2,610	3,490	1,390	657	461
11	1,800	1,460	3,700	1,190	2,670	2,800	1,460	3,110	3,770	1,470	692	453
12	1,600	1,360	2,890	1,140	2,500	2,770	1,410	3,890	3,130	1,270	733	450
13	1,450	1,440	2,660	1,130	4,830	2,530	1,570	3,950	2,350	1,300	1,220	462
14	1,590	1,320	2,400	1,350	4,300	2,330	1,570	3,550	2,110	1,380	1,110	2,160
15	2,230	1,220	2,190	2,380	3,570	2,220	1,950	3,210	2,000	1,400	788	5,510
16	2,490	1,150	1,700	4,260	4,160	2,130	3,080	4,830	1,930	1,340	691	3,760
17	2,630	1,130	1,500	4,320	6,000	1,940	2,890	3,970	2,520	1,270	630	2,130
18	2,210	1,130	1,760	3,790	5,250	1,750	2,340	3,020	2,670	1,190	597	1,400
19	1,950	1,080	1,550	3,840	5,280	1,620	3,520	2,710	2,350	1,100	601	1,120
20	1,810	1,020	1,550	3,980	5,210	1,530	11,900	3,540	2,440	1,020	810	1,030
21	1,630	995	1,550	4,180	4,070	1,460	8,250	3,390	2,200	1,120	826	776
22	1,480	974	5,000	3,310	3,520	1,670	5,500	3,190	2,120	970	680	842
23	1,330	1,460	7,000	2,750	2,890	1,520	4,170	3,110	2,100	941	796	694
24	1,250	8,940	4,200	2,500	2,570	1,370	4,340	2,830	2,160	989	1,310	710
25	1,230	5,630	3,000	2,200	2,360	1,310	4,400	2,640	2,090	1,030	1,050	582
26	1,140	4,370	2,900	2,290	2,620	1,230	4,570	2,990	1,780	1,040	1,040	597
27	1,060	3,240	2,800	8,070	4,740	1,210	5,490	4,110	1,580	995	1,130	591
28	991	2,550	2,400	16,300	3,640	1,220	6,130	5,170	1,490	935	990	596
29	961	2,830	2,100	28,600	------	1,250	4,920	4,790	1,600	872	1,010	563
30	1,180	14,300	1,900	22,500	------	1,210	4,050	4,180	1,800	857	851	578
31	1,750	------	1,750	15,500	------	1,250	------	3,400	------	849	733	------
TOTAL	64,132	78,879	131,220	150,980	117,810	60,110	98,370	100,020	82,390	43,328	25,287	30,284
MEAN	2,069	2,629	4,233	4,870	4,208	1,939	3,279	3,226	2,746	1,398	816	1,009
MAX	5,940	14,300	21,000	28,600	7,200	2,850	11,900	5,170	4,270	2,320	1,310	5,510
MIN	961	974	1,500	1,130	2,360	1,210	1,290	2,020	1,490	849	597	374
AC-FT	127,200	156,500	260,300	299,500	233,700	119,200	195,100	198,400	163,400	85,940	50,160	60,070

CAL YR 1964: TOTAL 1,205,321 MEAN 3,293 MAX 21,000 MIN 961 AC-FT 2,391,000
WAT YR 1965: TOTAL 982,810 MEAN 2,693 MAX 28,600 MIN 374 AC-FT 1,949,000

12-1448. Beaver Creek near Snoqualmie, Wash.

Location.--Lat 47°37'55", long 121°45'00", in SW¼ sec.23, T.25 N., R.8 E., on left bank 2 miles upstream from mouth and 8 miles northeast of Snoqualmie.

Drainage area.--4.13 sq mi.

Records available.--August 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 950 ft (from topographic map).

Extremes.--Maximum discharge during period, 21 cfs Sept. 20 (gage height, 1.73 ft); minimum, 7.9 cfs Sept. 16 (gage height, 1.30 ft).
1964-65: Maximum discharge, 197 cfs Jan. 29, 1965 (gage height, 2.78 ft), from rating curve extended above 58 cfs; minimum, 6.1 cfs Sept. 23, 24, 29, 30, 1965 (gage height, 0.58 ft).

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, 1964

DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.	DAY	AUG.	SEPT.
1	-	11	7	-	9.1	13	-	8.8	19	-	12	25	10	13
2	-	11	8	-	12	14	-	8.6	20	-	20	26	11	12
3	-	10	9	-	10	15	-	8.3	21	10	18	27	12	12
4	-	9.6	10	-	9.6	16	-	8.1	22	10	16	28	15	11
5	-	9.3	11	-	9.3	17	-	14	23	10	14	29	13	11
6	-	9.1	12	-	9.1	18	-	11	24	10	13	30	12	12
												31	12	-
TOTAL													-	341.9
MEAN													-	11.4
MAX													-	20
MIN													-	8.1
CFSM													-	2.76
IN													-	3.08
AC-FT													-	678

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	10	45	23	57	33	22	21	14	11	7.6	7.0
2	12	11	51	26	47	32	21	21	14	10	7.9	7.0
3	12	12	38	25	41	31	21	20	14	10	7.9	7.0
4	11	15	31	24	40	30	20	20	14	10	7.6	7.0
5	11	19	26	24	42	30	20	21	13	10	7.6	6.7
6	11	16	25	25	43	29	20	20	14	9.8	7.6	6.7
7	10	15	23	23	42	28	20	20	13	9.8	7.6	6.7
8	12	14	24	23	42	28	19	19	13	9.8	7.6	6.7
9	12	13	26	23	41	27	20	19	13	9.6	7.6	6.5
10	12	13	24	22	38	27	20	19	13	9.8	8.3	6.5
11	12	12	23	22	37	26	19	18	13	9.8	8.1	6.7
12	12	12	22	20	35	26	19	18	13	9.6	8.6	6.5
13	11	13	21	21	47	26	19	17	13	9.3	8.1	6.7
14	12	13	21	22	48	25	19	16	13	9.1	7.6	8.3
15	12	13	21	22	46	24	18	16	13	8.8	7.4	11
16	12	12	20	22	51	24	19	17	13	8.8	7.4	8.3
17	12	12	19	22	49	24	19	16	13	8.8	7.4	7.6
18	11	12	19	21	45	24	18	16	13	8.8	7.2	7.2
19	11	11	19	21	41	23	21	16	13	8.8	7.6	7.0
20	11	11	18	21	38	23	23	16	13	9.1	8.3	6.7
21	11	11	19	23	37	23	24	16	12	9.6	7.4	6.5
22	10	12	28	23	37	24	22	15	12	8.8	7.2	6.5
23	10	19	33	23	35	23	22	16	12	8.8	8.3	6.3
24	9.8	21	29	24	34	22	22	15	12	8.6	7.9	7.2
25	10	21	26	23	34	22	22	15	11	8.3	7.6	6.7
26	9.6	22	26	25	35	22	20	14	11	8.3	7.6	6.5
27	9.6	21	26	32	40	22	20	14	11	8.1	7.4	6.5
28	9.4	19	25	62	37	22	20	14	11	8.1	7.4	6.5
29	9.3	20	24	164	------	22	20	14	11	8.1	7.2	6.3
30	9.6	33	23	114	------	21	21	15	11	7.9	7.2	6.3
31	10	------	22	78	------	21	------	15	------	7.9	7.0	------
TOTAL	338.3	458	797	1,043	1,159	784	610	529	379	283.2	237.2	209.1
MEAN	10.9	15.3	25.7	33.6	41.4	25.3	20.3	17.1	12.6	9.14	7.65	6.97
MAX	12	33	51	164	57	33	24	21	14	11	8.6	11
MIN	9.3	10	18	20	34	21	18	14	11	7.9	7.0	6.3
CFSM	2.64	3.70	6.22	8.14	10.0	6.13	4.92	4.14	3.05	2.21	1.85	1.69
IN	3.05	4.12	7.18	9.39	10.44	7.06	5.49	4.76	3.41	2.55	2.14	1.88
AC-FT	671	908	1,580	2,070	2,300	1,560	1,210	1,050	752	562	470	415

CAL YR 1964:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965:	TOTAL 6,826.8	MEAN 18.7	MAX 164	MIN 6.3	CFSM 4.53	IN 61.47	AC-FT 13,540

Note.--No gage-height record Oct. 21 to Nov. 24.

12-1455. Raging River near Fall City, Wash.

Location.--Lat 47°32'25", long 121°54'30" (revised), on west line of sec.27, T.24 N., R.7 E., on right bank at highway crossing, 2 miles southwest of Fall City and 2½ miles upstream from mouth.

Drainage area.--30.6 sq mi.

Records available.--July 1945 to September 1950. Annual maximums, water years 1951, 1953-63. December 1963 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 250 ft (from topographic map). Prior to Oct. 1, 1950, graphic water-stage recorder on left bank at present site and datum. August 1951 and January 1953 to February 1963, crest-stage gage only on left bank at present site and datum. Dec. 12, 1963, to May 21, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--6 years (1945-50, 1964-65), 157 cfs (113,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,300 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 24, 1960	-	* 2,300	5.65	Jan. 1, 1964	1800	2,020	5.00	Jan. 29, 1965	0400	* 2,040	4.89
				Jan. 25, 1964	0800	* 2,090	5.07				
Dec. 24, 1961	-	* 1,240	4.54								
				Nov. 24, 1964	1030	1,420	4.25				
Feb. 3, 1963	-	* 1,430	4.85	Dec. 1, 1964	2130	1,730	4.58				

Annual minimum discharge, water years 1964-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	July 29, 30, Aug. 24, 25, 1964	21	1.02	1965	Aug. 8, 1965	11	0.72

1945-51, 1953-65: Maximum discharge, 3,420 cfs Feb. 9, 1951 (gage height, 6.76 ft, from high watermark in well), from rating curve extended above 1,300 cfs on basis of contracted-opening measurement of peak flow.

1945-50, 1963-65: Minimum discharge, 8.8 cfs Sept. 9, 10, 1949.

Remarks.--Records good. Some small diversion for irrigation and domestic use above station. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			-	1,170	445	180	218	130	83	48	44	89
2			-	830	328	165	200	117	80	48	60	80
3			-	417	257	159	168	108	73	46	61	69
4			-	303	239	308	172	108	89	44	69	57
5			-	286	210	300	195	180	96	42	48	50
6			-	586	190	230	188	148	101	38	38	46
7			-	416	170	185	182	128	244	35	32	50
8			-	296	160	178	165	115	227	35	29	153
9			-	303	150	178	159	128	172	36	28	108
10			-	289	140	282	163	138	136	31	28	81
11			-	251	170	310	208	122	128	28	25	64
12			117	208	148	251	205	119	119	27	24	54
13			106	221	142	195	180	122	106	26	30	48
14			-	227	136	241	176	108	101	29	28	44
15			-	286	168	269	389	98	92	57	25	42
16			-	420	221	218	269	92	288	44	24	42
17			-	421	254	376	215	87	381	35	22	255
18			289	500	353	401	178	83	688	32	44	165
19			-	700	300	275	152	80	342	28	40	141
20			530	480	224	218	136	110	236	28	29	292
21			-	292	182	192	130	230	178	46	26	168
22			-	239	154	161	205	272	140	39	25	134
23			245	195	142	138	182	230	117	31	23	108
24			198	474	132	119	163	185	103	28	22	89
25			227	1,470	115	122	146	157	87	26	22	90
26			190	592	104	132	163	128	77	24	26	77
27			215	413	96	134	175	111	72	23	28	66
28			198	342	100	126	161	103	67	22	85	58
29			157	450	114	134	148	95	60	21	70	60
30			140	397	------	148	132	87	54	22	215	121
31		------	150	421	------	144	------	81	------	32	126	------
TOTAL			-	13,895	5,544	6,469	5,523	4,000	4,737	1,051	1,396	2,901
MEAN			-	448	191	209	184	129	158	33.9	45.0	96.7
MAX			-	1,470	445	401	389	272	688	57	215	292
MIN			-	195	96	119	130	80	54	21	22	42
CFSM			-	14.6	6.25	6.82	6.02	4.22	5.16	1.11	1.47	3.16
IN.			-	16.9	6.74	7.86	6.71	4.86	5.76	1.28	1.70	3.53
AC-FT			-	27,560	11,000	12,830	10,950	7,930	9,400	2,080	2,770	5,750

12-1455. Raging River near Fall City, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	100	57	1,410	130	413	202	83	135	51	17	12	13
2	174	100	1,120	192	300	168	80	117	45	16	12	13
3	163	132	510	165	233	140	70	103	40	16	14	13
4	117	328	331	138	272	120	63	114	38	16	14	13
5	92	221	248	144	413	108	60	131	38	16	14	13
6	77	161	192	159	369	100	56	127	37	15	13	12
7	67	150	157	140	320	92	58	112	34	15	12	12
8	78	128	188	148	475	87	61	98	32	15	12	12
9	86	119	227	134	353	81	63	89	32	16	12	12
10	86	110	266	126	269	74	74	79	31	33	20	12
11	68	126	208	115	215	69	61	71	34	46	17	12
12	60	119	178	104	272	66	52	59	34	25	22	12
13	57	150	161	108	728	62	60	53	30	21	21	13
14	69	134	157	132	515	58	63	51	28	19	16	34
15	96	119	146	195	430	57	55	51	28	18	14	48
16	104	106	115	310	417	57	74	87	26	17	13	40
17	92	103	100	257	405	50	80	76	25	16	12	26
18	78	96	100	224	310	44	72	62	24	16	12	21
19	66	90	93	218	275	42	235	57	23	15	14	20
20	58	87	86	233	239	41	443	79	22	16	42	18
21	53	86	124	314	208	42	357	67	22	19	21	16
22	50	93	670	257	195	64	242	56	21	18	16	16
23	46	195	580	248	168	48	187	65	19	15	20	15
24	44	993	342	260	150	41	176	60	19	15	25	14
25	53	586	248	212	140	41	146	57	19	14	19	14
26	44	586	369	413	207	41	127	54	19	14	19	14
27	42	365	345	1,030	365	39	110	52	19	13	18	14
28	39	257	251	1,460	257	50	126	48	18	13	18	14
29	38	364	198	1,630	------	101	110	46	18	13	16	14
30	55	1,200	190	1,330	------	74	112	67	18	13	14	14
31	54	------	140	742	------	64	------	53	------	12	14	------
TOTAL	2,306	7,361	9,450	11,268	8,913	2,323	3,556	2,376	844	543	518	514
MEAN	74.4	245	305	363	318	74.9	119	76.6	28.1	17.5	16.7	17.1
MAX	174	1,200	1,410	1,630	728	202	443	135	51	46	42	48
MIN	38	57	86	104	140	39	52	46	18	12	12	12
CFSM	2.43	8.07	9.96	11.9	10.4	2.45	3.87	2.50	.92	.57	.55	.56
IN.	2.80	8.95	11.5	13.7	10.8	2.82	4.32	2.89	1.03	.66	.63	.62
AC-FT	4,570	14,600	18,740	22,350	17,680	4,610	7,050	4,710	1,670	1,080	1,030	1,020

CAL YR 1964: TOTAL 64,633 MEAN 177 MAX 1,470 MIN 21 CFSM 5.77 IN 78.55 AC-FT 128,200
WAT YR 1965: TOTAL 49,972 MEAN 137 MAX 1,630 MIN 12 CFSM 4.47 IN 60.73 AC-FT 99,120

12-1460. Patterson Creek near Fall City, Wash.

Location.--Lat 47°34'50", long 121°56'25", in SW¼NE¼ sec.8, T.24 N., R.7 E., 2 miles upstream from mouth and 2¾ miles northwest of Fall City.

Drainage area.--15.5 sq mi.

Records available.--February 1947 to October 1950, June 1955 to September 1965. Records for June to October 1945 at site 1¼ miles downstream not equivalent owing to intervening drainage area.

Gage.--Water-stage recorder. Altitude of gage is 70 ft (from topographic map). Prior to June 1955, at different datum.

Average discharge.--13 years, 32.7 cfs (23,670 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (130 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1960	0800	174	4.61	Feb. 4, 1963	2100	* 164	4.47	Nov. 24, 1964	1030	144	4.37
Nov. 24, 1960	1130	* 216	5.22					Dec. 1, 1964	1500	178	4.86
Jan. 15, 1961	2100	140	4.17	Jan. 1, 1964	1900	* 180	4.78	Dec. 22, 1964	1730	176	4.78
Feb. 21, 1961	1500	131	4.06	Jan. 19, 1964	1730	134	4.05	Jan. 30, 1965	1300	* 227	5.37
Feb. 24, 1961	1530	179	4.68	Jan. 25, 1964	0930	165	4.48	Feb. 5, 1965	2000	153	4.31
Dec. 17, 1961	1000	* 190	4.84	June 18, 1964	0230	144	4.20				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 29, 30, 1961	8.3	a 1.48	1963	Sept.30, 1963	7.6	b 1.29
1962	July 29, 30, Aug. 2, 3, 1962	7.6	1.52	1964	Oct. 1, 1963	7.7	c 1.31
				1965	Oct. 29, 1964	9.8	d 1.14

a Occurred Oct. 6, 1960.
b Occurred Aug. 16, 17, 18, 1963.
c Occurred July 28, 29, 1964.
d Occurred July 28, 1965.

1947-50, 1955-65: Maximum discharge, 480 cfs Feb. 17, 1949 (gage height, 4.81 ft, datum then in use), from rating curve extended above 130 cfs; maximum gage height, 6.46 ft Dec. 15, 1959; minimum discharge, 6.4 cfs July 22, 1956, July 26, 1958; minimum gage height, 1.12 ft July 22, 1956.

Remarks.--Records good except for those over 150 cfs, which are fair. Many small diversions for irrigation and domestic use. No regulation.

Revisions.--WSP 1446: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.6	25	41	26	66	87	34	42	20	11	9.1	13
2	9.1	27	41	25	78	73	45	49	19	11	8.7	13
3	8.7	26	39	24	69	64	57	44	18	10	8.7	11
4	8.7	20	40	27	66	54	51	46	17	9.8	8.9	9.8
5	8.7	17	35	64	63	50	44	66	16	26	8.9	11
6	10	15	29	76	120	54	40	58	19	16	8.9	11
7	19	14	28	76	116	47	36	48	20	13	8.9	9.8
8	20	13	27	85	93	43	37	43	17	11	8.7	9.6
9	13	15	26	86	77	42	37	44	17	11	8.9	9.4
10	11	46	25	78	63	39	33	48	16	11	8.9	9.4
11	13	50	28	71	53	45	31	47	16	11	8.7	9.4
12	27	34	45	66	47	56	45	42	15	9.8	8.7	9.4
13	16	34	40	60	71	64	69	39	15	9.6	8.7	9.1
14	12	40	51	54	70	79	56	38	14	9.6	8.7	9.1
15	11	39	45	98	93	85	45	36	14	9.6	8.7	9.1
16	13	64	39	124	97	76	41	34	13	9.6	9.1	9.4
17	11	87	37	112	98	61	38	31	13	9.6	8.9	9.6
18	9.8	90	54	94	81	49	35	29	13	9.6	8.9	9.6
19	9.4	76	69	75	81	43	36	28	13	9.4	9.4	9.6
20	10	154	52	57	75	45	34	26	13	9.1	8.9	15
21	11	146	43	45	106	38	35	26	13	9.4	8.9	13
22	16	135	38	40	102	37	33	26	13	9.4	8.7	13
23	30	164	35	35	77	42	32	31	12	9.4	8.7	12
24	36	202	32	33	128	40	31	27	12	9.4	8.7	12
25	21	198	32	30	157	37	31	24	12	9.1	8.7	12
26	35	156	34	28	128	41	30	24	11	9.1	8.7	12
27	26	104	32	27	102	40	29	31	11	8.9	8.7	12
28	22	73	29	26	83	36	29	26	11	9.1	8.7	13
29	21	54	28	40	------	34	38	24	11	9.1	8.5	14
30	19	45	27	63	------	32	39	22	11	9.1	8.5	14
31	22	------	27	67	------	31	------	21	------	8.9	10	------
TOTAL	509.0	2,163	1,148	1,812	2,460	1,564	1,171	1,120	435	327.6	274.1	333.3
MEAN	16.4	72.1	37.0	58.5	87.9	50.5	39.0	36.1	14.5	10.6	8.84	11.1
MAX	36	202	69	124	157	87	69	66	20	26	10	15
MIN	8.7	13	25	24	47	31	29	21	11	8.9	8.5	9.1
CFSM	1.06	4.65	2.39	3.77	5.67	3.25	2.52	2.33	.94	.68	.57	.72
IN.	1.22	5.19	2.75	4.35	5.90	3.75	2.81	2.69	1.04	.79	.66	.80
AC-FT	1,010	4,290	2,280	3,590	4,880	3,100	2,320	2,220	863	650	544	661

CAL YR 1960: TOTAL 11,461.2 MEAN 31.3 MAX 202 MIN 8.5 CFSM 2.02 IN 27.50 AC-FT 22,730
WAT YR 1961: TOTAL 13,317.0 MEAN 36.5 MAX 202 MIN 8.5 CFSM 2.35 IN 31.95 AC-FT 26,410

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1460. Patterson Creek near Fall City, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	17	28	27	21	21	26	18	14	8.8	7.8	9.2
2	13	17	24	36	20	21	24	18	16	9.5	7.6	9.2
3	13	20	27	93	20	21	23	21	16	8.8	8.2	9.2
4	13	17	31	81	20	33	26	19	16	9.2	10	9.2
5	17	16	30	80	20	43	26	17	17	10	11	9.2
6	22	15	26	106	19	44	29	17	15	14	11	9.2
7	19	15	31	109	19	39	27	17	13	11	11	8.8
8	15	15	30	97	19	37	25	17	12	9.5	9.8	8.8
9	15	16	26	76	20	48	23	23	12	9.0	9.5	9.0
10	21	31	24	55	23	44	22	20	12	8.8	9.2	12
11	19	25	22	43	23	40	20	18	11	8.5	9.0	14
12	18	19	22	37	22	36	20	17	11	8.2	8.8	11
13	16	16	24	35	22	33	19	16	12	8.2	8.8	11
14	14	16	26	34	29	32	18	15	12	8.2	8.5	13
15	13	15	30	33	28	29	18	15	11	8.2	8.5	12
16	13	14	46	30	26	27	17	14	10	8.2	8.5	11
17	13	14	161	32	24	26	16	14	9.8	8.2	8.8	11
18	12	15	122	30	24	24	15	13	9.8	8.2	8.8	9.8
19	12	15	110	28	22	24	15	14	9.5	8.0	8.8	9.8
20	12	15	99	24	22	27	15	14	9.0	8.2	8.8	9.8
21	12	15	94	22	21	30	15	13	8.8	8.2	8.8	9.8
22	12	52	70	22	21	33	14	13	8.5	8.2	8.8	10
23	22	40	61	21	24	34	14	23	8.5	8.0	9.0	9.8
24	21	26	67	22	23	44	15	28	8.5	8.0	9.0	10
25	18	22	56	25	22	67	14	31	8.8	8.0	8.8	9.8
26	27	20	46	25	20	56	14	25	10	8.0	9.2	9.8
27	22	21	39	24	20	47	27	23	10	7.8	9.2	11
28	20	23	37	24	20	39	22	19	9.8	7.8	10	19
29	18	27	36	22	------	34	19	17	9.0	7.6	9.5	15
30	17	26	33	22	------	31	17	16	8.5	7.8	9.5	12
31	16	------	29	21	------	28	------	14	------	7.8	9.2	------
TOTAL	509	615	1,507	1,336	614	1,092	595	559	338.5	267.9	283.4	322.4
MEAN	16.4	20.5	48.6	43.1	21.9	35.2	19.8	18.0	11.3	8.64	9.14	10.7
MAX	27	52	161	109	29	67	29	31	17	14	11	19
MIN	12	14	22	21	19	21	14	13	8.5	7.6	7.6	6.8
CFSM	1.06	1.32	3.14	2.78	1.41	2.27	1.28	1.16	.73	.56	.59	.69
IN.	1.22	1.48	3.62	3.21	1.47	2.62	1.43	1.34	.81	.64	.68	.77
AC-FT	1,010	1,220	2,990	2,650	1,220	2,170	1,180	1,110	671	531	562	639

CAL YR 1961: TOTAL 12,128.0 MEAN 33.2 MAX 161 MIN 8.5 CFSM 2.14 IN 29.10 AC-FT 24,060
WAT YR 1962: TOTAL 8,039.2 MEAN 22.0 MAX 161 MIN 7.6 CFSM 1.42 IN 19.29 AC-FT 15,950

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11	11	95	79	25	39	50	20	11	11	9.3	8.5
2	11	10	90	76	44	44	39	21	12	11	8.9	8.5
3	11	10	67	75	114	36	35	21	12	9.9	8.7	8.3
4	11	12	49	62	126	33	48	19	13	9.7	8.5	8.1
5	11	17	40	49	141	30	46	25	23	9.5	8.5	7.9
6	12	16	41	40	114	27	64	25	17	9.5	8.7	7.7
7	13	13	35	35	84	26	72	23	15	9.9	8.7	7.9
8	21	14	28	34	65	25	60	21	16	13	8.5	8.1
9	34	15	25	39	49	23	49	20	20	12	8.7	8.1
10	24	25	20	34	42	23	40	19	18	11	8.7	7.9
11	17	29	19	27	36	21	35	18	14	11	8.5	8.3
12	13	25	17	23	33	21	32	17	13	10	8.5	8.1
13	13	25	20	22	31	20	30	17	13	9.7	8.5	8.3
14	13	22	25	23	29	20	33	16	11	9.7	8.5	8.3
15	13	19	68	25	28	20	33	15	11	11	8.1	8.3
16	11	18	71	27	30	20	29	15	11	11	8.1	8.5
17	11	19	58	25	28	20	27	14	9.9	9.5	8.1	8.3
18	11	18	44	24	31	20	28	13	9.7	9.3	8.3	8.9
19	11	22	35	21	34	20	31	13	9.7	9.1	8.9	8.3
20	11	36	30	20	34	19	30	12	9.7	9.3	8.7	8.7
21	10	34	30	19	29	19	27	11	10	9.5	8.5	8.3
22	11	24	30	19	27	19	26	11	11	13	8.3	8.1
23	10	23	26	18	25	19	25	11	12	11	8.9	8.9
24	10	26	23	19	24	19	24	11	11	11	9.5	8.7
25	10	88	21	18	30	18	23	11	12	11	9.3	8.3
26	11	94	18	17	45	19	22	11	11	9.7	9.5	8.3
27	11	71	18	17	37	20	21	11	11	9.5	8.5	8.1
28	11	46	23	16	34	27	20	11	11	9.3	8.3	7.9
29	10	38	35	14	------	54	21	9.9	13	9.1	8.1	7.9
30	10	86	93	13	------	54	21	9.9	12	9.1	8.3	7.9
31	10	------	89	18	------	62	------	10	------	9.1	8.3	------
TOTAL	397	906	1,283	948	1,369	837	1,041	481.8	383.0	317.4	266.9	247.4
MEAN	12.8	30.2	41.4	30.6	48.9	27.0	34.7	15.5	12.8	10.2	8.61	8.25
MAX	34	94	95	79	141	62	72	25	23	13	9.5	8.9
MIN	10	10	17	13	24	18	20	9.9	9.7	9.1	8.1	7.7
CFSM	.83	1.95	2.67	1.97	3.15	1.74	2.24	1.00	.82	.66	.56	.53
IN.	.95	2.17	3.08	2.27	3.28	2.01	2.50	1.16	.92	.76	.64	.59
AC-FT	787	1,800	2,540	1,880	2,720	1,660	2,060	956	760	630	529	491

CAL YR 1962: TOTAL 7,994.2 MEAN 21.9 MAX 109 MIN 7.6 CFSM 1.41 IN 19.18 AC-FT 15,860
WAT YR 1963: TOTAL 8,477.5 MEAN 23.2 MAX 141 MIN 7.7 CFSM 1.50 IN 20.34 AC-FT 16,810

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1460. Patterson Creek near Fall City, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7.7	13	31	129	76	48	32	22	14	16	10	13
2	7.9	21	27	149	66	44	36	21	14	16	11	12
3	7.9	15	24	122	56	40	29	20	14	16	16	11
4	8.1	15	22	85	50	44	30	21	18	15	19	10
5	8.3	14	30	65	45	48	36	29	21	14	12	10
6	8.3	26	66	67	40	66	34	25	22	16	11	10
7	8.3	34	54	61	37	62	31	23	62	14	10	11
8	8.1	43	53	51	35	54	29	21	39	13	9.8	14
9	7.9	26	54	61	33	56	28	22	29	13	9.5	12
10	8.3	31	47	54	33	56	29	23	27	12	9.3	11
11	8.1	23	38	45	45	60	32	21	25	11	9.3	10
12	8.1	29	32	39	37	54	30	21	23	11	9.1	10
13	10	35	28	41	42	48	28	21	20	11	10	10
14	9.7	74	29	44	39	46	27	20	21	12	9.8	10
15	8.5	60	46	50	46	43	32	18	20	17	9.5	13
16	8.3	46	60	76	49	39	34	18	39	15	9.3	11
17	8.5	45	72	95	46	61	30	17	63	13	9.5	43
18	12	34	68	99	48	70	28	17	123	12	13	20
19	9.5	67	66	101	42	60	26	16	104	11	12	18
20	13	65	78	109	38	51	25	19	85	11	10	30
21	17	48	70	84	35	46	25	19	59	12	10	20
22	40	43	64	70	33	42	39	23	40	12	10	14
23	18	65	59	58	33	38	33	20	31	11	9.8	13
24	18	67	55	71	34	34	29	20	28	11	9.5	12
25	21	69	60	142	30	33	28	18	23	10	9.8	12
26	14	72	51	127	28	32	27	17	21	10	11	11
27	12	74	47	107	27	33	25	16	20	9.8	12	10
28	22	60	42	82	30	30	24	15	19	9.5	20	10
29	19	46	37	87	37	29	23	14	18	9.5	15	10
30	14	41	34	78	------	27	22	14	17	9.8	17	18
31	12	------	37	78	------	27	------	14	------	10	15	------
TOTAL	383.5	1,301	1,481	2,527	1,190	1,421	881	605	1,059	383.6	358.2	419
MEAN	12.4	43.4	47.8	81.5	41.0	45.8	29.4	19.5	35.3	12.4	11.6	14.0
MAX	40	74	78	149	76	70	39	29	123	17	20	43
MIN	7.7	13	22	39	27	27	22	14	14	9.5	9.1	10
CFSM	.80	2.80	3.08	5.26	2.65	2.96	1.89	1.26	2.28	.80	.75	.90
IN.	.92	3.12	3.55	6.06	2.86	3.41	2.11	1.45	2.54	.92	.86	1.01
AC-FT	761	2,580	2,940	5,010	2,360	2,820	1,750	1,200	2,100	761	710	831

CAL YR 1963: TOTAL 9,057.0 MEAN 24.8 MAX 141 MIN 7.7 CFSM 1.60 IN 21.73 AC-FT 17,960
WAT YR 1964: TOTAL 12,009.3 MEAN 32.8 MAX 149 MIN 7.7 CFSM 2.12 IN 28.81 AC-FT 23,820

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	16	174	49	134	62	28	33	19	13	11	11
2	15	20	152	72	96	57	26	30	19	13	11	11
3	15	22	105	78	76	48	24	28	17	12	11	11
4	13	71	74	74	88	41	26	29	17	12	11	11
5	12	49	54	68	120	37	24	48	16	12	11	11
6	11	27	41	70	132	34	22	37	16	12	11	11
7	11	23	35	67	111	32	23	32	16	12	11	11
8	15	19	34	62	100	30	23	28	16	13	11	12
9	18	20	56	54	86	29	24	26	16	12	11	11
10	17	23	51	48	71	28	29	24	16	16	12	11
11	15	22	41	44	62	27	24	24	18	16	12	11
12	14	20	35	39	59	25	23	23	18	13	11	11
13	14	36	31	37	80	24	25	22	16	12	12	11
14	14	29	36	37	89	24	25	21	16	12	11	11
15	14	24	38	36	80	24	24	22	16	12	11	15
16	14	22	29	35	73	23	25	31	16	12	11	13
17	14	19	23	33	62	23	23	24	16	12	11	12
18	13	18	22	31	55	22	23	22	16	12	11	12
19	13	16	22	29	50	21	58	22	15	12	11	11
20	15	16	23	29	45	21	92	24	15	12	13	11
21	14	15	40	36	46	22	92	21	15	12	12	11
22	12	15	147	35	57	28	71	20	15	12	11	11
23	11	22	157	41	48	24	54	21	15	12	12	11
24	11	110	131	57	43	23	50	21	15	12	12	11
25	12	92	98	56	40	22	42	20	15	12	12	11
26	11	92	103	70	52	22	35	19	15	12	11	11
27	11	76	107	98	86	22	31	19	15	11	11	11
28	10	62	92	132	72	22	30	18	14	11	11	12
29	10	68	76	204	------	24	28	18	14	11	11	11
30	11	151	62	220	------	22	29	23	14	11	11	11
31	11	------	51	184	------	22	------	20	------	11	11	------
TOTAL	407	1,215	2,140	2,125	2,113	885	1,053	770	477	379	350	340
MEAN	13.1	40.5	69.0	68.5	75.5	28.5	35.1	24.8	15.9	12.2	11.3	11.3
MAX	18	151	174	220	134	62	92	48	19	16	13	15
MIN	10	15	22	29	40	21	22	18	14	11	11	11
CFSM	.85	2.61	4.45	4.42	4.87	1.84	2.26	1.60	1.03	.79	.73	.73
IN.	.98	2.92	5.13	5.10	5.07	2.12	2.53	1.85	1.14	.91	.84	.82
AC-FT	807	2,410	4,240	4,210	4,190	1,760	2,090	1,530	946	752	694	674

CAL YR 1964: TOTAL 12,605.8 MEAN 34.4 MAX 174 MIN 9.1 CFSM 2.22 IN 30.25 AC-FT 25,000
WAT YR 1965: TOTAL 12,254 MEAN 33.6 MAX 220 MIN 10 CFSM 2.17 IN 29.40 AC-FT 24,310

12-1470. Griffin Creek near Carnation, Wash.

Location.--Lat 47°37'00", long 121°54'15", in SW¼SW¼ sec.27, T.25 N., R.7 E., on left bank a quarter of a mile upstream from bridge on State Highway 203, three-quarters of a mile upstream from mouth, and 2 miles south of Carnation.

Drainage area.--17.1 sq mi.

Records available.--June 1945 to September 1965. Prior to October 1951, published as "near Tolt."

Gage.--Water-stage recorder. Altitude of gage is 120 ft (from topographic map). Prior to Sept. 21, 1951, at site 1,000 ft downstream at different datum.

Average discharge.--20 years, 42.3 cfs (30,620 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (220 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 25, 1960	0430	* 388	3.62	Nov. 26, 1962	1700	223	3.34	Jan. 26, 1964	0330	270	3.43
Apr. 13, 1961	1430	291	3.43	Dec. 1, 1962	1300	* 243	3.41				
				Dec. 31, 1962	0200	234	3.35	Dec. 2, 1964	0930	334	3.64
Dec. 17, 1961	2130	248	3.27					Dec. 23, 1964	1200	238	3.31
Jan. 7, 1962	2330	* 800	4.68	Jan. 2, 1964	0800	* 302	3.54	Jan. 29, 1965	1300	* 1,000	5.70

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28, 29, 1961	2.1	1.35	1964	Oct. 1-4, 1963	2.7	1.53
1962	July 27, 1962	2.7	a 1.42	1965	Aug. 16-18, 1965	2.7	b 1.74
1963	Sept.30, 1963	2.7	1.53				

a Occurred Oct. 4, 5, 1961.
b Occurred sometime Oct. 26-30, 1964.

1945-65: Maximum discharge, 1,000 cfs Jan. 29, 1965 (gage height, 5.70 ft), from rating curve extended above 95 cfs on basis of slope-area measurement of peak flow; minimum, 1.1 cfs Aug. 14, 15, 21, 23, 25, 26, 1958 (gage height, 1.28 ft).

Remarks.--Records good. Some small diversion for irrigation and domestic use. No regulation.

Revisions (water years).--WSP 1286: Drainage area. WSP 1736: 1959-60(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.3	38	54	35	82	140	50	49	22	6.2	3.4	11
2	4.8	41	47	33	96	130	63	67	20	5.3	3.1	11
3	3.6	42	46	33	94	117	94	77	18	5.1	2.9	6.2
4	3.1	38	48	33	94	103	112	74	17	5.6	2.9	4.8
5	3.1	35	43	56	98	94	100	105	16	18	3.1	5.6
6	3.9	31	39	92	166	94	84	107	19	18	2.9	4.6
7	8.0	28	38	105	173	90	72	91	25	11	2.9	4.1
8	11	26	36	102	132	86	69	78	19	8.3	2.7	3.6
9	7.7	23	34	107	110	84	78	71	17	6.8	2.7	3.4
10	6.8	42	33	97	92	77	77	71	17	5.6	2.7	3.1
11	8.6	66	33	86	82	78	74	74	18	5.3	2.7	2.9
12	19	63	42	82	74	82	100	70	16	5.1	2.7	2.9
13	16	57	45	77	85	92	270	64	14	4.8	2.7	2.7
14	13	61	64	71	94	108	212	59	13	6.8	2.7	2.7
15	11	71	69	81	117	119	138	55	11	5.1	2.9	2.9
16	9.9	98	63	90	149	114	105	48	11	4.3	3.4	3.1
17	9.1	162	57	91	168	98	84	42	9.9	4.3	3.4	2.9
18	8.3	155	65	90	153	86	70	36	8.7	4.1	3.1	2.9
19	8.3	123	84	79	151	77	70	31	8.0	3.9	2.9	2.9
20	7.7	178	82	67	149	74	63	27	7.7	3.6	2.7	6.3
21	11	166	70	59	149	65	55	24	8.0	3.6	2.7	4.8
22	14	132	61	51	157	60	48	24	7.4	3.9	2.7	4.3
23	22	151	55	45	128	59	43	35	6.8	4.3	2.6	3.9
24	31	267	49	41	151	57	42	29	6.2	3.9	2.9	3.6
25	31	330	49	38	202	54	38	24	6.2	3.9	2.7	3.4
26	38	205	47	34	166	56	36	22	6.8	3.6	2.7	3.1
27	37	132	44	32	155	60	33	34	6.8	3.4	2.7	3.1
28	40	96	39	30	149	57	32	29	6.2	3.6	2.6	3.1
29	38	75	36	41	------	52	38	28	7.4	3.6	2.4	4.1
30	36	63	35	63	------	50	41	26	7.7	3.4	2.6	3.9
31	36	------	35	82	------	48	------	24	------	3.4	5.4	------
TOTAL	501.2	2,995	1,542	2,023	3,616	2,561	2,391	1,595	376.8	177.8	90.5	126.9
MEAN	16.2	99.8	49.7	65.3	129	82.6	79.7	51.5	12.6	5.74	2.92	4.23
MAX	40	330	84	107	202	140	270	107	25	18	5.4	11
MIN	3.1	23	33	30	74	48	32	22	6.2	3.4	2.4	2.7
CFSM	.95	5.84	2.91	3.82	7.55	4.83	4.66	3.01	.73	.34	.17	.25
IN.	1.09	6.51	3.35	4.40	7.86	5.57	5.20	3.47	.82	.39	.20	.28
AC-FT	994	5,940	3,060	4,010	7,170	5,080	4,740	3,160	747	353	180	252

CAL YR 1960: TOTAL 13,206.2 MEAN 36.1 MAX 330 MIN 2.6 CFSM 2.11 IN 28.72 AC-FT 26,190
WAT YR 1961: TOTAL 17,996.2 MEAN 49.3 MAX 330 MIN 2.4 CFSM 2.88 IN 39.14 AC-FT 35,690

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1470. Griffin Creek near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.6	25	52	44	23	23	46	24	20	6.4	3.3	3.7
2	3.4	21	48	49	22	22	40	24	24	7.4	3.3	3.7
3	3.4	25	49	88	21	21	36	27	30	6.1	3.9	3.9
4	3.4	23	50	112	20	30	36	26	33	6.4	6.1	3.7
5	6.5	22	50	105	19	44	36	24	36	7.4	9.3	3.5
6	15	21	47	142	18	57	44	23	35	13	7.8	3.3
7	13	19	54	490	17	59	48	22	31	8.9	6.8	3.3
8	10	18	54	454	17	61	46	22	28	7.4	6.4	3.3
9	7.5	20	51	231	18	67	43	26	26	6.1	5.8	3.3
10	15	37	45	141	21	64	43	25	23	6.1	4.9	6.5
11	15	35	40	102	22	61	38	22	20	5.8	4.4	15
12	18	32	37	80	23	58	35	21	18	5.2	4.4	9.0
13	16	30	37	65	23	52	31	24	17	5.2	4.6	9.0
14	15	28	35	58	29	47	29	23	17	4.9	4.2	11
15	12	26	36	54	32	43	27	21	15	4.6	4.2	8.5
16	12	24	57	48	32	40	25	20	13	4.9	4.2	7.0
17	11	21	195	46	30	36	22	19	12	4.6	4.4	6.0
18	9.9	21	218	41	30	33	20	18	9.8	4.4	3.9	5.0
19	9.0	21	212	36	28	33	19	19	9.8	4.4	4.2	4.5
20	12	20	208	30	26	35	19	17	8.2	3.7	4.2	4.5
21	9.5	20	168	26	24	43	19	16	7.8	3.7	4.2	4.5
22	12	54	126	27	25	54	17	15	7.1	3.7	5.2	4.5
23	30	81	110	27	30	59	16	22	6.8	3.5	3.7	4.0
24	25	72	117	29	29	72	17	32	6.4	3.5	3.3	3.8
25	22	59	110	31	27	143	16	38	6.8	3.3	3.3	3.5
26	35	48	91	30	25	158	16	39	7.1	3.1	3.7	4.0
27	32	42	74	29	24	124	26	37	8.2	3.1	7.4	4.5
28	28	42	66	27	23	98	28	34	7.1	3.1	6.8	6.0
29	25	47	63	26	------	79	24	30	6.1	3.1	5.8	9.0
30	22	48	57	25	------	64	23	31	5.8	3.3	4.6	7.0
31	21	------	49	24	------	55	------	25	------	3.1	4.4	------
TOTAL	472.2	1,002	2,606	2,717	678	1,835	885	766	495.0	159.4	152.7	168.5
MEAN	15.2	33.4	84.1	87.6	24.2	59.2	29.5	24.7	16.5	5.14	4.93	5.62
MAX	35	81	218	490	32	158	48	39	36	13	9.3	15
MIN	3.4	18	35	24	17	21	16	15	5.8	3.1	3.3	3.3
CFSM	.89	1.95	4.92	5.13	1.42	3.46	1.73	1.45	.96	.30	.29	.33
IN.	1.03	2.18	5.67	5.91	1.47	3.99	1.92	1.67	1.08	.35	.33	.37
AC-FT	937	1,990	5,170	5,390	1,340	3,640	1,760	1,520	982	316	303	334

CAL YR 1961: TOTAL 17,038.2 MEAN 46.7 MAX 270 MIN 2.4 CFSM 2.73 IN 37.06 AC-FT 33,790
WAT YR 1962: TOTAL 11,936.8 MEAN 32.7 MAX 490 MIN 3.1 CFSM 1.91 IN 25.96 AC-FT 23,680

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3.5	7.6	234	161	23	58	93	28	6.2	14	6.2	4.1
2	9.0	7.3	204	129	28	61	75	29	7.5	13	5.8	4.7
3	11	7.0	154	118	84	55	61	27	8.3	9.3	5.5	4.2
4	8.5	9.0	111	94	143	48	75	26	8.8	8.2	4.9	3.7
5	7.5	11	87	76	199	42	81	31	21	8.2	5.2	3.5
6	8.0	12	76	63	150	38	93	36	15	7.4	4.9	3.5
7	9.0	12	60	54	104	35	116	36	11	8.5	4.9	3.7
8	25	12	50	49	80	32	101	35	11	16	4.6	3.3
9	35	14	45	47	63	29	84	32	18	15	4.9	3.3
10	45	26	40	44	50	27	70	29	17	12	4.7	3.7
11	32	30	35	42	43	26	58	26	13	12	4.7	3.9
12	25	31	31	40	36	26	49	26	11	10	4.4	3.5
13	22	33	29	38	32	23	44	23	9.2	9.0	4.2	4.4
14	20	31	33	38	29	22	43	20	8.5	9.0	4.2	5.2
15	19	30	60	39	27	21	43	19	8.0	12	4.2	5.8
16	17	30	125	38	29	20	39	17	7.2	11	3.9	5.5
17	16	29	110	36	28	19	36	16	6.5	9.5	3.5	4.4
18	16	26	95	32	30	18	35	15	6.2	9.0	3.3	3.9
19	14	45	80	30	36	19	37	14	6.2	8.3	5.0	3.5
20	13	55	70	28	46	19	40	14	6.2	7.7	5.0	3.1
21	12	65	60	26	44	18	38	11	9.5	7.3	4.7	3.1
22	12	60	51	25	39	18	38	9.8	12	16	4.7	3.1
23	11	56	46	23	36	18	39	9.3	12	11	9.0	3.5
24	11	50	41	22	34	18	37	8.9	13	9.8	10	3.5
25	9.8	106	36	20	36	18	36	8.5	15	9.0	7.0	3.3
26	9.5	207	32	19	56	20	33	8.5	9.8	8.2	5.0	5.2
27	9.0	168	30	19	58	22	31	7.8	8.9	7.2	4.4	4.9
28	8.5	120	36	17	56	26	29	7.4	8.5	6.6	3.5	3.1
29	8.3	92	48	14	------	50	29	6.8	15	6.3	3.4	2.9
30	8.0	141	136	8.5	------	86	29	6.5	16	5.8	3.4	2.9
31	7.8	------	215	19	------	108	------	7.0	------	5.8	3.5	------
TOTAL	462.4	1,522.9	2,460	1,408.5	1,619	1,040	1,612	590.5	325.5	302.1	152.6	116.4
MEAN	14.9	50.8	79.4	45.4	57.8	33.5	53.7	19.0	10.9	9.75	4.92	3.88
MAX	45	207	234	161	199	108	116	36	21	16	10	5.8
MIN	3.5	7.0	29	8.5	23	18	29	6.5	6.2	5.8	3.3	2.9
CFSM	.87	2.97	4.64	2.66	3.38	1.96	3.14	1.11	.63	.57	.29	.23
IN.	1.01	3.31	5.35	3.06	3.52	2.26	3.51	1.28	.71	.66	.33	.25
AC-FT	917	3,020	4,880	2,790	3,210	2,060	3,200	1,170	646	599	303	231

CAL YR 1962: TOTAL 12,301.9 MEAN 33.7 MAX 490 MIN 3.1 CFSM 1.97 IN 26.75 AC-FT 24,400
WAT YR 1963: TOTAL 11,611.9 MEAN 31.8 MAX 234 MIN 2.9 CFSM 1.86 IN 25.25 AC-FT 23,030

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1470. Griffin Creek near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.7	16	55	105	97	39	34	28	19	17	6.4	9.6
2	2.7	20	46	254	85	42	40	26	19	16	7.8	9.6
3	2.7	19	41	168	74	42	38	24	18	15	12	9.2
4	3.7	22	37	115	65	52	38	24	18	15	14	8.5
5	3.5	23	39	88	57	69	48	32	21	14	11	8.2
6	3.5	27	68	88	50	97	52	31	22	12	8.8	8.5
7	3.5	36	83	84	44	98	50	30	59	12	7.4	8.5
8	3.1	87	90	73	40	91	45	27	123	11	6.8	14
9	3.1	88	87	81	37	90	42	29	103	12	6.8	13
10	3.1	83	72	80	35	88	42	32	74	11	6.4	11
11	3.1	72	62	76	41	105	44	30	62	9.6	5.7	9.6
12	3.1	64	54	70	37	106	48	30	54	8.8	5.4	9.2
13	6.4	63	46	67	42	96	44	35	44	7.8	6.0	9.2
14	5.5	94	45	69	42	87	43	33	41	8.2	5.7	8.5
15	3.7	105	62	77	48	84	55	30	37	12	5.4	7.8
16	3.5	88	100	115	58	74	67	28	58	13	5.2	8.2
17	3.5	83	140	150	62	92	64	25	102	12	5.2	29
18	4.9	73	140	152	68	127	58	23	184	10	7.1	25
19	4.2	91	115	136	64	106	50	21	165	9.6	7.1	24
20	5.2	103	116	138	58	90	45	23	115	8.5	6.0	50
21	8.5	88	102	111	52	77	41	27	84	10	5.4	48
22	22	80	94	97	48	64	48	32	64	10	5.2	41
23	20	94	90	80	42	55	44	37	50	8.8	4.9	34
24	20	113	77	81	40	46	40	39	41	7.8	4.7	28
25	21	131	73	192	36	42	36	38	34	7.1	4.9	24
26	17	133	64	235	33	41	35	34	30	6.8	7.1	20
27	15	125	62	161	30	40	34	30	26	6.4	7.4	18
28	20	103	57	116	31	37	32	27	23	6.0	19	16
29	20	83	50	111	35	34	30	24	20	5.7	15	12
30	18	65	45	100	------	32	28	22	19	6.4	13	18
31	17	------	45	98	------	30	------	20	------	6.8	12	------
TOTAL	273.2	2,272	2,257	3,568	1,451	2,173	1,315	891	1,729	316.3	244.8	539.6
MEAN	8.81	75.7	72.8	115	50.0	70.1	43.8	28.7	57.6	10.2	7.90	18.0
MAX	22	133	140	254	97	127	67	39	184	17	19	50
MIN	2.7	16	37	67	30	30	28	20	18	5.7	4.7	7.8
CFSM	.52	4.43	4.26	6.73	2.93	4.10	2.56	1.68	3.37	.60	.46	1.05
IN.	.59	4.94	4.91	7.76	3.16	4.73	2.86	1.94	3.76	.69	.53	1.17
AC-FT	542	4,510	4,480	7,080	2,880	4,310	2,610	1,770	3,430	627	486	1,070

CAL YR 1963: TOTAL 11,968.8 MEAN 32.8 MAX 199 MIN 2.7 CFSM 1.92 IN 26.03 AC-FT 23,740
WAT YR 1964: TOTAL 17,029.9 MEAN 46.5 MAX 254 MIN 2.7 CFSM 2.72 IN 37.04 AC-FT 33,780

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	15	311	57	234	83	20	35	12	4.4	3.0	3.4
2	17	20	305	77	148	70	20	35	10	4.2	3.4	3.2
3	17	21	200	97	104	60	18	31	10	4.2	3.7	3.2
4	15	50	127	84	97	52	18	31	8.9	4.2	3.7	3.0
5	14	73	91	74	114	44	17	38	8.5	4.2	3.7	3.2
6	14	63	69	81	153	40	17	37	7.8	3.7	3.4	3.2
7	13	54	58	77	142	35	17	35	7.4	3.9	3.0	3.2
8	16	54	55	72	132	32	16	31	7.0	4.2	2.9	3.2
9	19	39	73	68	125	29	18	30	6.7	4.2	3.0	3.2
10	19	35	83	62	104	26	23	28	6.7	4.4	4.7	3.2
11	19	34	76	56	86	23	21	26	8.2	4.7	3.7	3.2
12	18	30	68	52	80	22	20	23	7.8	4.2	3.9	3.2
13	16	35	61	48	125	21	20	21	6.7	3.9	3.9	3.4
14	16	34	61	50	183	20	20	20	6.3	3.7	3.4	5.3
15	17	34	57	52	180	19	19	20	6.0	3.4	3.0	10
16	16	32	42	58	165	18	21	24	6.0	3.4	2.9	6.3
17	16	30	36	56	142	18	21	22	6.0	3.7	2.9	4.4
18	16	27	35	52	112	17	20	19	5.7	3.7	2.9	3.9
19	15	25	34	50	91	17	34	18	5.7	3.4	3.4	3.9
20	14	23	34	52	75	16	73	18	5.3	3.9	5.7	3.9
21	14	22	41	61	66	17	104	16	5.0	4.2	4.2	3.7
22	13	21	120	67	72	20	90	15	4.7	4.2	3.4	3.7
23	12	22	228	67	67	18	72	16	4.7	3.9	5.0	3.7
24	12	58	172	69	64	17	69	15	4.7	3.7	4.7	3.4
25	12	115	123	65	57	16	60	13	4.4	3.4	3.9	3.4
26	11	136	109	72	61	17	49	13	4.4	3.2	3.9	3.7
27	11	118	120	105	93	17	42	12	4.7	3.4	3.7	3.4
28	11	88	106	206	99	17	39	11	4.7	3.7	3.4	3.4
29	10	84	88	761	------	18	35	10	4.7	3.4	3.4	3.4
30	11	216	73	656	------	17	34	14	4.4	3.2	3.2	3.4
31	13	------	64	428	------	16	------	14	------	3.2	3.2	------
TOTAL	455	1,608	3,120	3,832	3,171	852	1,047	691	195.1	119.1	112.2	114.7
MEAN	14.7	53.6	101	124	113	27.5	34.9	22.3	6.50	3.84	3.62	3.62
MAX	19	216	311	761	234	83	104	38	12	4.7	5.7	10
MIN	10	15	34	48	57	16	16	10	4.4	3.2	2.9	3.0
CFSM	.86	3.13	5.89	7.23	6.62	1.61	2.04	1.30	.38	.22	.21	.22
IN.	.99	3.50	6.79	8.33	6.90	1.85	2.28	1.50	.42	.26	.24	.25
AC-FT	902	3,190	6,190	7,600	6,290	1,690	2,080	1,370	387	236	223	228

CAL YR 1964: TOTAL 17,410.7 MEAN 47.6 MAX 311 MIN 4.7 CFSM 2.78 IN 37.87 AC-FT 34,530
WAT YR 1965: TOTAL 15,317.1 MEAN 42.0 MAX 761 MIN 2.9 CFSM 2.45 IN 33.31 AC-FT 30,380

12-1475. North Fork Tolt River near Carnation, Wash.

Location.--Lat 47°42'40", long 121°47'35", in SE¼NW¼ sec.28, T.26 N., R.8 E., on right bank 2¾ miles upstream from confluence with South Fork and 7 miles northeast of Carnation.

Drainage area.--39.9 sq mi (revised).

Records available.--October 1952 to December 1963 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 600 ft above mean sea level (from river-profile map).

Average discharge.--11 years, 382 cfs (276,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,000 cfs), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2030	3,210	9.26	Jan. 3, 1962	0200	3,490	9.53	Feb. 3, 1963	0600	4,010	10.00
Feb. 21, 1961	0900	* 4,130	10.10	Jan. 7, 1962	0430	* 3,920	9.92				
				Apr. 6, 1962	1630	3,190	9.24	Nov. 26, 1963	1500	* 2,880	8.93
Dec. 24, 1961	0800	3,020	9.07	Nov. 19, 1962	1400	* 7,030	12.06				

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 27, 29, 30	52	3.43	1963	Sept. 7, 9, 10, 12	81	3.80
1962	Oct. 5, 1961, Sept. 9, 1962	73	a 3.64	1964	Oct. 12, 13, 1963	78	3.78

a Occurred Oct. 5, 1961.

1952-63: Maximum discharge, 9,560 cfs Dec. 15, 1959 (gage height, 13.15 ft), from rating curve extended above 2,800 cfs; minimum, 38 cfs Sept. 13, 14, 1958 (gage height, 3.53 ft), but may have been less sometime during period of no gage-height record in October 1952.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1566: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	86	839	335	216	563	952	539	628	413	150	74	458
2	82	649	338	207	740	604	842	761	425	135	72	335
3	78	473	416	202	484	485	1,280	524	386	133	70	150
4	77	360	363	219	609	431	620	443	347	129	69	105
5	74	309	303	1,190	1,230	401	458	446	320	280	69	108
6	84	281	278	923	1,320	389	398	416	341	229	68	100
7	194	257	268	567	765	368	368	386	312	183	67	86
8	300	260	265	511	567	377	488	380	262	152	66	79
9	188	239	262	640	547	371	584	443	284	142	65	70
10	147	983	249	592	504	350	452	532	259	131	64	68
11	188	809	268	555	448	350	467	464	256	127	63	68
12	554	423	856	511	409	365	592	395	251	125	62	66
13	270	366	743	448	413	516	636	380	243	120	62	62
14	200	399	780	815	389	851	479	455	254	112	62	61
15	177	516	420	1,980	508	900	425	434	270	108	62	60
16	164	1,560	338	1,130	448	720	437	479	273	105	64	59
17	141	1,110	323	727	406	528	524	499	264	102	63	59
18	128	917	528	613	379	482	425	520	246	97	62	60
19	117	729	802	466	1,150	492	380	544	216	96	60	59
20	112	923	455	409	2,200	528	344	516	193	94	58	167
21	246	567	363	379	2,990	428	344	425	171	93	57	129
22	505	466	335	353	1,030	404	341	380	166	91	56	93
23	635	539	335	326	684	476	326	476	171	90	55	78
24	985	1,020	329	312	730	461	341	374	168	87	55	69
25	406	770	309	292	600	395	323	365	162	84	55	66
26	644	527	295	276	513	392	315	434	157	81	55	63
27	724	430	270	262	479	362	303	624	142	81	53	62
28	1,060	376	252	260	452	335	353	419	131	80	53	81
29	531	344	239	574	------	326	664	386	146	80	52	155
30	376	326	232	840	------	335	628	353	198	78	52	150
31	856	------	229	635	------	374	------	335	------	75	234	------
TOTAL	10,329	17,767	11,778	17,430	21,557	14,748	14,676	14,216	7,427	3,670	2,079	3,226
MEAN	333	592	380	562	770	476	489	459	248	118	67.1	108
MAX	1,060	1,560	856	1,980	2,990	952	1,280	761	425	280	234	458
MIN	74	239	229	202	379	326	303	335	131	75	52	59
CFSM	8.35	14.8	9.52	14.1	19.3	11.9	12.3	11.5	6.20	2.97	1.68	2.70
IN.	9.63	16.6	11.0	16.2	20.1	13.7	13.7	13.3	6.92	3.42	1.94	3.01
AC-FT	20,490	35,240	23,360	34,570	42,760	29,250	29,110	28,200	14,730	7,280	4,120	6,400

CAL YR 1960: TOTAL 128,417 MEAN 351 MAX 1,560 MIN 71 CFSM 8.79 IN 119.69 AC-FT 254,700
WAT YR 1961: TOTAL 138,903 MEAN 381 MAX 2,990 MIN 52 CFSM 9.54 IN 129.47 AC-FT 275,500

12-1475. North Fork Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	171	629	564	572	464	198	389	552	278	216	105	90
2	112	371	380	905	540	188	365	536	490	251	97	87
3	90	443	332	2,440	624	183	318	682	524	208	110	87
4	79	344	646	1,000	513	190	404	492	485	211	286	86
5	169	284	600	847	410	224	446	389	556	270	927	81
6	558	254	383	1,180	359	240	1,850	377	431	407	259	79
7	577	254	326	2,670	350	238	1,040	320	401	281	286	75
8	275	267	286	1,320	356	248	528	329	428	254	275	74
9	675	325	259	864	338	227	422	395	374	232	208	74
10	712	784	238	672	368	214	374	413	323	208	171	215
11	440	496	227	572	374	206	332	341	295	201	155	492
12	847	350	219	510	335	196	356	320	306	196	144	216
13	736	298	216	467	312	196	458	404	284	176	142	190
14	359	303	206	440	383	198	564	347	309	162	125	371
15	254	262	224	407	362	203	592	329	344	152	118	214
16	216	238	254	383	312	221	416	318	350	150	116	164
17	193	221	332	368	295	232	392	329	315	157	116	140
18	171	211	273	341	323	229	446	315	278	146	121	123
19	178	206	612	318	295	232	467	306	281	133	137	110
20	173	190	886	298	267	246	458	278	286	135	121	105
21	162	190	743	289	248	227	467	270	278	144	148	102
22	172	632	567	281	251	229	446	278	275	146	120	100
23	855	374	1,620	267	246	238	452	371	286	150	105	97
24	467	278	1,980	284	227	421	510	437	298	146	102	91
25	365	235	770	440	216	528	425	407	312	137	96	88
26	688	219	536	941	206	404	362	383	329	131	99	87
27	482	248	443	756	203	377	546	377	278	120	100	96
28	410	483	1,040	536	198	315	449	407	246	118	168	256
29	318	524	1,290	458	------	303	404	359	254	114	127	380
30	278	425	846	479	------	309	374	300	243	112	104	238
31	286	------	401	488	------	341	------	275	------	107	99	------
TOTAL	11,468	10,338	17,699	21,793	9,375	8,001	15,052	11,636	10,137	5,571	5,387	4,608
MEAN	370	345	571	703	335	258	502	375	338	180	174	154
MAX	855	784	1,980	2,670	624	528	1,850	682	556	407	927	492
MIN	79	190	206	267	198	183	318	270	243	107	96	74
CFSM	9.27	8.64	14.3	17.6	8.39	6.47	12.6	9.41	8.47	4.50	4.36	3.85
IN.	10.7	9.64	16.5	20.3	8.74	7.46	14.0	10.8	9.45	5.19	5.02	4.30
AC-FT	22,750	20,510	35,110	43,230	18,600	15,870	29,860	23,080	20,110	11,050	10,680	9,140

CAL YR 1961: TOTAL 138,534 MEAN 380 MAX 2,990 MIN 52 CFSM 9.51 IN 129.12 AC-FT 274,800
WAT YR 1962: TOTAL 131,065 MEAN 359 MAX 2,670 MIN 74 CFSM 9.00 IN 122.16 AC-FT 260,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	162	102	422	1,060	201	394	260	350	170	265	140	92
2	142	100	414	1,520	378	324	250	360	180	222	136	94
3	208	99	351	1,150	1,900	279	400	300	180	201	130	92
4	198	107	354	638	890	262	1,300	280	180	187	121	87
5	155	240	1,190	488	951	245	800	500	350	174	118	86
6	152	235	1,110	414	520	232	900	450	240	170	118	84
7	172	164	634	372	453	222	600	400	180	165	114	82
8	418	224	659	381	369	220	450	350	170	206	110	82
9	707	267	582	369	333	215	400	300	400	183	107	82
10	407	560	505	321	294	203	370	270	300	297	103	82
11	275	560	475	288	262	213	345	260	240	285	101	82
12	235	368	400	276	245	198	336	260	260	225	100	82
13	216	289	400	270	232	196	330	250	210	194	98	185
14	188	274	500	263	238	194	425	240	190	189	98	647
15	178	251	1,400	270	228	190	446	280	180	206	94	215
16	164	251	700	255	258	185	348	260	180	187	92	172
17	155	238	500	242	265	180	300	260	170	172	90	163
18	152	238	400	225	422	185	320	330	160	159	92	132
19	148	2,460	350	215	794	350	330	350	160	154	165	119
20	135	1,190	325	208	550	320	310	340	160	148	170	112
21	166	495	375	201	354	330	300	320	200	148	132	103
22	198	387	325	196	288	400	400	280	350	285	114	101
23	159	312	300	192	255	260	500	220	210	225	116	136
24	135	318	275	187	238	240	350	210	200	208	156	123
25	127	995	250	181	382	230	330	200	490	225	128	103
26	125	970	240	174	819	240	310	190	268	185	118	96
27	125	570	242	170	404	300	300	180	215	174	109	90
28	118	418	559	167	339	450	270	190	203	159	101	87
29	112	360	856	156	------	360	350	200	502	152	100	84
30	107	570	1,810	152	------	320	400	200	360	148	94	84
31	105	------	1,110	178	------	290	------	180	------	142	92	------
TOTAL	6,044	13,612	18,013	11,179	12,862	8,227	12,730	8,760	7,258	6,040	3,557	3,779
MEAN	195	454	581	361	459	265	424	283	242	195	115	126
MAX	707	2,460	1,810	1,520	1,900	450	1,300	500	502	297	170	647
MIN	105	99	240	152	201	180	250	180	160	142	90	82
CFSM	4.89	11.4	14.6	9.04	11.5	6.65	10.6	7.08	6.06	4.88	2.88	3.16
IN.	5.63	12.7	16.8	10.4	12.0	7.67	11.9	8.17	6.77	5.63	3.32	3.52
AC-FT	11,990	27,000	35,730	22,170	25,510	16,320	25,250	17,380	14,400	11,980	7,060	7,500

CAL YR 1962: TOTAL 129,229 MEAN 354 MAX 2,670 MIN 74 CFSM 8.87 IN 120.45 AC-FT 256,300
WAT YR 1963: TOTAL 112,061 MEAN 307 MAX 2,460 MIN 82 CFSM 7.69 IN 104.45 AC-FT 222,300

Note.--No gage-height record Apr. 17 to June 5.

12-1475. North Fork Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	81	218	312									
2	81	360	282									
3	82	253	273									
4	82	321	263									
5	85	294	397									
6	89	306	425									
7	81	460	312									
8	81	677	279									
9	81	414	248									
10	81	372	228									
11	80	309	218									
12	80	339	203									
13	212	404	196									
14	165	664	198									
15	110	470	489									
16	93	460	578									
17	87	979	610									
18	90	513	481									
19	84	505	534									
20	145	384	610									
21	312	324	422									
22	1,100	369	457									
23	523	566	668									
24	546	642	456									
25	460	1,120	546									
26	285	1,690	390									
27	228	845	449									
28	388	509	387									
29	360	404	330									
30	276	345	312		------							
31	228	------	460		------		------		------			------
TOTAL	6,676	15,516	12,013									
MEAN	215	517	388									
MAX	1,100	1,690	668									
MIN	80	218	196									
CFSM	5.40	13.0	9.71									
IN.	6.22	14.5	11.2									
AC-FT	13,240	30,780	23,830									

CAL YR 1963: TOTAL 108,597 MEAN 298 MAX 1,900 MIN 80 CFSM 7.46 IN 101.22 AC-FT 215,400
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

12-1476. South Fork Tolt River near Index, Wash.

Location.--Lat 47°42'25", long 121°35'55", in NE¼SW¼ sec.25, T.26 N., R.9 E., on left bank half a mile upstream from Phelps Creek, 8 miles south of Index, and 15 miles east of Carnation.

Drainage area.--5.34 sq mi.

Records available.--December 1959 to December 1963 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,850 ft (from topographic map). Prior to Oct. 1, 1961, at datum 0.85 ft higher.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (550 cfs), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0730	569	3.63	Dec. 24, 1961	0600	634	4.75	Nov. 19, 1962	1300	* 1,880	7.00
Jan. 5, 1961	2200	551	3.57	Jan. 3, 1962	0030	* 842	5.31	Feb. 3, 1963	0500	1,090	5.58
Jan. 15, 1961	2030	1,410	5.60	Jan. 7, 1962	0730	774	5.14				
Feb. 21, 1961	0330	* 1,560	5.90	Apr. 6, 1962	1630	798	5.22	Nov. 26, 1963	1430	* 955	5.30
Apr. 3, 1961	0500	566	3.62								

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 28-30, 1961	a 2.3	-	1963	Sept.12, 1963	5.5	0.71
1962	Sept. 9, 1962	7.5	1.30	1964	Oct. 11, 1963	6.4	.77

a Minimum daily.

1959-63: Maximum discharge, 1,880 cfs Nov. 19, 1962 (gage height, 7.00 ft); maximum gage height, 7.13 ft Dec. 14, 1959 present datum; minimum daily discharge, 2.3 cfs Aug. 28-30, 1961.

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.9	164	22	17	137	190	87	141	110	18	5.8	154
2	8.2	84	30	15	194	67	183	179	123	17	5.6	87
3	7.7	57	54	13	85	44	325	92	102	17	5.6	28
4	7.3	40	41	28	97	34	98	59	91	17	5.4	18
5	6.6	31	28	309	288	28	57	52	78	43	5.2	20
6	7.9	26	23	206	272	26	45	44	82	28	5.0	16
7	27	22	21	97	131	23	39	40	65	24	4.7	12
8	52	22	20	76	72	23	53	42	48	19	4.5	10
9	26	20	19	108	79	22	66	65	58	18	4.3	8.6
10	19	238	17	102	74	21	45	94	47	17	4.1	7.7
11	27	174	25	97	56	21	54	71	47	16	3.9	7.1
12	89	48	171	86	45	23	66	54	45	16	3.7	6.4
13	39	34	155	70	41	47	64	54	44	15	3.6	6.0
14	26	34	151	240	36	123	43	66	54	14	3.5	5.4
15	22	45	59	615	45	143	37	72	66	12	3.5	5.2
16	20	343	39	291	34	101	45	92	71	12	5.0	5.2
17	17	199	33	108	28	59	84	110	68	10	4.5	5.0
18	15	156	86	72	25	52	51	119	58	9.1	3.8	6.2
19	13	138	141	50	206	61	38	133	42	8.6	3.4	6.0
20	12	144	56	39	676	75	31	129	33	8.4	3.0	35
21	57	64	38	34	942	47	30	94	22	8.4	2.9	25
22	114	44	36	31	148	42	30	76	24	8.2	2.8	15
23	161	50	41	27	68	54	28	101	27	7.9	2.7	12
24	276	167	40	26	71	54	31	71	26	7.5	2.6	9.4
25	76	90	33	24	48	45	33	75	25	7.1	2.5	8.2
26	154	48	28	21	36	42	36	102	23	6.8	2.5	7.5
27	169	36	24	19	31	36	37	115	19	6.6	2.4	7.1
28	221	28	21	20	31	31	50	79	16	6.6	2.3	34
29	88	24	20	72	------	32	135	74	21	6.6	2.3	36
30	53	22	18	205	------	37	137	67	27	6.2	2.3	32
31	182	------	18	175	------	46	------	65	------	6.0	66	------
TOTAL	2,001.6	2,592	1,508	3,293	3,996	1,649	2,058	2,627	1,562	417.0	179.4	635.0
MEAN	64.6	86.4	48.6	106	143	53.2	68.6	84.7	52.1	13.5	5.79	21.2
MAX	276	343	171	615	942	190	325	179	123	43	66	154
MIN	6.6	20	17	13	25	21	28	40	16	6.0	2.3	5.0
CFSM	12.1	16.2	9.11	19.9	26.7	9.96	12.8	15.9	9.75	2.52	1.08	3.96
IN.	13.9	18.1	10.5	22.9	27.8	11.5	14.3	18.3	10.9	2.90	1.25	4.42
AC-FT	3,970	5,140	2,990	6,530	7,930	3,270	4,080	5,210	3,100	827	356	1,260

CAL YR 1960: TOTAL 21,265.4 MEAN 58.1 MAX 343 MIN 4.9 CFSM 10.9 IN 148.10 AC-FT 42,180
WAT YR 1961: TOTAL 22,518.0 MEAN 61.7 MAX 942 MIN 2.3 CFSM 11.6 IN 156.82 AC-FT 44,660

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1476. South Fork Tolt River near Index, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	100	100	78	70	12	57	112	54	45	14	13
2	19	52	56	205	108	11	47	114	99	50	12	12
3	14	83	42	497	142	10	35	120	103	38	18	11
4	11	50	146	157	122	9.5	56	84	79	41	76	9.8
5	49	34	93	147	73	10	74	52	87	60	282	9.3
6	117	28	51	190	51	11	484	42	73	94	68	8.8
7	93	28	38	524	41	12	225	36	74	62	54	8.6
8	43	31	30	248	39	12	81	40	86	60	52	8.2
9	212	50	24	117	33	11	53	66	76	56	33	7.7
10	166	200	23	70	36	11	41	78	60	45	26	50
11	90	97	23	53	36	9.8	36	56	53	41	21	92
12	226	54	21	42	31	9.3	45	47	59	37	20	35
13	181	41	18	34	30	9.8	70	53	51	30	20	35
14	65	49	16	30	43	11	111	51	56	26	16	62
15	38	33	16	27	36	13	109	45	79	24	15	36
16	30	26	16	24	29	16	67	45	81	23	14	26
17	24	22	19	22	27	18	64	51	73	25	14	20
18	19	20	20	20	29	18	83	51	60	22	16	17
19	19	19	84	17	24	18	94	48	60	20	20	15
20	18	16	144	18	22	18	84	40	66	22	18	13
21	16	18	93	17	19	16	93	38	66	24	30	12
22	20	154	84	17	19	14	88	47	64	28	19	11
23	129	60	431	17	18	14	93	78	69	28	15	11
24	69	36	390	30	16	49	112	90	76	28	13	9.8
25	55	26	104	97	15	53	81	84	83	25	12	9.1
26	80	22	61	179	13	37	59	79	80	22	13	8.6
27	68	26	43	137	11	31	80	79	62	20	13	11
28	49	75	226	81	10	22	61	87	53	20	32	37
29	34	86	308	61	------	22	49	69	59	18	22	67
30	30	74	153	67	------	28	42	52	54	16	17	37
31	36	------	86	70	------	42	------	47	------	15	15	------
TOTAL	2,053	1,610	2,959	3,293	1,143	578.4	2,674	1,981	2,095	1,065	1,010	702.9
MEAN	66.2	53.7	95.5	106	40.8	18.7	89.1	63.9	69.8	34.4	32.6	23.4
MAX	226	200	431	524	142	53	484	120	103	94	282	92
MIN	11	16	16	17	10	9.3	35	36	51	15	12	7.7
CFSM	12.4	10.0	17.9	19.9	7.64	3.49	16.7	12.0	13.1	6.43	6.10	4.39
IN.	14.3	11.2	20.6	22.9	7.96	4.03	18.6	13.8	14.6	7.42	7.03	4.90
AC-FT	4,070	3,190	5,870	6,530	2,270	1,150	5,300	3,930	4,160	2,110	2,000	1,390

CAL YR 1961: TOTAL 23,038.4 MEAN 63.1 MAX 942 MIN 2.3 CFSM 11.8 IN 160.45 AC-FT 45,700
WAT YR 1962: TOTAL 21,164.3 MEAN 58.0 MAX 524 MIN 7.7 CFSM 10.9 IN 147.40 AC-FT 41,980

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	22	11	32	211	12	52	23	58	31	42	17	8.3
2	17	9.6	28	302	67	37	21	52	34	34	16	10
3	34	8.8	24	182	486	31	45	40	33	28	14	9.3
4	24	12	25	67	191	27	210	34	30	25	13	8.1
5	20	44	164	44	204	24	142	74	70	22	12	7.4
6	20	39	210	34	94	22	145	69	45	20	12	7.2
7	29	22	86	30	87	20	81	63	36	20	11	6.8
8	112	56	104	31	63	19	58	47	35	27	11	6.6
9	153	57	82	29	50	18	47	38	76	28	9.8	6.1
10	75	103	63	25	38	17	42	34	50	47	9.5	5.9
11	45	112	62	20	31	17	39	33	44	54	9.3	5.9
12	33	56	47	19	26	17	40	33	62	38	9.3	5.7
13	31	46	42	18	24	16	44	31	42	29	11	80
14	26	42	73	17	26	16	74	33	38	28	9.5	162
15	24	35	194	17	25	15	78	48	39	32	8.6	50
16	22	30	110	17	30	15	48	44	37	27	7.9	53
17	20	27	57	16	32	14	39	50	31	23	7.4	41
18	19	25	42	15	70	14	41	72	28	21	7.6	26
19	20	743	41	14	196	43	41	81	27	19	15	20
20	18	226	36	13	104	47	37	84	25	17	16	17
21	22	74	44	13	52	56	36	82	32	17	14	15
22	36	47	37	12	38	70	58	65	44	53	12	15
23	25	36	30	12	30	43	76	47	35	37	13	28
24	20	36	25	11	25	32	47	38	40	35	19	21
25	17	143	23	11	69	30	42	32	81	36	15	16
26	16	137	20	11	170	31	47	30	41	28	13	14
27	16	58	23	10	67	44	45	28	31	23	12	12
28	14	39	68	9.8	50	66	39	34	32	20	11	11
29	13	31	146	9.4	------	40	66	40	110	18	9.5	10
30	12	44	378	9.0	------	31	75	39	62	17	8.8	9.3
31	11	------	186	10	------	26	------	34	------	17	8.3	------
TOTAL	966	2,349.4	2,502	1,239.2	2,357	950	1,826	1,487	1,321	882	362.5	687.6
MEAN	31.2	78.3	80.7	40.0	84.2	30.6	60.9	48.0	44.0	28.5	11.7	22.9
MAX	153	743	378	302	486	70	210	84	110	54	19	162
MIN	11	8.8	20	9.0	12	14	21	28	25	17	7.4	5.7
CFSM	5.84	14.7	15.1	7.49	15.8	5.74	11.4	8.98	8.25	5.33	2.19	4.29
IN.	6.73	16.4	17.4	8.63	16.4	6.62	12.7	10.4	9.20	6.14	2.52	4.79
AC-FT	1,920	4,660	4,960	2,460	4,680	1,880	3,620	2,950	2,620	1,750	719	1,360

CAL YR 1962: TOTAL 20,359.7 MEAN 55.8 MAX 743 MIN 7.7 CFSM 10.4 IN 141.79 AC-FT 40,380
WAT YR 1963: TOTAL 16,929.7 MEAN 46.4 MAX 743 MIN 5.7 CFSM 8.69 IN 117.91 AC-FT 33,580

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1476. South Fork Tolt River near Index, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.8	32	30									
2	8.1	49	27									
3	7.9	34	25									
4	9.8	60	25									
5	9.5	45	56									
6	9.5	49	59									
7	8.6	64	39									
8	7.4	82	32									
9	7.0	55	27									
10	6.8	47	24									
11	6.4	37	22									
12	7.2	44	20									
13	41	58	19									
14	25	107	18									
15	15	70	60									
16	12	80	70									
17	11	143	75									
18	14	62	60									
19	12	53	65									
20	33	36	70									
21	78	29	55									
22	254	40	60									
23	111	69	80									
24	133	86	60									
25	95	242	65									
26	51	462	50									
27	39	152	55									
28	63	61	47									
29	60	44	40									
30	44	34	38		------							
31	33	------	55		------		------		------			------
TOTAL	1,221.0	2,426	1,428									
MEAN	39.4	80.9	46.1									
MAX	254	462	80									
MIN	6.4	29	18									
CFSM	7.38	15.1	8.63									
IN.	8.50	16.9	9.95									
AC-FT	2,420	4,810	2,830									

CAL YR 1963: TOTAL 16,187.3 MEAN 44.3 MAX 486 MIN 5.7 CFSM 8.31 IN 112.74 AC-FT 32,110
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1477. Phelps Creek near Index, Wash.

Location.--Lat 47°42'20", long 121°36'05", in NW¼SW¼ sec.25, T.26 N., R.9 E., on downstream side of log bridge, a quarter of a mile upstream from mouth, 8 miles south of Index, and 15 miles east of Carnation.

Drainage area.--2.04 sq mi.

Records available.--October 1960 to March 1961 (monthly discharge only), April to September 1961, October 1961 to September 1962 (monthly discharge only), discontinued.

Gage.--Wire-weight gage read once daily intermittently. Altitude of gage is 1,900 ft (from topographic map).

Extremes.--Maximum discharge during water years 1961-62, not determined; minimum observed, 0.90 cfs Aug. 12, 23-26, 28-30, 1961.
Maximum discharge known, 887 cfs Jan. 23, 1959, from slope-area measurement of peak flow.

Remarks.--Records poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1							40	69	55	5.2	1.5	85
2							90	116	51	5.0	1.4	30
3							177	48	57	4.9	1.4	10
4							67	34	40	6.0	1.4	6.0
5							29	26	31	12	1.2	6.2
6	† 3.82						17.5	23	32	13.5	1.2	6.2
7							13	20	32	13	1.2	5.7
8							20	18.5	18.5	6.8	1.2	3.3
9							25	28	24	5.5	1.2	2.8
10							22	48	18	4.7	1.1	2.6
11							16	65	17	3.8	1.0	2.5
12							38	27	16	4.0	.90	2.0
13							41	27	16.5	4.2	.90	1.8
14							20	31	23	4.4	1.0	1.7
15		† 17.2	† 19.1				25	34	33	4.2	1.0	1.6
16							40	62	41	3.7	1.4	1.6
17							62	45	38	3.3	1.1	1.5
18							26	39	30	3.1	1.2	1.5
19							17.5	55	17.5	3.0	1.1	1.5
20							11.5	39	8.8	2.8	1.0	5.4
21							13.5	30	8.2	2.7	1.0	12
22					† 40.4		13	27	4.7	2.6	1.0	5.2
23				† 8.03			13	51	8.5	2.4	.90	3.1
24							12	33	9.9	2.3	.90	2.5
25							14	26	7.0	2.2	.90	2.1
26							14	52	4.9	2.1	.90	1.8
27							14.5	124	4.2	2.0	.90	1.8
28							18.5	50	3.1	1.9	.90	5.4
29							65	37	2.8	1.8	.90	26
30					------		70	33	3.3	1.7	.90	12
31		------			------	† 19.5	------	24	------	1.6	10.5	------
TOTAL	974.0	1,273.0	632.0	1,167.5	1,316.5	695.5	1,045.0	1,341.5	655.9	136.4	43.10	250.8
MEAN	31.4	42.4	20.4	37.7	47.0	22.4	34.8	43.3	21.9	4.40	1.39	8.36
MAX	-	-	-	-	-	-	177	124	57	13.5	10.5	85
MIN	-	-	-	-	-	-	11.5	18.5	2.8	1.6	.90	1.5
CFSM	15.4	20.8	10.0	18.5	23.0	11.0	17.1	21.2	10.7	2.16	.681	4.10
IN	17.76	23.21	11.52	21.28	24.00	12.68	19.05	24.46	11.96	2.49	.79	4.57
AC-FT	1,930	2,520	1,250	2,320	2,610	1,380	2,070	2,660	1,300	271	85	497

CAL YR 1960:	MAX -	MIN -	MEAN -	CFSM -	IN. -	AC-FT -
WAT YR 1961:	MAX -	MIN .90	MEAN 26.1	CFSM 12.8	IN. 173.77	AC-FT 18,890

† Result of discharge measurement.

Note.--No gage-height record Oct. 1 to Apr. 2.

Results of discharge measurements, in cubic feet per second, water year October 1961 to September 1962

Oct. 20, 1961	6.03	Mar. 13, 1962	3.17	May 22, 1962	17.0	July 9, 1962	18.1
Nov. 28	46.2	Apr. 10	17.6	30	17.2	31	5.75
Jan. 12, 1962	19.8	16	26.1	June 14	18.0	Aug. 10	10.5
Feb. 21	8.28	May 4	33.2	26	27.0	Sept. 5	3.63
						17	8.63

Estimated monthly mean discharge, in cubic feet per second, water year October 1961 to September 1962

Month	Discharge	Month	Discharge	Month	Discharge	Month	Discharge
October	54	January	72	April	52	July	12
November	36	February	22	May	26	August	20
December	66	March	8	June	25	September	14

CAL YR 1961: 31
WAT YR 1962: 34

12-1480. South Fork Tolt River near Carnation, Wash.

Location.--Lat 47°41'20", long 121°42'35", in SW¼SW¼ sec.31, T.26 N., R.9 E., on left bank 7 miles upstream from confluence with North Fork and 10 miles northeast of Carnation.

Drainage area.--19.7 sq mi.

Records available.--October 1952 to December 1963 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,300 ft (from river-profile map).

Average discharge.--11 years, 198 cfs (143,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), October 1960 to December 1963

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	1100	* 3,420	5.70	Jan. 7, 1962	0730	* 2,480	5.09	Nov. 26, 1963	1630	* 856	3.72
Dec. 24, 1961	0500	2,220	4.92	Nov. 19, 1962	1430	* 3,260	5.65				
Jan. 3, 1962	0200	2,050	4.80	Feb. 3, 1963	0700	2,470	5.16				

Annual minimum discharge, October 1960 to December 1963

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 1961	15	a 1.19	1963	Sept.12, 1963	8.4	0.82
1962	Mar. 30, 1962	20	1.11	1964	Oct. 6, 7, 1963	17	1.04

a Occurred Oct. 6, 1960.

1952-63: Maximum discharge, 6,500 cfs Dec. 15, 1959 (gage height, 7.45 ft), from rating curve extended above 2,700 cfs; maximum gage height, 7.62 ft Nov. 20, 1958 (backwater from debris); minimum discharge, 8.4 cfs Sept. 12, 1963 (gage height, 0.82 ft); minimum gage height, 0.81 ft Aug. 23-27, 1958.

Remarks.--Records good. Some regulation by South Fork Tolt Reservoir (capacity, 57,830 acre-ft). Minor diversion above station into regulating basin since September 1963.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	43	455	112	94	341	629	259	385	220	61	29	427
2	42	291	127	86	432	300	528	528	244	55	28	275
3	39	222	191	89	276	208	1,540	326	210	51	27	120
4	35	175	163	126	327	168	322	220	180	49	27	76
5	32	145	125	731	684	148	206	211	150	134	26	79
6	37	122	111	583	703	146	165	181	190	110	25	63
7	83	109	103	312	358	134	141	168	150	88	25	52
8	159	109	100	285	264	148	212	163	105	66	25	44
9	104	96	94	348	243	141	271	206	125	55	24	41
10	77	451	89	303	232	127	200	304	114	54	24	37
11	95	486	108	285	198	141	208	234	108	46	23	34
12	289	212	334	261	175	151	331	183	99	43	23	32
13	153	168	372	232	200	241	385	173	91	41	23	30
14	112	192	397	479	170	496	238	214	103	45	23	30
15	93	234	200	1,030	238	557	183	208	118	40	23	31
16	84	775	147	690	198	435	191	220	132	37	33	30
17	74	496	133	365	180	275	263	248	132	38	27	29
18	65	437	251	297	163	230	194	255	118	35	25	32
19	59	373	441	228	663	248	160	267	97	33	23	31
20	54	469	228	182	1,530	295	143	271	80	32	22	125
21	116	255	165	159	2,200	211	160	230	70	30	21	100
22	285	195	147	141	632	191	148	186	71	31	21	60
23	385	230	145	122	331	224	136	238	75	31	19	47
24	610	572	151	117	405	227	146	188	75	32	19	42
25	243	353	129	109	275	197	125	178	73	32	18	38
26	376	218	125	100	208	197	118	220	71	32	18	36
27	455	161	108	102	186	173	110	308	61	32	18	34
28	628	135	97	115	173	151	130	238	51	31	17	103
29	303	119	90	300	------	136	354	210	66	30	17	161
30	208	109	94	480	------	136	385	180	92	29	17	122
31	393	------	104	404	------	160	------	160	------	29	207	------
TOTAL	5,731	8,364	5,181	9,155	11,985	7,221	7,952	7,301	3,471	1,452	897	2,361
MEAN	185	279	167	295	428	233	265	236	116	46.8	28.9	78.7
MAX	628	775	441	1,030	2,200	629	1,540	528	244	134	207	427
MIN	32	96	89	86	163	127	110	160	51	29	17	29
CFSM	9.38	14.2	8.48	15.0	21.7	11.8	13.5	12.0	5.87	2.38	1.47	3.99
IN.	10.8	15.8	9.78	17.3	22.6	13.6	15.0	13.8	6.55	2.74	1.69	4.46
AC-FT	11,370	16,590	10,280	18,160	23,770	14,320	15,770	14,480	6,880	2,880	1,780	4,680

CAL YR 1960: TOTAL 61,679 MEAN 169 MAX 807 MIN 23 CFSM 8.55 IN 116.44 AC-FT 122,300
WAT YR 1961: TOTAL 71,071 MEAN 195 MAX 2,200 MIN 17 CFSM 9.88 IN 134.17 AC-FT 141,000

12-1480. South Fork Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	135	387	322	286	198	58	26	46	92	92	604	50
2	85	220	223	573	248	56	27	45	100	91	427	47
3	65	300	201	1,550	289	52	28	51	102	90	319	43
4	53	213	376	527	248	50	34	46	100	90	300	41
5	160	164	322	474	178	87	28	46	103	58	335	39
6	445	142	216	808	138	108	57	46	99	31	512	36
7	418	138	175	1,640	125	88	318	45	96	26	252	36
8	207	142	142	628	125	99	31	46	95	26	156	34
9	517	184	122	355	114	81	46	49	95	26	125	34
10	511	501	96	245	130	72	79	46	95	26	102	157
11	318	311	98	195	130	67	79	47	95	26	91	260
12	518	210	85	169	112	63	79	48	95	26	88	114
13	467	178	83	143	105	68	79	50	94	26	83	125
14	235	181	74	130	170	74	81	49	94	26	70	204
15	167	142	105	117	132	81	81	50	94	26	67	119
16	138	122	94	108	110	95	80	49	94	26	64	95
17	113	107	130	100	103	97	55	62	94	26	63	80
18	92	100	105	83	114	96	34	94	94	26	65	68
19	102	96	372	66	99	97	34	238	92	26	71	63
20	90	81	542	77	91	114	47	656	92	26	68	60
21	83	118	378	75	83	91	46	1,480	91	26	87	55
22	121	516	326	74	91	92	45	1,670	91	26	70	51
23	561	239	1,160	72	80	100	45	673	91	314	60	48
24	318	167	1,370	83	72	292	49	100	91	740	56	44
25	248	130	393	238	65	274	46	100	92	908	51	42
26	372	116	258	512	59	151	47	99	47	1,060	53	42
27	315	153	204	355	58	91	50	97	29	1,040	54	49
28	245	296	614	248	50	62	46	99	60	1,000	97	117
29	186	300	775	198	------	22	46	88	90	952	75	158
30	158	279	462	205	------	22	46	92	90	786	60	110
31	164	------	307	208	------	26	------	91	------	622	54	------
TOTAL	7,607	6,233	10,130	10,542	3,517	2,826	1,789	6,398	2,687	8,290	4,579	2,421
MEAN	245	208	327	340	126	91.2	59.6	206	89.6	267	148	80.7
MAX	561	516	1,370	1,640	289	292	318	1,670	103	1,060	604	260
MIN	53	81	74	66	50	22	26	45	29	26	51	34
CFSM	12.5	10.5	16.6	17.3	6.38	4.63	3.03	10.5	4.55	13.6	7.50	4.10
IN.	14.4	11.8	19.1	19.9	6.64	5.33	3.38	12.1	5.07	15.7	8.64	4.57
AC-FT	15,090	12,360	20,090	20,910	6,980	5,610	3,550	12,690	5,330	16,440	9,080	4,800

CAL YR 1961: TOTAL 75,765 MEAN 208 MAX 2,200 MIN 17 CFSM 10.5 IN 143.03 AC-FT 150,300
WAT YR 1962: TOTAL 67,019 MEAN 184 MAX 1,670 MIN 22 CFSM 9.32 IN 126.52 AC-FT 132,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	83	45	206	574	76	192	126	182	80	149	70	35
2	94	41	198	971	247	157	121	185	88	124	62	37
3	108	40	161	728	1,390	137	205	153	90	107	57	35
4	91	54	163	315	530	121	770	131	88	97	54	32
5	77	140	561	218	524	109	498	256	175	87	51	31
6	83	117	747	198	270	101	552	227	121	81	50	30
7	96	85	347	153	239	95	327	209	97	80	49	29
8	310	134	363	169	185	90	248	165	97	100	46	29
9	450	169	307	161	161	82	195	141	198	97	45	28
10	248	340	260	124	133	81	167	126	143	122	43	28
11	166	339	239	95	117	90	157	122	121	141	43	28
12	128	242	192	95	107	82	151	124	153	112	42	20
13	119	169	180	90	98	77	147	111	119	94	44	144
14	103	160	248	90	103	77	200	109	104	97	43	420
15	97	146	494	85	101	74	221	141	104	106	40	62
16	88	130	339	80	115	71	157	133	98	94	38	190
17	80	130	230	75	126	67	137	131	87	83	36	108
18	79	119	178	70	221	68	153	161	81	76	44	66
19	75	1,630	171	65	516	185	159	171	79	71	62	43
20	73	807	159	65	335	171	147	169	76	67	51	50
21	77	315	188	60	190	180	135	165	95	67	50	36
22	97	224	163	60	147	221	211	149	135	170	45	34
23	83	169	139	55	126	161	260	119	111	131	48	31
24	71	200	119	55	112	131	178	103	115	121	62	26
25	63	578	107	50	208	121	155	90	245	119	52	25
26	63	641	98	50	506	122	155	87	137	100	47	26
27	61	327	105	45	224	169	149	81	109	86	42	25
28	58	218	315	45	182	254	131	87	109	77	39	26
29	52	178	484	44	------	209	180	98	351	72	37	26
30	50	288	1,290	43	------	167	209	97	203	67	35	27
31	48	------	662	70	------	143	------	88	------	67	34	------
TOTAL	3,371	8,175	9,413	4,998	7,289	4,005	6,601	4,311	3,809	3,062	1,461	1,727
MEAN	109	273	304	161	260	129	220	139	127	98.8	47.1	57.6
MAX	450	1,630	1,290	971	1,390	254	770	256	351	170	70	420
MIN	48	40	98	43	76	67	121	81	76	67	34	20
CFSM	5.52	13.8	15.4	8.18	13.2	6.56	11.2	7.06	6.45	5.01	2.39	2.92
IN.	6.36	15.4	17.8	9.44	13.8	7.56	12.5	8.14	7.19	5.78	2.76	3.26
AC-FT	6,690	16,210	18,670	9,910	14,460	7,940	13,090	8,550	7,560	6,070	2,900	3,430

CAL YR 1962: TOTAL 64,008 MEAN 175 MAX 1,670 MIN 22 CFSM 8.90 IN 120.84 AC-FT 127,000
WAT YR 1963: TOTAL 58,222 MEAN 160 MAX 1,630 MIN 20 CFSM 8.10 IN 109.91 AC-FT 115,500

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1480. South Fork Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27	25	37									
2	28	28	36									
3	28	25	35									
4	29	29	35									
5	28	27	37									
6	19	31	39									
7	19	34	36									
8	26	37	36									
9	31	32	36									
10	30	34	35									
11	28	31	34									
12	25	31	34									
13	25	32	34									
14	25	37	36									
15	28	35	47									
16	33	36	45									
17	34	50	44									
18	34	34	40									
19	33	42	40									
20	36	37	45									
21	37	36	40									
22	43	39	43									
23	25	43	41									
24	26	43	40									
25	24	49	42									
26	24	298	40									
27	22	666	41									
28	27	519	39									
29	25	54	39									
30	24	38	38		------							
31	24	------	39		------		------		------			------
TOTAL	867	2,452	1,203									
MEAN	28.0	81.7	38.8									
MAX	43	666	47									
MIN	19	25	34									
CFSM	1.42	4.15	1.97									
IN.	1.64	4.63	2.27									
AC-FT	1,720	4,860	2,390									

CAL YR 1963: TOTAL 41,785 MEAN 114 MAX 1,390 MIN 19 CFSM 5.81 IN 78.88 AC-FT 82,880
WAT YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT

12-1485. Tolt River near Carnation, Wash.

Location.--Lat 47°41'45", long 121°49'30", in SE¼NE¼ sec.31, T.26 N., R.8 E., on right bank 500 ft downstream from the forks, a quarter of a mile upstream from Stossel Creek, and 5 miles northeast of Carnation.

Drainage area.--81.4 sq mi (revised).

Records available.--August 1928 to January 1932, September 1937 to September 1965. Prior to October 1951, published as "near Tolt."

Gage.--Digital water-stage recorder. Datum of gage is 348 ft above mean sea level (river-profile survey). Prior to Oct. 31, 1928, staff gage and Oct. 31, 1928, to Jan. 3, 1932, graphic water-stage recorder, at site 350 ft upstream at datum 7.1 ft higher (river-profile survey). Sept. 1 to Oct. 6, 1937, staff gage at present site at datum 1.64 ft higher. Oct. 7, 1937, to Sept. 8, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--31 years (1928-31, 1937-65), 611 cfs (442,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,400 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	0930	4,140	8.86	Jan. 7, 1962	0700	* 7,400	10.42	Nov. 26, 1963	1800	3,940	8.82
Jan. 15, 1961	2200	5,290	9.47					Jan. 1, 1964	1300	* 3,960	8.83
Feb. 21, 1961	1000	* 8,200	10.70	Nov. 19, 1962	-	* 10,200	11.30				
Apr. 3, 1961	-	-	-	Dec. 5, 1962	2400	3,720	8.58	Dec. 1, 1964a	-	4,100	8.83
				Dec. 30, 1962	1000	3,870	8.68	Jan. 29, 1965a	-	* 6,500	10.06
Dec. 24, 1961	0630	5,070	9.36	Jan. 2, 1963	0100	3,880	8.69				
Jan. 3, 1962	0200	5,610	9.63	Feb. 3, 1963	0530	6,480	10.05				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	74	3.86	1964	(b)	112	4.20
1962	Sept. 9, 1962	128	a 4.21	1965	Aug. 18, 19, 1965	114	4.21
1963	Sept.13, 1963	86	4.06				

a Occurred Oct. 5, 1961.
b Oct. 7, 8, 12, 13, 1963.

1928-32, 1937-65: Maximum discharge, 17,400 cfs Dec. 15, 1959 (gage height, 13.04 ft), from rating curve extended above 7,600 cfs on basis of slope-area measurement at gage height, 12.92 ft; minimum, 53 cfs Sept. 22, 23, 1951 (gage height, 3.84 ft).

Remarks.--Records excellent except those for periods of no gage-height record, which are fair. Some regulation by South Fork Reservoir (capacity, 57,830 acre-ft). During water years 1964-65, city of Seattle diverted a daily average of between 24 and 35 cfs above station for municipal use. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1929(M), 1930, 1938(M), 1939, 1943(M), 1945(M), 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	147	1,550	560	380	1,100	1,700	900	1,050	638	187	122	746
2	142	1,120	565	350	1,400	1,100	1,600	1,380	674	193	120	560
3	137	866	686	320	900	850	3,200	1,010	609	187	115	253
4	132	668	650	400	1,100	700	1,400	778	545	184	117	180
5	127	550	520	2,300	2,000	650	900	824	488	387	112	184
6	140	479	470	1,800	2,300	600	650	732	545	340	111	180
7	272	431	440	1,000	1,300	580	600	662	502	268	111	151
8	484	427	427	850	1,000	650	800	632	403	221	106	137
9	315	387	419	1,100	900	600	950	738	431	200	106	130
10	245	1,520	391	1,000	800	550	800	922	395	191	104	127
11	283	1,550	427	900	750	550	800	810	383	184	103	120
12	901	804	1,290	852	686	600	1,100	668	372	184	102	112
13	470	674	1,250	758	758	900	1,260	626	350	178	100	111
14	343	797	1,400	1,350	700	1,500	929	752	368	174	100	106
15	289	922	790	3,160	929	1,700	778	719	403	166	98	106
16	265	2,620	626	2,340	880	1,400	745	790	411	160	111	106
17	234	1,850	576	1,350	810	1,000	915	824	395	160	108	103
18	209	1,680	966	1,110	706	800	726	859	365	155	105	108
19	198	1,280	1,420	873	1,900	850	650	873	315	149	100	106
20	184	1,760	859	732	3,650	900	587	845	277	146	95	235
21	316	1,150	662	656	6,000	750	609	680	248	142	90	221
22	870	943	604	598	2,000	700	576	582	234	142	87	158
23	1,040	1,070	582	535	1,200	800	492	771	242	142	87	139
24	1,820	2,000	582	502	1,350	800	570	587	242	140	86	128
25	771	1,530	525	466	1,000	700	545	550	229	137	84	120
26	1,120	1,020	515	423	850	650	515	686	226	134	83	115
27	1,260	810	461	395	750	600	502	971	204	134	81	114
28	1,910	680	427	395	700	560	560	674	191	132	80	160
29	1,010	604	403	1,200	------	540	1,070	614	204	132	79	277
30	706	545	383	1,600	------	560	1,080	560	283	127	79	234
31	1,310	------	395	1,200	------	650	------	515	------	125	328	------
TOTAL	17,650	32,287	20,271	30,895	38,419	25,490	26,809	23,684	11,172	5,501	3,310	5,527
MEAN	569	1,076	654	997	1,372	822	894	764	372	177	107	184
MAX	1,910	2,620	1,420	3,160	6,000	1,700	3,200	1,380	674	387	328	746
MIN	127	387	383	320	686	540	492	515	191	125	79	103
CFSM	6.99	13.2	8.03	12.2	16.9	10.1	11.0	9.39	4.57	2.18	1.31	2.26
IN.	8.06	14.8	9.26	14.1	17.6	11.6	12.2	10.8	5.10	2.51	1.51	2.53
AC-FT	35,010	64,040	40,210	61,280	76,200	50,560	53,170	46,980	22,160	10,910	6,570	10,960

CAL YR 1960: TOTAL 219,002 MEAN 598 MAX 2,620 MIN 118 CFSM 7.35 IN 100.06 AC-FT 434,400
WAT YR 1961: TOTAL 241,015 MEAN 660 MAX 6,000 MIN 79 CFSM 8.11 IN 110.11 AC-FT 478,000

Note.--No gage-height record Feb. 21 to Apr. 12.

12-1485. Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	280	1,070	992	1,010	800	300	492	650	418	317	782	160
2	193	650	674	1,530	900	290	461	662	644	372	604	152
3	162	807	609	4,180	1,100	270	403	816	727	317	487	145
4	147	604	1,130	1,970	900	300	525	656	721	326	594	144
5	269	484	1,030	1,660	800	350	555	510	794	368	1,360	140
6	971	423	700	2,360	650	400	2,050	448	669	505	903	138
7	1,020	411	609	5,120	550	380	1,550	419	609	354	578	135
8	474	423	515	2,500	580	410	693	423	620	304	474	132
9	1,060	507	457	1,610	530	370	555	492	573	280	375	130
10	1,300	1,360	403	1,190	580	350	535	520	505	253	323	352
11	817	908	383	992	600	330	488	436	469	238	283	854
12	1,400	598	365	880	500	300	502	415	474	226	272	394
13	1,370	497	361	764	448	310	598	515	443	199	258	330
14	650	510	336	700	638	315	732	448	469	188	233	627
15	448	431	395	650	570	336	752	431	510	178	219	395
16	376	380	479	600	488	368	550	407	515	173	207	301
17	329	350	745	600	457	380	497	415	474	184	205	258
18	289	332	662	550	500	372	530	440	431	165	214	230
19	302	329	1,320	480	450	376	555	819	426	152	233	212
20	293	299	1,840	450	430	436	576	835	431	156	221	197
21	277	312	1,480	440	380	399	570	1,500	422	163	266	190
22	289	1,280	1,190	430	450	415	545	1,780	414	167	226	182
23	1,540	738	3,030	410	400	444	545	1,140	422	407	199	176
24	922	530	3,440	390	370	876	626	615	431	903	180	171
25	686	440	1,460	700	350	1,110	515	594	439	1,040	163	161
26	1,100	395	1,030	1,800	320	817	448	568	418	1,220	167	158
27	908	444	824	1,500	310	662	653	553	333	1,180	171	174
28	745	847	1,900	1,000	300	525	565	573	313	1,160	292	408
29	555	943	2,330	750	------	427	502	510	372	1,140	236	604
30	474	771	1,590	800	------	419	466	452	361	996	192	414
31	474	------	1,090	800	------	453	------	422	------	820	169	------
TOTAL	20,120	18,073	33,369	38,816	15,351	13,490	19,034	19,464	14,847	14,451	11,086	8,064
MEAN	649	602	1,076	1,252	548	435	634	628	495	466	358	269
MAX	1,540	1,360	3,440	5,120	1,100	1,110	2,050	1,780	794	1,220	1,360	854
MIN	147	299	336	390	300	270	403	407	313	152	163	130
CFSM	7.97	7.40	13.2	15.4	6.74	5.35	7.79	7.71	6.08	5.73	4.39	3.30
IN.	9.19	8.26	15.2	17.7	7.01	6.16	8.70	8.89	6.78	6.60	5.06	3.68
AC-FT	39,910	35,850	66,190	76,990	30,450	26,760	37,750	38,610	29,450	28,660	21,990	15,990

CAL YR 1961: TOTAL 242,369 MEAN 664 MAX 6,000 MIN 79 CFSM 8.16 IN 110.73 AC-FT 480,700
WAT YR 1962: TOTAL 226,165 MEAN 620 MAX 5,120 MIN 130 CFSM 7.61 IN 103.33 AC-FT 448,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	295	160	901	1,820	334	726	495	630	270	510	225	134
2	266	150	866	2,760	622	596	453	657	289	423	207	140
3	398	140	732	2,210	3,650	515	592	555	296	363	192	136
4	361	190	685	1,220	1,750	458	2,260	485	276	324	185	126
5	289	460	1,760	915	1,800	423	1,420	839	570	293	177	120
6	301	410	2,080	768	1,020	395	1,620	817	407	276	175	114
7	320	310	1,140	674	866	375	1,160	732	317	270	166	112
8	818	480	1,150	696	702	355	943	613	296	352	162	110
9	1,260	520	1,030	702	635	341	774	530	652	310	155	102
10	889	1,200	901	580	540	327	698	490	471	471	153	102
11	620	1,200	852	490	476	341	646	453	391	476	147	104
12	510	950	708	480	431	324	596	438	444	391	145	97
13	447	640	702	471	415	306	586	415	371	320	147	304
14	370	560	901	444	419	300	732	415	324	306	138	1,250
15	340	500	2,560	471	403	289	824	495	313	348	134	338
16	320	470	1,150	448	444	283	613	471	306	313	130	368
17	290	460	824	411	462	273	535	458	276	273	128	329
18	280	430	674	383	738	264	570	608	254	254	130	245
19	270	4,700	630	359	1,440	552	580	580	248	237	240	185
20	260	2,200	586	341	1,080	602	565	570	248	228	230	194
21	280	1,200	674	327	679	580	530	555	317	225	192	164
22	350	900	613	317	535	708	657	500	575	501	168	160
23	300	620	515	303	453	525	922	391	407	407	171	189
24	260	700	462	300	411	440	674	348	363	355	231	175
25	230	2,000	423	289	626	415	596	306	880	395	194	153
26	230	2,100	399	273	1,520	423	575	300	471	317	175	142
27	220	1,170	395	264	831	575	555	280	367	273	155	134
28	210	852	1,000	248	690	756	485	296	355	251	147	132
29	190	726	1,420	231	------	690	630	317	1,030	234	140	132
30	180	1,090	3,320	220	------	635	640	313	708	222	136	130
31	170	------	2,120	276	------	565	------	286	------	217	132	------
TOTAL	11,524	27,488	32,173	19,691	23,972	14,357	22,926	15,143	12,492	10,135	5,207	6,121
MEAN	372	916	1,038	635	856	463	764	488	416	327	168	204
MAX	1,260	4,700	3,320	2,760	3,650	756	2,260	839	1,030	510	240	1,250
MIN	170	140	395	220	334	264	453	280	248	217	128	97
CFSM	4.57	11.3	12.7	7.80	10.5	5.69	9.39	6.00	5.12	4.02	2.06	2.51
IN.	5.27	12.6	14.7	9.00	11.0	6.56	10.5	6.92	5.71	4.63	2.38	2.80
AC-FT	22,860	54,520	63,810	39,060	47,550	28,480	45,470	30,040	24,780	20,100	10,330	12,140

CAL YR 1962: TOTAL 225,788 MEAN 619 MAX 5,120 MIN 130 CFSM 7.60 IN 103.16 AC-FT 447,800
WAT YR 1963: TOTAL 201,229 MEAN 551 MAX 4,700 MIN 97 CFSM 6.77 IN 91.94 AC-FT 399,100

Note.--No gage-height record Oct. 14 to Nov. 26.

12-1485. Tolt River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	128	300	490	2,450	852	396	905	510	1,630	756	472	625
2	126	485	444	1,170	679	368	620	458	1,330	762	625	525
3	126	355	416	822	590	388	530	420	1,080	714	600	460
4	128	435	404	696	625	714	575	454	1,450	652	708	410
5	134	411	550	625	615	668	575	795	1,600	630	530	380
6	128	444	635	792	535	550	530	822	1,460	635	905	350
7	114	635	510	640	476	480	550	535	1,720	708	690	340
8	116	1,040	472	565	444	458	575	500	1,680	732	684	650
9	126	662	424	555	420	444	595	740	1,440	652	684	540
10	122	618	388	565	444	476	726	982	1,350	610	662	450
11	120	505	364	570	458	595	714	768	1,220	652	620	390
12	114	525	344	525	404	555	625	780	1,140	674	485	350
13	254	613	320	520	392	476	610	774	1,010	630	360	320
14	217	1,010	328	510	368	570	641	1,010	1,070	679	305	310
15	149	750	730	618	392	933	1,340	823	1,050	891	290	300
16	136	702	884	1,360	396	668	810	652	1,590	786	281	290
17	132	1,420	940	919	640	919	652	780	1,570	615	260	600
18	134	824	774	732	1,410	940	590	756	1,710	545	238	530
19	132	831	804	674	1,240	696	565	840	1,490	500	243	500
20	189	696	898	657	1,070	610	550	1,100	1,140	535	211	1,200
21	427	580	662	738	1,010	545	530	1,500	961	625	200	850
22	1,500	635	721	1,160	968	485	684	1,420	898	585	195	650
23	646	894	947	1,110	940	444	575	1,120	1,000	500	200	550
24	684	1,010	679	1,320	754	412	545	1,050	947	460	205	500
25	570	1,630	786	2,320	380	416	525	940	852	510	190	460
26	387	2,440	595	1,520	364	416	585	919	834	460	250	430
27	310	1,840	652	1,460	344	408	565	1,100	822	458	550	390
28	501	1,260	585	1,110	340	408	560	1,180	708	440	950	380
29	485	657	505	926	344	449	570	1,100	657	472	800	500
30	379	555	472	774	------	590	530	1,370	720	440	900	1,500
31	317	------	646	792	------	702	------	1,610	------	428	750	------
TOTAL	9,031	24,762	18,369	29,195	17,894	17,179	18,947	27,808	36,129	18,736	15,043	15,730
MEAN	291	825	593	942	617	554	632	897	1,204	604	485	524
MAX	1,500	2,440	947	2,450	1,410	940	1,340	1,610	1,720	891	950	1,500
MIN	114	300	320	510	340	368	525	420	657	428	190	290
CFSM	3.58	10.1	7.28	11.6	7.58	6.81	7.76	11.0	14.8	7.42	5.96	6.44
IN.	4.13	11.3	8.39	13.3	8.18	7.85	8.66	12.7	16.5	8.56	6.87	7.19
AC-FT	17,910	49,110	36,430	57,910	35,490	34,070	37,580	55,160	71,660	37,160	29,840	31,200

CAL YR 1963: TOTAL 182,206 MEAN 499 MAX 3,650 MIN 97 CFSM 6.13 IN 83.25 AC-FT 361,400
WAT YR 1964: TOTAL 248,823 MEAN 680 MAX 2,450 MIN 114 CFSM 8.35 IN 113.68 AC-FT 493,500

Note.--No gage-height record Aug. 21 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,000	485	3,300	560	1,730	810	476	500	367	234	124	217
2	1,600	545	3,800	590	1,270	744	423	444	415	234	132	220
3	1,000	550	2,300	600	1,040	702	387	419	444	228	130	212
4	700	1,290	1,020	520	1,320	702	387	462	423	220	126	209
5	500	786	880	500	2,060	679	391	419	431	207	124	199
6	430	600	750	470	1,640	679	327	391	407	202	120	197
7	400	615	660	450	1,280	684	320	367	387	202	116	194
8	460	555	740	440	1,380	679	293	367	399	197	120	220
9	580	515	1,200	430	1,110	679	330	387	411	185	140	243
10	510	505	1,150	410	929	726	387	458	367	180	157	223
11	450	535	860	390	810	738	341	500	403	187	180	191
12	380	505	720	370	824	702	330	540	375	180	234	205
13	370	515	680	360	1,780	646	367	485	310	175	300	197
14	550	480	620	400	1,290	602	375	427	303	175	207	1,470
15	580	472	580	720	1,120	596	427	423	300	173	171	1,160
16	640	412	500	1,400	1,330	591	580	798	276	171	147	700
17	550	384	450	1,300	1,850	550	453	525	293	166	136	469
18	470	372	430	1,180	1,560	520	383	427	293	162	116	391
19	400	364	420	1,180	1,690	495	782	423	273	153	120	360
20	390	360	400	1,200	1,530	485	1,560	550	260	160	197	330
21	380	356	460	1,300	1,140	495	1,140	462	231	177	155	310
22	380	356	800	1,100	964	545	768	415	231	160	132	303
23	410	605	1,500	900	824	495	618	448	234	155	175	303
24	424	1,620	960	800	768	458	768	411	234	149	273	294
25	424	905	920	730	732	415	668	383	220	147	228	292
26	408	822	900	920	880	371	690	407	204	151	327	294
27	412	679	900	2,300	1,280	363	744	505	204	147	289	285
28	400	595	760	4,000	936	367	810	555	199	142	320	289
29	400	620	700	5,200	------	391	591	462	207	145	286	282
30	560	2,200	640	4,500	------	383	540	540	220	130	244	274
31	505	------	590	2,500	------	399	------	411	------	132	231	------
TOTAL	16,663	19,603	30,590	37,720	35,067	17,691	16,656	14,311	9,321	5,426	5,757	10,533
MEAN	538	653	987	1,217	1,252	571	555	462	311	175	186	351
MAX	1,600	2,200	3,800	5,200	2,060	810	1,560	798	444	234	327	1,470
MIN	370	356	400	360	732	363	293	367	199	130	116	191
CFSM	6.60	8.03	12.1	14.9	15.4	7.01	6.82	5.67	3.82	2.15	2.28	4.31
IN.	7.61	8.96	14.0	17.2	16.0	8.08	7.61	6.54	4.26	2.48	2.63	4.81
AC-FT	33,050	38,880	60,670	74,820	69,550	35,090	33,040	28,390	18,490	10,760	11,420	20,890

CAL YR 1964: TOTAL 263,517 MEAN 720 MAX 3,800 MIN 190 CFSM 8.85 IN 120.40 AC-FT 522,700
WAT YR 1965: TOTAL 219,338 MEAN 601 MAX 5,200 MIN 116 CFSM 7.38 IN 100.21 AC-FT 435,100

Note.--No gage-height record Dec. 6 to Jan. 31.

12-1487. Stossel Creek near Carnation, Wash.

Location.--Lat 47°41'45", long 121°49'50", in SW¼NE¼ sec.31, T.26 N., R.8 E., on right bank 550 ft upstream from mouth and 5 miles northeast of Carnation.

Drainage area.--5.58 sq mi.

Records available.--July 1957 to October 1963 (discontinued).

Gage.--Water-stage recorder. Datum of gage is 340 ft (from topographic map).

Average discharge.--6 years, 16.6 cfs (12,020 acre-ft per year).

Extremes.--Maximum and minimum discharges for October 1960 to October 1963 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Nov. 24, 1960	142	2.29	Aug. 28, 1961	0.60	1.12
1962	Jan. 7, 1962	414	2.82	(a)	.90	b .95
1963	Feb. 4, 1963	76	2.02	Aug. 28,31,Sept.12	1.2	1.05
1964	-	-	-	Oct. 10, 1963	1.0	1.05

a July 30, sometime Aug. 15 to Sept. 7, Sept. 9, 1962.
b Occurred sometime Aug. 15 to Sept. 7, 1962.

1957-63: Maximum discharge, 414 cfs Jan. 7, 1962 (gage height, 2.82 ft), from rating curve extended above 70 cfs; minimum, 0.2 cfs Sept. 6, 1958 (gage height, 0.81 ft).

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.7	20	25	18	35	50	16	19	9.2	2.8	1.4	4.7
2	1.7	22	22	17	36	49	21	20	8.4	2.6	1.1	3.0
3	1.7	22	23	16	35	43	29	21	7.5	2.6	1.1	2.1
4	1.7	20	21	17	34	37	31	21	7.1	2.4	1.1	1.7
5	1.5	17	19	29	37	33	29	29	6.2	7.8	1.1	2.6
6	2.8	16	17	35	72	33	25	29	8.4	6.6	1.0	2.1
7	5.9	14	16	39	68	32	22	26	8.8	4.8	1.0	1.3
8	7.9	12	16	37	50	30	24	23	7.1	3.4	.90	1.3
9	5.9	10	14	39	43	29	28	23	7.1	3.2	.90	1.2
10	4.8	24	14	37	35	26	26	27	6.6	2.8	.90	1.2
11	5.9	36	16	36	32	26	25	27	6.6	2.8	.90	1.1
12	10	31	23	35	31	26	34	25	6.2	2.6	.90	1.1
13	7.5	29	22	34	33	27	46	23	5.6	2.4	.90	1.1
14	5.9	34	31	32	32	34	42	23	5.1	2.4	.90	1.0
15	5.1	43	30	42	43	43	34	20	4.8	1.9	1.0	1.0
16	4.5	57	27	49	50	43	30	19	4.5	2.1	1.3	1.0
17	3.7	57	26	52	59	37	26	17	4.2	2.1	1.3	1.1
18	3.7	63	31	47	52	32	23	15	4.0	1.9	1.2	1.0
19	3.4	52	35	40	63	29	25	14	4.0	1.9	1.1	1.2
20	3.4	72	32	34	63	26	24	13	3.4	1.9	1.0	1.7
21	4.5	68	29	31	66	23	22	11	3.2	1.4	.90	1.5
22	6.2	61	26	28	61	21	20	11	3.0	1.3	1.0	1.3
23	13	70	22	25	49	22	20	16	2.8	1.5	.90	1.2
24	16	115	21	21	64	21	20	13	2.6	1.5	.90	1.2
25	14	110	21	19	77	19	18	10	2.6	1.7	.90	1.0
26	17	72	21	17	64	20	17	10	2.6	1.5	.90	1.1
27	18	49	20	16	59	19	16	15	2.6	1.5	.90	1.3
28	20	37	18	16	54	17	15	12	2.6	1.5	.90	1.4
29	17	32	16	27	------	16	17	11	2.6	1.5	.80	2.4
30	16	28	16	32	------	15	18	10	3.0	1.5	.90	2.1
31	17	------	19	35	------	14	------	9.6	------	1.4	2.4	------
TOTAL	247.4	1,293	689	952	1,397	892	743	562.6	152.4	77.3	32.40	47.0
MEAN	7.98	43.1	22.2	30.7	49.9	28.8	24.8	18.1	5.08	2.49	1.05	1.57
MAX	20	115	35	52	77	50	46	29	9.2	7.8	2.4	4.7
MIN	1.5	10	14	16	31	14	15	9.6	2.6	1.3	.80	1.0
CFSM	1.43	7.72	3.98	5.50	8.94	5.16	4.44	3.25	.91	.45	.19	.28
IN.	1.65	8.62	4.59	6.34	9.31	5.95	4.95	3.75	1.02	.52	.22	.31
AC-FT	491	2,560	1,370	1,890	2,770	1,770	1,470	1,120	302	153	64	93

CAL YR 1960: TOTAL 6,221.7 MEAN 17.0 MAX 115 MIN 1.2 CFSM 3.05 IN 41.47 AC-FT 12,340
WAT YR 1961: TOTAL 7,085.10 MEAN 19.4 MAX 115 MIN .80 CFSM 3.48 IN 47.22 AC-FT 14,050

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1487. Stossel Creek near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.5	7.1	19	26	11	10	18	9.0	7.8	2.8	1.2	1.3
2	1.5	5.9	18	27	10	10	16	9.4	11	3.2	1.1	1.3
3	1.5	7.1	18	44	9.5	12	15	13	13	2.6	1.5	1.5
4	1.4	7.1	19	57	9.0	15	15	14	15	2.8	3.2	1.3
5	2.5	6.6	20	57	8.5	19	15	12	17	3.0	6.1	1.2
6	4.8	6.6	20	77	8.0	20	19	11	16	4.4	3.6	1.0
7	4.8	6.2	24	286	8.0	20	19	11	13	3.4	3.3	1.0
8	3.2	6.2	23	146	8.0	23	17	11	12	2.8	2.8	1.0
9	3.4	7.1	21	84	8.0	25	16	12	11	2.6	2.4	1.0
10	4.2	12	20	54	8.5	23	15	11	11	2.4	2.2	3.6
11	4.0	11	18	40	9.0	21	14	9.9	9.4	2.4	1.9	4.7
12	4.5	9.6	16	33	9.2	19	13	9.0	8.2	2.3	1.9	2.7
13	4.2	9.2	16	27	9.4	18	12	9.9	9.0	2.2	1.9	2.7
14	3.4	8.8	15	26	16	17	11	9.0	8.2	2.1	1.7	3.2
15	3.0	7.9	20	23	16	16	11	8.6	7.1	2.1	1.6	2.4
16	3.0	7.1	24	20	15	15	11	7.8	6.1	2.2	1.6	2.1
17	3.0	7.1	54	20	14	13	9.4	7.1	5.8	2.2	1.6	1.9
18	2.8	7.1	70	18	14	13	8.6	6.8	5.0	2.1	1.6	1.7
19	3.4	7.9	84	16	12	12	8.2	7.1	4.4	2.0	1.6	1.6
20	3.7	7.1	76	13	11	20	11	6.4	4.0	1.9	1.6	1.4
21	3.0	7.5	72	12	11	21	9.4	6.1	3.8	1.7	1.6	1.4
22	3.4	17	58	12	12	23	8.6	5.8	3.6	1.7	1.8	1.4
23	8.6	18	52	12	16	24	7.8	9.1	3.3	1.6	1.2	1.3
24	7.0	17	54	13	14	28	8.6	12	3.2	1.5	1.0	1.2
25	6.6	14	51	16	12	38	7.4	13	3.2	1.4	1.0	1.0
26	10	13	44	15	12	38	7.8	11	3.3	1.4	1.2	1.0
27	10	12	36	14	11	34	11	11	3.4	1.3	2.4	1.4
28	8.8	15	34	13	11	29	11	11	3.2	1.2	2.2	3.8
29	7.5	17	32	12	------	26	9.0	9.9	2.8	1.1	1.8	3.2
30	6.6	18	30	12	------	22	8.6	9.4	2.7	1.0	1.7	2.2
31	6.2	------	28	11	------	20	------	8.6	------	1.1	1.5	------
TOTAL	141.5	303.2	1,086	1,236	313.1	644	363.4	301.9	226.5	66.5	61.8	56.5
MEAN	4.56	10.1	35.0	39.9	11.2	20.8	12.1	9.74	7.55	2.15	1.99	1.88
MAX	10	18	84	286	16	38	19	14	17	4.4	6.1	4.7
MIN	1.4	5.9	15	11	8.0	10	7.4	5.8	2.7	1.0	1.0	1.0
CFSM	.82	1.81	6.28	7.15	2.00	3.72	2.17	1.75	1.35	.38	.36	.34
IN.	.94	2.02	7.24	8.24	2.09	4.29	2.42	2.01	1.51	.44	.41	.38
AC-FT	281	601	2,150	2,450	621	1,280	721	599	449	132	123	112

CAL YR 1961: TOTAL 6,386.40 MEAN 17.5 MAX 84 MIN .80 CFSM 3.14 IN 42.56 AC-FT 12,670
WAT YR 1962: TOTAL 4,800.4 MEAN 13.2 MAX 286 MIN 1.0 CFSM 2.36 IN 31.99 AC-FT 9,520

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.8	2.8	55	50	9.0	22	27	13	3.3	7.9	2.8	1.6
2	4.0	2.7	51	40	10	22	23	14	4.0	7.2	2.4	1.9
3	4.7	2.7	38	35	50	20	22	13	4.4	6.6	2.3	1.8
4	3.8	3.4	30	30	70	18	27	12	4.6	6.0	2.3	1.5
5	3.3	3.8	26	25	50	17	27	15	9.6	5.3	2.3	1.5
6	3.8	4.0	25	23	40	15	34	15	6.6	5.0	2.2	1.5
7	4.2	4.0	20	21	35	14	38	15	5.0	5.0	2.2	1.5
8	6.4	4.2	19	19	29	13	33	13	5.0	7.6	2.1	1.4
9	9.2	5.0	17	18	24	12	28	12	8.2	6.3	2.2	1.3
10	11	9.9	15	17	22	11	25	12	7.9	6.6	2.1	1.4
11	9.4	11	14	16	19	11	22	11	5.3	6.3	2.1	1.4
12	8.2	11	13	15	17	11	21	11	4.6	5.6	2.1	1.3
13	7.1	12	13	14	15	10	20	9.6	4.0	4.6	1.9	2.4
14	6.1	11	15	14	14	9.2	20	8.2	3.7	4.6	1.9	4.2
15	5.5	11	24	15	14	9.6	19	8.2	3.5	5.3	1.8	2.6
16	4.7	11	26	14	14	9.6	17	7.9	3.1	4.8	1.6	2.2
17	4.2	11	25	13	13	9.2	15	7.6	2.8	4.2	1.5	2.1
18	4.0	9.4	22	12	15	8.2	15	7.2	2.6	4.0	1.5	1.9
19	4.0	15	20	11	17	9.6	17	6.3	2.6	3.7	2.2	1.8
20	3.8	19	19	11	17	9.2	17	5.6	2.6	3.5	2.2	1.8
21	3.6	20	19	10	15	8.7	15	5.3	4.8	3.3	2.1	1.6
22	3.4	18	19	9.5	15	8.7	17	4.8	6.9	5.6	2.1	1.6
23	3.3	16	17	9.0	13	9.2	20	4.8	6.6	4.6	3.6	1.8
24	3.2	17	15	8.5	13	9.2	17	4.6	6.9	4.2	4.0	1.8
25	3.2	30	13	8.5	17	8.7	17	4.4	8.2	4.0	2.5	1.6
26	3.3	44	13	8.0	25	9.2	15	4.2	6.3	3.5	2.1	1.5
27	3.2	40	12	7.5	24	10	15	4.0	5.3	3.1	1.8	1.5
28	3.0	31	13	7.5	22	13	13	3.7	5.3	2.8	1.4	1.5
29	3.0	28	17	7.0	------	21	14	3.7	11	2.8	1.4	1.5
30	2.8	40	40	6.5	------	25	13	3.7	9.2	2.6	1.4	1.4
31	2.8	------	60	8.0	------	29	------	3.7	------	2.6	1.4	------
TOTAL	144.0	447.9	725	503.0	638.0	412.3	623	263.5	163.9	149.2	65.5	52.9
MEAN	4.65	14.9	23.4	16.2	22.8	13.3	20.8	8.50	5.46	4.81	2.11	1.76
MAX	11	44	60	50	70	29	38	15	11	7.9	4.0	4.2
MIN	1.8	2.7	12	6.5	9.0	8.2	13	3.7	2.6	2.6	1.4	1.3
CFSM	.83	2.68	4.19	2.91	4.08	2.38	3.72	1.52	.98	.86	.38	.32
IN.	.96	2.99	4.83	3.35	4.25	2.75	4.15	1.76	1.09	.99	.44	.35
AC-FT	286	888	1,440	998	1,270	818	1,240	523	325	296	130	105

CAL YR 1962: TOTAL 4,586.6 MEAN 12.6 MAX 286 MIN 1.0 CFSM 2.25 IN 30.57 AC-FT 9,100
WAT YR 1963: TOTAL 4,188.2 MEAN 11.5 MAX 70 MIN 1.3 CFSM 2.06 IN 27.91 AC-FT 8,310

Note.--No gage-height record Dec. 28 to Feb. 7. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, 1963

Oct. 1, 1963... 1.4
2......... 1.3
3......... 1.4
4......... 1.5
Oct. 5, 1963... 1.6
6......... 1.6
7..........1.6
8......... 1.6
Oct. 9, 1963... 1.5
10......... 1.4
11......... 1.4
12......... 1.4
Oct. 13, 1963... 2.8
14......... 2.5
15......... 2.0
16......... 1.8
Oct. 17, 1963... 1.6
18......... 1.5
19......... 1.5

† Result of discharge measurement, 2.4 cfs Dec. 10, 1963.

12-1490. Snoqualmie River near Carnation, Wash.

Location.--Lat 47°39'55", long 121°55'30", in NW¼SW¼ sec.9, T.25 N., R.7 E., on left bank 40 ft downstream from highway bridge, 1 mile northwest of Carnation, and 2 miles downstream from Tolt River.

Drainage area.--603 sq mi (revised).

Records available.--October 1928 to September 1965. Prior to October 1951, published as "near Tolt."

Gage.--Digital water-stage recorder. Datum of gage is at mean sea level, unadjusted. Prior to Dec. 20, 1933, chain or wire-weight gage on old bridge 100 ft upstream at datum 42.96 ft higher. Dec. 20, 1933, to Sept. 30, 1939, graphic water-stage recorder at present site at datum 42.96 ft higher than present datum. Oct. 1, 1939, to Jan. 16, 1964, graphic water-stage recorder at present site and datum. Graphic auxiliary water-stage recorder 1¼ miles upstream from base gage.

Average discharge.--37 years, 3,789 cfs (2,743,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, elevation in feet).

Annual maximum discharge (*) and peak discharges above base (16,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 16, 1960	2130	16,100	52.14	Jan. 4, 1962	0300	19,300	53.77	Nov. 27, 1963	0630	16,600	51.41
Jan. 16, 1961	1330	20,800	54.04	Jan. 7, 1962	2400	* 20,400	54.30	Jan. 2, 1964	0400	* 17,400	51.67
Feb. 22, 1961	0230	* 28,000	55.78								
				Nov. 20, 1962	1500	* 37,800	56.97	Dec. 2, 1964	0745	33,900	56.18
Dec. 24, 1961	2130	18,100	53.16	Feb. 4, 1963	0030	19,200	53.10	Jan. 29, 1965	1645	* 41,600	57.71

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	242	44.30	1964	Oct. 12, 1963	a 558	
1962	Sept.10, 1962	360	44.48	1965	Sept. 8, 1965	546	44.08
1963	Sept.12, 1963	a 630	-				

a Minimum daily.

1928-65: Maximum discharge, 59,500 cfs Feb. 27, 1932 (elevation, 59.88 ft, from graph based on gage readings); maximum elevation observed, 59.93 ft Nov. 13, 1932; minimum discharge, 239 cfs Aug. 21, 1945, but may have been less sometime during period of faulty intake action Sept. 13 or 14, 1949; minimum daily discharge, 396 cfs Sept. 24, 1938.

Remarks.--Records good except those for periods of no gage-height record, which are fair. During the water years 1934-65, city of Seattle Water Department diverted a daily average of between 24 and 35 cfs above station for municipal use. Several small diversions for irrigation and domestic use above station. Low flow diverted for operation of powerplant at Snoqualmie Falls but returned to river above station. Some pondage at Snoqualmie Falls and some diurnal fluctuation caused by powerplant.

Revisions (water years).--WSP 1316: 1932-33(M). WSP 1443: 1934(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	893	9,250	3,120	2,250	6,570	8,720	4,160	6,380	6,200	1,600	756	2,120
2	860	7,310	3,160	1,930	8,230	8,250	7,250	8,000	7,500	1,750	735	4,600
3	805	5,520	3,470	1,740	6,470	6,250	11,500	7,080	7,700	1,900	725	2,270
4	750	4,180	3,950	1,720	6,210	5,340	9,620	5,580	7,000	1,650	780	1,460
5	816	3,370	3,200	6,700	9,040	4,740	6,400	5,480	6,300	3,300	755	1,150
6	750	2,930	2,680	11,500	12,200	4,600	5,180	5,040	6,000	3,150	705	1,110
7	970	2,540	2,400	7,700	10,900	4,420	4,540	4,500	5,700	2,400	680	960
8	2,100	2,320	2,400	6,160	7,280	4,140	4,620	4,140	4,700	1,950	660	850
9	2,230	2,200	2,200	6,780	6,080	4,160	6,000	4,320	4,400	1,900	650	798
10	1,730	4,220	2,100	6,260	6,840	3,880	5,220	5,260	4,160	1,850	610	787
11	1,460	12,000	1,940	5,690	5,350	3,900	4,600	5,500	3,960	1,700	625	787
12	3,240	6,730	5,040	5,760	4,840	4,100	5,300	4,660	3,760	1,800	610	695
13	3,080	4,590	5,140	4,980	4,790	5,180	7,900	4,360	3,700	1,750	615	715
14	2,320	4,640	7,730	6,950	4,820	6,650	6,520	4,580	3,920	1,750	605	675
15	1,910	4,770	5,050	13,300	5,330	8,300	5,300	4,760	4,760	1,650	600	655
16	1,700	11,900	3,830	19,400	5,330	8,100	4,820	5,180	5,320	1,400	600	655
17	1,760	12,300	3,230	11,800	5,000	6,400	5,560	5,920	5,520	1,300	580	655
18	1,620	13,900	3,670	8,200	4,440	5,500	5,100	6,350	5,260	1,220	560	665
19	1,150	9,580	7,280	5,960	6,950	5,300	4,500	6,950	4,500	1,200	541	665
20	1,100	11,400	5,370	4,860	12,700	5,900	4,040	7,620	3,550	1,130	560	818
21	1,800	8,960	4,020	4,140	21,600	5,100	3,760	6,850	3,000	1,100	550	1,270
22	3,250	6,760	3,410	3,710	22,400	4,500	3,620	5,520	2,700	1,100	541	1,080
23	4,500	6,550	3,180	3,290	10,700	4,600	3,360	6,750	2,850	1,080	550	850
24	10,100	10,500	3,140	3,020	8,820	4,760	3,340	5,500	2,800	1,090	514	818
25	5,300	12,800	3,220	2,770	8,400	4,320	3,340	5,000	2,750	983	560	756
26	5,850	8,060	3,040	2,520	6,920	4,160	3,300	6,550	2,750	916	514	756
27	6,450	5,740	2,730	2,250	6,120	4,080	3,170	6,800	2,200	938	505	725
28	10,300	4,620	2,350	2,150	5,800	3,720	3,200	5,550	1,800	883	514	766
29	7,900	3,870	2,150	3,140	------	3,500	4,920	5,400	1,750	894	532	1,230
30	4,950	3,310	2,090	6,240	------	3,440	7,180	5,100	1,950	883	496	1,240
31	6,100	------	2,050	7,670	------	3,620	------	4,800	------	840	776	------
TOTAL	97,744	206,820	108,340	180,540	230,130	159,630	157,320	175,480	128,460	47,057	19,004	32,581
MEAN	3,153	6,894	3,495	5,824	8,219	5,149	5,244	5,661	4,282	1,518	613	1,066
MAX	10,300	13,900	7,730	19,400	22,400	8,720	11,500	8,000	7,700	3,300	780	4,600
MIN	750	2,200	1,940	1,720	4,440	3,440	3,170	4,140	1,750	840	496	655
CFSM	5.23	11.4	5.80	9.66	13.6	8.54	8.70	9.39	7.10	2.52	1.02	1.80
IN.	6.03	12.8	6.68	11.1	14.2	9.85	9.70	10.8	7.92	2.90	1.17	2.01
AC-FT	193,900	410,200	214,900	358,100	456,500	316,600	312,000	348,100	254,800	93,340	37,690	64,620

CAL YR 1960: TOTAL 1,311,736 MEAN 3,584 MAX 13,900 MIN 480 CFSM 5.94 IN 80.90 AC-FT 2,602,000
WAT YR 1961: TOTAL 1,543,106 MEAN 4,228 MAX 22,400 MIN 496 CFSM 7.01 IN 95.17 AC-FT 3,061,000

Note.--No gage-height record June 19 to July 20.

12-1490. Snoqualmie River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,400	4,370	4,700	5,590	4,050	1,530	3,180	4,190	3,160	2,820	1,780	727
2	1,300	3,600	3,900	5,670	4,330	1,470	3,340	5,390	3,720	3,020	1,580	675
3	1,010	3,600	3,500	16,000	5,650	1,400	3,060	5,090	3,930	2,570	1,320	636
4	926	3,200	4,500	17,100	5,390	1,650	2,930	5,130	4,510	2,440	1,740	574
5	954	2,700	5,700	9,080	4,530	2,070	3,780	4,140	4,480	2,590	5,920	526
6	2,930	2,400	4,400	9,820	3,780	2,340	6,260	3,650	4,320	3,970	4,460	490
7	4,120	2,300	3,700	17,400	3,430	2,280	13,600	3,400	3,940	3,780	3,240	468
8	2,820	2,390	3,200	18,100	3,200	2,280	7,430	3,180	4,300	3,180	2,910	446
9	2,910	2,500	2,910	12,300	3,070	2,460	5,190	3,690	4,480	3,200	2,410	424
10	7,410	6,400	2,610	7,740	2,910	2,250	4,300	4,150	4,150	3,000	1,900	3,400
11	4,800	5,600	2,430	6,230	3,060	2,030	3,740	3,790	3,670	2,770	1,580	2,990
12	6,000	4,700	2,200	5,290	2,970	1,740	3,450	3,450	3,690	2,550	1,390	2,190
13	9,000	3,200	2,000	4,610	2,570	1,780	3,760	3,490	3,450	2,320	1,490	1,470
14	4,800	6,100	1,890	4,190	3,160	1,650	4,710	3,430	3,360	2,010	1,320	2,010
15	3,300	7,800	1,960	3,880	3,360	1,780	5,590	3,160	3,720	1,800	1,130	1,920
16	2,500	7,400	2,500	3,520	2,930	1,830	4,510	3,110	4,480	1,800	1,010	1,420
17	2,200	2,200	4,190	3,420	2,570	1,870	3,880	3,220	4,320	1,710	968	1,100
18	1,900	2,000	4,300	3,130	2,640	1,920	4,050	3,310	3,900	1,620	1,010	912
19	1,710	1,800	4,680	2,750	2,590	1,980	4,770	3,330	3,720	1,440	1,140	792
20	1,630	1,700	8,290	2,410	2,300	2,050	4,570	3,380	3,690	1,350	1,220	753
21	1,530	1,600	7,670	2,280	2,140	2,280	4,170	4,080	3,760	1,460	1,180	727
22	1,370	6,500	5,690	2,300	2,140	2,210	4,320	4,410	3,690	1,540	1,270	675
23	3,860	5,000	9,180	2,210	2,410	2,390	4,260	4,260	3,600	1,800	982	623
24	4,510	3,500	16,200	2,250	2,050	3,150	4,930	4,410	3,940	2,480	844	610
25	3,490	3,000	13,600	2,910	1,870	5,590	4,830	4,410	3,960	2,640	753	562
26	4,330	2,700	7,390	4,880	1,710	4,870	4,010	4,370	4,350	2,820	753	526
27	4,300	2,600	5,690	5,810	1,530	4,230	4,690	4,420	3,670	2,640	898	550
28	3,880	3,400	6,230	4,790	1,540	3,720	5,150	4,750	3,110	2,570	1,100	1,060
29	3,250	4,500	9,020	4,120	------	3,090	4,230	4,440	3,060	2,480	1,350	3,180
30	2,800	4,000	9,000	3,920	------	2,910	3,850	3,790	3,270	2,280	996	2,660
31	2,530	------	6,490	4,080	------	2,680	------	3,340	------	1,870	818	------
TOTAL	99,470	112,760	169,720	197,780	83,880	75,480	140,540	122,360	115,400	74,520	50,462	35,096
MEAN	3,209	3,759	5,475	6,380	2,996	2,435	4,685	3,947	3,847	2,404	1,628	1,170
MAX	9,000	7,800	16,200	18,100	5,650	5,590	13,600	5,390	4,510	3,970	5,920	3,400
MIN	926	1,600	1,890	2,210	1,530	1,400	2,930	3,110	3,060	1,350	753	424
CFSM	5.32	6.23	9.08	10.6	4.97	4.04	7.77	6.55	6.38	3.99	2.70	1.94
IN.	6.13	6.95	10.5	12.2	5.17	4.66	8.67	7.55	7.12	4.60	3.11	2.16
AC-FT	197,300	223,700	336,600	392,300	166,400	149,700	278,800	242,700	228,900	147,800	100,100	69,610

CAL YR 1961: TOTAL 1,512,152 MEAN 4,143 MAX 22,400 MIN 496 CFSM 6.87 IN 93.26 AC-FT 2,999,000

WAT YR 1962: TOTAL 1,277,468 MEAN 3,500 MAX 18,100 MIN 424 CFSM 5.80 IN 78.79 AC-FT 2,534,000

Note.--No gage-height record Nov. 9 to Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,710	779	6,170	9,250	1,870	4,810	3,420	3,670	2,620	2,880	1,260	810
2	1,300	753	5,650	12,100	1,980	4,460	2,960	3,650	2,490	2,460	1,220	822
3	1,510	740	5,090	13,000	14,700	3,810	2,780	3,450	2,640	2,220	1,120	930
4	1,850	727	4,410	8,670	16,000	3,400	6,660	3,090	2,320	1,980	1,070	810
5	1,470	1,120	5,650	6,300	12,200	2,990	6,760	3,430	3,280	1,880	1,050	714
6	1,320	1,760	10,900	5,110	8,470	2,780	7,680	4,830	3,380	1,700	1,020	774
7	1,490	1,490	7,660	4,390	7,150	2,590	6,910	4,330	2,700	1,660	982	678
8	3,810	1,810	6,870	4,050	6,000	2,430	5,510	3,810	2,310	1,950	918	666
9	6,990	2,390	6,780	4,370	5,190	2,310	4,580	3,330	3,250	2,070	894	666
10	6,510	3,330	5,920	3,770	4,410	2,240	3,990	3,060	3,300	2,130	894	666
11	4,320	4,990	5,510	3,140	3,790	2,140	3,610	2,890	2,940	2,420	870	642
12	3,470	4,550	4,830	2,800	3,310	2,160	3,360	2,810	3,130	2,240	858	630
13	2,950	3,650	4,330	2,890	2,990	2,040	3,280	2,650	3,130	1,880	870	726
14	2,590	3,070	4,810	2,780	2,880	1,970	3,680	2,590	2,760	1,790	882	2,180
15	2,410	2,730	7,790	2,680	2,730	1,910	4,970	2,780	2,650	1,970	822	1,580
16	2,250	2,530	8,230	2,750	2,780	1,830	3,990	3,040	2,760	1,970	786	1,260
17	2,170	2,320	5,940	2,570	2,780	1,760	3,360	2,890	2,620	1,720	726	1,510
18	1,830	2,210	4,910	2,420	3,400	1,690	3,210	3,560	2,370	1,600	678	1,150
19	1,830	7,110	4,290	2,160	5,440	1,910	3,310	4,370	2,200	1,530	943	943
20	1,760	31,200	3,990	2,070	7,660	2,720	3,280	4,620	2,060	1,410	1,120	918
21	1,800	17,900	3,810	2,040	5,090	2,650	3,080	4,950	2,020	1,380	1,090	798
22	2,190	7,940	4,240	1,940	3,950	3,280	3,060	4,750	2,420	1,730	1,100	762
23	2,070	5,730	3,590	1,870	3,420	2,960	3,970	3,950	2,250	2,000	1,010	822
24	1,630	5,000	3,210	1,830	3,010	2,640	3,500	3,430	2,010	1,660	1,150	918
25	1,390	9,000	2,890	1,770	2,840	2,380	3,110	2,970	3,060	1,660	1,200	834
26	1,270	12,000	2,700	1,630	6,860	2,440	3,060	2,780	2,680	1,530	1,120	750
27	1,190	8,780	2,570	1,620	5,940	2,720	2,960	2,590	2,160	1,400	982	738
28	1,080	6,530	3,860	1,590	4,540	3,450	2,800	2,620	1,910	1,260	894	714
29	1,010	5,310	5,550	1,410	------	4,030	2,940	2,890	3,470	1,240	858	714
30	954	6,170	12,300	1,290	------	4,160	3,830	3,040	3,760	1,180	846	666
31	844	------	13,000	1,480	------	3,950	------	2,920	------	1,150	738	------
TOTAL	68,968	163,619	177,450	115,740	151,380	86,610	119,610	105,740	80,650	55,650	29,971	26,791
MEAN	2,225	5,454	5,724	3,734	5,406	2,794	3,987	3,411	2,688	1,795	967	893
MAX	6,990	31,200	13,000	13,000	16,000	4,810	7,680	4,950	3,760	2,880	1,260	2,180
MIN	844	727	2,570	1,290	1,870	1,690	2,780	2,590	1,910	1,150	678	630
CFSM	3.69	9.04	9.49	6.19	8.97	4.63	6.61	5.66	4.46	2.98	1.60	1.48
IN.	4.25	10.1	10.9	7.14	9.34	5.34	7.38	6.52	4.97	3.43	1.85	1.65
AC-FT	136,800	324,500	352,000	229,600	300,300	171,800	237,200	209,700	160,000	110,400	59,450	53,140

CAL YR 1962: TOTAL 1,305,555 MEAN 3,577 MAX 31,200 MIN 424 CFSM 5.93 IN 80.52 AC-FT 2,590,000

WAT YR 1963: TOTAL 1,182,179 MEAN 3,239 MAX 31,200 MIN 630 CFSM 5.37 IN 72.91 AC-FT 2,345,000

12-1490. Snoqualmie River near Carnation, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	654	2,330	3,840	10,000	6,360	2,950	6,120	3,440	11,400	6,360	3,270	3,130
2	630	3,140	3,390	14,200	5,550	2,810	5,310	3,180	10,700	6,810	4,490	2,820
3	594	3,070	3,050	7,900	4,520	2,680	4,250	2,920	8,210	5,920	4,050	2,990
4	642	3,260	2,810	6,030	4,180	3,680	3,880	2,770	8,450	5,270	5,140	2,540
5	642	3,840	3,120	5,040	4,620	4,620	3,990	3,470	11,200	5,480	3,950	2,280
6	654	3,320	4,790	6,270	3,920	4,070	3,630	3,560	10,200	5,270	3,820	2,110
7	714	3,960	4,290	5,990	3,460	3,500	3,600	3,060	10,200	5,700	3,410	1,990
8	582	6,630	3,760	4,730	3,160	3,140	3,820	3,000	11,200	7,040	3,230	3,270
9	594	5,380	3,410	4,410	2,940	3,240	4,000	3,520	9,410	6,360	2,990	3,320
10	570	4,670	2,980	4,310	2,880	3,310	4,700	5,920	10,200	5,270	2,890	2,580
11	642	4,050	2,680	4,350	3,480	3,950	5,200	5,530	9,170	5,270	2,700	2,230
12	558	3,540	2,480	3,820	3,050	4,070	4,670	5,200	8,210	6,580	2,670	2,020
13	714	3,820	2,320	3,540	2,940	3,450	4,240	5,720	7,730	6,810	2,460	1,860
14	1,050	5,770	2,210	3,480	2,790	3,340	3,780	5,000	7,730	6,140	2,280	1,790
15	918	5,830	2,810	3,480	2,800	5,870	7,240	4,550	7,970	6,580	2,050	1,710
16	774	5,040	2,730	6,720	2,960	4,970	5,880	4,380	10,400	6,360	1,920	1,710
17	750	7,090	5,290	6,800	3,370	5,060	4,600	5,990	10,900	5,060	1,850	2,990
18	762	6,210	5,420	5,880	4,830	6,650	3,950	6,240	11,900	4,450	1,900	3,240
19	774	5,550	5,210	5,160	5,850	5,100	3,590	6,900	10,200	3,860	2,240	2,590
20	870	5,120	6,340	5,330	4,730	4,210	3,500	8,210	8,450	3,860	1,950	6,260
21	1,580	4,150	5,330	4,550	4,090	3,730	3,340	10,500	7,040	4,450	1,710	4,670
22	6,040	4,010	4,430	4,600	3,770	3,340	4,220	8,830	6,360	4,250	1,690	3,970
23	5,160	5,080	6,490	4,230	3,520	3,070	3,940	6,970	7,500	3,480	1,710	3,620
24	4,370	5,880	5,640	4,430	3,430	2,780	3,500	6,100	7,970	3,300	1,710	3,050
25	5,460	7,320	5,700	11,100	2,760	2,670	3,300	5,510	7,040	3,670	1,610	2,800
26	3,730	11,200	4,830	8,770	2,560	2,670	3,690	5,060	6,810	3,670	2,200	2,590
27	2,880	14,600	4,730	6,830	2,440	2,590	3,760	6,140	6,140	3,480	3,270	2,350
28	2,930	8,550	4,490	6,220	2,340	2,640	3,680	7,730	5,480	3,480	5,690	2,150
29	3,440	5,770	3,940	6,090	2,410	2,670	3,770	7,500	4,650	3,670	4,660	2,010
30	3,100	4,610	3,500	6,210	------	3,190	3,630	8,690	5,270	3,480	5,160	4,220
31	2,600	------	3,940	5,600	------	4,510	------	10,400	------	3,330	4,080	------
TOTAL	55,378	162,790	125,950	186,070	105,710	114,530	126,780	175,990	258,090	154,710	92,750	84,860
MEAN	1,786	5,426	4,063	6,002	3,645	3,695	4,226	5,677	8,603	4,991	2,992	2,829
MAX	6,040	14,600	6,490	14,200	6,360	6,650	7,240	10,500	11,900	7,040	5,690	6,260
MIN	558	2,330	2,210	3,480	2,340	2,590	3,300	2,770	4,650	3,300	1,610	1,710
CFSM	2.96	9.00	6.74	9.95	6.05	6.13	7.01	9.41	14.3	8.28	4.96	4.69
IN.	3.42	10.0	7.77	11.5	6.52	7.06	7.82	10.9	15.9	9.54	5.72	5.23
AC-FT	109,800	322,900	249,800	369,100	209,700	227,200	251,500	349,100	511,900	306,900	184,000	168,300

CAL YR 1963: TOTAL 1,116,260 MEAN 3,058 MAX 16,000 MIN 558 CFSM 5.07 IN 68.85 AC-FT 2,214,000
WAT YR 1964: TOTAL 1,643,608 MEAN 4,491 MAX 14,600 MIN 558 CFSM 7.45 IN 101.37 AC-FT 3,260,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5,700	2,160	23,400	2,820	14,900	4,880	2,470	4,600	3,650	2,540	1,010	995
2	6,260	2,340	28,000	3,310	8,300	4,330	2,590	3,930	4,070	2,760	1,010	943
3	7,050	2,460	15,900	3,350	6,570	3,920	2,250	3,440	4,890	2,750	1,020	906
4	4,240	5,760	8,130	2,960	6,260	3,740	2,160	3,480	4,890	2,680	969	882
5	3,270	5,300	6,010	2,790	9,200	3,590	2,240	3,510	4,820	2,640	918	834
6	2,760	3,700	4,880	2,850	9,300	3,470	2,150	3,240	4,980	2,460	858	810
7	2,420	3,220	4,180	2,710	7,040	3,540	2,060	2,970	4,740	2,430	834	786
8	2,550	2,830	4,760	2,620	7,130	3,600	1,930	2,880	4,450	2,310	810	642
9	3,120	2,550	7,140	2,560	6,570	3,630	2,040	2,910	4,620	1,940	846	726
10	3,020	2,480	6,950	2,420	5,450	3,800	2,320	3,380	4,210	1,730	906	762
11	2,600	2,460	5,640	2,320	4,750	4,120	2,210	3,950	4,390	1,870	982	714
12	2,340	2,300	4,540	2,210	4,410	4,100	2,060	4,670	4,040	1,660	1,030	726
13	2,130	2,450	4,130	2,150	7,480	3,740	2,240	4,810	3,140	1,650	1,530	714
14	2,340	2,330	3,830	2,390	7,680	3,460	2,300	4,430	2,750	1,700	1,560	2,570
15	2,960	2,150	3,550	3,460	6,380	3,270	2,560	4,100	2,600	1,740	1,110	6,780
16	3,300	2,050	3,060	5,800	6,670	3,210	3,790	5,690	2,490	1,700	956	4,930
17	3,690	1,980	2,390	6,030	8,740	2,980	3,960	5,170	2,970	1,590	870	2,830
18	3,200	1,890	2,550	5,420	8,120	2,710	3,210	4,090	3,250	1,520	798	1,970
19	2,800	1,850	2,530	5,400	7,770	2,550	3,980	3,580	2,990	1,410	786	1,600
20	2,580	1,740	2,600	5,540	8,000	2,400	12,600	4,310	2,960	1,350	1,060	1,490
21	2,390	1,710	2,510	6,080	6,390	2,320	10,900	4,390	2,760	1,440	1,150	1,200
22	2,230	1,710	5,440	5,170	5,700	2,620	7,460	4,050	2,620	1,320	930	1,150
23	2,080	2,220	10,700	4,420	4,890	2,440	5,690	3,970	2,570	1,220	995	1,150
24	2,000	9,740	6,620	4,300	4,350	2,240	5,660	3,770	2,640	1,220	1,670	1,130
25	1,970	8,890	4,970	3,780	3,990	2,120	5,750	3,430	2,560	1,240	1,450	943
26	1,850	6,900	4,780	3,790	4,210	1,990	5,710	3,700	2,280	1,280	1,440	995
27	1,800	5,400	4,780	9,930	6,840	1,950	6,560	4,640	2,040	1,240	1,590	1,010
28	1,700	4,240	4,060	17,300	6,060	1,900	7,200	5,920	1,930	1,190	1,410	943
29	1,620	4,330	3,570	35,500	------	2,060	6,220	5,770	1,970	1,110	1,450	918
30	1,810	13,800	3,240	32,100	------	1,990	5,180	5,130	2,180	1,050	1,240	906
31	2,550	------	3,010	28,400	------	1,990	------	4,410	------	1,020	1,090	------
TOTAL	90,330	112,940	197,850	219,880	193,150	94,660	127,450	128,320	100,450	53,760	34,278	42,955
MEAN	2,914	3,765	6,382	7,093	6,898	3,054	4,248	4,139	3,348	1,734	1,106	1,432
MAX	7,050	13,800	28,000	35,500	14,900	4,880	12,600	5,920	4,980	2,760	1,670	6,780
MIN	1,620	1,710	2,390	2,150	3,990	1,900	1,930	2,880	1,930	1,020	786	642
CFSM	4.83	6.24	10.6	11.8	11.4	5.06	7.05	6.86	5.55	2.88	1.83	2.37
IN.	5.57	6.97	12.2	13.6	11.9	5.84	7.86	7.91	6.20	3.32	2.11	2.65
AC-FT	179,200	224,000	392,400	436,100	383,100	187,800	252,800	254,500	199,200	106,600	67,990	85,200

CAL YR 1964: TOTAL 1,700,610 MEAN 4,646 MAX 28,000 MIN 1,610 CFSM 7.71 IN 104.89 AC-FT 3,373,000
WAT YR 1965: TOTAL 1,396,023 MEAN 3,825 MAX 35,500 MIN 642 CFSM 6.34 IN 86.10 AC-FT 2,769,000

12-1505. Cherry Creek near Duvall, Wash.

Location.--Lat 47°44'40", long 121°56'35", in NE¼NW¼ sec.17, T.26 N., R.7 E., on left bank 2 miles east of Duvall and 2 miles upstream from mouth.

Drainage area.--19.2 sq mi (revised).

Records available.--June 1945 to October 1948, June 1961 to September 1964 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 90 ft (from topographic map). June 29, 1945, to Oct. 31, 1948, at site 40 ft upstream at different datum.

Average discharge.--6 years, 56.7 cfs (41,050 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (230 cfs, revised), June 1961 to September 1964

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Dec. 17, 1961	2000	471	2.98	Dec. 1, 1962	0800	233	2.14	Jan. 1, 1964	2330	* 463	2.89
Jan. 7, 1962	1030	* 920	3.92	Jan. 3, 1963	0400	* 255	2.22				
				Feb. 5, 1963	0600	241	2.17				
Nov. 26, 1962	0430	244	2.18	Nov. 14, 1963	2100	244	2.18				

Annual minimum discharges, June 1961 to September 1964

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 27-30, 1961	1.6	0.99	1963	Aug. 29 to Sept. 3	b 3.0	-
1962	(a)	b 2.3	-	1964	Oct. 2, 3, 1963	b 3.8	-

a Oct. 3, 4, 1961, July 30, Sept. 9, 1962.
b Minimum daily.

1945-48, 1961-64: Maximum discharge, 920 cfs Jan. 7, 1962 (gage height, 3.92 ft); minimum, 1.6 cfs Aug. 27-30, 1961 (gage height, 0.99 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. Some regulation by Lake Margaret. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1									15	2.6	1.9	4.5
2									13	2.6	1.8	3.4
3									11	2.5	1.8	2.6
4									10	2.5	1.8	2.5
5									9.0	9.2	1.8	2.6
6									11	8.2	1.8	2.5
7									13	6.0	1.8	2.3
8									12	4.9	1.8	2.2
9									12	4.1	1.8	2.2
10									11	3.7	1.8	2.2
11									10	3.0	1.8	2.2
12									9.4	2.6	1.8	2.2
13									7.6	2.5	1.7	2.1
14									6.4	2.5	1.7	2.2
15									6.0	2.4	1.7	2.2
16									5.3	2.3	2.9	2.2
17									4.9	2.3	2.7	2.2
18									4.5	2.2	2.5	2.2
19									4.5	2.2	2.3	2.2
20									4.5	2.1	2.2	2.3
21									4.1	2.0	2.1	2.3
22									3.7	2.0	2.0	2.2
23									3.4	2.1	1.9	2.2
24									3.0	2.1	1.9	2.2
25									2.6	2.1	1.8	2.2
26									2.6	2.1	1.8	2.2
27									3.0	2.0	1.8	2.2
28									3.0	2.0	1.7	2.4
29					------				3.0	2.1	1.7	2.6
30					------				3.0	2.0	1.7	2.6
31		------			------		------		------	1.9	2.4	------
TOTAL									211.5	92.8	60.2	72.1
MEAN									7.05	2.99	1.94	2.40
MAX									15	9.2	2.9	4.5
MIN									2.6	1.9	1.7	2.1
CFSM									.37	.16	.10	.13
IN.									.41	.18	.12	.14
AC-FT									420	184	119	143

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1505. Cherry Creek near Duvall, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.5	21	87	63	35	33	58	41	22	6.8	3.0	2.5
2	2.4	23	83	62	33	31	51	38	26	6.8	3.5	17
3	2.3	24	73	171	32	31	46	43	41	6.1	5.7	14
4	2.3	23	72	299	30	39	46	57	65	6.5	7.6	9.2
5	3.6	20	83	219	28	60	48	47	86	7.2	12	7.2
6	9.4	17	87	304	28	82	57	42	95	14	15	5.3
7	22	16	93	709	28	88	69	37	71	10	13	4.6
8	15	14	98	402	27	97	60	36	55	8.1	11	3.5
9	10	17	85	246	26	108	55	48	48	7.2	9.2	2.3
10	15	33	70	174	28	104	50	45	42	6.8	6.8	6.7
11	15	42	59	127	31	94	46	38	37	6.1	6.1	13
12	16	35	52	99	32	82	42	33	32	6.8	5.3	13
13	22	31	51	84	32	69	38	32	26	6.1	4.9	12
14	17	27	48	71	48	64	36	27	24	5.7	4.2	12
15	12	22	53	64	63	59	35	25	20	5.7	3.8	11
16	10	24	91	57	59	57	30	24	18	5.3	3.8	8.1
17	8.8	38	350	59	54	55	25	21	17	5.7	3.8	7.6
18	6.4	30	371	55	50	52	24	23	16	5.3	4.2	6.5
19	7.0	27	351	49	46	51	23	23	14	4.6	4.2	5.7
20	6.4	25	343	45	41	67	41	23	13	4.2	3.5	5.3
21	6.0	23	343	40	37	94	41	21	12	4.0	3.2	4.6
22	7.0	49	247	35	38	103	35	20	11	3.5	2.9	4.6
23	30	72	205	32	48	114	25	25	11	3.5	2.6	4.2
24	41	70	230	30	46	133	24	39	9.5	3.0	2.5	3.8
25	30	60	187	35	41	176	22	48	9.0	2.5	2.5	3.5
26	47	52	142	37	38	150	21	49	8.5	2.5	4.5	3.5
27	51	48	110	47	35	125	37	56	8.0	2.5	4.0	3.8
28	44	53	95	46	34	106	45	51	7.0	2.5	6.1	8.1
29	35	73	104	44	------	88	40	46	6.5	2.5	4.2	12
30	29	79	100	40	------	71	45	40	6.5	2.3	3.2	14
31	21	------	79	38	------	64	------	35	------	2.5	2.6	------
TOTAL	546.1	1,088	4,442	3,783	1,068	2,547	1,215	1,133	857.0	166.3	168.9	228.6
MEAN	17.6	36.3	143	122	38.1	82.2	40.5	36.5	28.6	5.36	5.45	7.62
MAX	51	79	371	709	63	176	69	57	95	14	15	17
MIN	2.3	14	48	30	26	31	21	20	6.5	2.3	2.5	2.3
CFSM	.92	1.89	7.46	6.36	1.99	4.28	2.11	1.90	1.49	.28	.28	.40
IN.	1.06	2.11	8.60	7.33	2.07	4.93	2.35	2.19	1.66	.32	.33	.44
AC-FT	1,080	2,160	8,810	7,500	2,120	5,050	2,410	2,250	1,700	330	335	453

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 17,242.9 MEAN 47.2 MAX 709 MIN 2.3 CFSM 2.46 IN 33.40 AC-FT 34,200

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	8.3	225	184	15	90	113	42	7.0	52	6.3	3.0
2	8.8	8.3	199	222	28	88	101	44	7.8	41	6.3	3.0
3	13	7.8	155	238	128	82	87	42	7.4	33	6.0	3.0
4	13	8.8	123	180	179	71	108	38	8.3	20	5.7	4.0
5	11	12	106	138	230	51	106	45	14	17	5.7	7.4
6	12	11	97	108	178	45	121	50	13	15	5.7	7.0
7	14	11	82	87	140	42	131	50	12	15	5.7	6.6
8	32	13	68	76	114	44	118	48	11	21	5.5	6.0
9	77	15	59	87	94	39	99	42	15	19	5.5	5.7
10	75	27	52	75	80	37	78	38	20	33	5.5	5.7
11	51	51	46	68	73	36	68	36	15	42	5.2	3.3
12	38	56	41	68	60	34	59	32	13	50	5.2	3.2
13	30	60	41	68	50	32	52	29	16	44	5.0	4.0
14	32	59	44	58	44	28	52	27	15	39	4.8	13
15	50	56	83	51	39	22	52	24	14	35	4.6	11
16	33	54	119	51	39	21	50	17	8.3	20	4.6	8.3
17	27	54	106	48	38	20	45	16	7.4	17	4.3	7.0
18	24	51	88	45	41	18	45	14	7.0	15	3.8	5.7
19	19	63	78	41	42	19	54	13	6.6	14	3.6	5.0
20	16	99	67	38	51	20	57	13	6.6	13	5.0	4.8
21	15	94	67	36	46	20	54	11	9.9	15	4.0	4.3
22	14	82	65	33	44	19	54	11	24	19	3.8	4.3
23	13	68	59	32	41	20	65	9.9	26	15	3.8	4.6
24	12	63	51	29	38	21	63	9.3	25	15	4.3	4.8
25	13	148	46	28	43	20	57	9.3	33	13	3.8	4.6
26	11	233	42	26	90	23	52	8.8	30	9.3	3.8	4.3
27	11	201	39	24	101	32	50	8.3	27	8.8	3.5	4.1
28	9.9	153	44	22	92	42	45	7.8	26	7.8	3.2	4.1
29	9.3	127	64	19	------	78	45	7.4	60	7.8	3.0	3.8
30	9.9	169	195	16	------	104	42	7.0	68	7.0	3.0	4.0
31	8.8	------	222	14	------	114	------	7.0	------	7.0	3.0	------
TOTAL	714.7	2,063.2	2,773	2,210	2,158	1,332	2,123	756.8	553.3	679.7	143.2	159.6
MEAN	23.1	68.8	89.5	71.3	77.1	43.0	70.8	24.4	18.4	21.9	4.62	5.32
MAX	77	233	225	238	230	114	131	50	68	52	6.3	13
MIN	8.8	7.8	39	14	15	18	42	7.0	6.6	7.0	3.0	3.0
CFSM	1.20	3.58	4.66	3.71	4.01	2.24	3.69	1.27	.96	1.14	.24	.28
IN.	1.38	4.00	5.37	4.28	4.18	2.58	4.11	1.47	1.07	1.32	.28	.31
AC-FT	1,420	4,090	5,500	4,380	4,280	2,640	4,210	1,500	1,100	1,350	284	317

CAL YR 1962: TOTAL 16,717.7 MEAN 45.8 MAX 709 MIN 2.3 CFSM 2.39 IN 32.38 AC-FT 33,160
WAT YR 1963: TOTAL 15,666.5 MEAN 42.9 MAX 238 MIN 3.0 CFSM 2.24 IN 30.35 AC-FT 31,070

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1505. Cherry Creek near Duvall, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.0	32	85	217	123	59	66	50	26	20	5.0	11
2	3.8	36	70	349	110	75	62	48	26	19	6.5	11
3	3.8	33	57	222	96	86	53	44	24	18	11	10
4	4.0	33	50	159	86	116	63	44	24	16	17	10
5	4.1	32	54	130	78	142	101	64	22	17	14	9.5
6	4.6	39	95	146	69	140	103	62	24	19	12	9.8
7	4.6	70	104	136	63	123	94	53	42	18	10	9.5
8	4.6	131	103	123	55	112	83	50	81	14	9.0	11
9	4.3	110	101	127	51	114	75	50	84	15	8.5	15
10	4.4	99	87	127	48	121	72	73	80	13	8.0	14
11	4.5	83	76	148	46	159	70	67	63	11	7.5	12
12	4.5	82	68	138	43	150	67	60	53	10	6.6	12
13	6.0	95	59	129	47	127	67	62	48	9.0	7.2	11
14	5.7	186	57	129	48	114	66	56	40	9.5	7.0	10
15	5.0	214	88	129	60	108	138	46	36	11	6.5	9.5
16	4.8	166	162	179	75	96	156	37	62	15	6.2	10
17	4.6	155	184	203	81	123	150	34	114	13	6.2	18
18	5.0	155	169	189	103	159	127	30	184	11	8.4	34
19	4.6	164	144	170	110	134	103	28	179	10	8.4	32
20	5.2	166	164	175	94	114	86	51	140	9.0	7.4	65
21	9.3	138	158	150	83	100	75	48	110	9.5	6.7	60
22	32	131	133	130	72	86	83	55	80	9.5	6.3	56
23	33	164	127	114	64	75	78	64	59	8.5	6.0	48
24	29	188	116	114	62	64	72	56	53	7.5	5.8	41
25	28	204	112	186	63	62	64	50	53	7.0	6.0	32
26	34	206	103	196	55	73	60	44	40	6.5	8.2	21
27	29	199	97	157	48	80	57	40	34	6.0	7.8	18
28	38	155	85	129	47	76	56	35	30	5.7	20	16
29	46	121	76	130	50	70	52	33	26	5.3	17	16
30	39	103	70	125	------	67	50	30	22	5.0	15	22
31	34	------	67	123	------	62	------	28	------	5.4	12	------
TOTAL	443.4	3,690	3,121	4,879	2,030	3,187	2,449	1,492	1,859	353.4	283.2	654.3
MEAN	14.3	123	101	157	70.0	103	81.6	48.1	62.0	11.4	9.14	21.8
MAX	46	214	184	349	123	159	156	73	184	20	20	65
MIN	3.8	32	50	114	43	59	50	28	22	5.0	5.0	9.5
CFSM	.74	6.41	5.24	8.20	3.65	5.35	4.25	2.51	3.23	.59	.48	1.14
IN.	.86	7.15	6.05	9.45	3.93	6.17	4.74	2.89	3.60	.68	.55	1.27
AC-FT	879	7,320	6,190	9,680	4,030	6,320	4,860	2,960	3,690	701	562	1,300

CAL YR 1963: TOTAL 17,370.0 MEAN 47.6 MAX 238 MIN 3.0 CFSM 2.48 IN 33.65 AC-FT 34,450
WAT YR 1964: TOTAL 24,441.3 MEAN 66.8 MAX 349 MIN 3.8 CFSM 3.48 IN 47.34 AC-FT 48,480

Note.--No gage-height record July 7 to Sept. 21.

12-1508. Snohomish River near Monroe, Wash.

Location.--Lat 47°49'50", long 122°02'55", in NW¼ sec.16, T.27 N., R.6 E., on left bank a quarter of a mile downstream from confluence of Snoqualmie and Skykomish Rivers, 4 miles southwest of Monroe, and 6 miles south of Snohomish.

Drainage area.--1,537 sq mi.

Records available.--February 1963 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 13.25 ft (revised) above mean sea level, datum of 1929. Prior to February 1963 crest-stage gage only at site about 800 ft downstream at mean sea level datum. Feb. 8, 1963, to May 27, 1964, at site 100 ft upstream at same datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum gage height, water years 1932, 1934, 1951, 1960, 1962, and annual maximum discharge (*) and peak discharges above base (33,000 cfs), water years 1963-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 27, 1932	-	-	34.0	Jan. 8, 1962	-	-	27.64	June 2, 1964	0430	33,200	9.97
Dec. 27, 1933	-	-	34.2	Nov. 20, 1962	-	-	31.27	Dec. 2, 1964	0300	59,600	15.95
				Feb. 3, 1963	-	ab45,000	-	Jan. 30, 1965	2230	* 67,800	17.53
Feb. 10, 1951	-	-	35.8								
				Nov. 27, 1963	-	b 42,000	-				
Dec. 15, 1959	-	-	34.1	Jan. 1, 1964	2230	* 47,400	13.24				

a Maximum daily.
b Estimated.

Annual minimum daily discharges, February 1963 to September 1965

Water year	Date	Discharge	Water year	Date	Discharge
1963	Sept.12, 1963	1,490	1965	Sept. 8, 13, 1965	1,900
1964	Oct. 10-12, 1963	1,500			

1932, 1933, 1951, 1959, 1962-65: Maximum stage, 35.8 ft Feb. 10, 1951, datum then in use (discharge not determined).
1963-65: Minimum daily discharge, 1,490 cfs Sept. 12, 1963.
Flood in December 1921 reached a discharge of approximately 180,000 cfs. Floods in November or December 1897 and November 1906 are believed to be higher.

Remarks.--Record fair prior to Sept. 30, 1964, excellent thereafter except those for periods of no gage-height record, which are poor. Some regulation by powerplant above station. Minor diversions for irrigation returned to river above gage. Records of water temperatures for the water year 1965 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1					5,000	12,000	8,510	8,400	9,000	6,870	3,000	1,900
2					15,000	11,300	7,340	8,400	8,000	6,140	2,900	2,000
3					45,000	9,390	6,780	8,000	7,500	5,480	2,800	2,100
4					40,000	8,150	11,100	7,600	7,200	5,300	2,660	2,000
5					35,000	7,340	16,100	8,000	8,400	4,790	2,540	1,890
6					28,000	6,640	17,700	11,000	8,200	4,690	2,500	1,890
7					22,000	6,250	17,700	10,500	7,500	4,640	2,420	1,890
8					17,900	5,740	13,900	9,200	7,000	5,000	2,160	1,620
9					14,700	5,320	11,000	8,200	8,200	5,000	2,100	1,620
10					12,100	5,050	9,420	7,600	8,500	5,200	2,100	1,620
11					10,000	5,170	8,420	7,100	8,200	5,600	2,100	1,600
12					8,660	5,200	8,100	6,900	9,000	5,300	2,200	1,490
13					7,790	4,810	7,800	6,700	8,500	5,000	2,500	4,000
14					7,260	4,570	9,000	6,700	8,100	4,700	2,400	7,000
15					6,840	4,450	12,500	6,760	8,500	4,700	2,200	6,000
16					6,620	4,260	10,000	7,600	9,000	4,500	2,100	4,000
17					6,620	4,040	9,000	7,800	8,500	4,170	2,050	4,000
18					7,340	3,840	7,500	10,000	7,700	3,930	1,870	3,500
19					12,000	4,260	7,500	13,000	6,950	3,710	2,500	2,800
20					19,900	6,670	7,500	14,500	6,450	3,620	2,700	2,400
21					13,500	6,420	7,200	16,000	6,220	3,600	2,500	2,200
22					9,920	7,910	7,200	15,000	6,110	4,300	2,400	2,200
23					8,330	7,700	8,400	14,000	6,000	4,500	2,300	2,400
24					7,400	6,840	8,180	12,000	5,840	4,000	2,600	2,500
25					6,870	6,280	7,000	10,000	7,500	4,000	2,600	2,300
26					16,600	5,840	7,000	9,000	6,560	3,620	2,500	1,960
27					15,700	6,280	6,500	8,000	5,660	3,490	2,300	1,820
28					11,400	7,940	6,300	8,500	4,860	3,290	2,200	1,800
29					------	9,320	7,400	9,500	8,000	3,180	2,100	1,710
30					------	9,600	9,000	10,000	8,000	3,030	2,000	1,670
31		------			------	9,280	------	10,000	------	2,760	1,900	------
TOTAL					417,450	207,860	281,050	295,960	224,950	138,110	73,200	75,880
MEAN					14,910	6,705	9,368	9,547	7,498	4,455	2,361	2,529
MAX					45,000	12,000	17,700	16,000	9,000	6,870	3,000	7,000
MIN					5,000	3,840	6,300	6,700	4,860	2,760	1,870	1,490
CFSM					9.70	4.36	6.10	6.21	4.88	2.90	1.54	1.65
IN.					10.1	5.03	6.80	7.16	5.44	3.34	1.77	1.84
AC-FT					828,000	412,300	557,500	587,000	446,200	273,900	145,200	150,500

Note.--No gage-height record May 16 to June 18.

12-1508. *Snohomish River near Monroe, Wash.*--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,700	6,100	10,000	30,100	12,800	6,600	13,100	8,300	32,500	18,300	8,800	7,400
2	1,650	6,380	8,200	38,800	13,000	6,200	13,600	8,200	31,400	20,600	12,000	6,000
3	1,600	6,840	6,960	24,700	10,400	6,000	10,700	8,400	25,100	17,800	11,000	6,800
4	1,600	7,500	6,720	19,100	9,110	8,000	9,300	8,000	24,000	15,700	14,100	6,000
5	1,700	8,200	8,000	15,600	9,700	9,000	9,260	8,200	30,700	16,600	11,600	5,800
6	1,800	7,600	10,500	16,000	9,000	9,000	9,110	8,200	29,400	15,900	9,710	5,200
7	1,800	9,200	11,000	14,000	7,600	8,400	8,730	7,600	26,600	17,100	8,990	5,000
8	1,600	13,000	9,560	11,400	6,800	6,600	8,800	7,700	27,000	21,900	8,140	7,000
9	1,550	11,700	8,540	10,200	6,500	6,600	9,220	9,400	25,200	20,300	8,000	6,600
10	1,500	10,400	7,280	9,710	6,300	6,700	10,900	15,000	28,200	16,400	7,600	5,600
11	1,500	8,900	6,500	9,710	6,860	8,400	12,400	14,000	26,700	16,500	7,200	4,800
12	1,500	8,200	5,900	9,300	7,200	8,200	11,600	13,100	23,200	20,300	7,200	4,400
13	2,500	8,570	5,570	8,170	6,200	7,400	11,800	13,500	21,700	21,700	7,000	4,100
14	2,700	14,000	5,500	7,620	5,690	7,600	10,100	12,700	21,500	19,800	6,300	4,100
15	2,300	16,000	5,780	7,080	5,760	13,000	17,000	11,700	22,500	20,300	5,600	3,800
16	2,000	12,000	8,760	13,900	5,960	12,000	15,900	12,000	27,700	20,800	5,200	3,800
17	1,900	14,700	11,000	18,200	6,840	11,000	12,200	16,000	27,900	16,600	5,200	7,000
18	1,900	16,200	13,100	15,100	9,140	16,500	9,980	17,000	26,400	14,300	5,400	6,860
19	1,900	12,700	12,500	12,300	12,200	12,300	8,730	18,900	25,200	11,800	6,200	5,320
20	2,300	11,600	14,300	11,800	10,000	9,710	8,170	22,600	21,900	11,400	5,400	12,100
21	5,200	10,300	13,900	10,400	8,320	8,280	7,900	27,900	18,600	13,000	4,700	10,600
22	20,000	9,140	11,000	9,300	7,470	7,390	10,800	23,000	16,800	12,500	4,700	8,210
23	14,700	9,900	19,000	8,420	7,010	6,670	10,200	18,000	19,900	10,100	4,800	7,340
24	13,900	12,400	18,500	7,770	6,770	6,100	8,760	15,500	22,400	9,600	4,800	6,340
25	15,800	14,600	17,200	16,300	6,190	5,700	8,570	14,000	20,500	10,500	4,700	5,830
26	11,800	27,000	15,700	18,400	5,850	5,800	9,140	13,500	19,700	11,100	7,500	5,440
27	8,170	33,000	13,000	14,200	5,550	5,700	9,200	16,000	18,500	10,600	8,500	5,110
28	7,340	21,300	11,000	13,200	5,480	5,600	9,000	21,200	16,100	11,000	13,000	5,140
29	8,030	14,000	10,200	12,000	5,570	5,800	9,200	21,000	13,700	11,500	11,000	5,140
30	7,740	12,000	8,690	12,500	------	7,200	9,100	23,900	14,900	10,600	11,500	13,600
31	6,620	------	11,200	12,000	------	9,140	------	28,700	------	9,520	8,600	------
TOTAL	156,300	373,430	325,060	437,280	225,270	252,590	312,470	463,200	705,900	474,120	244,440	190,430
MEAN	5,042	12,450	10,490	14,110	7,768	8,148	10,420	14,940	23,530	15,290	7,885	6,348
MAX	20,000	33,000	19,000	38,800	13,000	16,500	17,000	28,700	32,500	21,900	14,100	13,600
MIN	1,500	6,100	5,500	7,080	5,480	5,600	7,900	7,600	13,700	9,520	4,700	3,800
CFSM	3.28	8.10	6.82	9.18	5.05	5.30	6.78	9.72	15.3	9.95	5.13	4.13
IN.	3.78	9.04	7.87	10.6	5.45	6.11	7.56	11.2	17.1	11.5	5.91	4.61
AC-FT	310,000	740,700	644,700	867,300	446,800	501,000	619,800	918,700	1,400M	940,400	484,800	377,700

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 4,160,490 MEAN 11,370 MAX 38,800 MIN 1,500 CFSM 7.40 IN 100.67 AC-FT 8,252,000

M Expressed in thousands.
Note.--No gage-height record Aug. 9 to Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20,900	5,110	56,200	6,400	40,100	12,500	6,000	12,500	11,300	7,230	3,050	2,700
2	21,400	5,250	54,800	7,500	25,300	10,400	6,000	10,500	12,300	8,350	3,000	2,500
3	20,600	5,370	41,400	7,400	18,500	9,180	5,400	9,200	15,000	8,540	3,050	2,350
4	12,700	12,900	26,200	6,600	16,400	8,540	5,400	9,180	15,600	8,350	2,900	2,250
5	8,900	14,500	18,500	6,200	24,900	8,070	5,400	8,950	16,000	8,140	2,650	2,200
6	7,080	9,410	14,400	6,100	27,000	7,940	5,200	8,200	16,700	7,650	2,450	2,100
7	6,240	7,500	11,600	5,800	20,600	8,030	4,800	7,230	15,900	8,570	2,400	2,050
8	6,340	6,670	11,800	5,600	18,800	8,140	4,630	7,030	15,000	8,240	2,350	1,900
9	7,710	6,010	18,200	5,400	17,500	8,210	4,790	7,200	15,500	7,080	2,400	2,000
10	6,940	5,730	17,800	5,200	14,200	8,880	5,460	8,610	14,300	6,410	2,500	2,050
11	6,170	5,640	15,500	5,040	11,700	9,900	5,370	10,600	14,700	6,150	2,650	1,950
12	5,500	5,390	11,900	4,790	10,200	10,000	5,160	13,200	13,500	5,920	3,300	1,950
13	5,160	5,500	10,600	4,630	15,200	9,220	5,600	14,300	10,200	5,730	4,400	1,900
14	5,370	5,320	9,600	5,020	17,500	8,350	5,620	13,200	8,540	5,870	3,950	6,800
15	6,770	4,950	8,650	6,720	14,200	7,840	6,300	12,000	7,970	5,850	3,200	12,900
16	7,800	4,700	7,350	11,600	15,100	7,500	10,500	18,300	7,560	5,300	2,800	10,600
17	8,350	4,470	6,500	13,500	19,400	7,030	10,500	18,000	9,330	5,140	2,600	6,230
18	7,390	4,380	6,100	12,300	19,300	6,460	9,500	13,500	10,600	4,980	2,500	4,660
19	6,500	4,170	6,100	12,000	18,600	5,990	11,000	11,200	9,520	4,630	2,500	3,800
20	6,030	4,010	6,100	12,800	21,300	5,660	28,000	12,300	9,220	4,150	2,900	3,360
21	5,640	3,920	6,000	14,800	16,700	5,460	28,000	12,800	8,320	4,030	2,800	3,000
22	5,230	3,780	11,000	13,600	14,700	5,730	19,000	11,600	7,870	3,800	2,700	2,600
23	4,880	4,490	19,500	11,000	12,300	5,600	15,500	11,300	7,970	3,500	3,050	2,700
24	4,610	22,800	14,000	11,100	10,400	5,160	15,500	10,800	8,070	3,530	3,800	2,550
25	4,450	22,400	11,000	9,790	9,220	4,930	15,500	9,980	8,880	3,660	3,450	2,350
26	4,280	16,800	10,000	8,950	9,520	4,700	16,000	11,000	7,970	3,710	3,600	2,400
27	3,990	13,300	10,500	24,800	17,600	4,600	19,000	14,100	7,030	3,710	3,600	2,400
28	3,800	10,300	9,200	39,200	16,700	4,500	20,500	18,400	6,480	3,550	3,700	2,250
29	3,690	9,380	7,800	55,300	------	4,700	18,000	19,000	6,030	3,360	3,600	2,150
30	4,010	39,400	7,000	62,500	------	4,500	15,000	16,300	6,290	3,100	3,300	2,100
31	5,710	------	6,600	59,700	------	4,700	------	13,900	------	3,200	3,000	------
TOTAL	234,140	273,550	471,900	461,340	492,940	222,420	332,630	374,380	323,650	171,430	94,150	100,750
MEAN	7,553	9,118	15,220	14,880	17,610	7,175	11,090	12,080	10,790	5,530	3,037	3,358
MAX	21,400	39,400	56,200	62,500	40,100	12,500	28,000	19,000	16,700	8,570	4,400	12,900
MIN	3,690	3,780	6,000	4,630	9,220	4,500	4,630	7,030	6,030	3,100	2,350	1,900
CFSM	4.91	5.93	9.90	9.68	11.5	4.67	7.21	7.86	7.02	3.60	1.98	2.18
IN.	5.67	6.62	11.4	11.2	11.9	5.38	8.05	9.06	7.83	4.15	2.28	2.44
AC-FT	464,400	542,600	936,000	915,100	977,700	441,200	659,800	742,600	642,000	340,000	186,700	199,800

CAL YR 1964: TOTAL 4,285,290 MEAN 11,710 MAX 56,200 MIN 3,690 CFSM 7.62 IN 103.69 AC-FT 8,500,000
WAT YR 1965: TOTAL 3,553,280 MEAN 9,735 MAX 62,500 MIN 1,900 CFSM 6.33 IN 85.98 AC-FT 7,048,000

12-1530. Little Pilchuck Creek near Lake Stevens, Wash.

Location.--Lat 48°02'00", long 122°03'00", in NW¼NW¼ sec.4, T.29 N., R.6 E, on right bank just downstream from highway crossing, 1½ miles northeast of Lake Stevens and 2 miles upstream from Stevens Creek.

Drainage area.--17.0 sq mi (revised).

Records available.--June 1946 to September 1951, September 1952 to September 1965.

Gage.--Water-stage recorder and wooden control. Altitude of gage is 200 ft (from topographic map).

Average discharge.--18 years, 31.7 cfs (22,950 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (170 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 15, 1960	1400	176	3.74	Jan. 7, 1962	1500	* 325	4.61	Mar. 6, 1964	0330	206	3.90
Nov. 21, 1960	0200	* 302	4.50	June 3, 1962	0600	170	3.55				
Nov. 24, 1960	1130	246	4.08					Dec. 3, 1964	0900	240	4.49
Feb. 12, 1961	1630	178	3.64	Jan. 3, 1963	1100	* 160	3.50	Jan. 3, 1965	0800	198	3.98
Feb. 17, 1961	1330	187	3.71					Jan. 29, 1965	0900	* 539	6.04
Feb. 24, 1961	2400	240	4.10	Dec. 7, 1963	0800	203	3.88	Feb. 6, 1965	0800	182	3.91
				Jan. 1, 1964a	-	* 215	b 3.99				
Dec. 17, 1961	2230	237	4.05	Jan. 19, 1964	2300	189	3.85				

a About.
b From recorded range in stage.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 26, 1961	0.7	0.86	1964	Aug. 24, 1964	1.3	1.00
1962	July 23, 1962	1.5	.96	1965	July 31, Aug.1, 1965	1.1	.93
1963	Aug. 17, 1963	1.4	.97				

1946-51, 1952-65: Maximum discharge, 625 cfs Nov. 21, 1959 (gage height, 6.02 ft, from floodmarks), from rating curve extended above 180 cfs on basis of computation of peak flow through culvert; maximum gage height, 6.04 ft backwater from bridge 350 ft downstream) Jan. 29, 1965; no flow for part of Aug. 31, 1959.

Remarks.--Records good except those for period of no gage-height record, which are fair. Several small diversions above station for farm use. No regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.3	28	40	28	33	89	31	30	9.7	3.7	1.5	3.5
2	2.4	24	37	25	32	82	36	38	8.4	3.5	1.5	2.4
3	2.5	20	37	23	29	71	40	31	7.7	2.8	1.3	1.8
4	2.4	16	41	22	30	66	35	44	7.0	2.7	1.3	1.7
5	2.3	13	37	31	62	60	30	85	6.6	9.0	1.4	1.7
6	3.6	11	32	45	124	69	26	81	6.6	8.0	1.5	1.6
7	9.2	9.5	29	44	128	70	23	61	7.5	6.0	1.4	1.3
8	12	8.0	27	40	92	66	28	48	6.8	4.6	1.4	1.3
9	8.3	7.0	24	39	71	71	36	46	6.4	3.8	1.4	1.3
10	7.0	27	22	35	62	63	35	50	6.2	3.4	1.6	1.3
11	6.4	66	22	35	73	61	31	46	6.0	2.7	1.3	1.3
12	10	74	29	38	169	63	55	37	5.8	2.4	1.3	1.3
13	7.8	66	31	37	164	67	65	31	3.8	1.8	1.4	1.2
14	6.8	105	40	36	130	76	50	30	4.0	1.8	1.3	1.3
15	6.0	143	35	38	125	127	42	27	3.7	1.8	1.3	1.3
16	5.4	160	30	40	133	114	36	23	3.4	1.6	2.4	1.3
17	5.2	140	32	45	177	83	31	19	3.1	1.6	2.1	1.3
18	4.8	146	42	43	151	63	29	17	3.1	1.4	1.5	1.4
19	4.4	97	51	37	141	53	39	14	3.2	1.4	1.4	1.5
20	4.2	224	44	32	138	53	34	13	4.2	1.4	1.3	1.4
21	4.4	271	38	29	147	46	31	12	3.2	1.4	1.3	1.4
22	6.0	178	34	26	138	44	27	9.1	1.8	1.5	1.3	1.4
23	21	132	30	23	100	46	25	15	1.4	1.8	1.3	1.5
24	37	198	28	22	168	41	23	14	1.4	1.8	1.3	1.3
25	30	225	28	20	211	37	21	12	1.8	1.8	1.3	1.3
26	31	152	31	18	139	39	19	12	2.1	1.7	1.3	1.3
27	29	90	30	16	111	39	18	19	2.5	1.6	1.3	1.3
28	35	62	26	16	94	34	17	16	2.1	1.8	1.3	2.1
29	29	48	24	26	------	31	20	14	5.1	2.0	1.3	3.4
30	23	41	22	38	------	28	24	12	6.2	1.7	1.3	2.0
31	21	------	26	38	------	27	------	11	------	1.5	4.0	------
TOTAL	379.4	2,787.5	999	985	3,172	1,879	957	917.1	140.8	84.0	46.6	48.2
MEAN	12.2	92.9	32.2	31.8	113	60.6	31.9	29.6	4.69	2.71	1.50	1.61
MAX	37	271	51	45	211	127	65	85	9.7	9.0	4.0	3.5
MIN	2.3	7.0	22	16	29	27	17	9.1	1.4	1.4	1.3	1.2
CFSM	.72	5.47	1.90	1.87	6.66	3.57	1.88	1.74	.28	.16	.09	.09
IN.	.83	6.10	2.19	2.15	6.94	4.11	2.09	2.01	.31	.18	.10	.11
AC-FT	753	5,530	1,980	1,950	6,290	3,730	1,900	1,820	279	167	92	96

CAL YR 1960: TOTAL 10,440.4 MEAN 28.5 MAX 271 MIN 1.1 CFSM 1.68 IN 22.84 AC-FT 20,710
WAT YR 1961: TOTAL 12,395.6 MEAN 34.0 MAX 271 MIN 1.2 CFSM 2.00 IN 27.12 AC-FT 24,590

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1530. Little Pilchuck Creek near Lake Stevens, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.0	8.9	36	37	22	16	26	11	18	4.0	1.7	2.0
2	1.7	9.1	30	36	21	16	24	11	54	4.2	1.8	2.1
3	1.7	9.1	30	77	20	16	22	16	154	3.5	2.8	2.0
4	1.6	8.0	30	66	19	20	23	20	109	3.8	5.6	1.8
5	1.8	6.8	38	82	19	32	23	19	118	4.5	9.1	1.8
6	2.9	6.4	31	120	18	40	34	16	95	4.1	6.6	1.8
7	4.2	5.8	38	293	19	36	33	15	61	4.0	5.6	1.8
8	2.7	5.4	38	301	18	36	29	15	44	3.1	4.8	1.7
9	3.0	9.8	30	231	19	39	25	16	37	3.1	3.8	1.6
10	4.2	24	25	142	22	36	23	16	30	3.4	3.2	4.2
11	2.9	20	21	91	23	36	21	15	24	3.1	2.8	4.8
12	3.2	16	19	68	21	38	19	14	20	2.9	2.7	3.2
13	3.5	13	22	56	21	33	18	32	22	2.8	2.7	4.0
14	2.8	11	23	51	34	30	16	33	20	2.9	2.1	4.0
15	2.5	9.7	35	62	42	27	17	27	17	2.7	2.1	3.1
16	2.5	8.9	58	53	36	25	15	25	12	2.9	2.3	2.5
17	2.7	8.2	204	63	31	23	14	21	12	3.2	2.5	2.3
18	2.5	9.7	216	56	28	22	13	19	12	3.1	2.4	2.1
19	2.8	9.7	191	46	25	25	12	18	10	2.9	2.3	2.0
20	3.8	9.7	178	43	23	37	12	16	8.4	2.5	2.3	2.0
21	2.8	11	189	40	21	56	11	15	7.7	2.5	2.3	2.0
22	2.8	20	136	34	20	61	11	14	6.8	2.5	2.1	2.0
23	4.2	20	110	23	20	63	9.7	25	6.4	2.0	2.1	2.0
24	3.8	19	117	23	19	79	9.7	57	5.3	1.8	2.1	2.0
25	3.7	17	148	26	17	78	10	59	4.3	1.8	2.1	1.8
26	21	15	109	29	16	62	10	48	4.3	1.8	3.8	2.0
27	14	14	77	30	15	56	14	38	4.8	1.8	2.7	2.3
28	11	17	65	28	15	48	13	31	4.5	1.7	4.8	3.5
29	8.2	26	60	26	------	41	12	28	4.2	1.6	3.4	3.2
30	6.8	34	53	24	------	35	11	24	3.8	1.7	2.7	2.7
31	6.2	------	43	23	------	30	------	20	------	1.7	2.1	------
TOTAL	139.5	402.2	2,400	2,280	624	1,192	530.4	734	929.5	87.6	99.4	74.3
MEAN	4.50	13.4	77.4	73.5	22.3	38.5	17.7	23.7	31.0	2.83	3.21	2.48
MAX	21	34	216	301	42	79	34	59	154	4.5	9.1	4.8
MIN	1.6	5.4	19	23	15	16	9.7	11	3.8	1.6	1.7	1.6
CFSM	.26	.79	4.55	4.33	1.31	2.26	1.04	1.39	1.82	.17	.19	.15
IN.	.31	.88	5.25	4.99	1.37	2.61	1.16	1.61	2.03	.19	.22	.16
AC-FT	277	798	4,760	4,520	1,240	2,360	1,050	1,460	1,840	174	197	147

CAL YR 1961: TOTAL 11,171.4 MEAN 30.6 MAX 216 MIN 1.2 CFSM 1.80 IN 24.44 AC-FT 22,160
WAT YR 1962: TOTAL 9,492.9 MEAN 26.0 MAX 301 MIN 1.6 CFSM 1.53 IN 20.77 AC-FT 18,830

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.4	2.9	117	75	14	50	42	21	2.9	4.8	2.1	2.7
2	2.4	2.9	84	110	15	48	34	25	3.2	3.2	2.0	2.9
3	3.4	2.9	76	148	33	40	30	42	3.2	3.2	1.8	2.8
4	2.7	3.2	64	105	64	34	35	38	4.0	2.8	1.8	2.7
5	2.4	4.3	51	70	128	30	36	38	5.2	2.7	2.1	2.5
6	2.8	5.2	48	55	102	27	63	37	5.0	2.7	2.1	2.4
7	3.4	4.3	40	45	82	25	80	31	4.3	2.9	2.0	2.4
8	4.0	6.0	33	42	62	24	72	26	4.3	5.4	1.8	2.3
9	6.0	7.7	29	40	50	22	64	22	6.2	5.9	1.8	2.3
10	4.6	8.4	25	33	40	20	50	20	5.4	11	1.8	2.3
11	4.6	12	23	26	35	21	41	17	3.8	6.0	1.8	2.3
12	4.6	12	21	23	30	20	37	16	4.0	4.8	1.8	2.1
13	3.8	15	20	21	26	19	33	15	3.7	4.2	2.1	3.3
14	3.8	14	24	21	24	18	35	13	3.2	3.8	1.8	3.4
15	4.3	13	39	27	23	19	44	13	2.9	4.0	1.7	2.8
16	3.8	13	42	34	25	19	46	13	2.7	3.4	1.7	2.8
17	3.5	15	46	32	24	18	44	12	2.5	3.1	1.5	2.9
18	5.8	16	44	30	29	19	44	11	2.4	3.7	1.7	2.7
19	4.3	38	39	26	33	24	53	9.1	2.5	2.9	9.7	2.5
20	3.7	85	35	23	39	24	50	7.3	2.7	2.8	5.8	2.4
21	3.4	64	38	22	33	22	43	6.4	6.0	2.7	4.0	2.4
22	3.2	50	41	20	28	19	36	4.8	7.5	3.2	3.4	2.3
23	3.1	46	36	19	25	19	33	5.6	5.8	2.7	3.2	2.4
24	3.1	41	31	18	23	20	31	5.4	5.2	2.4	3.5	2.3
25	2.9	80	26	18	30	19	28	4.8	8.0	2.4	3.2	2.3
26	3.5	110	23	17	68	19	25	5.0	5.8	2.5	2.9	2.5
27	3.5	71	23	16	58	20	22	4.2	5.6	2.3	2.9	2.4
28	3.2	51	39	15	51	37	20	3.4	5.4	2.1	2.9	2.4
29	3.1	46	48	13	------	60	21	2.8	6.4	2.1	2.8	2.4
30	2.9	69	66	12	------	56	22	2.9	5.4	2.1	2.7	2.3
31	2.9	------	69	13	------	48	------	3.2	------	2.1	2.5	------
TOTAL	111.1	908.8	1,340	1,169	1,194	860	1,214	474.9	135.2	109.9	82.9	76.2
MEAN	3.58	30.3	43.2	37.7	42.6	27.7	40.5	15.3	4.51	3.55	2.67	2.54
MAX	6.0	110	117	148	128	60	80	42	8.0	11	9.7	3.4
MIN	2.4	2.9	20	12	14	18	20	2.8	2.4	2.1	1.5	2.1
CFSM	.21	1.78	2.54	2.22	2.51	1.63	2.38	.90	.27	.21	.16	.15
IN.	.24	1.99	2.93	2.56	2.61	1.88	2.66	1.04	.30	.24	.18	.17
AC-FT	220	1,800	2,660	2,320	2,370	1,710	2,410	942	268	218	164	151

CAL YR 1962: TOTAL 8,911.1 MEAN 24.4 MAX 301 MIN 1.6 CFSM 1.44 IN 19.49 AC-FT 17,670
WAT YR 1963: TOTAL 7,676.0 MEAN 21.0 MAX 148 MIN 1.5 CFSM 1.24 IN 16.79 AC-FT 15,230

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1530. Little Pilchuck Creek near Lake Stevens, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2.1	6.0	34	190	67	49	29	48	13	8.2	3.6	3.7
2	2.1	13	29	150	58	58	26	46	11	8.0	3.7	3.5
3	2.1	13	24	105	51	55	23	39	11	7.7	4.0	3.5
4	2.4	11	23	80	53	66	31	34	14	7.3	3.5	2.9
5	2.4	8.9	28	65	52	153	50	36	16	6.8	3.1	3.3
6	2.5	13	106	75	43	189	42	31	16	6.6	2.3	2.5
7	2.3	21	190	65	38	119	36	27	16	6.4	2.0	2.7
8	2.5	23	148	55	34	94	32	24	22	6.4	2.0	5.4
9	2.4	19	150	48	35	102	31	24	20	6.0	2.5	3.7
10	2.4	32	102	52	45	82	35	33	17	4.3	2.5	3.2
11	2.3	25	69	60	67	122	42	28	16	4.3	2.1	2.8
12	2.3	27	53	52	55	110	39	26	15	3.7	1.8	2.4
13	3.2	55	43	47	56	85	50	28	14	3.5	1.8	2.3
14	2.8	87	36	44	53	68	48	24	14	4.2	1.8	2.1
15	2.7	72	56	135	64	59	101	21	13	4.8	1.8	2.5
16	2.5	47	151	168	66	55	152	19	24	4.6	2.0	2.7
17	2.7	45	140	173	62	82	137	18	33	4.2	1.8	8.0
18	3.2	61	124	157	80	102	90	16	60	4.0	2.4	5.8
19	2.8	96	89	169	72	74	64	15	78	3.7	2.7	5.4
20	3.2	87	96	159	58	59	53	16	58	3.4	2.1	8.0
21	4.8	60	98	116	49	53	46	28	41	3.5	2.1	7.0
22	14	52	70	90	42	46	70	40	30	3.5	2.1	8.4
23	8.0	68	69	74	38	40	62	36	23	3.2	3.4	7.5
24	6.8	70	53	75	34	33	49	36	19	2.8	1.8	6.0
25	5.8	89	70	101	30	34	42	32	15	2.8	2.1	5.0
26	5.2	82	66	89	27	42	48	26	13	2.1	3.7	4.6
27	4.5	99	60	75	25	39	51	23	13	2.0	4.2	4.3
28	7.3	69	50	64	26	34	53	20	12	2.4	4.6	3.8
29	8.0	52	42	68	30	30	50	18	11	2.5	4.5	4.5
30	6.4	42	35	58	------	27	46	16	9.7	2.5	5.8	9.1
31	5.6	------	45	62	------	25	------	14	------	2.5	4.6	------
TOTAL	127.3	1,444.9	2,349	2,921	1,410	2,186	1,628	842	667.7	137.9	88.4	136.6
MEAN	4.11	48.2	75.8	94.2	48.6	70.5	54.3	27.2	22.3	4.45	2.85	4.55
MAX	14	99	190	190	80	189	152	48	78	8.2	5.8	9.1
MIN	2.1	6.0	23	44	25	25	23	14	9.7	2.0	1.8	2.1
CFSM	.24	2.83	4.46	5.54	2.86	4.15	3.19	1.60	1.31	.26	.17	.27
IN.	.28	3.16	5.14	6.39	3.08	4.78	3.56	1.84	1.46	.30	.19	.30
AC-FT	253	2,870	4,660	5,790	2,800	4,340	3,230	1,670	1,320	274	175	271

CAL YR 1963: TOTAL 9,237.3 MEAN 25.3 MAX 190 MIN 1.5 CFSM 1.49 IN 20.21 AC-FT 18,320
WAT YR 1964: TOTAL 13,938.8 MEAN 38.1 MAX 190 MIN 1.8 CFSM 2.24 IN 30.49 AC-FT 27,650

Note.--No gage-height record Dec. 25 to Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	15	109	58	163	54	16	13	8.0	2.1	1.3	1.8
2	9.1	22	154	150	112	46	15	13	7.3	2.0	1.4	2.4
3	8.0	19	232	186	84	42	12	12	6.7	1.7	1.6	2.1
4	6.8	76	171	124	76	36	11	21	6.0	1.7	1.5	2.1
5	6.0	48	96	88	106	31	11	26	4.9	1.5	1.5	2.0
6	5.4	30	70	89	174	28	12	20	3.1	1.5	1.4	2.0
7	5.8	22	55	82	147	24	13	18	3.8	1.6	1.4	1.9
8	10	18	45	74	126	22	12	15	4.1	1.8	1.4	1.9
9	9.4	17	51	73	96	21	13	14	3.9	2.0	1.4	2.2
10	8.4	18	68	65	76	19	14	12	3.8	2.0	1.8	2.1
11	7.0	19	78	58	62	18	12	12	4.7	2.0	1.5	2.4
12	6.2	20	67	50	59	17	11	10	5.3	1.9	2.4	2.4
13	6.0	26	58	48	88	16	13	9.8	4.6	2.0	2.1	2.7
14	5.8	21	55	58	101	15	13	9.0	3.9	1.6	1.9	5.1
15	6.0	18	58	64	110	14	12	9.0	3.6	1.6	1.8	5.6
16	6.2	16	40	63	122	13	14	20	3.6	1.6	1.5	4.1
17	6.2	15	35	55	122	12	12	19	3.5	1.5	1.3	3.2
18	5.8	14	30	46	93	12	12	15	3.2	1.7	1.3	2.6
19	5.4	13	28	40	76	12	20	13	2.8	1.6	1.4	2.4
20	5.0	12	28	38	64	11	34	13	2.6	2.9	2.4	2.2
21	5.0	11	30	48	59	11	40	12	2.5	2.8	1.9	2.4
22	4.8	11	83	50	90	13	29	10	2.4	2.4	1.7	2.1
23	4.8	12	87	55	76	12	24	12	1.9	1.9	2.4	2.0
24	4.6	42	74	94	64	11	33	11	1.7	1.8	2.8	1.8
25	4.5	40	60	99	54	11	29	9.8	2.0	1.5	2.5	1.8
26	4.3	42	80	98	52	11	24	9.0	2.4	1.5	2.1	1.8
27	4.3	54	121	151	68	11	20	8.7	2.0	1.5	1.9	1.7
28	4.6	46	103	307	67	11	15	7.5	1.8	1.6	2.4	1.6
29	4.3	49	79	490	------	13	15	7.5	1.9	1.3	2.1	1.6
30	5.4	73	65	330	------	12	14	9.2	2.1	1.4	1.9	1.6
31	6.2	------	52	228	------	11	------	9.0	------	1.3	1.7	------
TOTAL	193.3	839	2,362	3,459	2,587	590	525	399.5	110.1	55.3	55.7	71.6
MEAN	6.24	28.0	76.2	112	92.4	19.0	17.5	12.9	3.67	1.78	1.80	2.39
MAX	12	76	232	490	174	54	40	26	8.0	2.9	2.8	5.6
MIN	4.3	11	28	38	52	11	11	7.5	1.7	1.3	1.3	1.6
CFSM	.37	1.65	4.48	6.56	5.43	1.12	1.03	.76	.22	.10	.11	.14
IN.	.42	1.84	5.17	7.57	5.66	1.29	1.15	.87	.24	.12	.12	.16
AC-FT	383	1,660	4,680	6,860	5,130	1,170	1,040	792	218	110	110	142

CAL YR 1964: TOTAL 13,411.9 MEAN 36.6 MAX 232 MIN 1.8 CFSM 2.16 IN 29.34 AC-FT 26,600
WAT YR 1965: TOTAL 11,247.5 MEAN 30.8 MAX 490 MIN 1.3 CFSM 1.81 IN 24.61 AC-FT 22,310

12-1555. Snohomish River at Snohomish, Wash.

Location.--Lat 47°54'45", long 122°06'30", in NE¼SW¼ sec.13, T.28 N., R.5 E., in right bank pier of bridge on State Highway 9 in Snohomish.

Drainage area.--1,714 sq mi (revised).

Records available.--February 1941 to September 1965 (high-water discharges only). High-water elevations prior to 1932 and high-water profiles on flood peaks since that time are available at the Seattle Office of Corps of Engineers.

Gage.--Water-stage recorder. Datum of base gage is 9.86 ft below mean sea level, datum of 1929. Prior to Feb. 3, 1960, at site half a mile upstream at datum 0.14 ft lower (corrected). Auxiliary water-stage recorder 2 miles downstream from base gage.

Extremes.--Maximums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (40,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	0700	56,300	28.19	Apr. 7, 1962	0900	41,000	24.52	Nov. 27, 1963	0330	45,000	24.43
Feb. 21, 1961	2030	* 60,500	28.79					Jan. 1, 1964	2300	* 49,000	25.33
				Nov. 20, 1962	1200	* 66,900	29.22				
Dec. 24, 1961	2000	42,400	24.67	Jan. 3, 1963	1230	41,700	24.07	Dec. 2, 1964	0630	66,000	29.21
Jan. 4, 1962	0400	54,200	27.53	Feb. 4, 1963	0430	48,600	24.94	Jan. 31, 1965	0330	* 71,600	30.16
Jan. 8, 1962	0830	* 57,200	28.17								

1941-65: Maximum discharge, 136,000 cfs Feb. 10, 1951 (gage height, 30.12 ft, site and datum then in use).

Maximum stage known, 35 ft at former base gage and 31 ft at auxiliary gage in 1906, from flood profile furnished by Corps of Engineers.

Remarks.--Records good. Large diurnal fluctuation because of tides. No appreciable regulation or diversion at stages for which discharges are published. Discharges less than 10,000 cfs on days for which no discharge is shown. Records of chemical analyses for the water years 1961-65 and water temperatures for the water year 1961 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1152: 1948(M). WSP 1316: 1947(M). WSP 1396: 1951(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	26,700	10,200	-	18,600	20,200	10,900	16,300	15,900			
2	-	22,500	-	-	20,400	22,800	14,800	20,000	20,600			
3	-	16,500	10,300	-	18,700	17,000	23,300	18,200	22,700			
4	-	13,300	11,500	-	15,600	14,000	25,700	15,600	22,100			
5	-	11,200	10,600	11,700	21,300	12,100	15,700	14,500	19,600			
6	-	-	-	24,800	35,400	11,900	13,600	13,200	18,600			
7	-	-	-	20,200	34,500	10,600	11,600	11,400	17,900			
8	-	-	-	17,000	24,300	10,300	10,900	10,500	15,300			
9	-	-	-	16,900	19,600	10,300	12,900	11,000	13,900			
10	-	-	-	16,400	18,000	-	12,500	13,800	13,300			
11	-	24,800	-	16,300	15,800	-	11,100	14,800	12,200			
12	-	21,400	11,400	15,900	14,800	-	12,300	13,400	12,300			
13	-	15,000	16,800	14,800	13,500	12,100	15,600	12,100	11,900			
14	-	13,800	19,500	15,900	14,400	14,500	15,300	11,500	12,800			
15	-	13,800	17,000	33,400	13,600	21,100	13,000	11,900	14,500			
16	-	22,200	13,600	53,800	14,600	21,300	11,700	13,600	16,700			
17	-	33,300	12,200	43,200	14,800	17,700	12,600	15,300	17,200			
18	-	36,100	12,000	27,700	13,700	14,800	12,900	16,500	16,700			
19	-	30,900	17,100	20,500	16,800	13,500	11,300	18,100	15,700			
20	-	29,300	17,900	16,500	31,300	12,700	-	20,000	12,600			
21	-	27,200	12,800	14,200	54,200	14,500	-	20,400	-			
22	-	20,600	12,200	12,300	50,800	12,100	-	16,400	-			
23	14,000	17,900	11,000	11,300	37,100	11,600	-	16,300	-			
24	23,000	20,700	10,900	10,000	28,400	12,000	-	15,200	-			
25	19,800	29,700	10,400	-	27,000	11,000	-	14,700	-			
26	14,900	23,600	-	-	21,000	10,600	-	16,400	-			
27	17,300	17,500	-	-	18,000	10,400	-	18,700	-			
28	24,200	14,200	-	-	16,000	-	-	17,500	-			
29	21,600	11,400	-	-	------	-	11,500	15,900	-			
30	14,500	10,500	-	12,900	------	-	16,000	15,300	-			
31	13,300	------	-	20,300	------	-	------	15,000	------			------
TOTAL	-	-	-	-	642,200	-	-	473,500	-	-	-	-
MEAN	-	-	-	-	22,940	-	-	15,270	-	-	-	-
MAX	-	-	-	-	54,200	-	-	20,400	-	-	-	-
MIN	-	-	-	-	13,500	-	-	10,500	-	-	-	-
CFSM	-	-	-	-	13.4	-	-	8.91	-	-	-	-
IN	-	-	-	-	13.93	-	-	10.27	-	-	-	-
AC-FT	-	-	-	-	1,274,000	-	-	939,200	-	-	-	-

12-1555. Snohomish River at Snohomish, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	13,800	16,300	-	-	-	10,900	-	10,300	-	
2	-	-	13,000	14,400	11,200	-	-	14,100	11,700	-	-	
3	-	-	10,800	40,700	14,700	-	-	13,800	16,100	-	-	
4	-	-	-	48,500	16,600	-	-	15,600	14,300	-	-	
5	-	-	17,400	31,800	13,700	-	-	11,900	13,500	-	13,200	
6	-	-	14,900	29,700	12,100	-	14,500	10,300	13,000	-	13,200	
7	-	-	11,200	44,700	11,900	-	37,800	-	11,800	-	-	
8	-	-	10,000	55,400	10,100	-	24,700	-	13,100	-	-	
9	-	-	-	42,700	-	-	15,100	-	13,900	-	-	
10	16,700	-	-	28,700	-	-	12,400	10,500	13,100	-	-	
11	14,000	17,700	-	21,200	-	-	-	-	12,000	-	-	
12	12,800	13,000	-	17,200	-	-	-	-	11,200	-	-	
13	23,800	-	-	14,600	-	-	-	-	11,200	-	-	
14	16,100	-	-	12,800	-	-	11,600	-	10,700	-	-	
15	10,200	-	-	11,300	-	-	15,000	-	12,200	-	-	
16	-	-	-	-	-	-	13,300	-	16,100	-	-	
17	-	-	10,700	10,100	-	-	10,400	-	14,400	-	-	
18	-	-	12,400	-	-	-	11,000	-	13,200	-	-	
19	-	-	11,400	-	-	-	12,700	-	13,800	-	-	
20	-	-	18,600	-	-	-	13,100	-	12,500	-	-	
21	-	-	22,100	-	-	-	12,000	-	12,700	-	-	
22	-	10,900	18,000	-	-	-	12,000	-	12,200	-	-	
23	10,500	14,100	18,600	-	-	-	11,500	-	12,500	-	-	
24	12,100	11,000	34,700	-	-	-	13,100	12,300	13,800	-	-	
25	10,100	-	35,600	-	-	13,500	13,200	12,400	14,000	-	-	
26	10,700	-	24,100	11,900	-	12,500	11,900	13,200	14,500	-	-	
27	12,500	-	17,700	15,700	-	10,600	11,400	13,300	12,400	-	-	
28	11,700	-	14,400	13,200	-	-	14,100	14,300	-	-	-	
29	-	11,700	22,700	10,700	------	-	10,700	13,600	10,000	-	-	
30	-	11,200	29,200	-	------	-	10,800	12,200	11,000	-	-	
31	-	------	21,200	10,300	------	-	------	10,500	------	-	-	------
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
MEAN	-	-	-	-	-	-	-	-	-	-	-	-
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
AC-FT	-	-	-	-	-	-	-	-	-	-	-	-

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	27,300	31,900	-	14,800	10,000	10,400	-			
2	-	-	17,600	37,500	-	14,900	-	10,800	-			
3	-	-	15,900	40,800	30,400	12,300	-	10,700	-			
4	-	-	14,600	32,400	45,200	11,000	18,300	-	-			
5	-	-	14,800	23,900	44,200	10,700	18,200	10,100	10,900			
6	-	-	31,600	18,800	33,200	10,600	22,200	13,200	10,900			
7	-	-	26,600	15,800	26,000	-	20,600	12,600	-			
8	-	-	21,900	15,200	22,600	-	16,800	11,000	-			
9	14,200	-	20,700	15,700	19,200	-	14,600	-	-			
10	16,700	-	19,000	13,500	15,600	-	11,600	-	-			
11	13,200	13,200	18,300	-	14,800	-	11,200	-	-			
12	-	13,700	15,700	-	12,500	-	10,100	-	-			
13	-	11,400	14,300	-	11,800	-	-	-	-			
14	-	-	15,300	-	10,700	-	11,100	-	-			
15	-	-	23,400	-	10,200	-	14,000	-	-			
16	-	-	29,600	-	-	-	13,200	-	-			
17	-	-	22,400	-	10,400	-	10,200	-	-			
18	-	-	18,000	-	11,100	-	10,300	11,000	-			
19	-	13,200	14,900	-	15,000	-	10,900	13,900	-			
20	-	60,300	13,300	-	22,300	-	11,400	14,300	-			
21	-	50,700	12,600	-	16,600	-	10,000	16,400	-			
22	-	35,900	14,400	-	13,400	11,200	11,200	16,300	-			
23	-	25,000	11,600	-	11,700	11,100	11,500	14,900	-			
24	-	19,200	11,800	-	10,300	10,700	11,700	12,800	-			
25	-	21,800	10,700	-	-	10,600	-	11,300	-			
26	-	33,000	11,300	-	19,000	-	-	10,900	-			
27	-	30,600	12,100	-	18,900	10,000	-	-	-			
28	-	23,700	13,200	-	15,700	11,000	-	-	-			
29	-	19,100	17,800	-	------	13,000	-	10,900	-			
30	-	18,600	30,700	-	------	12,000	10,200	11,500	-			
31	-	------	40,100	-	------	11,000	------	10,800	------			------
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
MEAN	-	-	-	-	-	-	-	-	-	-	-	-
MAX	-	-	40,100	-	-	-	-	-	-	-	-	-
MIN	-	-	10,700	-	-	-	-	-	-	-	-	-
CFSM	-	-	-	-	-	-	-	-	-	-	-	-
IN.	-	-	-	-	-	-	-	-	-	-	-	-
AC-FT	-	-	-	-	-	-	-	-	-	-	-	-

12-1555. Snohomish River at Snohomish, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	12,900	35,000	15,000	-	15,000	-	37,900	20,800	11,300	-
2	-	-	12,800	38,700	16,500	-	16,000	-	34,600	24,800	14,300	-
3	-	-	-	26,100	14,000	-	13,500	-	28,900	20,400	13,300	-
4	-	-	-	23,100	11,500	-	11,500	-	28,000	18,300	16,500	-
5	-	-	-	20,000	12,500	-	11,000	-	34,500	18,600	13,400	-
6	-	-	14,300	21,800	11,000	-	10,500	-	33,600	18,600	11,900	-
7	-	11,400	14,800	17,200	-	-	10,500	-	31,200	19,200	11,800	-
8	-	16,100	13,100	14,200	-	-	10,500	-	32,900	23,800	11,400	-
9	-	14,900	12,400	12,500	-	-	11,000	-	36,400	22,200	-	-
10	-	12,800	-	11,000	-	-	13,000	16,000	34,600	18,600	-	-
11	-	11,600	-	-	-	-	14,500	16,700	32,100	19,000	-	-
12	-	10,300	-	-	-	-	13,500	16,200	29,200	22,400	-	-
13	-	12,200	-	-	-	-	14,000	17,400	28,000	23,800	-	-
14	-	17,700	-	-	-	-	12,000	15,200	27,700	21,900	-	-
15	-	20,000	10,900	-	-	15,000	20,000	13,500	28,600	22,700	-	-
16	-	15,700	14,600	17,000	-	14,000	18,000	13,000	33,700	22,800	-	-
17	-	19,500	16,000	23,000	-	13,000	16,000	16,600	31,200	18,500	-	-
18	-	20,100	16,300	19,500	16,600	20,000	12,000	19,700	32,000	15,600	-	-
19	-	17,600	16,000	16,000	17,700	16,000	10,000	21,700	30,100	13,500	-	-
20	-	16,500	17,200	14,500	15,500	13,000	-	24,500	26,500	11,800	-	13,400
21	-	13,700	16,400	13,000	13,200	11,000	-	29,700	24,400	14,100	-	13,800
22	19,000	13,000	13,600	11,000	-	-	13,400	28,500	23,100	13,900	-	11,800
23	17,800	15,300	22,800	10,500	-	-	13,600	24,400	25,900	11,500	-	10,700
24	16,600	17,400	20,200	10,000	-	-	10,700	18,600	29,000	10,600	-	-
25	19,600	20,900	21,100	20,000	-	-	10,500	17,400	26,800	11,500	-	-
26	14,400	32,600	18,500	22,500	-	-	-	16,400	26,000	12,500	-	-
27	10,900	39,400	15,500	18,000	-	-	-	17,800	21,000	12,800	11,000	-
28	-	27,100	13,100	16,500	-	-	-	22,800	18,700	12,900	13,300	-
29	-	18,700	11,500	15,000	-	-	-	23,600	16,200	12,100	13,500	-
30	-	15,200	11,100	16,000	------	-	-	27,400	17,300	12,600	13,700	14,500
31	-	------	15,800	14,500	------	10,000	------	34,300	------	12,200	11,900	------
TOTAL	-	-	-	-	-	-	-	-	860,100	534,000	-	-
MEAN	-	-	-	-	-	-	-	-	28,670	17,230	-	-
MAX	-	-	-	-	-	-	-	-	37,900	24,800	-	-
MIN	-	-	-	-	-	-	-	-	16,200	10,600	-	-
CFSM	-	-	-	-	-	-	-	-	16.7	10.1	-	-
IN.	-	-	-	-	-	-	-	-	18.66	11.59	-	-
AC-FT	-	-	-	-	-	-	-	-	1,706,000	1,059,000	-	-

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	24,000	-	59,200	-	54,000	16,500	-	15,900	14,700	10,900		-
2	25,000	-	63,700	-	35,500	14,500	-	13,900	15,300	12,000		-
3	24,000	-	52,000	-	25,300	12,500	-	12,000	17,300	11,900		-
4	15,000	14,200	36,500	-	21,500	12,100	-	12,000	18,200	11,400		-
5	12,300	19,900	24,600	-	28,600	11,500	-	12,000	18,500	11,200		-
6	10,700	14,200	18,900	-	32,900	11,300	-	11,400	19,300	10,000		-
7	-	11,900	15,700	-	25,800	11,100	-	10,200	19,000	11,000		-
8	-	10,600	15,200	-	23,100	10,900	-	-	17,900	10,800		-
9	10,600	-	22,100	-	22,300	11,400	-	-	18,100	-		-
10	-	-	22,200	-	19,100	12,300	-	11,600	16,300	-		-
11	-	-	20,200	-	16,200	13,000	-	13,400	17,000	-		-
12	-	-	16,200	-	14,800	13,200	-	14,900	15,900	-		-
13	-	-	14,500	-	18,100	12,400	-	16,600	13,300	-		-
14	-	-	13,600	-	22,200	11,100	-	16,100	11,400	-		-
15	-	-	12,000	-	18,900	10,600	-	14,700	11,100	-		15,000
16	10,400	-	10,800	13,700	19,500	10,500	12,300	20,900	10,700	-		13,000
17	11,300	-	-	16,000	23,800	11,000	13,400	20,500	11,900	-		-
18	10,600	-	-	15,200	24,000	10,100	12,200	16,500	13,000	-		-
19	-	-	-	15,000	22,300	-	12,300	14,000	12,100	-		-
20	-	-	-	15,900	25,300	-	29,100	15,100	11,600	-		-
21	-	-	-	18,600	21,300	-	34,100	15,900	10,400	-		-
22	-	-	-	17,500	19,000	-	25,600	14,600	-	-		-
23	-	-	21,200	14,600	16,000	-	19,400	14,200	10,700	-		-
24	-	21,500	17,800	15,200	14,700	-	18,900	12,900	10,600	-		-
25	-	27,500	13,300	12,700	13,300	-	18,900	12,600	11,700	-		-
26	-	20,900	12,200	12,200	12,300	-	19,200	13,500	11,000	-		-
27	-	17,200	13,500	25,900	18,800	-	22,000	16,600	-	-		-
28	-	15,400	11,200	42,800	21,600	-	23,200	20,700	10,200	-		-
29	-	13,100	-	62,200	------	-	22,000	21,400	-	-		-
30	-	35,000	-	67,100	------	-	18,100	19,600	-	-		-
31	-	------	-	70,000	------	-	------	17,300	------	-		------
TOTAL	-	-	-	-	630,200	-	-	-	-	-	-	-
MEAN	-	-	-	-	22,510	-	-	-	-	-	-	-
MAX	-	-	-	-	54,000	-	-	-	-	-	-	-
MIN	-	-	-	-	12,300	-	-	-	-	-	-	-
CFSM	-	-	-	-	13.1	-	-	-	-	-	-	-
IN.	-	-	-	-	13.67	-	-	-	-	-	-	-
AC-FT	-	-	-	-	1,250,000	-	-	-	-	-	-	-

12-1570. Quilceda Creek near Marysville, Wash.

Location.--Lat 48°06'20", long 122°09'40", in NE¼NE¼ sec.9, T.30 N., R.5 E., on right bank 300 ft downstream from Middle Fork and 3½ miles north of Marysville.

Drainage area.--15.4 sq mi (revised).

Records available.--June 1946 to September 1965.

Gage.--Water-stage recorder and wooden control. Datum of gage is 28.2 ft above mean sea level (stadia traverse).

Average discharge.--19 years, 25.3 cfs (18,320 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (120 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 11, 1960	0630	121	4.90	Dec. 21, 1961	0130	129	5.03	Dec. 27, 1964	1400	149	4.93
Nov. 14, 1960	1330	128	5.02	Jan. 7, 1962	0900	* 180	5.89	Jan. 2, 1965	1100	188	5.49
Nov. 17, 1960	1930	146	5.31					Jan. 6, 1965	1800	141	4.81
Nov. 20, 1960	1700	* 195	6.13	Jan. 3, 1963	0630	* 96	5.23	Jan. 24, 1965	1100	136	4.75
Nov. 24, 1960	2300	170	5.72					Jan. 29, 1965	0400	* 306	7.02
Feb. 12, 1961	0600	137	5.76	Dec. 7, 1963	0300	* 130	5.38	Feb. 6, 1965	0030	180	5.37
Feb. 24, 1961	1730	168	6.04					Feb. 16, 1965	1500	133	4.70
				Dec. 3, 1964	0300	190	5.51				
Dec. 17, 1961	1230	170	5.72	Dec. 22, 1964	1100	135	4.73				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 7, 1961	2.8	a 2.45	1964	Aug. 16, 17, 24	4.6	b 2.55
1962	July 29, 1962	3.7	2.44	1965	July 31, Aug. 1, 2	4.1	c 2.55
1963	Aug. 8, 1963	3.9	2.49				

a Occurred Aug. 10-14, 1961.
b Occurred Oct. 2, 1963.
c Occurred June 29, 1965.

1946-65: *Maximum discharge*, 306 cfs Jan. 29, 1965 (gage height, 7.02 ft); minimum, 2.2 cfs July 16, 1951; minimum gage height, 1.49 ft Sept. 19, 1953, July 29, Aug. 2, 1958.

Remarks.--Records good. Several diversions above station for irrigation and domestic use. Some regulation during low flow.

Revisions (water years).--WSP 1286: 1950. WSP 1636: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.8	24	44	24	32	68	17	27	12	6.8	3.9	7.4
2	5.8	18	38	21	32	61	21	29	11	6.4	3.9	5.8
3	5.8	16	43	20	28	61	27	24	11	5.8	3.9	5.2
4	5.8	13	46	20	28	59	22	26	10	5.5	3.9	5.2
5	5.8	12	39	35	53	61	18	54	9.5	15	3.9	5.5
6	6.8	12	34	44	70	84	16	48	11	11	3.5	5.2
7	8.0	11	30	42	68	66	14	37	13	8.0	3.3	4.9
8	9.5	11	28	38	57	61	22	34	11	7.4	3.5	4.9
9	7.4	11	26	36	52	60	25	34	11	7.1	4.5	4.9
10	6.8	33	24	32	61	52	24	32	10	6.4	4.3	4.9
11	7.1	94	23	31	68	52	21	32	10	5.5	4.1	4.9
12	7.4	62	32	35	125	53	43	24	9.5	5.2	4.1	4.7
13	6.8	59	34	34	98	54	43	22	8.5	4.9	4.1	4.5
14	6.8	98	43	32	72	68	32	22	8.5	4.9	4.1	4.5
15	6.4	102	34	30	78	108	26	20	8.5	4.7	4.3	4.7
16	6.4	101	30	39	78	79	23	18	7.7	4.7	6.1	4.9
17	6.4	101	32	43	85	58	21	17	7.7	4.7	5.5	4.9
18	6.4	107	48	38	76	46	21	15	7.1	4.7	4.9	5.2
19	6.1	78	54	33	92	39	23	13	7.1	4.5	4.7	4.9
20	6.1	169	46	28	97	38	21	13	7.7	4.5	4.5	4.7
21	6.4	158	38	26	108	30	19	12	7.1	4.3	4.5	4.7
22	6.8	110	33	23	88	28	19	12	6.8	4.3	4.3	4.5
23	22	102	29	21	64	28	18	17	6.4	4.3	4.3	4.5
24	28	152	28	20	131	23	18	14	6.1	4.3	4.3	4.5
25	15	146	29	19	131	20	17	13	6.1	4.1	4.3	4.5
26	17	98	32	17	90	22	17	13	6.4	4.1	4.3	4.5
27	17	72	28	17	82	20	16	17	6.1	4.1	4.3	4.5
28	23	59	25	16	73	16	16	15	6.1	4.3	4.3	5.2
29	18	51	23	28	------	15	20	14	7.1	4.3	4.3	5.8
30	15	44	22	36	------	14	21	13	7.4	4.1	4.5	5.2
31	17	------	24	36	------	14	------	13	------	4.1	6.5	------
TOTAL	318.6	2,124	1,039	914	2,117	1,458	661	694	257.4	174.0	136.9	149.7
MEAN	10.3	70.8	33.5	29.5	75.6	47.0	22.0	22.4	8.58	5.61	4.42	4.99
MAX	28	169	54	44	131	108	43	54	13	15	6.5	7.4
MIN	5.8	11	22	16	28	14	14	12	6.1	4.1	3.3	4.5
CFSM	.67	4.60	2.18	1.91	4.91	3.05	1.43	1.45	.56	.36	.29	.32
IN.	.77	5.13	2.51	2.21	5.11	3.52	1.60	1.68	.62	.42	.33	.36
AC-FT	632	4,210	2,060	1,810	4,200	2,890	1,310	1,380	511	345	272	297

CAL YR 1960: TOTAL 9,285.1 MEAN 25.4 MAX 169 MIN 3.1 CFSM 1.65 IN 22.42 AC-FT 18,420
WAT YR 1961: TOTAL 10,043.6 MEAN 27.5 MAX 169 MIN 3.3 CFSM 1.79 IN 24.25 AC-FT 19,920

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1570. Quilceda Creek near Marysville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.2	14	27	32	20	14	21	12	14	7.1	4.7	4.7
2	4.9	13	23	30	19	14	20	12	50	7.1	4.7	4.7
3	4.9	13	23	52	18	14	19	19	80	6.8	5.5	4.7
4	4.9	11	26	55	18	18	21	27	65	6.8	7.1	4.7
5	5.2	9.5	32	50	17	32	20	20	92	7.1	10	4.7
6	6.1	9.0	24	72	17	37	26	18	62	7.7	8.0	4.3
7	8.5	8.5	34	167	17	32	24	17	41	7.4	7.4	4.3
8	5.8	8.5	32	159	17	33	22	17	32	6.8	6.8	4.3
9	6.1	18	25	112	20	34	20	18	28	6.8	6.1	4.3
10	7.4	34	21	73	21	30	19	17	23	6.8	5.8	5.5
11	6.1	21	18	56	22	32	18	15	21	6.1	5.8	5.8
12	6.4	18	17	48	20	31	17	14	18	6.1	5.5	4.9
13	6.4	15	20	39	20	27	17	21	19	6.1	5.5	6.1
14	5.8	14	23	38	33	24	17	21	17	6.1	5.2	6.8
15	5.5	12	33	44	34	23	17	20	15	5.8	4.9	5.2
16	5.8	12	48	38	28	21	15	19	13	6.1	4.9	4.9
17	5.8	12	152	46	24	20	14	17	13	6.8	4.9	4.9
18	5.5	14	129	37	22	20	13	17	12	6.4	4.9	4.9
19	6.1	17	119	30	21	22	13	16	11	6.1	4.9	4.9
20	5.8	15	100	25	19	32	12	14	10	5.8	4.9	4.9
21	5.8	15	104	22	18	46	12	13	9.5	5.5	5.2	4.9
22	6.1	26	76	21	18	48	12	14	9.0	5.2	4.9	4.9
23	8.0	21	68	20	17	48	11	21	8.5	5.2	4.9	4.9
24	7.4	21	82	19	15	63	11	38	8.0	4.9	4.7	4.9
25	7.4	17	93	21	14	54	12	44	8.0	4.9	4.7	4.9
26	26	15	67	23	14	43	12	34	8.0	4.7	5.5	4.9
27	17	16	54	25	13	40	15	27	8.0	4.5	5.2	5.5
28	16	22	52	24	14	34	14	22	7.7	4.5	7.7	6.1
29	12	31	47	22	------	29	13	20	7.1	4.5	5.5	5.2
30	10	31	41	21	------	25	13	19	6.8	4.5	4.9	4.9
31	9.0	------	35	20	------	23	------	17	------	4.5	4.7	------
TOTAL	242.9	503.5	1,645	1,441	550	963	490	620	716.6	184.7	175.4	150.6
MEAN	7.84	16.8	53.1	46.5	19.6	31.1	16.3	20.0	23.9	5.96	5.66	5.02
MAX	26	34	152	167	34	63	26	44	92	7.7	10	6.8
MIN	4.9	8.5	17	19	13	14	11	12	6.8	4.5	4.7	4.3
CFSM	.51	1.09	3.45	3.02	1.28	2.02	1.06	1.30	1.55	.39	.37	.33
IN.	.59	1.22	3.97	3.48	1.33	2.33	1.18	1.50	1.73	.45	.42	.36
AC-FT	482	999	3,260	2,860	1,090	1,910	972	1,230	1,420	366	348	299

CAL YR 1961: TOTAL 8,953.4 MEAN 24.5 MAX 152 MIN 3.3 CFSM 1.59 IN 21.62 AC-FT 17,760
WAT YR 1962: TOTAL 7,682.7 MEAN 21.0 MAX 167 MIN 4.3 CFSM 1.37 IN 18.55 AC-FT 15,240

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4.6	6.2	60	51	15	40	33	25	8.1	7.6	4.8	5.4
2	4.6	6.2	50	70	19	37	27	27	8.5	7.2	4.3	6.2
3	4.6	6.0	45	84	36	31	25	43	8.1	7.2	4.8	5.7
4	4.6	7.2	40	55	52	27	30	35	8.9	6.8	5.1	5.4
5	4.6	23	35	43	68	25	31	39	9.7	6.5	5.4	5.1
6	4.6	22	35	37	53	22	55	36	8.9	6.5	5.4	5.1
7	4.8	17	33	33	44	21	63	30	8.5	7.6	4.6	5.1
8	5.4	18	30	33	37	19	56	27	8.5	10	4.6	5.1
9	8.5	18	27	32	33	18	45	23	11	8.5	4.8	5.1
10	6.0	18	25	27	29	18	36	20	8.9	8.1	4.8	5.1
11	6.5	21	24	24	27	18	31	18	8.5	7.2	4.6	5.4
12	7.6	22	23	20	25	18	28	17	8.5	7.2	5.7	5.4
13	8.1	27	23	20	24	16	26	16	8.1	7.2	5.7	6.8
14	6.2	25	31	20	22	16	30	15	7.6	7.2	4.8	6.8
15	6.8	20	43	27	21	16	33	15	7.6	7.2	4.6	6.0
16	6.5	18	41	29	24	15	34	15	7.2	7.2	4.3	5.7
17	6.5	19	38	29	24	15	32	14	6.8	6.5	4.3	6.0
18	7.6	20	33	27	31	15	33	13	6.8	6.5	4.8	5.7
19	6.8	39	32	25	35	17	40	12	7.2	6.5	20	5.4
20	6.8	56	29	23	37	17	39	11	7.2	6.5	8.1	5.4
21	6.2	40	34	21	31	16	33	10	9.3	6.5	6.5	5.4
22	6.2	35	33	20	27	15	28	9.7	9.7	7.2	6.2	6.0
23	6.2	33	30	19	24	15	29	9.7	8.9	6.5	6.0	5.7
24	6.2	30	27	19	22	15	27	9.3	8.5	6.5	7.2	5.7
25	6.2	45	25	18	34	15	24	9.3	9.7	6.5	6.0	5.4
26	7.6	60	22	18	61	16	22	9.3	8.9	6.2	5.7	5.4
27	7.2	50	23	16	46	17	20	8.9	9.3	6.0	5.7	5.4
28	6.8	40	34	15	41	34	19	8.5	8.9	5.7	5.4	5.4
29	6.5	35	36	13	------	48	20	8.5	9.3	5.7	5.4	5.4
30	6.2	45	42	13	------	46	22	8.5	8.5	5.1	5.1	5.4
31	6.2	------	49	15	------	39	------	8.5	------	5.4	5.1	------
TOTAL	193.2	821.6	1,052	896	942	697	971	551.2	255.6	212.5	179.8	167.1
MEAN	6.23	27.4	33.9	28.9	33.6	22.5	32.4	17.8	8.52	6.85	5.80	5.57
MAX	8.5	60	60	84	68	48	63	43	11	10	20	6.8
MIN	4.6	6.0	22	13	15	15	19	8.5	6.8	5.1	4.3	5.1
CFSM	.40	1.78	2.20	1.88	2.18	1.46	2.10	1.15	.55	.45	.38	.36
IN.	.47	1.98	2.54	2.16	2.27	1.68	2.34	1.33	.62	.51	.43	.40
AC-FT	383	1,630	2,090	1,780	1,870	1,380	1,930	1,090	507	421	357	331

CAL YR 1962: TOTAL 7,358.1 MEAN 20.2 MAX 167 MIN 4.3 CFSM 1.31 IN 17.77 AC-FT 14,590
WAT YR 1963: TOTAL 6,939.0 MEAN 19.0 MAX 84 MIN 4.3 CFSM 1.23 IN 16.76 AC-FT 13,760

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1570. Quilceda Creek near Marysville, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.4	9.3	23	95	63	29	25	28	11	8.5	5.6	6.1
2	5.4	22	20	90	51	42	24	25	11	8.5	6.1	5.8
3	5.7	16	17	65	43	40	23	23	10	8.2	5.8	5.6
4	5.7	13	18	55	43	50	27	21	12	8.2	5.8	5.6
5	6.2	10	27	50	41	92	37	22	14	7.8	5.6	5.6
6	6.5	14	88	55	35	92	33	20	13	7.5	5.1	5.6
7	6.0	19	108	46	31	63	29	18	12	7.5	5.1	5.8
8	6.0	20	90	41	30	57	25	16	15	8.2	5.1	6.5
9	6.0	18	92	38	33	61	25	18	14	7.8	5.3	5.6
10	6.0	23	63	40	35	57	26	23	12	7.2	5.3	5.3
11	6.0	21	48	41	41	88	33	20	11	6.8	5.1	5.1
12	6.5	24	40	40	37	92	31	19	12	6.5	5.1	5.1
13	7.6	35	34	37	38	63	34	20	13	6.1	5.3	4.8
14	7.2	43	34	36	35	52	33	18	11	6.8	5.1	5.1
15	6.2	39	61	70	46	43	58	16	10	6.8	5.1	5.1
16	6.0	31	107	100	46	38	76	15	24	6.5	5.1	5.3
17	6.0	31	96	105	41	64	65	14	28	6.1	4.8	13
18	5.7	42	75	100	49	63	48	13	34	6.1	5.8	7.2
19	5.7	57	64	100	43	50	37	12	40	6.1	5.3	6.8
20	6.2	42	93	92	38	46	30	14	35	5.8	5.1	7.8
21	9.3	32	69	75	33	47	28	22	26	6.1	5.1	7.2
22	20	27	58	65	30	42	41	30	21	5.8	5.1	7.8
23	12	41	54	55	28	37	36	27	17	5.6	5.1	7.2
24	9.7	39	46	63	26	32	29	27	14	5.3	4.8	6.5
25	8.9	45	53	70	23	33	26	23	13	5.1	5.1	6.1
26	8.1	49	52	59	22	39	28	19	11	5.1	6.5	5.8
27	7.6	53	45	53	21	36	28	16	11	5.1	6.5	5.8
28	12	39	41	46	23	32	29	14	10	7.5	7.2	5.8
29	11	31	36	51	25	29	28	14	10	6.1	7.5	6.1
30	9.3	27	35	43	------	27	29	12	9.2	5.6	8.5	8.5
31	8.9	------	39	55	------	25	------	11	------	5.6	6.5	------
TOTAL	238.8	912.3	1,726	1,931	1,050	1,561	1,021	590	484.2	205.9	174.5	189.6
MEAN	7.70	30.4	55.7	62.3	36.2	50.4	34.0	19.0	16.1	6.64	5.63	6.32
MAX	20	57	108	105	63	92	76	30	40	8.5	8.5	13
MIN	5.4	9.3	17	36	21	25	23	11	9.2	5.1	4.8	4.8
CFSM	.50	1.97	3.62	4.04	2.35	3.27	2.21	1.24	1.05	.43	.37	.41
IN.	.58	2.20	4.17	4.66	2.54	3.77	2.47	1.42	1.17	.50	.42	.46
AC-FT	474	1,810	3,420	3,830	2,080	3,100	2,030	1,170	960	408	346	376

CAL YR 1963: TOTAL 7,749.3 MEAN 21.2 MAX 108 MIN 4.3 CFSM 1.38 IN 18.71 AC-FT 15,370
WAT YR 1964: TOTAL 10,084.3 MEAN 27.6 MAX 108 MIN 4.8 CFSM 1.79 IN 24.35 AC-FT 20,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.5	16	56	54	122	45	18	14	11	5.8	4.4	4.8
2	7.2	14	160	152	91	39	17	13	10	5.8	4.6	5.1
3	6.8	11	194	164	77	36	15	13	9.6	5.8	4.8	5.1
4	6.8	36	93	106	72	32	14	28	9.2	5.8	4.8	5.1
5	6.5	26	62	92	117	28	13	26	9.2	5.8	4.8	5.1
6	6.5	18	48	123	154	26	15	20	8.9	5.3	4.6	4.6
7	6.5	15	39	95	123	23	15	18	8.5	5.6	4.6	4.6
8	8.2	13	34	92	108	21	15	16	8.5	5.8	4.4	4.6
9	7.8	13	39	82	82	20	15	15	8.5	5.8	4.6	4.6
10	7.5	14	50	64	70	20	15	13	8.5	5.8	5.1	4.6
11	7.2	16	61	55	60	19	14	12	9.2	5.8	5.1	4.6
12	6.8	14	50	46	62	18	13	12	8.5	5.8	6.6	5.1
13	6.5	17	39	45	93	17	15	11	8.2	5.6	6.8	5.3
14	6.8	14	38	55	108	17	15	11	7.8	5.3	6.1	7.5
15	6.8	12	40	56	111	17	13	12	7.8	5.3	5.8	7.5
16	6.8	11	28	51	120	16	14	21	7.5	5.3	5.6	6.5
17	6.8	11	21	44	104	15	13	17	7.2	5.3	5.1	5.3
18	6.5	11	18	37	78	15	12	15	7.5	5.3	5.1	5.1
19	6.1	10	18	33	64	15	18	14	7.5	5.1	5.1	5.1
20	6.1	10	20	33	55	15	29	14	7.2	7.2	6.5	5.1
21	6.1	10	37	40	61	15	28	13	7.2	6.5	5.1	5.1
22	6.1	9.6	101	38	90	16	23	12	6.8	5.6	4.8	5.1
23	6.1	10	84	51	66	15	20	13	7.2	5.1	5.4	5.1
24	6.1	26	64	121	56	14	28	12	6.8	4.8	5.8	5.1
25	6.1	22	50	98	48	14	25	11	6.5	4.8	5.6	5.1
26	6.1	18	64	98	46	14	21	11	6.5	4.8	5.3	5.1
27	6.2	22	136	144	63	14	18	10	6.5	5.2	5.1	5.1
28	6.5	22	100	251	58	15	17	10	6.1	5.1	5.1	5.1
29	6.8	22	71	282	------	15	15	10	6.5	4.6	5.1	5.1
30	8.2	30	55	218	------	14	14	13	5.8	4.4	5.1	5.1
31	8.2	------	44	167	------	14	------	12	------	4.4	5.1	------
TOTAL	211.2	493.6	1,914	2,987	2,359	614	517	442	236.2	168.6	162.0	156.3
MEAN	6.81	16.5	61.7	96.4	84.3	19.8	17.2	14.3	7.87	5.44	5.23	5.21
MAX	8.5	36	194	282	154	45	29	28	11	7.2	6.8	7.5
MIN	6.1	9.6	18	33	46	14	12	10	5.8	4.4	4.4	4.6
CFSM	.44	1.07	4.01	6.26	5.47	1.29	1.12	.93	.51	.35	.34	.34
IN.	.51	1.19	4.62	7.21	5.70	1.48	1.25	1.07	.57	.41	.39	.38
AC-FT	419	979	3,800	5,920	4,680	1,220	1,030	877	469	334	321	310

CAL YR 1964: TOTAL 9,826.0 MEAN 26.8 MAX 194 MIN 4.8 CFSM 1.74 IN 23.73 AC-FT 19,490
WAT YR 1965: TOTAL 10,260.9 MEAN 28.1 MAX 282 MIN 4.4 CFSM 1.83 IN 24.78 AC-FT 20,350

12-1575. Lake Goodwin near Silvana, Wash.

Location.--Lat 48°08'35", long 122°18'00", in NW¼SE¼ sec.28, T.31 N., R.4 E., on west shore of lake, 0.6 mile north of channel connecting Lake Goodwin and Lake Shoecraft and 4.7 miles southwest of Silvana.

Drainage area.--5.17 sq mi (revised).

Records available.--April 1953 to September 1965.

Gage.--Staff gage read once daily. Altitude of gage is 321 ft (from topographic map). Prior to Feb. 15, 1955, at site 0.8 mile north. Prior to Oct. 1, 1954, at datum 3.00 ft higher.

Extremes.--Maximum and minimum gage heights, in feet, for the water years 1961-65 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Feb. 24, 25, 1961............	6.58	Sept.26, 27, 28, 1961..........	5.02
1962	Mar. 26, 27, 28, 1962........	6.30	Oct. 4, 5, 1961...............	5.00
1963	Apr. 20, 21, 1963............	6.24	Oct. 7, 1962, Sept.27-30,1963.	5.38
1964	.........(a).................	6.28	Oct. 18, 19, 20, 1964..........	5.30
1965	Jan. 31, 1965................	6.58	Sept.13, 29, 30, 1965..........	4.90

a Dec. 20, 21, 22, 25, 26, 1962, Jan. 1, 1963.

1953-65: Maximum gage height observed, 6.76 ft Jan. 6, 7, 1956; minimum observed, 4.58 ft Sept. 14, 1958.

Remarks.--Level of Lake Goodwin is controlled by flashboards in a wooden flume at mouth of Lake Shoecraft. No known diversion.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.14	5.34	6.04	6.10	6.14	6.48	6.16	6.14	6.02	5.72	5.48	5.24
2	5.14	5.34	6.04	6.10	6.16	6.44	6.18	6.14	6.00	5.72	5.48	5.22
3	5.14	5.32	6.08	6.10	6.16	6.44	6.18	6.14	6.00	5.70	5.46	5.20
4	5.14	5.32	6.08	6.10	6.16	6.42	6.18	6.14	5.58	5.70	5.44	5.20
5	5.14	5.32	6.08	6.12	6.18	6.40	6.16	6.18	5.58	5.76	5.42	5.18
6	5.16	5.32	6.08	6.14	6.22	6.40	6.16	6.18	6.00	5.78	5.42	5.18
7	5.20	5.32	6.08	6.14	6.26	6.36	6.16	6.18	6.02	5.78	5.40	5.16
8	5.22	5.32	6.08	6.16	6.26	6.34	6.18	6.18	6.02	5.76	5.38	5.16
9	5.22	5.32	6.06	6.16	6.26	6.32	6.20	6.20	6.00	5.76	5.36	5.14
10	5.20	5.36	6.06	6.16	6.28	6.30	6.18	6.18	6.00	5.74	5.34	5.14
11	5.20	5.38	6.06	6.16	6.30	6.28	6.18	6.18	5.98	5.74	5.34	5.12
12	5.20	5.40	6.06	6.16	6.34	6.28	6.24	6.16	5.96	5.72	5.32	5.12
13	5.20	5.42	6.08	6.16	6.38	6.30	6.22	6.14	5.96	5.70	5.32	5.10
14	5.18	5.48	6.08	6.16	6.38	6.30	6.20	6.14	5.94	5.70	5.32	5.10
15	5.18	5.54	6.08	6.18	6.44	6.32	6.18	6.14	5.94	5.68	5.32	5.10
16	5.18	5.58	6.08	6.18	6.46	6.32	6.18	6.12	5.92	5.66	5.32	5.08
17	5.18	5.62	6.08	6.18	6.50	6.30	6.18	6.10	5.90	5.66	5.34	5.08
18	5.18	5.64	6.08	6.18	6.50	6.28	6.18	6.10	5.90	5.64	5.32	5.08
19	5.18	5.68	6.12	6.18	6.52	6.26	6.18	6.08	5.88	5.62	5.30	5.08
20	5.18	5.80	6.12	6.16	6.52	6.24	6.18	6.08	5.88	5.62	5.30	5.08
21	5.18	5.82	6.10	6.16	6.56	6.22	6.16	6.06	5.86	5.60	5.28	5.06
22	5.18	5.84	6.10	6.16	6.54	6.22	6.16	6.04	5.86	5.58	5.26	5.06
23	5.20	5.86	6.10	6.14	6.54	6.20	6.14	6.04	5.84	5.58	5.26	5.06
24	5.26	5.96	6.10	6.14	6.58	6.18	6.14	6.06	5.82	5.56	5.24	5.04
25	5.26	6.00	6.10	6.14	6.58	6.18	6.12	6.06	5.80	5.54	5.24	5.04
26	5.26	6.02	6.12	6.12	6.54	6.18	6.12	6.08	5.78	5.54	5.22	5.02
27	5.26	6.04	6.12	6.12	6.52	6.18	6.12	6.08	5.76	5.52	5.20	5.02
28	5.28	6.04	6.12	6.12	6.52	6.18	6.12	6.06	5.74	5.52	5.20	5.02
29	5.28	6.02	6.12	6.12	------	6.16	6.14	6.06	5.74	5.50	5.18	5.04
30	5.28	6.02	6.10	6.14	------	6.16	6.14	6.04	5.74	5.48	5.18	5.04
31	5.32	------	6.10	6.14	------	6.16	------	6.04	------	5.48	5.22	------
MAX	5.32	6.04	6.12	6.18	6.58	6.48	6.24	6.20	6.02	5.78	5.48	5.24
MIN	5.14	5.32	6.04	6.10	6.14	6.16	6.12	6.04	5.58	5.48	5.18	5.02

Note.--Gage read at various times.

12-1575. Lake Goodwin near Silvana, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.02	5.30	5.62	6.16	6.14	6.10	6.22	6.06	6.08	5.86	5.38	5.52
2	5.02	5.30	5.62	6.14	6.14	6.12	6.22	6.04	6.10	5.86	5.38	5.52
3	5.02	5.30	5.62	6.16	6.12	6.14	6.20	6.06	6.12	5.86	5.38	5.52
4	5.00	5.30	5.64	6.16	6.14	6.18	6.20	6.08	6.14	5.84	5.42	5.50
5	5.00	5.30	5.64	6.18	6.14	6.16	6.20	6.08	6.18	5.82	5.44	5.50
6	5.08	5.30	5.64	6.20	6.12	6.16	6.22	6.08	6.16	5.82	5.64	5.50
7	5.08	5.30	5.66	6.24	6.12	6.16	6.22	6.06	6.14	5.82	5.66	5.48
8	5.08	5.28	5.68	6.28	6.12	6.18	6.22	6.06	6.14	5.80	5.66	5.48
9	5.08	5.32	5.68	6.28	6.14	6.18	6.20	6.06	6.12	5.80	5.66	5.48
10	5.08	5.32	5.68	6.28	6.14	6.20	6.20	6.04	6.12	5.78	5.66	5.50
11	5.08	5.44	5.68	6.28	6.14	6.20	6.18	6.04	6.10	5.78	5.64	5.50
12	5.08	5.44	5.68	6.28	6.12	6.20	6.16	6.04	6.10	5.76	5.64	5.48
13	5.08	5.45	5.68	6.28	6.13	6.20	6.16	6.04	6.08	5.76	5.64	5.48
14	5.08	5.44	5.70	6.28	6.16	6.18	6.14	6.04	6.08	5.74	5.64	5.50
15	5.08	5.44	5.72	6.28	6.16	6.18	6.14	6.06	6.06	5.74	5.64	5.50
16	5.10	5.44	5.78	6.28	6.14	6.18	6.12	6.06	6.06	5.74	5.62	5.48
17	5.10	5.42	5.88	6.26	6.14	6.18	6.12	6.04	6.04	5.74	5.62	5.48
18	5.10	5.44	5.92	6.26	6.14	6.16	6.10	6.04	6.02	5.72	5.60	5.48
19	5.10	5.46	5.96	6.24	6.12	6.18	6.10	6.04	6.00	5.72	5.58	5.48
20	5.08	5.46	5.98	6.22	6.12	6.22	6.08	6.02	6.00	5.72	5.58	5.46
21	5.08	5.46	6.08	6.22	6.10	6.24	6.08	6.02	5.98	5.70	5.58	5.46
22	5.08	5.50	6.08	6.20	6.10	6.24	6.08	6.00	5.98	5.70	5.56	5.46
23	5.10	5.50	6.08	6.20	6.10	6.26	6.06	6.06	5.96	5.68	5.56	5.46
24	5.12	5.50	6.14	6.18	6.10	6.28	6.08	6.08	5.94	5.68	5.54	5.46
25	5.14	5.50	6.14	6.18	6.08	6.28	6.08	6.10	5.92	5.66	5.54	5.44
26	5.20	5.50	6.16	6.18	6.08	6.30	6.07	6.10	5.90	5.66	5.54	5.44
27	5.24	5.52	6.16	6.18	6.08	6.30	6.08	6.08	5.90	5.44	5.54	5.42
28	5.28	5.54	6.16	6.18	6.08	6.30	6.08	6.08	5.88	5.44	5.54	5.42
29	5.28	5.54	6.18	6.18	------	6.28	6.08	6.08	5.88	5.42	5.54	5.42
30	5.28	5.58	6.18	6.16	------	6.26	6.06	6.08	5.88	5.42	5.54	5.42
31	5.28	------	6.18	6.16	------	6.24	------	6.06	------	5.40	5.52	------
MAX	5.28	5.58	6.18	6.28	6.16	6.30	6.22	6.10	6.18	5.86	5.66	5.52
MIN	5.00	5.28	5.62	6.14	6.08	6.10	6.06	6.00	5.88	5.40	5.38	5.42

Note.--Gage read at various times.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.42	5.48	6.00	6.16	6.10	6.16	6.16	6.16	5.88	5.80	5.64	5.52
2	5.42	5.48	6.04	6.16	6.10	6.16	6.16	6.16	5.88	5.78	5.64	5.52
3	5.40	5.48	6.04	6.20	6.08	6.16	6.16	6.18	5.86	5.78	5.62	5.52
4	5.40	5.50	6.04	6.20	6.16	6.16	6.14	6.18	5.88	5.76	5.62	5.52
5	5.40	5.54	6.04	6.18	6.18	6.16	6.18	6.22	5.88	5.76	5.60	5.50
6	5.40	5.54	6.06	6.18	6.20	6.14	6.22	6.20	5.88	5.74	5.60	5.50
7	5.38	5.54	6.08	6.18	6.20	6.14	6.22	6.20	5.87	5.74	5.58	5.48
8	5.40	5.54	6.08	6.18	6.18	6.12	6.22	6.18	5.86	5.84	5.58	5.48
9	5.42	5.54	6.06	6.18	6.18	6.12	6.22	6.18	5.90	5.84	5.58	5.48
10	5.44	5.54	6.06	6.16	6.18	6.10	6.22	6.16	5.90	5.84	5.56	5.48
11	5.46	5.54	6.06	6.16	6.16	6.10	6.20	6.14	5.88	5.82	5.56	5.48
12	5.48	5.56	6.04	6.16	6.16	6.08	6.20	6.12	5.88	5.82	5.58	5.48
13	5.48	5.60	6.04	6.14	6.16	6.08	6.20	6.12	5.86	5.80	5.56	5.50
14	5.48	5.60	6.06	6.14	6.16	6.08	6.22	6.10	5.86	5.80	5.54	5.50
15	5.48	5.60	6.10	6.18	6.14	6.08	6.22	6.08	5.84	5.80	5.54	5.48
16	5.48	5.62	6.12	6.18	6.14	6.08	6.22	6.06	5.84	5.78	5.54	5.48
17	5.48	5.64	6.12	6.16	6.14	6.08	6.22	6.04	5.84	5.78	5.52	5.48
18	5.48	5.66	6.12	6.16	6.16	6.06	6.22	6.04	5.82	5.76	5.52	5.46
19	5.48	5.74	6.12	6.14	6.18	6.06	6.22	6.02	5.82	5.76	5.56	5.46
20	5.48	5.80	6.12	6.14	6.18	6.06	6.24	6.02	5.80	5.74	5.58	5.44
21	5.48	5.82	6.14	6.14	6.16	6.04	6.24	6.00	5.80	5.74	5.60	5.44
22	5.50	5.82	6.14	6.14	6.14	6.04	6.22	6.00	5.82	5.72	5.58	5.42
23	5.50	5.82	6.12	6.12	6.14	6.02	6.20	5.98	5.82	5.72	5.56	5.42
24	5.48	5.82	6.10	6.12	6.14	6.02	6.20	5.96	5.84	5.70	5.58	5.42
25	5.48	5.88	6.10	6.12	6.16	6.02	6.18	5.94	5.84	5.70	5.58	5.40
26	5.48	5.92	6.10	6.12	6.18	6.02	6.16	5.94	5.84	5.68	5.56	5.40
27	5.48	5.94	6.08	6.10	6.18	6.02	6.16	5.92	5.82	5.68	5.56	5.38
28	5.48	5.94	6.10	6.10	6.18	6.08	6.14	5.92	5.82	5.66	5.54	5.38
29	5.48	5.98	6.12	6.08	------	6.10	6.14	5.90	5.80	5.66	5.54	5.38
30	5.48	6.00	6.14	6.08	------	6.14	6.14	5.90	5.80	5.66	5.52	5.38
31	5.48	------	6.14	6.08	------	6.14	------	5.88	------	5.66	5.52	------
MAX	5.50	6.00	6.14	6.20	6.20	6.16	6.24	6.22	5.90	5.84	5.64	5.52
MIN	5.38	5.48	6.00	6.08	6.08	6.02	6.14	5.88	5.80	5.66	5.52	5.38

Note.--Gage read at various times.

12-1575. Lake Goodwin near Silvana, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.38	5.40	5.90	6.28	6.18	5.80	5.92	6.18	6.02	5.96	5.70	5.50
2	5.38	5.46	5.88	6.26	6.18	5.86	5.92	6.16	6.00	5.94	5.68	5.50
3	5.36	5.46	5.88	6.22	6.16	5.84	5.90	6.14	6.00	5.94	5.68	5.50
4	5.36	5.48	5.90	6.18	6.14	5.84	5.92	6.14	6.02	5.92	5.68	5.48
5	5.36	5.48	5.92	6.16	6.12	5.86	5.94	6.14	6.02	5.92	5.66	5.48
6	5.36	5.48	6.02	6.16	6.12	5.88	5.92	6.14	6.02	5.90	5.66	5.48
7	5.34	5.50	6.08	6.14	6.10	5.88	5.92	6.14	6.00	5.90	5.66	5.50
8	5.34	5.50	6.12	6.12	6.08	5.90	5.90	6.12	6.02	5.90	5.64	5.52
9	5.34	5.50	6.16	6.10	6.06	5.90	5.90	6.12	6.02	5.88	5.64	5.50
10	5.34	5.50	6.16	6.10	6.06	6.00	5.90	6.14	6.02	5.88	5.64	5.48
11	5.32	5.52	6.14	6.12	6.06	6.02	5.92	6.14	6.00	5.88	5.62	5.48
12	5.32	5.54	6.14	6.10	6.06	6.04	5.92	6.12	6.00	5.88	5.62	5.48
13	5.32	5.60	6.12	6.10	6.04	6.04	5.92	6.12	6.00	5.86	5.60	5.48
14	5.32	5.64	6.12	6.10	6.02	6.06	5.90	6.10	5.98	5.86	5.60	5.48
15	5.32	5.64	6.18	6.14	6.00	6.06	5.92	6.10	5.98	5.86	5.58	5.46
16	5.32	5.64	6.22	6.20	6.00	6.04	5.96	6.08	6.08	5.84	5.58	5.46
17	5.32	5.68	6.24	6.24	6.00	6.08	5.96	6.06	6.08	5.84	5.56	5.56
18	5.30	5.68	6.24	6.24	6.00	6.08	5.94	6.06	6.10	5.82	5.56	5.56
19	5.30	5.74	6.24	6.24	5.98	6.06	6.08	6.04	6.10	5.82	5.54	5.56
20	5.30	5.74	6.28	6.24	5.98	6.06	6.08	6.04	6.10	5.80	5.54	5.58
21	5.34	5.78	6.28	6.24	5.96	6.08	6.08	6.12	6.08	5.80	5.54	5.58
22	5.42	5.80	6.28	6.22	5.96	6.06	6.14	6.14	6.08	5.78	5.52	5.56
23	5.40	5.84	6.26	6.20	5.94	6.04	6.14	6.12	6.06	5.78	5.52	5.56
24	5.40	5.84	6.26	6.22	5.92	6.02	6.15	6.10	6.04	5.76	5.52	5.56
25	5.40	5.86	6.28	6.20	5.90	6.02	6.16	6.10	6.02	5.74	5.52	5.56
26	5.40	5.88	6.28	6.20	5.88	6.02	6.16	6.08	6.00	5.74	5.52	5.54
27	5.40	5.90	6.26	6.18	5.86	6.00	6.18	6.08	5.98	5.72	5.52	5.54
28	5.40	5.90	6.26	6.18	5.84	6.00	6.18	6.06	5.98	5.72	5.52	5.54
29	5.42	5.90	6.24	6.18	5.82	5.98	6.18	6.06	5.98	5.72	5.52	5.54
30	5.42	5.90	6.24	6.16	------	5.96	6.16	6.04	5.98	5.70	5.52	5.56
31	5.40	------	6.22	6.20	------	5.94	------	6.04	------	5.70	5.52	------
MAX	5.42	5.90	6.28	6.28	6.18	6.08	6.18	6.18	6.10	5.96	5.70	5.58
MIN	5.30	5.40	5.88	6.10	5.82	5.80	5.90	6.04	5.98	5.70	5.52	5.46

Note.--Gage read at various times.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.56	5.58	6.00	6.22	6.56	6.06	5.58	5.72	5.77	5.48	5.18	5.02
2	5.58	5.66	6.08	6.30	6.54	6.04	5.56	5.72	5.76	5.46	5.18	5.00
3	5.58	5.68	-	6.38	6.54	6.00	5.56	5.72	5.76	5.46	5.18	5.00
4	5.56	5.80	-	6.36	6.52	5.98	5.56	5.72	5.74	5.44	5.18	4.98
5	5.56	5.80	-	6.36	6.56	5.94	5.58	5.74	5.74	5.42	5.16	4.98
6	5.56	5.80	-	6.40	6.54	5.90	5.60	5.74	5.74	5.42	5.16	4.96
7	5.56	5.80	-	6.40	6.52	5.88	5.60	5.74	5.72	5.40	5.16	4.96
8	5.60	5.80	-	6.38	6.50	5.86	5.60	5.74	5.72	5.40	5.14	4.94
9	5.60	5.80	-	6.38	6.50	5.82	5.60	5.74	5.72	5.38	5.14	4.94
10	5.60	5.80	-	6.36	6.44	5.80	5.58	5.74	5.70	5.38	5.12	4.92
11	5.60	5.80	-	6.32	6.50	5.78	5.58	5.74	5.70	5.36	5.12	4.92
12	5.60	5.82	-	6.30	6.38	5.76	5.58	5.72	5.70	5.36	5.12	4.92
13	5.60	5.84	-	6.28	6.36	5.74	5.62	5.72	5.68	5.34	5.10	4.90
14	5.60	5.84	6.11	6.26	6.36	5.72	5.62	5.72	5.68	5.34	5.10	4.96
15	5.62	5.84	-	6.24	6.36	5.70	5.62	5.72	5.68	5.32	5.10	5.00
16	5.62	5.84	-	6.20	6.34	5.68	5.62	5.74	5.66	5.30	5.10	4.98
17	5.62	5.84	-	6.16	6.32	5.66	5.62	5.76	5.66	5.28	5.10	4.98
18	5.62	5.82	-	6.12	6.30	5.64	5.62	5.76	5.64	5.28	5.08	4.96
19	5.60	5.82	-	6.10	6.28	5.62	5.66	5.78	5.64	5.28	5.08	4.96
20	5.60	5.82	-	6.08	6.24	5.60	5.68	5.78	5.62	5.30	5.08	4.96
21	5.60	5.82	-	6.04	6.24	5.58	5.68	5.78	5.60	5.32	5.08	4.94
22	5.60	5.82	-	6.02	6.22	5.58	5.70	5.76	5.60	5.30	5.06	4.94
23	5.60	5.82	-	6.06	6.20	5.56	5.70	5.76	5.58	5.28	5.06	4.94
24	5.60	5.88	-	6.10	6.16	5.54	5.74	5.76	5.58	5.28	5.08	4.94
25	5.58	5.88	-	6.12	6.12	5.52	5.74	5.76	5.56	5.26	5.10	4.92
26	5.58	5.88	-	6.14	6.08	5.52	5.74	5.76	5.54	5.24	5.10	4.92
27	5.58	5.92	-	6.20	6.08	5.52	5.74	5.76	5.52	5.24	5.08	4.92
28	5.58	5.94	-	6.30	6.08	5.52	5.74	5.76	5.50	5.22	5.06	4.92
29	5.58	5.94	6.22	6.44	------	5.52	5.74	5.76	5.50	5.22	5.06	4.90
30	5.58	5.94	6.22	6.48	------	5.52	5.72	5.76	5.48	5.20	5.04	4.90
31	5.58	------	6.20	6.58	------	5.52	------	5.76	------	5.20	5.02	------
MAX	5.62	5.94	-	6.58	6.56	6.06	5.74	5.78	5.77	5.48	5.18	5.02
MIN	5.56	5.58	-	6.02	6.08	5.52	5.56	5.72	5.48	5.20	5.02	4.90

Note.--Gage read at various times.

12-1580: Lake Shoecraft near Tulalip, Wash.

Location.--Lat 48°07'35", long 122°18'15", in SW¼ sec.33, T.31 N., R.4 E., on southwest shore a quarter of a mile east of outlet and 4¼ miles north of Tulalip.

Drainage area.--6.02 sq mi (revised).

Records available.--April 1953 to September 1965.

Gage.--Staff gage read once daily. Altitude of gage is 324 ft (from topographic map). Prior to Aug. 12, 1963, at site 300 ft downlake at same datum.

Extremes.--Maximum and minimum gage heights, in feet, for the water years 1961-65 are contained in the following table:

Water year	Maximum observed		Minimum observed	
	Date	Gage height	Date	Gage height
1961	Feb. 20, 1961................	2.33	Sept.26, 27, 28, 1961.........	0.84
1962	Mar. 27, 28, 1962.............	2.10	Oct. 5, 1961.................	.84
1963	Apr. 8, 20, 21, 1963.........	2.09	Oct. 4, 1962.................	1.21
1964	Dec. 21, 1963................	2.12	Oct. 15-21, 1963.............	1.17
1965	Feb. 1, 1965.................	2.35	Sept.11, 12, 1965............	.80

1953-65: Maximum gage height observed, 2.48 ft Jan. 5, 1956; minimum observed, 0.45 ft Sept. 13-15, 1958.

Remarks.--Level of Lake Shoecraft is controlled by planks in wooden flume at outlet. No known diversion.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.96	-	1.85	1.93	1.96	2.21	1.98	1.95	-	1.56	1.29	1.04
2	.96	-	1.86	1.93	1.96	2.20	2.00	-	-	1.55	1.28	1.03
3	.95	-	1.87	1.92	1.96	2.19	2.00	-	1.81	1.54	1.27	1.02
4	.95	-	1.89	1.93	1.96	2.17	2.00	-	1.80	1.52	1.26	1.01
5	.95	1.14	1.89	1.95	1.99	2.12	1.99	-	1.80	1.60	1.25	1.00
6	.97	1.14	1.89	1.95	2.02	2.13	1.98	2.00	1.79	1.60	1.24	1.00
7	-	1.14	1.88	1.96	2.06	2.10	1.96	2.00	1.82	1.60	1.22	.98
8	-	1.13	1.88	1.95	2.07	2.08	2.00	2.00	1.81	1.58	1.22	.97
9	-	1.13	1.88	1.97	2.07	2.08	2.01	2.00	1.81	1.56	1.20	.96
10	-	1.19	1.87	1.96	2.08	2.06	2.00	2.00	1.80	1.55	1.19	.95
11	1.02	1.22	-	1.96	2.10	2.06	2.01	1.99	1.80	-	1.18	.95
12	1.02	1.23	-	1.97	2.16	2.07	2.03	1.98	1.79	-	1.16	.94
13	1.02	1.33	1.89	1.97	2.18	2.05	2.02	1.97	1.78	-	1.15	.93
14	1.01	1.33	1.90	1.97	2.18	2.06	2.01	1.96	1.77	1.51	1.14	.92
15	1.00	1.37	1.90	1.96	2.22	2.10	2.00	1.95	1.75	1.50	1.13	.91
16	1.00	1.43	1.89	1.99	2.23	2.07	1.99	1.94	1.73	1.49	1.16	.90
17	.99	1.47	1.89	2.00	2.28	2.06	1.98	1.93	1.72	1.48	1.16	.89
18	1.00	1.49	1.91	2.00	2.28	2.04	1.98	1.92	1.72	1.47	1.15	.90
19	.98	1.49	1.92	2.00	2.30	2.01	1.98	1.91	1.71	1.46	1.15	.90
20	.97	1.58	1.92	1.98	2.33	2.01	1.97	1.90	1.70	1.44	1.14	.89
21	.98	1.64	1.93	1.98	2.29	2.00	1.97	1.88	1.68	1.43	1.12	.88
22	-	1.65	1.93	1.97	2.26	1.98	1.96	1.86	1.67	1.41	1.10	.87
23	-	1.67	1.92	1.95	2.22	2.01	1.96	1.89	1.65	1.40	-	.86
24	-	1.77	1.92	1.95	2.23	2.00	1.95	1.88	1.63	1.38	-	.86
25	-	1.83	1.92	1.94	2.25	2.00	1.94	1.86	1.62	1.37	-	.85
26	-	1.85	1.93	1.94	2.24	2.00	1.93	1.85	1.61	1.36	-	.84
27	-	1.85	1.93	1.94	2.22	2.00	1.92	-	1.60	1.35	-	.84
28	-	1.85	1.93	1.92	2.21	2.00	1.92	-	1.58	1.33	1.02	.84
29	-	1.85	1.92	1.94	------	1.98	1.93	-	1.56	1.32	1.00	.87
30	-	1.84	1.93	1.97	------	1.97	1.93	-	1.57	1.31	.99	.87
31	-	------	1.93	1.96	------	1.98	------	-	------	1.30	1.02	------
MAX	-	-	-	2.00	2.33	2.21	2.03	-	-	-	-	1.04
MIN	-	-	-	1.92	1.96	1.97	1.92	-	-	-	-	.84

12-1580. Lake Shoecraft near Tulalip, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	0.87	-	1.54	1.97	1.96	-	2.04	-	1.86	1.68	1.40	1.35
2	.86	-	1.53	1.97	1.96	-	2.02	-	1.88	1.68	1.38	1.34
3	.86	-	1.53	1.97	1.95	-	2.01	-	1.92	1.67	1.38	1.34
4	.85	-	1.53	1.98	1.94	1.97	2.02	-	1.99	1.66	1.41	1.33
5	.84	-	1.55	1.97	1.94	1.98	2.01	-	2.00	1.64	1.47	1.32
6	.88	-	1.56	2.00	1.93	1.99	2.01	-	1.99	1.64	1.47	1.31
7	.90	-	1.58	2.06	1.94	1.99	2.01	-	1.98	1.63	1.48	1.29
8	.90	-	1.60	2.08	1.94	1.99	2.01	-	1.97	1.62	1.49	1.28
9	.91	-	1.60	2.09	1.95	2.00	2.01	-	1.96	1.61	1.47	1.28
10	.91	-	1.59	2.09	1.96	2.02	2.00	-	1.94	1.60	1.46	1.28
11	.91	1.31	1.59	2.08	1.96	2.01	1.99	1.86	1.92	1.59	1.45	1.30
12	.92	1.32	-	2.08	1.96	2.01	1.98	1.86	1.90	1.58	1.46	1.30
13	.94	1.32	-	2.07	1.96	2.02	1.98	1.87	1.91	-	-	-
14	.94	1.32	-	2.07	1.99	2.02	1.97	1.87	1.89	-	-	-
15	.94	1.31	1.64	2.08	-	1.99	1.97	1.86	1.88	1.54	-	-
16	.95	1.31	1.65	2.08	1.98	1.99	1.96	1.86	1.87	1.53	-	1.32
17	.95	1.31	1.73	2.08	1.98	1.99	1.95	1.85	1.86	1.56	-	1.29
18	.94	1.32	1.73	2.08	1.97	1.99	1.93	1.85	1.84	1.56	-	1.29
19	.94	1.35	1.76	2.07	1.96	1.99	1.92	1.84	1.83	1.55	1.39	1.28
20	.94	1.36	1.82	2.08	1.94	2.00	1.91	1.83	1.82	-	1.39	1.28
21	.94	1.40	1.88	2.04	1.92	2.04	1.89	1.82	1.80	-	1.39	1.27
22	.94	1.40	1.88	2.03	1.93	2.07	1.88	1.81	1.79	-	1.38	1.26
23	.94	1.40	1.91	2.02	1.92	2.07	1.86	1.85	1.78	-	1.37	1.26
24	.93	1.41	1.93	2.00	1.91	2.09	1.86	1.90	1.78	1.52	1.36	1.25
25	.94	1.41	1.97	2.00	1.90	2.09	1.87	1.93	1.77	1.50	1.35	1.25
26	1.06	1.40	1.97	2.00	1.88	2.08	1.88	1.92	1.75	1.48	1.38	1.24
27	1.10	1.43	1.96	2.00	1.87	2.10	1.89	1.92	1.73	1.47	1.38	1.24
28	1.13	1.44	1.97	2.00	-	2.10	1.89	1.93	1.71	1.46	1.37	1.25
29	1.13	1.46	1.97	1.99	------	2.09	1.88	1.91	1.70	1.45	1.36	1.25
30	1.12	1.50	1.97	1.98	------	2.08	-	1.90	1.69	1.43	1.36	1.24
31	1.14	------	1.98	1.97	------	2.06	------	1.88	------	1.42	1.35	------
MAX	1.14	-	-	2.09	-	-	-	-	2.00	-	-	-
MIN	.84	-	-	1.97	-	-	-	-	1.69	-	-	-

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.24	-	1.82	1.97	-	2.06	2.03	2.00	1.73	1.65	1.50	1.38
2	1.23	-	1.84	1.97	-	2.06	2.02	2.01	1.74	1.64	1.50	1.38
3	1.22	-	1.85	2.03	-	2.04	2.01	2.01	1.73	1.63	1.49	1.38
4	1.21	-	1.87	2.00	-	2.03	2.03	2.02	-	1.62	1.48	1.37
5	-	-	1.87	2.00	2.04	2.03	2.02	2.04	1.74	1.61	1.47	1.36
6	-	-	1.87	2.00	2.05	2.01	2.06	2.07	1.73	1.60	1.46	1.36
7	-	-	1.87	1.99	2.06	1.99	2.08	2.06	1.72	1.60	1.46	1.35
8	-	-	1.87	1.99	2.04	1.98	2.09	2.05	1.72	1.70	1.45	1.33
9	1.25	-	1.86	1.99	2.04	1.97	2.08	-	1.76	1.70	1.44	1.33
10	1.25	1.38	1.86	1.98	2.03	1.96	2.07	-	1.76	1.70	1.43	1.32
11	1.25	1.37	1.86	1.96	2.03	1.95	2.06	-	1.75	1.69	1.42	1.33
12	1.28	1.37	1.84	1.96	2.02	1.95	2.06	-	1.74	1.69	1.43	1.33
13	1.29	1.43	1.87	1.96	2.02	1.94	2.07	-	1.74	1.68	1.43	1.33
14	1.29	1.44	1.88	-	2.01	1.93	2.07	-	-	1.68	1.42	1.35
15	1.29	1.44	1.92	-	2.00	1.91	2.07	-	-	1.64	1.41	1.34
16	1.29	1.44	1.93	-	2.00	1.93	2.08	-	-	1.65	1.40	1.33
17	1.29	1.45	-	1.98	2.00	1.92	2.07	-	-	1.65	1.38	1.33
18	1.30	1.46	-	1.98	2.02	1.91	2.07	-	-	1.64	1.37	1.32
19	1.30	1.52	-	1.97	2.03	1.90	2.07	-	-	1.63	1.46	1.31
20	1.30	1.60	-	1.96	2.02	1.90	2.09	-	-	1.61	1.45	1.30
21	1.30	1.62	-	1.96	2.01	1.89	2.09	-	1.66	1.60	1.45	1.29
22	1.30	1.64	1.95	1.95	2.01	1.89	2.08	1.85	1.68	1.59	1.44	1.28
23	1.30	1.66	1.95	1.95	2.00	1.88	2.07	1.84	1.68	1.58	1.42	1.28
24	1.30	1.66	1.94	1.94	1.99	1.87	2.07	1.83	1.68	1.57	1.43	1.27
25	1.30	1.71	1.93	1.94	1.99	1.87	2.06	1.81	1.69	1.56	1.43	1.27
26	1.31	1.75	1.92	1.93	2.04	-	2.04	1.80	1.68	1.55	1.42	1.26
27	1.30	1.76	1.91	1.93	2.04	-	2.02	1.79	1.68	1.54	1.42	1.26
28	1.30	1.77	1.91	1.92	2.05	-	2.00	1.77	1.68	1.52	1.40	1.26
29	1.30	1.77	1.90	1.92	------	-	2.00	1.76	1.68	1.51	1.40	1.26
30	-	1.80	1.93	-	------	2.02	2.00	1.75	1.64	1.51	1.39	1.24
31	-	------	1.97	-	------	2.02	------	1.74	------	1.50	1.38	------
MAX	-	-	-	-	-	-	2.09	-	-	1.70	1.50	1.38
MIN	-	-	-	-	-	-	2.00	-	-	1.50	1.37	.1.24

12-1580. Lake Shoecraft near Tulalip, Wash.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.23	1.25	1.75	2.06	1.98	1.66	1.74	2.04	1.88	1.82	1.54	1.37
2	1.22	1.30	1.75	2.03	1.97	1.66	1.73	2.03	1.88	1.80	1.53	1.37
3	1.21	1.32	1.75	2.00	1.96	1.66	1.72	2.00	1.86	1.80	1.55	1.35
4	1.21	1.34	1.75	2.00	1.94	1.66	1.72	1.98	1.86	1.79	1.54	1.35
5	1.20	1.32	1.76	1.98	1.94	1.68	1.76	1.98	1.88	1.78	1.54	1.34
6	1.21	1.34	1.85	1.96	1.93	1.69	1.76	1.97	1.88	1.77	1.53	1.33
7	1.21	1.36	1.92	1.95	1.90	1.69	1.74	1.97	1.88	1.77	1.52	1.33
8	1.20	1.37	1.94	1.94	1.89	1.69	1.72	1.96	1.87	1.77	1.51	1.37
9	1.20	1.37	2.00	1.92	1.88	1.70	1.70	1.95	1.87	1.76	1.50	1.37
10	1.20	1.38	2.00	1.90	1.87	1.70	1.71	1.99	1.86	1.76	1.48	1.36
11	1.19	1.40	1.98	1.94	1.87	1.76	1.73	2.00	1.85	1.74	1.48	1.35
12	1.18	1.40	1.98	1.92	1.86	1.83	1.75	1.98	1.85	1.73	1.47	1.34
13	1.18	1.46	1.98	1.90	1.84	1.85	1.76	1.98	1.88	1.72	1.47	1.33
14	1.18	1.50	1.97	1.97	1.83	1.84	1.84	1.97	1.89	1.72	1.45	1.32
15	1.17	1.51	1.98	1.96	1.82	1.84	1.86	1.96	1.86	1.71	1.44	1.30
16	1.17	1.51	2.06	1.96	1.82	1.84	1.90	1.94	1.92	1.69	1.43	1.30
17	1.17	1.51	2.08	1.99	1.81	1.86	1.92	1.94	1.93	1.68	1.41	1.40
18	1.17	1.51	2.08	2.00	1.81	1.88	1.94	1.93	1.94	1.67	1.41	1.40
19	1.17	1.57	2.07	2.00	1.80	1.87	1.94	1.90	1.95	1.67	1.41	1.39
20	1.17	1.61	2.10	2.00	1.79	1.86	1.92	1.90	1.94	1.66	1.41	1.42
21	1.17	1.61	2.12	2.01	1.78	1.87	1.94	1.95	1.93	1.66	1.39	1.41
22	1.27	1.63	2.10	2.01	1.76	1.86	1.98	1.97	1.92	1.64	1.40	1.41
23	1.27	1.68	2.10	2.00	1.74	1.86	2.00	1.98	1.91	1.64	1.38	1.42
24	1.26	1.68	2.10	2.00	1.74	1.84	1.99	1.98	1.89	1.63	1.38	1.42
25	1.25	1.69	2.10	2.02	1.70	1.82	1.98	1.96	1.88	1.62	1.37	1.41
26	1.24	1.70	2.10	2.00	1.68	-	1.99	1.94	1.88	1.61	1.37	1.41
27	1.24	1.75	2.10	1.98	1.67	-	2.00	1.94	1.87	1.60	1.36	1.40
28	1.26	1.76	2.09	1.98	1.66	1.80	2.02	1.92	1.86	1.59	1.36	1.39
29	1.26	1.75	2.08	1.96	1.66	1.79	2.00	1.91	1.84	1.57	1.36	1.38
30	1.26	1.75	2.07	1.96	------	1.77	2.04	1.90	1.84	1.56	1.38	1.40
31	1.26	------	2.02	1.96	------	1.76	------	1.89	------	1.55	1.38	------
MAX	1.27	1.76	2.12	2.06	1.98	-	2.00	2.04	1.95	1.82	1.55	1.42
MIN	1.17	1.25	1.75	1.90	1.66	-	1.70	1.89	1.84	1.55	1.36	1.30

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.44	1.44	1.85	2.00	2.35	1.80	1.40	1.55	1.61	1.34	1.07	.88
2	1.44	1.46	1.90	2.10	2.34	1.78	1.41	1.57	1.61	1.33	1.05	.88
3	1.44	1.46	1.94	2.18	2.33	1.76	1.41	1.57	1.60	1.31	1.05	.87
4	1.42	1.65	1.95	2.16	2.28	1.73	1.42	1.58	1.60	1.30	1.04	.86
5	1.42	1.65	1.94	2.18	2.26	1.68	1.42	1.60	1.59	1.29	1.02	.85
6	1.42	1.65	1.94	2.18	2.28	1.68	1.43	1.60	1.58	1.28	1.01	.84
7	1.42	1.64	1.92	2.20	2.26	1.66	1.45	1.60	1.57	1.27	1.00	.84
8	1.45	1.64	1.91	2.16	2.24	1.62	1.46	1.60	1.56	1.24	1.00	.83
9	1.45	1.64	1.93	2.14	2.22	1.60	1.46	1.59	1.54	1.24	.99	.82
10	1.46	1.65	1.95	2.10	2.18	1.58	1.46	1.59	1.53	1.23	.99	.81
11	1.45	1.65	1.96	2.08	2.15	1.55	1.45	1.59	1.55	1.23	.97	.80
12	1.45	1.66	1.95	2.06	2.12	1.52	1.45	1.58	1.55	1.21	.98	.80
13	1.44	1.68	1.96	2.04	2.10	1.50	1.47	1.58	1.55	1.20	.97	.81
14	1.44	1.68	1.95	2.04	2.10	1.48	1.47	1.58	1.53	1.20	.96	.83
15	1.46	1.68	1.96	1.98	2.09	1.46	1.47	1.57	1.51	1.19	.95	.85
16	1.47	1.68	1.96	1.94	2.07	1.44	1.47	1.60	1.51	1.17	.95	.86
17	1.47	1.68	1.94	1.92	2.07	1.42	1.48	1.64	1.50	1.16	-	.87
18	1.46	1.67	1.94	1.90	2.05	1.38	1.47	1.62	1.48	1.15	-	.87
19	1.47	1.67	1.94	1.86	2.00	1.36	1.48	1.60	1.48	1.14	-	.86
20	1.46	1.66	1.92	1.83	1.98	1.34	1.52	1.61	1.47	1.17	.94	.85
21	1.46	1.67	1.93	1.80	1.95	1.33	1.53	1.62	1.46	1.17	.93	.86
22	1.45	1.66	2.00	1.80	1.97	1.33	1.55	1.60	1.45	1.16	.93	.84
23	1.45	1.66	2.02	1.82	1.94	1.32	1.55	1.63	1.44	1.15	.93	.84
24	1.45	1.73	2.04	1.90	1.92	1.30	1.58	1.62	1.43	1.14	.96	.83
25	1.45	1.74	2.04	1.90	1.90	1.30	1.58	1.62	1.42	1.14	.97	.84
26	1.45	1.74	2.05	1.90	1.84	1.33	1.58	1.61	1.39	1.13	.95	.82
27	1.44	1.76	2.08	1.94	1.83	1.36	1.58	1.61	1.38	1.10	.94	.82
28	1.43	1.78	2.08	2.05	1.84	1.36	1.58	1.60	1.37	1.11	.93	.82
29	1.43	1.80	2.06	2.19	------	1.37	1.58	1.60	1.36	1.10	.92	.81
30	1.43	1.80	2.02	2.23	------	1.38	1.55	1.63	1.35	1.09	.90	.81
31	1.44	------	1.98	2.34	------	1.38	------	1.62	------	1.08	.90	------
MAX	1.47	1.80	2.08	2.34	2.35	1.80	1.58	1.64	1.61	1.34	-	.88
MIN	1.42	1.44	1.85	1.80	1.83	1.30	1.40	1.55	1.35	1.08	-	.80

12-1610. South Fork Stillaguamish River near Granite Falls, Wash.

Location.--Lat 48°06'10", long 121°56'40", in SW¼NW¼ sec.8, T.30 N., R.7 E., on right bank a quarter of a mile upstream from county road bridge, 1½ miles upstream from Canyon Creek, and 2 miles northeast of Granite Falls.

Drainage area.--119 sq mi.

Records available.--December 1902 to July 1903 (gage heights only), July 1928 to September 1965. Published as "at Robe" 1902-3.

Gage.--Digital water-stage recorder. Altitude of gage is 310 ft (from river-profile map). Prior to Aug. 31, 1928, staff gage at site 8 miles upstream at different datum. Aug. 31 to Sept. 30, 1928, staff gage and Oct. 1, 1928, to Apr. 27, 1965, graphic water-stage recorder, at present site and datum.

Average discharge.--37 years, 1,064 cfs (770,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (8,700 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1900	10,700	11.37	Nov. 25, 1962	1830	11,200	11.59	Nov. 24, 1964	0500	11,200	11.60
Jan. 15, 1961	2130	15,800	13.57	Feb. 3, 1963	0600	11,100	11.56	Nov. 30, 1964	1200	* 14,300	12.98
Feb. 21, 1961	1100	* 20,300	15.37					Jan. 30, 1965	1700	13,700	12.73
				Oct. 22, 1963	0430	11,000	11.50				
Jan. 3, 1962	1230	* 13,200	12.54	Nov. 26, 1963	1400	* 14,600	13.12				
				Jan. 1, 1964	1200	13,800	12.76				
Nov. 20, 1962	0230	* 18,000	14.45	Sept.30, 1964	1230	9,320	10.66				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	76	3.23	1964	Oct. 11, 1963	134	3.38
1962	Sept. 9, 1962	140	3.52	1965	Sept.13, 1965	139	3.40
1963	Sept.10, 13, 1963	127	3.35				

1928-65: Maximum discharge, 32,400 cfs Feb. 26, 1932 (gage height, 19.7 ft, from graph based on gage readings), from rating curve extended above 21,000 cfs; minimum, 55 cfs Sept. 23, 24, 1938; minimum gage height, 2.99 ft Aug. 19-21, 1941.

Remarks.--Records excellent. Some small diversion for domestic use above station. No regulation. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 902: 1939. WSP 1286: 1929-31(M), 1932, 1935, 1937(M), 1938-39(P), 1940-41(M), 1943(P), 1947(P). WSP 1736: 1932(M), 1933-35(M), 1938(M), 1944-48(M), 1951(M), 1956-57(M), 1959(M). Revised peak discharges for the water years 1938, 1945, 1950, 1956, and 1959 are given herewith. They supersede figures published in WSP 862, 1042, 1182, 1446, and 1636.

Revised peak discharges.--1937-38: Oct. 28 (1030) 13,200 cfs (12.17 ft); Nov. 8 (0715) 16,600 cfs (13.92 ft); Nov. 25 (1230) 11,800 cfs (11.61 ft); Nov. 27 (1745) 13,500 cfs (12.28 ft); Dec. 28 (0900) 16,600 cfs (13.38 ft); Apr. 18 (0330) 17,200 cfs (14.13 ft).

1944-45: Jan. 7 (time unknown) 20,700 cfs (15.54 ft); Jan. 13 (1200) 11,200 cfs (11.35 ft); Feb. 7 (1900) 19,200 cfs (14.94 ft).

1949-50: Oct. 28 (0900) 12,100 cfs (11.73 ft); Nov. 13 (0630) 8,870 cfs (10.38 ft); Nov. 27 (time, discharge, and gage height unknown); Dec. 28 (time, discharge, and gage height unknown); Jan. 21 (1100) 10,600 cfs (11.14 ft); Mar. 3 (2300) 17,300 cfs (14.18 ft).

1955-56: Oct. 25 (1100) 20,400 cfs (15.40 ft); Oct. 29 (1500) 9,840 cfs (10.83 ft); Nov. 3 (0200) 18,200 cfs (14.27 ft); Dec. 11 (2230) 20,600 cfs (15.48 ft).

1958-59: Nov. 12 (0445) 22,100 cfs (16.10 ft); Nov. 20 (1500) 14,100 cfs (12.65 ft); Jan. 23 (1530) 13,800 cfs (12.54 ft); Apr. 1 (0530) 9,260 cfs (10.57 ft); Apr. 29 (1420) 19,900 cfs (15.22 ft); Sept. 6 (1100) 9,350 cfs (10.61 ft); Sept. 20 (0915) 8,800 cfs (10.36 ft).

12-1610. South Fork Stillaguamish River near Granite Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	191	3,070	730	406	1,790	3,440	1,490	1,800	1,140	347	136	2,310
2	179	1,890	685	374	2,410	1,610	2,000	2,430	1,400	334	138	1,960
3	168	1,170	971	342	1,450	1,170	3,590	1,560	1,400	324	138	718
4	163	911	855	480	1,530	904	1,720	1,120	1,260	338	138	475
5	153	744	661	3,660	4,540	785	1,140	1,110	1,110	743	138	388
6	212	637	510	2,850	5,930	757	897	897	1,130	698	138	334
7	926	554	510	1,540	3,080	724	785	778	1,020	554	129	266
8	1,000	510	505	2,050	1,750	737	862	764	737	410	118	222
9	619	465	510	2,320	1,580	827	890	992	785	360	116	197
10	445	2,010	475	2,700	1,420	757	757	1,280	718	365	113	174
11	425	2,640	510	2,870	1,350	827	785	1,230	692	365	109	163
12	984	1,180	3,860	2,560	1,490	883	1,100	925	673	374	109	148
13	667	976	2,810	1,690	1,180	1,210	1,100	841	631	374	105	138
14	526	1,290	2,590	3,140	1,010	2,260	890	897	698	360	103	131
15	450	1,180	1,260	11,400	1,550	3,020	757	904	897	312	105	129
16	415	4,100	911	6,190	1,250	2,200	730	1,080	1,020	280	131	124
17	365	4,360	862	2,470	1,140	1,400	1,170	1,210	1,060	248	141	120
18	308	4,140	1,700	1,680	984	1,160	911	1,300	992	219	116	124
19	273	3,200	2,850	1,180	3,320	1,180	813	1,450	841	215	105	129
20	248	3,610	1,480	946	8,720	1,920	698	1,480	661	215	103	233
21	365	1,700	1,020	827	15,400	1,390	667	1,290	510	219	101	316
22	2,720	1,240	834	737	3,880	1,170	655	1,010	450	215	95	215
23	2,660	1,700	785	661	2,020	1,620	607	1,300	485	215	91	171
24	5,780	3,260	737	601	2,160	1,330	601	1,090	516	200	89	148
25	1,960	2,480	692	543	1,590	1,060	571	911	505	182	87	136
26	3,280	1,370	685	485	1,180	1,020	560	1,250	505	163	85	131
27	3,320	984	613	440	1,050	897	538	1,470	415	166	85	120
28	3,960	799	521	406	968	792	625	1,090	342	166	82	1,030
29	1,900	685	470	885	------	744	1,510	1,010	352	160	80	1,180
30	1,180	619	435	3,120	------	764	1,840	976	401	143	80	685
31	2,310	------	425	2,370	------	960	------	897	------	136	1,800	------
TOTAL	38,152	53,474	32,462	61,923	75,722	39,518	31,259	36,342	23,346	9,400	5,104	12,615
MEAN	1,231	1,782	1,047	1,998	2,704	1,275	1,042	1,172	778	303	165	421
MAX	5,780	4,360	3,860	11,400	15,400	3,440	3,590	2,430	1,400	743	1,800	2,310
MIN	153	465	425	342	968	724	538	764	342	136	80	120
CFSM	10.3	15.0	8.80	16.8	22.7	10.7	8.76	9.85	6.54	2.55	1.38	3.53
IN.	11.9	16.7	10.1	19.4	23.7	12.4	9.77	11.4	7.30	2.94	1.60	3.94
AC-FT	75,670	106,100	64,390	122,800	150,200	78,380	62,000	72,080	46,310	18,640	10,120	25,020

CAL YR 1960: TOTAL 376,911 MEAN 1,030 MAX 7,600 MIN 133 CFSM 8.65 IN 117.79 AC-FT 747,600
WAT YR 1961: TOTAL 419,317 MEAN 1,149 MAX 15,400 MIN 80 CFSM 9.65 IN 131.05 AC-FT 831,700

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	700	1,150	3,320	1,560	1,080	292	919	1,590	706	622	269	236
2	470	828	1,520	2,540	1,330	292	905	1,480	2,100	556	247	222
3	374	856	1,330	11,000	1,990	273	758	2,600	2,030	470	343	205
4	304	718	2,840	3,830	2,110	296	877	1,650	1,260	470	1,030	186
5	320	580	2,270	2,530	1,260	351	1,000	1,110	1,220	604	2,790	180
6	933	498	1,220	2,520	933	397	4,490	877	1,040	622	1,350	165
7	884	486	940	6,830	948	387	4,130	765	948	515	988	159
8	616	498	751	5,100	948	464	1,700	772	1,120	574	1,150	154
9	1,350	909	634	2,460	884	437	1,160	1,040	1,080	640	807	142
10	2,150	3,620	533	1,600	980	382	891	1,120	905	598	562	701
11	1,120	2,080	476	1,180	948	351	744	980	779	544	448	1,470
12	3,100	1,210	437	988	814	308	718	856	821	533	407	676
13	3,700	877	412	835	730	296	891	912	814	448	427	765
14	1,420	758	387	744	1,200	300	1,300	814	926	387	346	1,630
15	898	634	417	688	988	329	870	751	1,060	356	300	846
16	694	538	515	634	737	387	1,200	712	1,160	346	280	598
17	592	470	856	616	634	437	980	772	1,000	402	329	454
18	481	442	622	521	676	437	1,050	765	849	369	533	376
19	476	437	1,140	442	592	476	1,270	712	779	304	556	321
20	592	397	2,770	422	515	580	1,260	758	828	317	412	288
21	481	387	2,640	432	459	556	1,170	586	821	364	498	261
22	454	870	1,830	448	454	586	1,060	598	814	407	387	250
23	2,070	610	4,250	454	437	814	1,110	849	828	459	308	229
24	1,090	486	5,970	412	374	1,520	1,500	1,110	956	470	269	215
25	842	402	2,390	1,340	346	1,480	1,400	1,000	933	442	236	195
26	2,360	360	1,440	2,660	304	972	1,040	988	1,100	407	325	189
27	2,050	600	1,060	2,570	288	988	1,470	1,040	898	369	387	205
28	1,260	1,250	2,500	1,580	300	712	1,330	1,160	712	364	585	834
29	870	1,670	5,920	1,160	------	622	1,160	1,120	718	329	427	2,550
30	706	1,840	3,940	1,080	------	628	988	884	772	292	313	1,240
31	658	------	1,890	1,120	------	737	------	814	------	280	265	------
TOTAL	34,015	26,461	57,220	60,296	23,259	17,087	39,341	31,185	29,977	13,860	17,574	15,944
MEAN	1,097	882	1,846	1,945	831	551	1,311	1,006	999	447	567	531
MAX	3,700	3,620	5,970	11,000	2,110	1,520	4,490	2,600	2,100	640	2,790	2,550
MIN	304	360	387	412	288	273	718	586	706	280	236	142
CFSM	9.22	7.41	15.5	16.3	6.98	4.63	11.0	8.45	8.40	3.76	4.76	4.47
IN.	10.6	8.27	17.9	18.8	7.27	5.34	12.3	9.75	9.37	4.33	5.49	4.98
AC-FT	67,470	52,480	113,500	119,600	46,130	33,890	78,030	61,850	59,460	27,490	34,860	31,620

CAL YR 1961: TOTAL 412,925 MEAN 1,131 MAX 15,400 MIN 80 CFSM 9.51 IN 129.05 AC-FT 819,000
WAT YR 1962: TOTAL 366,219 MEAN 1,003 MAX 11,000 MIN 142 CFSM 8.43 IN 114.45 AC-FT 726,400

12-1610. South Fork Stillaguamish River near Granite Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	706	215	1,090	4,680	378	1,400	682	1,040	516	506	230	159
2	533	199	1,330	5,700	601	1,040	588	1,290	522	470	221	198
3	842	189	1,100	4,390	7,440	821	664	912	516	410	204	215
4	724	297	877	1,970	5,370	682	2,890	724	450	420	193	172
5	538	1,280	2,330	1,350	4,890	610	1,820	1,350	572	343	193	159
6	486	1,300	4,350	1,020	1,990	538	2,530	1,310	555	319	187	146
7	538	718	1,970	856	1,850	500	1,740	1,050	475	312	182	142
8	1,280	1,100	1,980	786	1,270	465	1,340	1,030	455	528	172	137
9	2,750	1,450	1,650	744	1,020	445	1,090	814	582	440	167	132
10	1,400	1,980	1,370	599	814	420	884	712	500	470	167	132
11	919	2,260	1,340	522	688	490	828	646	528	500	164	146
12	800	1,500	1,140	544	610	450	730	616	652	425	164	134
13	898	1,680	1,240	550	533	400	737	566	560	351	185	741
14	730	1,290	2,880	460	694	382	988	560	522	331	174	1,000
15	793	948	4,440	430	652	373	1,520	730	566	360	159	450
16	676	779	2,800	420	884	347	1,000	751	599	323	142	516
17	533	737	1,590	382	814	319	807	688	550	287	139	516
18	515	712	1,160	364	1,140	351	786	870	495	274	137	327
19	498	7,050	988	327	2,170	1,170	842	1,040	480	254	422	267
20	432	7,830	870	308	1,840	1,110	856	1,110	435	248	425	239
21	544	2,160	988	298	1,040	912	772	1,120	450	245	277	215
22	751	1,470	891	294	779	1,350	800	1,050	495	838	230	198
23	527	1,080	718	287	652	912	988	814	415	500	201	290
24	417	1,240	652	280	555	737	744	688	456	373	335	277
25	360	4,710	550	270	1,040	664	664	588	1,140	391	264	221
26	334	4,100	500	254	3,280	700	718	550	572	315	264	193
27	317	2,080	500	242	1,610	1,000	664	506	440	284	218	180
28	288	1,370	1,780	242	1,210	1,670	610	560	378	264	193	167
29	261	1,040	2,830	233	------	1,360	853	646	612	248	174	164
30	239	1,300	7,010	274	------	1,050	988	658	599	233	164	156
31	225	------	5,310	327	------	835	------	616	------	224	156	------
TOTAL	20,854	54,064	58,224	29,403	45,814	23,503	31,123	25,605	16,087	11,486	6,503	7,989
MEAN	673	1,802	1,878	948	1,636	758	1,037	826	536	371	210	266
MAX	2,750	7,830	7,010	5,700	7,440	1,670	2,890	1,350	1,140	838	425	1,000
MIN	225	189	500	233	378	319	588	506	378	224	137	132
CFSM	5.65	15.1	15.8	7.97	13.7	6.37	8.72	6.94	4.51	3.11	1.76	2.24
IN.	6.52	16.9	18.2	9.19	14.3	7.35	9.73	8.00	5.03	3.59	2.03	2.50
AC-FT	41,360	107,200	115,500	58,320	90,870	46,620	61,730	50,790	31,910	22,780	12,900	15,850

CAL YR 1962: TOTAL 381,665 MEAN 1,046 MAX 11,000 MIN 142 CFSM 8.79 IN 119.28 AC-FT 757,000
WAT YR 1963: TOTAL 330,655 MEAN 906 MAX 7,830 MIN 132 CFSM 7.61 IN 103.34 AC-FT 655,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	149	718	828	8,000	2,300	806	2,070	928	3,160	1,490	861	704
2	144	1,970	718	3,360	1,400	639	1,260	830	2,590	1,550	1,610	758
3	142	1,080	664	1,910	994	590	935	728	1,980	1,190	1,130	698
4	167	933	640	1,720	1,400	1,230	986	728	2,640	1,070	1,630	573
5	174	863	1,130	1,270	1,400	1,230	994	824	3,120	1,140	1,050	495
6	224	926	1,600	1,480	963	782	830	734	2,890	1,090	824	445
7	185	1,520	1,160	1,050	800	656	879	728	2,180	1,280	776	505
8	164	1,920	972	818	764	634	970	770	2,010	1,690	698	758
9	156	1,430	856	824	722	698	1,030	1,230	2,000	1,390	740	540
10	144	1,550	688	818	794	686	1,730	1,870	2,370	1,040	716	436
11	139	1,010	594	844	928	1,390	1,700	1,410	2,130	1,220	634	383
12	137	1,060	533	722	698	1,000	1,450	1,480	1,780	1,570	644	343
13	1,120	1,930	470	752	634	680	1,440	1,680	1,690	1,520	578	315
14	730	3,320	455	858	573	1,160	1,290	1,170	1,760	1,500	520	301
15	410	2,660	1,170	994	606	2,180	2,300	1,060	1,790	2,330	450	301
16	304	1,670	1,480	4,060	639	1,210	1,330	1,260	2,500	2,090	436	323
17	258	3,610	1,630	2,200	794	1,600	1,010	1,920	1,940	1,280	426	1,470
18	254	1,840	1,430	1,480	1,290	1,740	837	1,890	2,030	1,030	500	794
19	242	1,850	1,790	1,340	1,220	1,100	782	2,210	1,770	858	520	867
20	323	1,190	2,500	1,180	824	844	812	2,920	1,390	886	408	1,810
21	2,660	905	1,520	830	710	734	817	3,660	1,230	1,200	383	1,050
22	5,890	1,290	2,420	710	650	656	1,790	2,820	1,220	1,010	408	1,150
23	2,190	2,510	4,750	644	617	595	994	1,820	1,690	770	440	770
24	2,800	1,870	2,420	818	595	530	886	1,780	1,660	770	445	634
25	2,090	3,020	3,450	3,170	540	510	893	1,420	1,430	865	485	639
26	1,400	9,180	1,750	1,380	505	535	1,030	1,400	1,450	886	1,650	525
27	1,030	3,920	1,970	1,350	470	568	1,030	1,920	1,300	844	1,200	450
28	1,680	1,850	1,520	1,430	470	525	1,020	2,280	1,150	914	1,920	400
29	1,560	1,340	1,130	2,290	495	595	1,120	2,200	978	921	1,520	671
30	1,030	1,010	1,040	1,530	------	900	1,030	2,750	1,210	844	1,400	5,190
31	807	------	3,020	1,720	------	1,330	------	3,160	------	837	900	------
TOTAL	28,703	59,945	46,298	51,552	24,795	28,333	35,245	51,580	57,038	37,075	25,902	24,298
MEAN	926	1,998	1,493	1,663	855	914	1,175	1,664	1,901	1,196	836	810
MAX	5,890	9,180	4,750	8,000	2,300	2,180	2,300	3,660	3,160	2,330	1,920	5,190
MIN	137	718	455	644	470	510	782	728	978	770	383	301
CFSM	7.78	16.8	12.6	14.0	7.18	7.68	9.87	14.0	16.0	10.1	7.02	6.81
IN.	8.97	18.7	14.5	16.1	7.75	8.85	11.0	16.1	17.8	11.6	8.09	7.59
AC-FT	56,930	118,900	91,830	102,300	49,180	56,200	69,910	102,300	113,100	73,540	51,380	48,190

CAL YR 1963: TOTAL 332,459 MEAN 911 MAX 9,180 MIN 132 CFSM 7.65 IN 103.90 AC-FT 659,400
WAT YR 1964: TOTAL 470,764 MEAN 1,286 MAX 9,180 MIN 137 CFSM 10.8 IN 147.12 AC-FT 933,700

12-1610. South Fork Stillaguamish River near Granite Falls, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,920	664	10,500	528	2,040	1,150	712	1,100	899	731	269	231
2	3,470	718	6,700	980	1,340	940	634	878	1,140	809	276	214
3	1,840	577	2,560	712	1,080	842	538	835	1,300	812	268	204
4	1,080	3,020	1,480	544	2,250	814	550	1,390	1,270	790	237	190
5	793	1,510	1,080	490	5,180	793	599	942	1,370	719	212	179
6	646	898	884	550	3,000	814	555	779	1,340	685	193	169
7	555	751	772	460	1,630	863	528	742	1,230	711	188	160
8	807	622	1,840	445	1,890	884	500	764	1,250	644	192	154
9	980	550	2,150	410	1,380	926	634	865	1,240	488	200	150
10	694	511	2,400	382	1,040	1,080	724	1,130	1,040	419	246	147
11	555	544	1,410	364	870	1,170	616	1,240	1,140	463	263	144
12	480	500	1,040	347	800	1,120	610	1,460	951	442	569	143
13	450	475	1,080	355	2,640	956	724	1,360	683	418	1,450	145
14	604	430	877	604	1,420	870	724	1,170	625	474	576	1,890
15	1,410	378	724	1,080	1,150	814	988	1,200	616	483	348	1,440
16	1,440	355	555	1,770	2,190	772	1,600	4,670	620	463	275	956
17	1,040	347	528	1,670	2,790	676	1,270	2,300	867	445	241	526
18	751	355	544	1,430	1,940	599	988	1,460	928	406	224	375
19	652	327	490	1,560	2,410	538	2,050	1,210	722	336	220	300
20	594	315	440	1,890	2,190	500	5,230	1,880	696	345	427	259
21	511	298	430	2,160	1,500	485	3,720	1,460	617	376	320	234
22	450	294	1,080	1,430	1,190	538	2,030	1,230	607	301	238	219
23	400	1,440	1,120	1,080	964	480	1,450	1,130	632	278	264	205
24	364	6,030	730	1,570	849	425	1,650	1,020	639	310	325	193
25	347	2,060	588	1,020	779	405	1,520	971	602	341	306	184
26	315	1,550	1,200	1,290	1,480	391	1,640	1,110	505	366	537	177
27	298	1,100	1,030	5,060	3,790	373	1,960	1,540	420	355	439	172
28	284	758	718	6,280	1,720	382	2,100	1,760	383	310	461	164
29	277	1,410	599	6,660	------	582	1,520	1,550	454	291	428	156
30	596	11,000	528	8,320	------	500	1,280	1,310	570	274	312	153
31	646	------	490	4,270	------	500	------	1,060	------	264	262	------
TOTAL	26,249	39,787	46,567	55,711	51,502	22,182	39,644	41,516	25,356	14,549	10,766	9,830
MEAN	847	1,326	1,502	1,797	1,839	716	1,321	1,339	845	469	347	328
MAX	3,470	11,000	10,500	8,320	5,180	1,170	5,230	4,670	1,370	812	1,450	1,890
MIN	277	294	430	347	779	373	500	742	383	264	188	143
CFSM	7.12	11.1	12.6	15.1	15.5	6.01	11.1	11.3	7.10	3.94	2.92	2.75
IN.	8.20	12.4	14.6	17.4	16.1	6.93	12.4	13.0	7.92	4.55	3.36	3.07
AC-FT	52,060	78,920	92,360	110,500	102,200	44,000	78,630	82,350	50,290	28,860	21,350	19,500

CAL YR 1964: TOTAL 448,421 MEAN 1,225 MAX 11,000 MIN 277 CFSM 10.3 IN 140.14 AC-FT 889,400
WAT YR 1965: TOTAL 383,659 MEAN 1,051 MAX 11,000 MIN 143 CFSM 8.83 IN 119.90 AC-FT 761,000

12-1650. Squire Creek near Darrington, Wash.

Location.--Lat 48°16'15", long 121°40'00", in SE¼ sec.8, T.32 N., R.9 E., on left bank 150 ft upstream from road crossing, a third of a mile upstream from Ashton Creek, and 3½ miles northwest of Darrington.

Drainage area.--20.0 sq mi (revised).

Records available.--June 1950 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 490 ft (from topographic map).

Average discharge.--15 years, 186 cfs (134,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,200 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	1700	2,380	7.12	Nov. 19, 1962	2200	* 3,480	8.62	Nov. 26, 1963	1400	2,680	7.58
Jan. 15, 1961	2100	* 3,040	8.08	Nov. 25, 1962	1630	2,690	7.60	Jan. 1, 1964	1000	2,500	7.33
Feb. 21, 1961	1030	2,520	7.36	Feb. 4, 1963	1730	2,510	7.34	Sept.30, 1964	1100	2,510	7.34
Jan. 3, 1962	0100	* 2,940	7.95	Oct. 22, 1963	0100	* 2,860	7.85	Nov. 30, 1964	0930	* 2,900	7.90

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	14	a 2.03	1964	Oct. 10-12, 1963	17	b 1.96
1962	Sept. 9, 1962	20	2.10	1965	Sept.30, 1965	14	2.05
1963	Sept. 9, 1963	18	2.01				

a Occurred Aug. 30, 1961.
b Occurred Oct. 11, 12, 1963.

1950-65: Maximum discharge, 6,440 cfs Feb. 10, 1951 (gage height, 10.52 ft), from rating curve extended above 700 cfs; minimum, 7.3 cfs Oct. 20-24, 1952 (gage height, 0.57 ft).

Remarks.--Records good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	33	315	139	66	341	394	187	254	327	115	42	786
2	32	220	125	61	422	239	231	299	378	113	42	285
3	30	166	146	59	257	190	397	207	358	111	42	122
4	29	133	135	73	254	165	223	165	330	124	42	94
5	28	111	111	376	779	150	174	152	287	249	42	77
6	44	99	97	337	1,040	138	152	131	299	150	38	65
7	278	87	91	256	428	127	138	120	225	129	36	55
8	131	78	89	294	290	124	140	118	190	106	34	48
9	86	70	87	312	356	127	135	163	212	111	34	44
10	68	302	81	668	319	124	120	190	178	115	33	39
11	69	485	97	537	287	135	116	163	190	120	35	35
12	111	192	805	381	281	150	125	138	169	124	34	31
13	81	152	432	284	242	194	131	133	174	118	34	28
14	78	161	317	863	220	420	125	127	223	108	30	26
15	75	141	190	2,760	266	415	118	138	281	97	30	23
16	65	574	150	1,070	210	319	127	190	319	85	48	22
17	54	879	139	467	187	237	178	225	347	75	38	20
18	48	521	321	333	165	212	135	248	336	74	32	20
19	44	438	368	260	297	212	118	281	239	74	30	19
20	40	456	217	220	931	281	108	293	192	76	29	63
21	120	274	163	197	2,020	214	101	257	161	75	28	43
22	286	208	141	176	565	192	97	212	161	71	27	29
23	740	229	133	156	340	217	94	278	178	67	26	24
24	978	399	121	140	336	194	92	207	174	58	25	21
25	283	370	111	127	266	171	89	204	174	57	23	20
26	667	235	101	113	217	163	88	278	150	57	22	18
27	583	178	91	103	197	146	88	239	115	55	20	16
28	528	148	83	95	178	135	105	197	103	50	18	252
29	249	131	77	176	------	131	272	228	115	45	18	153
30	175	119	73	414	------	131	263	239	108	43	18	120
31	452	------	68	399	------	140	------	234	------	44	386	------
TOTAL	6,485	7,871	5,299	11,773	11,691	6,187	4,467	6,308	6,693	2,896	1,336	2,598
MEAN	209	262	171	380	418	200	149	203	223	93.4	43.1	86.6
MAX	978	879	805	2,760	2,020	420	397	299	378	249	386	786
MIN	28	70	68	59	165	124	88	118	103	43	18	16
CFSM	10.5	13.1	8.55	19.0	20.9	9.98	7.45	10.2	11.2	4.67	2.15	4.33
IN.	12.1	14.6	9.85	21.9	21.7	11.5	8.31	11.7	12.4	5.39	2.48	4.83
AC-FT	12,860	15,610	10,510	23,350	23,190	12,270	8,860	12,510	13,280	5,740	2,650	5,150

CAL YR 1960: TOTAL 62,559 MEAN 171 MAX 1,430 MIN 28 CFSM 8.55 IN 116.33 AC-FT 124,100
WAT YR 1961: TOTAL 73,604 MEAN 202 MAX 2,760 MIN 16 CFSM 10.1 IN 136.87 AC-FT 146,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1650. Squire Creek near Darrington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	113	122	449	263	151	38	129	238	135	145	76	38
2	89	92	242	835	208	37	124	201	422	116	66	35
3	73	94	191	1,760	320	35	109	273	269	120	105	32
4	59	83	392	555	260	34	118	242	184	124	175	30
5	143	73	296	406	184	35	128	184	159	166	269	27
6	157	68	196	350	151	38	510	153	147	122	216	26
7	141	66	159	884	161	40	449	131	168	135	177	24
8	104	73	135	660	164	45	233	131	214	175	191	22
9	400	283	116	362	149	41	172	157	196	170	129	21
10	227	775	102	269	139	39	141	164	166	149	100	130
11	166	397	92	214	129	36	122	143	159	147	84	202
12	689	216	84	181	116	32	120	129	166	135	86	94
13	380	166	78	155	107	32	149	126	170	118	81	323
14	181	143	73	143	126	33	222	118	206	102	65	317
15	133	120	70	126	111	37	263	118	254	100	62	141
16	118	100	69	114	95	43	175	120	242	95	58	97
17	94	89	78	104	86	47	157	135	206	122	70	76
18	80	83	69	90	81	49	184	124	184	80	97	64
19	73	80	118	83	74	50	203	114	189	74	86	55
20	68	70	292	75	66	56	177	105	198	94	82	50
21	59	69	322	70	62	55	159	105	193	109	92	47
22	57	80	227	66	59	54	155	120	198	124	66	43
23	145	71	535	63	55	68	184	151	225	133	59	39
24	104	64	839	70	49	138	236	175	236	128	52	35
25	121	57	343	104	45	172	208	164	254	120	48	32
26	318	54	233	192	41	128	161	181	248	109	74	31
27	263	202	186	257	39	118	222	189	191	113	55	38
28	166	312	469	177	38	95	196	201	177	102	86	237
29	124	263	936	149	------	89	164	172	214	86	55	490
30	102	288	523	151	------	92	145	141	179	84	46	188
31	95	------	308	151	------	111	------	133	------	81	41	------
TOTAL	5,042	4,653	8,222	9,079	3,266	1,917	5,715	4,838	6,149	3,678	2,950	2,984
MEAN	163	155	265	293	117	61.8	191	156	205	119	95.2	99.5
MAX	689	775	936	1,760	320	172	510	273	422	175	269	490
MIN	57	54	69	63	38	32	109	105	135	74	41	21
CFSM	8.13	7.76	13.3	14.6	5.83	3.09	9.53	7.80	10.2	5.93	4.76	4.97
IN.	9.38	8.65	15.3	16.9	6.07	3.56	10.6	9.00	11.4	6.84	5.49	5.55
AC-FT	10,000	9,230	16,310	18,010	6,480	3,800	11,340	9,600	12,200	7,300	5,850	5,920

CAL YR 1961: TOTAL 71,866 MEAN 197 MAX 2,760 MIN 16 CFSM 9.84 IN 133.63 AC-FT 142,500
WAT YR 1962: TOTAL 58,493 MEAN 160 MAX 1,760 MIN 21 CFSM 8.01 IN 108.77 AC-FT 116,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	120	33	180	618	47	187	100	131	131	84	39	24
2	95	31	206	885	342	158	87	169	129	87	35	25
3	235	28	171	785	1,070	133	105	147	111	75	34	22
4	137	145	149	349	1,440	116	252	127	111	75	34	22
5	100	222	555	252	750	104	230	215	136	69	32	21
6	87	172	560	201	411	92	284	182	115	61	32	20
7	98	113	296	175	316	84	194	149	115	61	31	20
8	261	233	329	162	232	76	167	140	107	89	30	19
9	346	301	252	145	194	74	142	124	122	68	29	20
10	201	347	219	125	160	69	125	115	134	61	28	22
11	159	332	211	110	134	74	115	109	140	72	29	21
12	168	302	180	100	120	67	109	107	184	59	36	19
13	270	293	271	100	110	61	113	100	133	56	36	281
14	164	219	724	95	100	59	176	109	142	60	30	120
15	139	172	1,020	90	110	55	211	129	175	69	28	65
16	114	139	499	81	110	52	140	118	171	55	25	58
17	98	126	284	76	115	49	120	136	158	52	24	46
18	126	109	214	70	125	48	109	184	149	48	29	37
19	102	1,540	182	67	388	83	106	219	129	47	48	31
20	104	1,190	153	63	240	124	109	238	115	45	35	28
21	113	332	190	60	164	113	107	238	102	48	30	26
22	92	227	156	58	133	133	104	219	94	241	28	25
23	73	173	129	55	115	102	97	187	87	99	27	62
24	64	204	115	54	100	86	92	160	95	74	55	33
25	57	1,020	104	52	275	81	89	142	133	64	38	28
26	56	590	97	49	614	78	97	133	87	55	32	26
27	51	353	95	47	266	102	92	133	76	53	28	24
28	46	257	132	46	199	160	90	160	74	47	27	24
29	42	201	375	45	------	147	120	182	100	43	25	22
30	39	204	1,010	45	------	131	125	171	80	39	24	21
31	36	------	626	45	------	116	------	153	------	39	23	------
TOTAL	3,793	9,608	9,684	5,105	8,380	3,014	4,007	4,826	3,635	2,095	981	1,212
MEAN	122	320	312	165	299	97.2	134	156	121	67.6	31.6	40.4
MAX	346	1,540	1,020	885	1,440	187	284	238	184	241	55	281
MIN	36	28	95	45	47	48	87	100	74	39	23	19
CFSM	6.12	16.0	15.6	8.23	15.0	4.86	6.68	7.78	6.06	3.38	1.58	2.02
IN.	7.05	17.9	18.0	9.49	15.6	5.60	7.45	8.97	6.76	3.90	1.82	2.25
AC-FT	7,520	19,060	19,210	10,130	16,620	5,980	7,950	9,570	7,210	4,160	1,950	2,400

CAL YR 1962: TOTAL 63,661 MEAN 174 MAX 1,760 MIN 21 CFSM 8.72 IN 118.38 AC-FT 126,300
WAT YR 1963: TOTAL 56,340 MEAN 154 MAX 1,540 MIN 19 CFSM 7.72 IN 104.76 AC-FT 111,700

12-1650. Squire Creek near Darrington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	20	168	158	1,420	374	116	238	122	514	302	246	138
2	19	300	138	482	263	95	164	113	438	302	330	129
3	18	201	125	316	209	89	136	106	336	240	303	118
4	24	187	129	269	278	115	136	107	490	240	332	109
5	24	167	201	224	249	138	133	109	518	254	219	100
6	29	162	199	211	192	109	122	107	458	246	201	94
7	21	219	156	175	164	95	131	111	374	342	199	117
8	19	238	138	153	147	94	142	122	332	385	175	151
9	18	235	120	153	136	100	145	167	370	281	206	102
10	18	249	104	147	149	102	140	214	422	224	173	87
11	17	182	94	134	156	177	171	178	374	322	175	80
12	17	341	86	122	133	162	158	209	306	396	164	76
13	299	433	80	129	120	122	151	222	309	378	149	72
14	92	605	75	131	111	197	149	175	322	378	127	68
15	55	392	95	114	109	332	192	169	332	577	120	68
16	43	360	129	653	111	209	156	201	407	484	118	85
17	36	458	151	322	120	216	133	303	287	322	116	270
18	41	309	173	243	124	216	120	306	278	257	180	118
19	33	275	254	216	138	166	113	367	263	219	122	238
20	107	206	325	187	120	145	113	426	227	249	102	355
21	1,330	167	224	158	111	118	116	458	206	309	106	175
22	1,100	187	615	138	106	107	169	378	219	222	120	160
23	378	343	936	125	104	99	131	275	322	189	122	125
24	496	266	410	160	97	90	125	269	290	214	118	113
25	332	400	400	434	90	87	133	222	260	238	149	136
26	235	1,880	275	240	86	87	145	227	266	227	287	97
27	175	594	275	246	81	82	134	306	254	235	197	86
28	222	316	227	254	81	78	129	367	219	269	304	78
29	222	238	187	410	82	89	142	385	199	246	285	219
30	173	192	313	300	------	138	133	458	257	214	278	1,250
31	147	------	662	315	------	199	------	506	------	287	175	------
TOTAL	5,760	10,270	7,454	8,581	4,241	4,169	4,300	7,685	9,849	9,048	5,898	5,014
MEAN	186	342	240	277	146	134	143	248	328	292	190	167
MAX	1,330	1,880	936	1,420	374	332	238	506	518	577	332	1,250
MIN	17	162	75	114	81	78	113	106	199	189	102	68
CFSM	9.29	17.1	12.0	13.8	7.31	6.72	7.17	12.4	16.4	14.6	9.51	8.36
IN.	10.7	19.1	13.9	16.0	7.89	7.75	8.00	14.3	18.3	16.8	11.0	9.32
AC-FT	11,420	20,370	14,780	17,020	8,410	8,270	8,530	15,240	19,540	17,950	11,700	9,950

CAL YR 1963: TOTAL 56,739 MEAN 155 MAX 1,880 MIN 17 CFSM 7.77 IN 105.51 AC-FT 112,500
WAT YR 1964: TOTAL 82,269 MEAN 225 MAX 1,880 MIN 17 CFSM 11.2 IN 152.98 AC-FT 163,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	404	161	1,320	63	344	195	91	178	172	212	77	35
2	599	102	618	81	257	165	82	142	230	214	72	34
3	257	213	339	74	215	152	74	134	242	224	66	31
4	178	757	240	64	442	148	76	152	251	210	62	29
5	138	232	189	63	800	138	76	128	278	190	56	28
6	120	153	158	63	452	130	72	116	260	203	55	26
7	107	125	142	58	296	130	69	112	254	198	56	25
8	156	104	337	55	330	134	68	114	280	150	56	24
9	152	94	249	52	254	140	79	130	245	116	56	24
10	113	84	266	51	205	158	82	160	239	106	84	23
11	97	78	194	48	180	165	76	172	245	114	63	22
12	90	72	160	47	160	155	79	215	185	108	187	22
13	94	70	142	48	239	136	89	205	138	124	245	24
14	158	63	127	71	195	130	89	175	136	132	96	156
15	219	58	115	139	170	122	122	329	142	122	77	183
16	151	54	105	211	246	116	165	798	183	120	68	80
17	131	53	95	194	302	104	142	347	233	112	62	52
18	111	51	86	171	287	95	126	242	200	95	59	41
19	107	47	83	196	361	89	324	208	162	84	56	36
20	94	45	80	238	308	82	651	257	160	95	60	32
21	82	42	78	222	236	80	502	218	148	79	53	29
22	74	41	100	171	200	79	302	205	150	72	50	26
23	68	252	92	140	168	72	227	195	170	82	55	24
24	63	802	74	145	148	66	221	180	152	91	53	23
25	59	246	65	125	138	66	224	190	138	96	51	21
26	55	204	89	144	240	63	260	221	114	95	66	20
27	51	151	94	403	470	59	302	290	91	87	53	20
28	49	120	76	476	260	60	336	312	100	82	55	18
29	46	378	68	549	------	80	242	251	138	79	47	16
30	98	2,190	64	1,160	------	71	205	208	179	74	41	15
31	75	------	61	581	------	71	------	172	------	74	38	------
TOTAL	4,196	7,042	5,906	6,103	7,903	3,451	5,453	6,756	5,615	3,840	2,175	1,139
MEAN	135	235	191	197	282	111	182	218	187	124	70.2	38.0
MAX	599	2,190	1,320	1,160	800	195	651	798	280	224	245	183
MIN	46	41	61	47	138	59	68	112	91	72	38	15
CFSM	6.77	11.7	9.53	9.84	14.1	5.57	9.09	10.9	9.36	6.19	3.51	1.90
IN.	7.80	13.1	11.0	11.3	14.7	6.42	10.1	12.6	10.4	7.14	4.04	2.12
AC-FT	8,320	13,970	11,710	12,110	15,680	6,840	10,820	13,400	11,140	7,620	4,310	2,260

CAL YR 1964: TOTAL 75,929 MEAN 207 MAX 2,190 MIN 41 CFSM 10.4 IN 141.19 AC-FT 150,600
WAT YR 1965: TOTAL 59,579 MEAN 163 MAX 2,190 MIN 15 CFSM 8.16 IN 110.79 AC-FT 118,200

12-1670. North Fork Stillaguamish River near Arlington, Wash.

Location.--Lat 48°15'40", long 122°02'50", in SE¼NW¼ sec.16, T.32 N., R.6 E., on right bank 6 miles northeast of Arlington, 7 miles upstream from mouth, and 8 miles downstream from Deer Creek.

Drainage area.--262 sq mi (revised).

Records available.--July 1928 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 89.34 ft above mean sea level, datum of 1929. Prior to Aug. 23, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--37 years, 1,836 cfs (1,329,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (13,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 17, 1960	2100	13,800	9.29	Nov. 20, 1962	0330	* 28,400	12.96	Nov. 26, 1963	1830	* 27,200	12.20
Jan. 16, 1961	0130	25,200	12.32	Nov. 25, 1962	2030	14,500	9.49	Jan. 1, 1964	1300	23,700	11.44
Feb. 21, 1961	1300	* 27,500	12.78	Dec. 30, 1962	1330	16,600	9.54				
				Jan. 3, 1963	0300	20,800	10.87	Nov. 24, 1964	0730	15,800	9.55
Dec. 24, 1961	0830	13,000	9.04	Feb. 4, 1963	2130	15,200	9.71	Nov. 30, 1964	1400	* 22,600	11.25
Dec. 29, 1961	1900	13,000	9.02					Jan. 29, 1965	0230	16,600	9.30
Jan. 3, 1962	1500	* 20,000	11.06	Oct. 22, 1963	0530	15,700	9.53	Jan. 30, 1965	1800	19,400	10.40
								Feb. 5, 1965	1800	14,000	9.05

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 6, 1960	255	1.72	1964	Oct. 1-4, 1963	388	2.53
1962	Sept. 9, 10, 1962	446	a 2.40	1965	Sept.10, 1965	220	2.23
1963	Sept.10, 1963	265	2.48				

a Occurred Sept. 9, 1962.

1928-65: Maximum discharge, 30,600 cfs Feb. 9, 1951; maximum gage height, 13.46 ft Feb. 10, 11, 1951; minimum discharge, 117 cfs Sept. 23, 1938; minimum gage height, 0.97 ft Sept. 10, 12, 1944.

Remarks.--Records good. No regulation. Small diversions for domestic use. Records of chemical analyses for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1938-39.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	319	4,450	1,740	959	2,760	5,520	2,860	2,850	1,840	604	337	2,950
2	292	3,380	1,660	905	3,990	3,740	3,620	3,500	2,140	625	325	3,370
3	284	2,440	1,900	844	2,820	2,870	4,670	2,580	2,140	590	319	1,230
4	280	1,860	2,020	904	2,780	2,360	3,120	1,990	1,970	583	313	959
5	268	1,530	1,590	6,020	5,870	2,070	2,250	2,180	1,720	852	313	788
6	297	1,320	1,370	5,340	9,310	1,970	1,860	1,870	1,680	1,120	313	708
7	1,160	1,150	1,250	3,400	6,070	1,800	1,650	1,640	2,010	860	313	590
8	1,790	1,030	1,200	3,360	3,830	1,800	1,820	1,590	1,410	700	319	520
9	1,170	914	1,210	3,760	3,420	1,970	2,110	2,070	1,340	632	325	478
10	792	1,840	1,150	6,710	4,260	1,870	1,840	2,500	1,260	618	319	446
11	655	8,380	1,130	7,810	3,670	1,900	1,920	2,240	1,190	604	301	414
12	1,330	3,640	5,250	6,240	4,470	2,060	2,790	1,750	1,130	597	307	388
13	1,120	2,540	5,330	3,920	3,430	2,780	2,600	1,610	1,070	597	313	368
14	876	3,250	5,000	5,010	2,960	4,730	2,210	1,640	1,080	583	307	355
15	772	2,880	2,790	15,100	3,870	6,260	1,910	1,620	1,230	555	307	343
16	688	6,640	2,060	14,500	3,250	4,410	1,790	1,820	1,360	534	349	337
17	607	7,200	1,870	6,260	2,840	3,200	2,580	2,110	1,450	499	440	331
18	535	8,310	2,750	4,410	2,370	2,730	2,060	2,240	1,420	472	400	325
19	480	6,300	4,830	3,280	5,490	2,680	1,760	2,460	1,260	452	349	319
20	445	7,420	3,010	2,720	12,000	3,940	1,560	2,540	1,060	440	319	355
21	680	4,260	2,170	2,430	23,400	3,030	1,480	2,240	887	433	313	420
22	3,420	3,120	1,810	2,180	9,620	2,520	1,410	1,750	788	433	307	374
23	5,160	3,090	1,710	1,880	5,360	3,150	1,360	2,310	780	426	301	349
24	9,670	4,640	1,620	1,700	5,250	2,880	1,310	1,910	780	420	301	331
25	3,910	5,360	1,560	1,520	4,220	2,360	1,250	1,620	772	414	301	325
26	6,990	3,310	1,400	1,370	3,270	2,190	1,220	1,920	756	400	295	319
27	7,380	2,460	1,260	1,240	2,870	1,940	1,180	2,370	692	388	284	313
28	7,250	1,970	1,140	1,160	2,580	1,730	1,260	1,790	625	381	273	873
29	3,650	1,680	1,060	1,810	------	1,650	2,350	1,710	618	374	268	1,500
30	2,480	1,510	995	3,710	------	1,640	3,090	1,740	700	355	262	788
31	2,940	------	968	3,360	------	1,880	------	1,640	------	343	2,160	------
TOTAL	67,690	107,874	64,803	123,812	146,030	85,630	62,890	63,800	37,158	16,884	11,653	21,166
MEAN	2,184	3,596	2,090	3,994	5,215	2,762	2,096	2,058	1,239	545	376	706
MAX	9,670	8,380	5,330	15,100	23,400	6,260	4,670	3,500	2,140	1,120	2,160	3,370
MIN	268	914	968	844	2,370	1,640	1,180	1,590	618	343	262	313
CFSM	8.33	13.7	7.98	15.2	19.9	10.5	8.00	7.86	4.73	2.08	1.43	2.69
IN.	9.61	15.3	9.20	17.6	20.7	12.2	8.93	9.06	5.27	2.40	1.65	3.00
AC-FT	134,300	214,000	128,500	245,600	289,600	169,800	124,700	126,500	73,700	33,490	23,110	41,980

CAL YR 1960: TOTAL 725,278 MEAN 1,982 MAX 10,500 MIN 268 CFSM 7.56 IN 102.95 AC-FT 1,439,000
WAT YR 1961: TOTAL 809,390 MEAN 2,218 MAX 23,400 MIN 262 CFSM 8.46 IN 114.89 AC-FT 1,605,000

12-1670. North Fork Stillaguamish River near Arlington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	852	1,950	5,760	3,450	2,170	764	1,730	3,040	1,200	950	597	555
2	640	1,520	3,300	4,560	2,460	748	1,730	2,740	2,900	860	583	534
3	548	1,380	2,670	15,600	3,580	732	1,500	3,890	3,200	804	640	520
4	485	1,210	3,940	7,900	3,640	724	1,580	3,550	2,280	788	1,320	513
5	569	1,030	4,360	5,150	2,400	804	1,700	2,600	1,960	905	3,140	499
6	1,410	914	2,550	4,930	1,860	914	5,040	2,040	1,710	896	2,150	485
7	1,300	860	1,980	9,640	1,800	914	6,300	1,760	1,560	844	1,610	472
8	852	887	1,610	9,560	1,900	1,070	3,250	1,700	1,730	836	1,500	452
9	1,140	1,480	1,350	5,480	1,910	1,030	2,380	1,990	1,710	878	1,180	452
10	2,320	6,680	1,150	3,740	1,900	941	1,910	2,030	1,440	836	959	552
11	2,170	6,090	1,060	2,910	1,780	896	1,660	1,780	1,300	812	844	1,190
12	4,750	3,300	887	2,400	1,580	852	1,550	1,640	1,320	804	804	828
13	5,360	2,180	923	2,020	1,440	820	1,790	1,630	1,410	772	828	1,140
14	2,370	1,740	896	1,850	2,100	836	2,280	1,540	1,440	732	748	2,180
15	1,540	1,480	905	1,680	1,860	887	3,010	1,460	1,540	700	685	1,290
16	1,230	1,260	1,030	1,580	1,500	1,000	2,280	1,370	1,610	685	678	941
17	1,100	1,140	1,380	1,520	1,320	1,080	1,840	1,410	1,430	836	685	828
18	914	1,070	1,230	1,310	1,290	1,080	1,970	1,370	1,290	804	812	748
19	820	1,080	1,640	1,170	1,190	1,110	2,220	1,270	1,200	700	869	708
20	764	995	3,990	1,080	1,090	1,360	1,960	1,190	1,220	685	804	662
21	692	914	4,590	1,060	1,020	1,330	1,870	1,150	1,200	685	932	640
22	662	1,470	3,530	995	1,020	1,210	1,790	1,130	1,190	700	788	618
23	2,990	1,350	7,030	968	959	1,500	1,810	1,420	1,200	716	692	597
24	1,840	1,160	10,300	995	844	2,530	2,360	1,870	1,290	716	648	576
25	1,550	959	5,740	2,100	812	2,700	2,880	1,670	1,260	708	611	555
26	5,650	852	3,690	3,470	756	1,780	2,280	1,620	1,270	685	655	541
27	4,630	1,030	2,840	4,650	748	1,920	2,670	1,650	1,210	655	692	548
28	2,850	3,020	3,910	2,850	772	1,520	3,070	1,740	1,040	670	724	1,200
29	1,800	4,350	8,920	2,210	------	1,380	2,760	1,620	1,040	640	692	2,650
30	1,390	3,250	7,680	2,150	------	1,360	2,360	1,410	1,060	618	618	1,660
31	1,220	------	4,220	2,240	------	1,510	------	1,250	------	611	583	------
TOTAL	56,408	56,601	105,061	111,218	45,701	37,302	71,530	56,530	45,210	23,531	29,071	25,134
MEAN	1,820	1,887	3,389	3,588	1,632	1,203	2,384	1,824	1,507	759	938	836
MAX	5,650	6,680	10,300	15,600	3,640	2,700	6,300	3,890	3,200	950	3,140	2,650
MIN	485	852	887	968	748	724	1,500	1,130	1,040	611	583	452
CFSM	6.95	7.20	12.9	13.7	6.23	4.59	9.10	6.96	5.75	2.90	3.58	3.20
IN.	8.01	8.03	14.9	15.8	6.49	5.29	10.2	8.02	6.42	3.34	4.13	3.57
AC-FT	111,900	112,300	208,400	220,600	90,650	73,990	141,900	112,100	89,670	46,670	57,660	49,850

CAL YR 1961: TOTAL 787,093 MEAN 2,156 MAX 23,400 MIN 262 CFSM 8.23 IN 111.73 AC-FT 1,561,000
WAT YR 1962: TOTAL 663,297 MEAN 1,817 MAX 15,600 MIN 452 CFSM 6.94 IN 94.15 AC-FT 1,316,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,080	527	2,680	9,060	751	2,770	1,430	2,120	868	582	438	326
2	896	499	2,690	11,600	1,080	2,320	1,270	3,180	841	575	426	344
3	1,200	492	2,450	13,300	6,320	1,900	1,290	3,080	832	560	412	338
4	1,220	576	2,110	5,920	7,610	1,610	4,420	2,400	778	530	400	309
5	941	2,600	3,850	3,840	9,030	1,430	3,440	3,560	868	515	393	298
6	887	2,100	6,640	2,960	4,260	1,290	4,940	3,210	823	508	393	292
7	878	1,220	3,810	2,460	3,380	1,180	3,440	2,540	769	508	386	276
8	2,010	1,530	3,970	2,330	2,570	1,100	2,900	2,180	760	638	380	276
9	3,780	2,870	3,400	2,180	2,180	1,030	2,500	1,850	960	679	374	276
10	2,210	3,850	2,850	1,750	1,840	980	2,040	1,680	850	598	374	276
11	1,510	3,760	2,710	1,530	1,560	1,080	1,800	1,580	805	582	374	304
12	1,550	2,790	2,390	1,400	1,380	1,000	1,650	1,500	904	582	386	282
13	1,610	2,900	2,510	1,350	1,250	904	1,590	1,360	832	538	400	1,310
14	1,330	2,640	5,330	1,300	1,290	895	1,820	1,340	751	515	386	1,220
15	1,120	2,030	6,270	1,300	1,220	859	2,510	1,470	769	538	368	638
16	1,010	1,640	5,200	1,220	1,460	814	1,920	1,380	778	522	350	545
17	878	1,550	3,810	1,140	1,550	778	1,620	1,340	733	501	338	568
18	852	1,460	2,900	1,070	2,170	787	1,550	1,540	715	480	332	480
19	836	10,800	2,560	970	2,540	1,380	1,550	1,710	706	459	494	445
20	764	15,900	2,240	931	2,660	1,860	1,720	1,770	697	445	568	412
21	820	5,280	2,850	895	1,850	1,500	1,600	1,730	670	445	445	386
22	887	3,650	2,540	868	1,520	1,600	1,520	1,610	646	882	412	393
23	772	2,820	2,030	832	1,330	1,330	1,660	1,350	622	841	380	530
24	700	2,740	1,760	814	1,180	1,210	1,430	1,150	622	598	614	501
25	655	7,130	1,600	787	1,510	1,120	1,280	1,050	1,120	568	501	426
26	640	7,160	1,490	742	6,270	1,150	1,280	970	742	515	432	393
27	632	4,600	1,470	706	3,750	1,500	1,170	931	654	501	406	386
28	604	3,490	2,510	679	2,690	2,440	1,120	940	622	473	362	374
29	569	2,640	4,280	630	------	2,250	1,340	1,000	706	452	344	368
30	548	3,040	13,000	670	------	1,900	1,590	990	646	445	332	362
31	541	------	11,600	706	------	1,650	------	960	------	438	320	------
TOTAL	33,930	104,284	115,500	75,940	76,201	43,617	59,390	53,471	23,089	17,013	12,520	13,334
MEAN	1,095	3,476	3,726	2,450	2,721	1,407	1,980	1,725	770	549	404	444
MAX	3,780	15,900	13,000	13,300	9,030	2,770	4,940	3,560	1,120	882	614	1,310
MIN	541	492	1,470	630	751	778	1,120	931	622	438	320	276
CFSM	4.18	13.3	14.2	9.35	10.4	5.37	7.56	6.58	2.94	2.09	1.54	1.70
IN.	4.82	14.8	16.4	10.8	10.8	6.19	8.43	7.59	3.28	2.41	1.78	1.89
AC-FT	67,300	206,800	229,100	150,600	151,100	86,510	117,800	106,100	45,800	33,740	24,830	26,450

CAL YR 1962: TOTAL 698,941 MEAN 1,915 MAX 15,900 MIN 452 CFSM 7.31 IN 99.21 AC-FT 1,386,000
WAT YR 1963: TOTAL 628,289 MEAN 1,721 MAX 15,900 MIN 276 CFSM 6.57 IN 89.18 AC-FT 1,246,000

12-1670. North Fork Stillaguamish River near Arlington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	344	1,960	2,530	14,500	5,210	1,320	4,200	1,780	5,070	2,300	1,110	1,100
2	338	5,160	2,260	7,120	3,500	1,200	2,600	1,600	4,430	2,380	1,790	940
3	338	2,910	2,080	4,370	2,690	1,130	1,900	1,400	3,430	1,920	1,340	877
4	400	2,420	2,010	3,770	3,090	2,080	2,000	1,480	4,410	1,750	1,620	778
5	426	2,100	2,620	3,040	3,200	2,670	2,000	1,540	5,210	1,790	1,240	715
6	459	1,940	3,610	3,110	2,360	1,970	1,700	1,410	4,510	1,700	1,060	654
7	412	2,540	2,880	2,590	1,960	1,600	1,800	1,430	3,790	2,040	1,010	688
8	393	3,700	2,560	2,160	1,700	1,490	2,000	1,540	3,380	2,560	950	1,340
9	386	3,180	2,290	2,160	1,590	1,720	2,100	2,480	3,480	2,080	960	886
10	374	3,910	1,970	2,290	1,790	1,750	3,500	3,040	3,950	1,670	980	724
11	368	2,770	1,750	2,420	2,230	2,670	3,200	2,440	3,520	1,890	859	654
12	368	3,120	1,640	2,060	1,670	2,770	2,900	2,470	2,890	2,350	841	606
13	1,830	5,230	1,560	2,240	1,500	2,000	2,900	2,650	2,780	2,260	814	568
14	1,150	6,050	1,500	2,530	1,370	2,130	2,600	2,040	2,930	2,220	760	545
15	697	5,710	2,640	2,560	1,470	5,050	4,500	1,870	2,930	2,990	697	530
16	568	4,210	4,050	6,460	1,490	3,380	3,000	2,110	3,750	3,140	646	568
17	530	6,480	3,450	4,370	1,750	3,830	2,200	3,020	2,990	2,110	630	2,440
18	515	4,010	3,290	3,450	2,560	3,950	1,800	3,040	3,560	1,700	670	1,250
19	487	3,790	3,970	3,160	2,780	2,800	1,600	3,650	3,110	1,380	724	1,310
20	494	2,750	5,140	2,890	1,890	2,180	1,650	4,410	2,440	1,340	622	3,380
21	3,870	2,160	3,720	2,260	1,600	1,860	1,700	5,400	2,130	1,530	575	1,940
22	9,920	2,220	4,100	1,960	1,440	1,640	3,600	4,740	2,060	1,380	582	2,290
23	3,790	4,340	7,540	1,720	1,360	1,480	2,080	3,290	2,590	1,150	598	1,430
24	4,870	4,230	5,050	1,850	1,280	1,340	1,920	3,050	2,560	1,130	582	1,050
25	5,650	6,070	5,290	4,910	1,180	1,280	1,900	2,560	2,260	1,170	575	1,000
26	3,050	17,800	3,610	3,120	1,120	1,430	2,040	2,500	2,280	1,210	1,220	841
27	2,240	10,500	3,770	3,040	1,040	1,430	2,080	3,270	2,030	1,170	1,170	742
28	2,750	5,290	3,180	3,340	1,030	1,270	2,000	3,950	2,400	1,210	1,720	670
29	3,070	3,770	2,590	4,580	1,020	1,400	2,130	3,830	1,750	1,240	1,780	662
30	2,520	3,010	2,360	3,680	------	1,700	1,900	4,550	2,040	1,130	2,830	7,150
31	1,970	------	5,580	3,810	------	2,600	------	5,100	------	1,250	1,560	------
TOTAL	54,577	133,330	100,590	111,520	56,870	65,120	71,500	87,640	94,660	55,140	32,515	38,368
MEAN	1,761	4,444	3,245	3,597	1,961	2,101	2,383	2,827	3,155	1,779	1,049	1,279
MAX	9,920	17,800	7,540	14,500	5,210	5,050	4,500	5,400	5,210	3,140	2,830	7,150
MIN	338	1,940	1,500	1,720	1,020	1,130	1,600	1,400	1,750	1,130	575	530
CFSM	6.72	17.0	12.4	13.7	7.48	8.02	9.10	10.8	12.0	6.79	4.00	4.88
IN.	7.75	18.9	14.3	15.8	8.07	9.24	10.1	12.4	13.4	7.83	4.62	5.45
AC-FT	108,300	264,500	199,500	221,200	112,800	129,200	141,800	173,800	187,800	109,400	64,490	76,100

CAL YR 1963: TOTAL 663,072 MEAN 1,817 MAX 17,800 MIN 276 CFSM 6.93 IN 94.12 AC-FT 1,315,000
WAT YR 1964: TOTAL 901,830 MEAN 2,464 MAX 17,800 MIN 338 CFSM 9.40 IN 128.01 AC-FT 1,789,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,590	1,460	15,600	1,040	5,010	2,590	1,370	1,800	1,490	882	435	316
2	4,900	1,410	11,400	1,500	3,610	2,170	1,290	1,570	1,710	935	435	305
3	3,180	1,280	6,460	1,410	2,910	2,010	1,160	1,470	1,850	944	435	294
4	2,030	8,020	4,090	1,150	3,930	1,970	1,160	2,250	1,830	917	409	283
5	1,540	3,660	2,990	1,060	9,940	1,890	1,190	1,810	1,920	673	390	272
6	1,260	2,160	2,340	1,110	6,720	1,890	1,150	1,510	1,860	648	370	261
7	1,100	1,620	1,990	1,020	3,990	2,010	1,080	1,470	1,740	873	358	250
8	1,360	1,330	3,200	990	4,190	2,020	1,060	1,420	1,740	830	352	240
9	1,800	1,180	3,570	922	3,290	2,060	1,140	1,490	1,750	718	364	240
10	1,290	1,080	3,630	895	2,600	2,360	1,300	1,790	1,500	642	409	235
11	1,040	1,080	2,830	859	2,190	2,500	1,180	1,840	1,660	642	463	235
12	904	1,030	2,240	832	1,990	2,330	1,160	2,120	1,480	642	582	235
13	823	1,000	2,230	859	4,560	1,990	1,300	1,980	1,170	605	1,170	240
14	1,210	913	1,940	1,380	3,150	1,790	1,290	1,770	1,080	628	702	1,090
15	2,170	850	1,710	2,320	2,700	1,680	1,590	1,870	1,060	628	533	1,350
16	2,180	796	1,290	3,500	4,990	1,590	2,260	6,970	1,040	605	456	1,030
17	1,750	814	1,290	3,360	6,200	1,410	2,010	4,190	1,240	575	409	598
18	1,370	805	1,270	2,910	4,250	1,290	1,590	2,940	1,280	561	383	470
19	1,180	769	1,170	3,120	4,600	1,200	2,040	2,400	1,080	526	376	403
20	1,030	715	1,090	3,790	4,230	1,150	5,570	3,010	1,070	533	449	364
21	922	670	1,040	4,310	3,220	1,140	4,750	2,540	1,040	575	456	334
22	841	654	1,660	3,010	2,740	1,230	3,180	2,290	971	512	383	322
23	760	1,660	1,620	2,320	2,280	1,100	2,500	2,080	980	463	383	305
24	697	9,920	1,280	3,160	1,990	998	2,770	1,920	971	463	456	294
25	654	4,190	1,120	2,320	1,860	978	2,460	1,800	926	491	450	283
26	614	3,250	1,600	2,940	3,100	980	2,590	1,860	856	498	519	272
27	590	2,340	2,000	8,240	6,300	944	3,050	2,240	781	498	491	266
28	552	1,850	1,460	11,000	3,580	962	3,070	2,530	710	470	422	255
29	538	2,500	1,260	12,000	------	1,320	2,350	2,330	718	442	435	245
30	679	16,300	1,140	12,900	------	1,200	2,060	1,970	797	442	377	235
31	706	------	1,050	8,670	------	1,110	------	1,710	------	422	340	------
TOTAL	44,260	75,306	87,560	104,897	110,120	49,882	60,670	68,940	38,300	19,683	14,198	11,522
MEAN	1,428	2,510	2,825	3,384	3,933	1,609	2,022	2,224	1,277	635	458	384
MAX	4,900	16,300	15,600	12,900	9,940	2,590	5,570	6,970	1,920	944	1,170	1,350
MIN	538	654	1,040	832	1,860	944	1,060	1,420	710	422	340	235
CFSM	5.45	9.58	10.8	12.9	15.0	6.14	7.72	8.49	4.87	2.42	1.75	1.47
IN.	6.28	10.7	12.4	14.9	15.6	7.08	8.61	9.79	5.44	2.79	2.02	1.64
AC-FT	87,790	149,400	173,700	208,100	218,400	98,940	120,300	136,700	75,970	39,040	28,160	22,850

CAL YR 1964: TOTAL 820,459 MEAN 2,242 MAX 16,300 MIN 530 CFSM 8.56 IN 116.46 AC-FT 1,627,000
WAT YR 1965: TOTAL 685,338 MEAN 1,878 MAX 16,300 MIN 235 CFSM 7.17 IN 97.28 AC-FT 1,359,000

12-1685. Pilchuck Creek near Bryant, Wash.

Location.--Lat 48°16'00", long 122°09'45", in NE¼NE¼ sec.16, T.32 N., R.5 E., on right bank 500 ft upstream from highway bridge and 2 miles north of Bryant.

Drainage area.--52.0 sq mi (revised).

Records available.--March 1929 to September 1931, June 1950 to September 1951, September 1952 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 119.8 ft above mean sea level (stadia traverse). Prior to Oct. 1, 1931, staff gage at site 100 ft downstream at different datum. June 13, 1950, to Sept. 30, 1951, and Sept. 15, 1952, to Aug. 23, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--16 years, 281 cfs (203,400 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,500 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	1030	* 4,350	6.53	Nov. 19, 1962	1400	* 4,720	6.75	Jan. 1, 1964	1200	* 3,420	6.07
				Dec. 30, 1962	1200	3,150	5.76	Sept.30, 1964	1130	2,730	5.58
Oct. 26, 1961	0400	* 2,600	5.35	Jan. 1, 1963	1700	3,680	6.11				
Dec. 24, 1961	0400	2,790	5.50	Feb. 4, 1963	1800	2,740	5.46	Nov. 24, 1964	0600	2,540	5.43
Jan. 3, 1962	1500	* 3,620	6.07					Jan. 30, 1965	1600	* 4,660	6.85
Jan. 7, 1962	0830	3,100	5.72	Nov. 26, 1963	1630	2,600	5.48	Feb. 17, 1965	0100	2,930	5.73

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 11-15, 1961	2.8	1.50	1964	Oct. 3, 4, 1963	9.3	1.64
1962	Aug. 3, 1962	7.4	1.63	1965	Aug. 1, 2, 9-11	3.3	1.47
1963	Aug. 18, 1963	5.2	1.55				

1929-31, 1950-51, 1952-65: Maximum discharge, 6,240 cfs Dec. 9, 1956 (gage height, 7.60 ft), from rating curve extended above 3,900 cfs; minimum observed, 0.5 cfs Aug. 29 to Sept. 1, 1931 (gage height, 0.90 ft, site and datum then in use).

Remarks.--Records good. No regulation or diversion above station. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1316: 1930-31(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	36	497	316	129	212	1,120	461	249	94	15	4.2	248
2	33	424	262	133	386	597	626	280	82	11	3.8	317
3	30	316	312	123	280	463	618	212	70	9.8	3.8	84
4	28	249	325	123	330	350	330	189	62	8.5	3.4	125
5	25	208	249	1,050	834	302	240	525	54	76	3.4	80
6	28	178	200	746	1,310	289	200	419	52	104	3.4	56
7	196	153	171	485	966	284	174	289	154	50	3.4	38
8	392	133	153	441	491	350	267	262	92	37	3.1	28
9	204	117	146	430	419	515	458	370	72	26	3.1	22
10	114	353	129	586	446	441	312	330	68	20	3.1	17
11	82	1,070	123	848	590	567	365	267	64	15	3.1	15
12	194	408	492	809	844	844	750	204	58	12	2.8	13
13	136	312	505	468	617	1,040	590	174	48	9.8	2.8	11
14	103	757	481	558	485	1,350	446	200	38	8.5	2.8	9.2
15	82	666	258	997	828	1,510	350	185	33	8.0	2.8	8.5
16	70	1,230	192	1,210	694	764	298	171	26	7.4	6.5	8.5
17	62	967	208	617	687	503	414	160	22	7.4	26	8.0
18	54	972	423	480	564	441	345	150	20	7.4	17	8.5
19	45	884	694	345	1,960	419	280	140	17	6.9	9.2	8.0
20	42	1,130	380	276	2,890	829	232	126	16	6.4	7.4	8.5
21	119	694	258	232	3,410	515	212	100	15	5.9	5.9	9.2
22	392	509	208	200	1,250	419	200	84	14	5.4	4.6	9.2
23	807	564	182	167	764	597	171	154	12	5.0	4.2	8.5
24	1,300	1,270	164	150	1,130	446	153	120	11	5.0	3.4	8.0
25	468	1,170	216	136	900	330	140	94	9.8	5.0	3.4	8.0
26	1,460	624	196	120	597	302	133	100	12	5.0	3.4	7.4
27	1,370	414	164	109	515	258	120	228	14	4.6	3.4	7.4
28	1,270	312	143	97	527	224	126	153	9.2	4.6	3.1	88
29	539	254	126	83	------	212	236	129	9.8	5.0	3.1	149
30	365	220	117	414	------	204	385	120	16	5.4	3.4	68
31	360	------	120	289	------	280	------	106	------	4.6	172	------
TOTAL	10,406	17,055	7,913	12,851	24,926	16,765	9,632	6,290	1,264.8	501.6	325.0	1,475.9
MEAN	336	569	255	415	890	541	321	203	42.2	16.2	10.5	49.2
MAX	1,460	1,270	694	1,210	3,410	1,510	750	525	154	104	172	317
MIN	25	117	117	83	212	204	120	84	9.2	4.6	2.8	7.4
CFSM	6.46	10.9	4.91	7.97	17.1	10.4	6.17	3.90	.81	.31	.20	.95
IN.	7.44	12.2	5.66	9.19	17.8	12.0	6.89	4.50	.90	.36	.23	1.06
AC-FT	20,640	33,830	15,700	25,490	49,440	33,250	19,100	12,480	2,510	995	645	2,930

CAL YR 1960: TOTAL 105,503.9 MEAN 288 MAX 2,130 MIN 3.1 CFSM 5.54 IN 75.46 AC-FT 209,300
WAT YR 1961: TOTAL 109,405.3 MEAN 300 MAX 3,410 MIN 2.8 CFSM 5.76 IN 78.25 AC-FT 217,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1685. Pilchuck Creek near Bryant, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	94	385	820	365	276	74	326	617	84	16	9.2	30
2	52	271	419	632	280	82	275	404	450	32	8.0	28
3	37	276	392	1,950	335	90	207	596	526	49	8.6	24
4	28	249	750	943	360	77	260	474	404	44	239	23
5	24	192	571	624	228	92	251	305	348	44	777	21
6	271	157	335	715	178	146	872	228	242	55	414	19
7	254	143	276	2,440	167	160	699	191	179	55	265	18
8	114	136	228	1,980	182	208	343	175	150	44	300	18
9	130	489	192	844	212	254	246	199	125	40	134	16
10	353	1,170	164	533	258	208	199	207	102	37	84	19
11	380	687	143	402	216	185	161	172	87	34	58	80
12	742	430	129	325	174	167	164	172	87	31	48	46
13	715	284	120	271	157	157	220	164	116	30	44	110
14	280	220	114	245	452	164	228	150	94	30	37	270
15	171	178	120	232	436	192	265	150	82	31	31	161
16	143	150	249	212	280	284	207	154	73	30	28	80
17	117	133	533	228	216	325	172	134	62	31	30	57
18	97	140	408	192	216	298	172	122	55	36	34	41
19	87	171	700	171	196	330	172	110	48	31	67	36
20	80	167	1,050	212	164	491	140	97	43	28	58	31
21	70	164	1,060	363	140	408	131	89	37	24	110	30
22	68	414	892	736	140	355	128	89	31	22	58	29
23	967	316	1,880	645	133	276	122	137	29	20	60	28
24	386	258	1,740	370	112	988	137	233	27	18	33	26
25	324	192	701	461	97	764	265	233	23	17	28	23
26	1,520	157	480	847	100	532	256	175	21	16	38	21
27	1,100	313	360	1,040	114	486	496	144	23	14	49	22
28	584	954	750	545	77	338	722	164	24	13	57	188
29	350	743	1,170	402	------	310	701	154	19	12	53	251
30	258	794	736	355	------	316	506	122	18	11	41	128
31	212	------	446	316	------	332	------	97	------	9.8	36	------
TOTAL	10,008	10,333	17,928	19,596	5,896	9,089	9,043	6,458	3,609	904.8	3,236.8	1,874
MEAN	323	344	578	632	211	293	301	208	120	29.2	104	62.5
MAX	1,520	1,170	1,880	2,440	452	988	872	617	526	55	777	270
MIN	24	133	114	171	77	74	122	89	18	9.8	8.0	16
CFSM	6.21	6.62	11.1	12.2	4.05	5.64	5.80	4.01	2.31	.56	2.01	1.20
IN.	7.16	7.39	12.8	14.0	4.22	6.50	6.47	4.62	2.58	.65	2.31	1.34
AC-FT	19,850	20,500	35,560	38,870	11,690	18,030	17,940	12,810	7,160	1,790	6,420	3,720

CAL YR 1961: TOTAL 112,300.3 MEAN 308 MAX 3,410 MIN 2.8 CFSM 5.92 IN 80.32 AC-FT 222,700
WAT YR 1962: TOTAL 97,975.6 MEAN 268 MAX 2,440 MIN 8.0 CFSM 5.16 IN 70.07 AC-FT 194,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	77	51	645	2,000	100	506	288	538	29	42	15	13
2	57	46	638	2,210	230	408	233	1,140	30	33	14	20
3	145	44	590	2,020	1,020	306	229	836	32	28	12	16
4	140	79	493	882	1,260	245	701	631	32	23	9.9	14
5	94	537	1,120	604	1,080	202	588	916	45	21	8.8	11
6	75	438	1,060	444	545	176	900	610	39	20	8.3	10
7	87	203	624	350	408	159	680	426	33	20	8.3	9.5
8	392	220	590	350	292	146	468	306	34	58	7.8	9.5
9	782	487	402	350	233	131	378	241	132	212	7.3	9.0
10	359	680	306	257	195	119	301	206	92	125	6.8	8.8
11	215	512	274	220	162	128	245	184	52	75	6.8	9.3
12	326	366	233	200	143	122	214	162	44	60	7.3	9.3
13	238	539	237	175	128	111	195	143	39	47	8.3	93
14	154	604	642	162	131	108	214	134	32	45	8.8	114
15	116	398	666	187	125	116	296	137	22	42	7.8	50
16	94	305	408	217	187	108	306	128	16	39	7.3	40
17	80	343	396	187	204	111	296	111	13	33	6.4	50
18	80	348	315	170	493	108	340	111	11	33	6.0	37
19	84	2,290	292	149	432	282	438	100	11	30	122	28
20	80	1,580	270	134	345	402	488	89	15	27	97	22
21	148	597	573	122	225	257	360	77	19	27	47	18
22	207	414	423	116	180	202	292	68	42	56	42	15
23	147	335	270	105	152	156	345	60	34	82	29	20
24	105	322	210	100	137	143	273	52	33	44	118	26
25	80	1,280	173	92	310	131	217	48	187	37	70	18
26	80	882	156	82	1,210	131	191	45	75	32	45	16
27	84	771	156	75	648	180	162	40	72	27	33	14
28	75	687	609	70	444	592	146	39	75	23	27	13
29	66	526	1,030	65	------	552	184	36	62	20	31	12
30	58	750	2,170	60	------	414	257	33	54	16	18	11
31	53	------	1,550	60	------	360	------	33	------	16	15	------
TOTAL	4,778	16,634	17,521	12,215	11,019	7,112	10,225	7,680	1,406	1,393	850.9	736.4
MEAN	154	554	565	394	394	229	341	248	46.9	44.9	27.4	24.5
MAX	782	2,290	2,170	2,210	1,260	592	900	1,140	187	212	122	114
MIN	53	44	156	60	100	108	146	33	11	16	6.0	8.8
CFSM	2.96	10.7	10.9	7.58	7.57	4.41	6.55	4.76	.90	.86	.53	.47
IN.	3.42	11.9	12.5	8.74	7.88	5.09	7.31	5.49	1.01	1.00	.61	.53
AC-FT	9,480	32,990	34,750	24,230	21,860	14,110	20,280	15,230	2,790	2,760	1,690	1,460

CAL YR 1962: TOTAL 98,639.6 MEAN 270 MAX 2,440 MIN 8.0 CFSM 5.20 IN 70.55 AC-FT 195,600
WAT YR 1963: TOTAL 91,570.3 MEAN 251 MAX 2,290 MIN 6.0 CFSM 4.82 IN 65.49 AC-FT 181,600

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1685. Pilchuck Creek near Bryant, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	228	249	1,650	1,010	300	725	309	266	122	35	88
2	9.9	1,000	214	792	583	249	406	266	234	109	79	72
3	10	444	189	466	417	245	332	230	179	96	53	59
4	15	328	175	461	603	632	390	257	270	91	108	45
5	27	274	266	385	500	802	589	274	351	86	70	35
6	27	270	601	553	328	547	450	249	341	88	41	30
7	22	536	488	406	261	375	422	249	226	98	30	53
8	18	738	456	309	222	332	390	238	196	114	25	182
9	16	472	417	356	222	439	356	529	207	106	23	93
10	15	790	287	466	274	488	872	417	204	72	31	60
11	12	483	226	571	417	767	711	309	179	75	22	45
12	12	614	189	428	287	664	644	314	186	82	18	35
13	52	1,010	166	450	241	450	571	283	156	68	19	30
14	92	962	156	583	218	552	726	222	189	75	20	27
15	45	809	767	658	291	1,070	1,160	249	186	128	16	25
16	30	613	1,150	1,180	370	607	690	274	373	172	14	31
17	26	855	725	760	478	1,000	541	300	314	96	12	452
18	24	565	571	795	830	781	450	300	417	68	30	196
19	23	690	613	677	651	494	434	323	323	53	48	249
20	23	478	1,040	601	385	375	434	328	218	46	27	553
21	206	356	601	422	305	328	434	494	175	48	19	362
22	1,180	422	488	332	261	283	970	658	156	43	15	710
23	300	1,330	601	300	234	257	494	385	166	37	13	291
24	369	828	390	346	211	230	406	341	137	32	11	189
25	589	1,390	500	1,060	182	182	375	278	125	30	10	149
26	346	1,630	323	601	166	283	332	283	122	27	28	119
27	238	1,070	375	607	149	366	385	318	122	22	113	101
28	387	559	323	711	143	305	400	278	182	20	169	86
29	385	395	245	881	146	366	395	230	134	18	203	107
30	305	309	218	638	------	456	314	278	128	16	337	1,170
31	222	------	395	802	------	466	------	300	------	22	156	------
TOTAL	5,035.9	20,448	13,404	19,247	10,385	14,691	15,798	9,763	6,462	2,160	1,796	5,644
MEAN	162	682	432	621	358	474	527	315	215	69.7	57.9	188
MAX	1,180	1,630	1,150	1,650	1,010	1,070	1,160	658	417	172	337	1,170
MIN	9.9	228	156	300	143	182	314	222	122	16	10	25
CFSM	3.12	13.1	8.32	11.9	6.89	9.11	10.1	6.06	4.14	1.34	1.11	3.62
IN.	3.60	14.6	9.59	13.8	7.43	10.5	11.3	6.98	4.62	1.54	1.28	4.04
AC-FT	9,990	40,560	26,590	38,180	20,600	29,140	31,330	19,360	12,820	4,280	3,560	11,190

CAL YR 1963: TOTAL 91,525.2 MEAN 251 MAX 2,210 MIN 6.0 CFSM 4.82 IN 65.46 AC-FT 181,500
WAT YR 1964: TOTAL 124,833.9 MEAN 341 MAX 1,650 MIN 9.9 CFSM 6.56 IN 89.28 AC-FT 247,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	483	436	1,840	186	788	366	291	140	93	11	3.6	12
2	685	422	1,570	626	565	300	211	137	101	11	3.3	9.9
3	375	278	902	450	444	274	169	146	101	10	3.9	8.9
4	238	1,200	547	283	505	287	175	461	88	8.8	4.5	8.6
5	179	466	385	238	1,510	274	179	361	88	8.3	4.5	8.0
6	143	274	305	249	949	270	159	305	79	8.8	4.8	7.1
7	125	211	257	218	589	270	149	261	72	9.9	4.2	6.3
8	196	169	328	211	816	257	149	207	68	7.3	3.6	5.5
9	226	152	395	204	658	261	166	189	64	7.3	3.3	5.2
10	172	143	466	193	461	305	172	182	53	7.3	3.3	4.8
11	137	189	337	175	361	314	146	166	68	7.8	3.6	4.8
12	114	186	274	159	318	266	143	166	64	8.3	27	4.8
13	103	166	328	166	1,240	214	179	134	48	7.8	94	5.4
14	209	146	300	406	725	193	166	122	45	6.4	45	190
15	498	131	261	488	670	179	211	122	41	6.0	21	248
16	472	116	200	529	2,080	162	241	614	38	5.6	12	152
17	278	114	180	439	2,080	131	238	556	41	4.8	9.3	62
18	204	109	160	366	1,010	111	169	300	40	4.8	7.3	39
19	159	101	146	406	1,010	98	336	214	34	4.5	6.4	27
20	134	93	137	587	725	91	617	368	31	7.8	16	21
21	114	86	140	958	535	101	461	283	32	32	35	18
22	101	82	301	541	483	196	283	207	28	20	16	16
23	88	254	314	380	406	140	218	179	25	12	13	14
24	84	1,420	226	654	337	106	390	162	19	9.3	48	12
25	82	541	182	439	305	96	278	143	16	7.3	59	11
26	75	571	374	544	779	88	257	137	15	6.0	47	9.5
27	68	375	505	1,830	1,170	84	241	134	13	5.6	51	8.9
28	62	270	318	3,040	553	99	207	143	12	5.6	30	8.4
29	59	453	245	2,450	------	406	159	119	11	5.2	34	7.9
30	93	1,510	204	2,700	------	274	143	119	11	4.5	22	7.8
31	98	------	175	1,340	------	226	------	111	------	3.9	16	------
TOTAL	6,054	10,664	12,302	21,455	22,072	6,439	6,903	6,888	1,439	264.9	651.6	943.8
MEAN	195	355	397	692	788	208	230	222	48.0	8.55	21.0	31.5
MAX	685	1,510	1,840	3,040	2,080	406	617	614	101	32	94	248
MIN	59	82	137	159	305	84	143	111	11	3.9	3.3	4.8
CFSM	3.76	6.84	7.63	13.3	15.2	3.99	4.43	4.27	.92	.16	.40	.61
IN.	4.33	7.63	8.80	15.3	15.8	4.61	4.94	4.93	1.03	.19	.47	.67
AC-FT	12,010	21,150	24,400	42,560	43,780	12,770	13,690	13,660	2,850	525	1,290	1,870

CAL YR 1964: TOTAL 114,966 MEAN 314 MAX 1,840 MIN 10 CFSM 6.04 IN 82.22 AC-FT 228,000
WAT YR 1965: TOTAL 96,076.3 MEAN 263 MAX 3,040 MIN 3.3 CFSM 5.06 IN 68.71 AC-FT 190,600

12-1706. Skagit River at international boundary, near Hope, British Columbia

(International gaging station)

Location.--Lat 49°00'01", long 121°04'15", on left bank at international boundary, 31½ miles southeast of Hope.

Drainage area.--381 sq mi, of which 3 sq mi is in the United States.

Records available.--December 1953 to September 1965 (gage heights only).

Gage.--Water-stage recorder. Datum of gage is 1,583.44 ft above mean sea level, U.S. Coast & Geodetic Survey datum of 1929, supplementary adjustment of 1947; 1,582.53 ft above Geodetic Survey of Canada 1959 datum; 1,584.07 ft above city of Seattle 1936 datum; and 1,581.65 ft above city of Seattle Ross Dam datum (by water level transfer in 1955). Prior to Apr. 15, 1955, staff gage at present site and datum. Apr. 15, 1955, to Dec. 6, 1960, water-stage recorder at site 300 ft upstream at present datum.

Extremes.--Maximum and minimum gage heights, in feet, for the water years 1961-65 are contained in the following table:

Water year	Maximum		Minimum	
	Date	Gage height	Date	Gage height
1961	Aug. 31, 1961	18.60	Dec. 11, 1960	4.08
1962	Aug. 20, 1962	18.56	Dec. 23, 1961	3.71
1963	July 22, 1963	18.60	Jan. 30, 1963	3.68
1964	Aug. 4, 1964	18.57	Dec. 22, 1963	a 4.62
1965	Aug. 9, 1965	18.64	Jan. 14, 1965	3.56

a Minimum observed.

1953-65: Maximum gage height, 18.64 ft Aug. 9, 1965; minimum observed, 1.25 ft Mar. 5, 1955.

Remarks.--No diversion above station. Gage height subject to backwater from Ross Reservoir.

Cooperation.--This station is maintained by Canada under agreement with the United States.

DAILY MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	11.44	5.61	4.43	4.30	5.20	5.72	5.47	6.77	8.70	18.46	18.48	18.45
2	11.23	5.55	4.40	4.28	5.42	5.63	5.77	6.95	9.12	18.39	18.45	18.45
3	10.95	5.45	4.38	4.24	5.40	5.50	6.33	6.85	9.36	18.30	18.47	18.52
4	10.53	5.32	4.36	4.24	5.30	5.40	6.42	6.67	9.48	18.34	18.43	18.50
5	10.12	5.21	4.30	4.52	5.30	5.32	6.22	6.50	9.51	18.45	18.48	18.44
6	9.62	5.13	4.26	4.57	5.73	5.27	6.02	6.34	9.85	18.33	18.50	18.25
7	9.29	5.07	4.12	4.53	6.13	5.19	5.86	6.21	10.09	18.40	18.40	17.89
8	9.08	4.98	4.14	4.63	6.08	5.11	5.76	6.13	9.93	18.39	18.36	17.58
9	8.97	4.88	4.12	4.73	6.03	5.04	5.68	6.11	10.28	18.32	18.26	17.37
10	8.65	4.80	4.10	4.83	6.07	4.98	5.59	6.26	10.82	18.30	18.15	17.21
11	8.21	4.92	4.09	5.46	5.97	4.92	5.50	6.40	11.80	18.39	18.03	17.03
12	7.71	4.82	4.26	5.66	5.87	4.90	5.50	6.33	12.67	18.35	18.00	16.68
13	7.27	4.71	4.75	5.60	5.76	4.84	5.48	6.35	13.40	18.38	18.21	16.34
14	6.86	4.62	5.00	5.50	5.64	4.84	5.40	6.34	14.20	18.39	18.30	16.05
15	6.55	4.54	4.95	6.40	5.58	5.05	5.31	6.40	15.40	18.40	18.34	15.84
16	6.37	4.55	4.79	7.90	5.49	5.26	5.26	6.75	16.98	18.42	18.40	15.73
17	6.15	4.64	4.80	7.31	5.40	5.27	5.46	7.18	17.59	18.36	18.40	15.75
18	5.82	5.00	4.77	6.80	5.31	5.12	5.52	7.60	17.98	18.43	18.35	15.55
19	5.45	4.95	4.75	6.45	5.27	5.27	5.45	8.15	18.19	18.41	18.36	15.32
20	5.20	4.97	4.68	6.18	5.30	5.30	5.37	8.70	18.26	18.40	18.43	15.00
21	5.05	4.90	4.60	5.96	6.29	5.31	5.28	8.93	18.25	18.49	18.45	14.64
22	5.08	4.80	4.56	5.82	6.79	5.29	5.24	8.53	18.12	18.44	18.30	14.24
23	5.27	4.72	4.53	5.70	6.50	5.26	5.22	8.62	18.27	18.40	18.22	14.05
24	5.98	4.71	4.53	5.60	6.32	5.26	5.35	8.47	18.15	18.37	18.12	13.89
25	5.93	4.80	4.53	5.50	6.15	5.26	5.47	8.16	18.21	18.38	17.97	13.78
26	5.82	4.74	4.50	5.35	5.96	5.29	5.50	8.57	18.28	18.45	17.90	13.68
27	5.83	4.65	4.46	5.24	5.82	5.26	5.62	9.10	18.28	18.41	17.84	13.57
28	5.72	4.57	4.42	5.15	5.68	5.20	5.78	8.58	18.21	18.46	17.80	13.53
29	5.61	4.53	4.40	5.15	------	5.19	5.95	8.32	18.20	18.42	17.88	13.43
30	5.51	4.48	4.37	5.15	------	5.24	6.37	8.15	18.41	18.42	18.11	13.38
31	5.46	------	4.33	5.23	------	5.31	------	8.37	------	18.47	18.46	------
MAX	11.44	5.61	5.00	7.90	6.79	5.72	6.42	9.10	18.41	18.49	18.50	18.52
MIN	5.05	4.48	4.09	4.24	5.20	4.84	5.22	6.11	8.70	18.30	17.80	13.38

12-1706. Skagit River at international boundary, near Hope, British Columbia--Continued

DAILY MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13.27	8.96	4.04	4.44	-	4.08	-	5.03	6.41	16.46	-	17.77
2	13.11	8.56	4.06	4.45	5.36	4.06	-	5.00	6.45	17.17	-	17.80
3	12.86	8.11	4.07	5.40	6.39	4.01	-	5.00	6.62	17.50	-	17.86
4	12.72	7.77	4.05	5.76	7.31	-	-	4.94	6.30	17.52	-	17.80
5	12.55	7.51	4.10	5.47	6.95	-	-	4.83	6.05	17.53	-	17.65
6	12.62	7.12	4.05	5.28	6.53	-	-	4.76	5.90	17.70	-	17.62
7	12.71	6.62	4.01	5.33	6.21	-	-	4.69	5.90	18.00	-	17.56
8	12.79	6.14	3.97	6.30	5.97	-	-	4.65	6.34	18.37	-	17.65
9	12.74	5.67	3.93	6.37	5.78	-	-	4.68	6.63	18.28	-	17.80
10	12.67	5.62	3.82	5.95	5.64	-	-	4.72	6.60	17.90	18.13	17.93
11	12.44	5.78	3.79	5.67	5.50	-	-	4.79	6.36	17.93	18.12	18.06
12	12.16	5.81	3.80	5.47	5.38	-	-	4.85	6.40	18.04	18.28	18.10
13	12.36	5.64	3.80	5.27	5.30	-	-	4.83	6.50	17.93	18.32	18.03
14	12.72	5.30	3.80	5.11	5.23	-	-	4.83	6.51	17.83	18.26	18.12
15	13.12	5.03	3.78	4.95	5.17	-	-	4.86	6.83	17.70	18.11	18.20
16	13.28	4.75	3.77	4.81	5.09	-	-	4.86	7.22	17.72	18.00	18.21
17	13.14	4.64	3.77	4.72	5.02	-	5.17	5.04	7.30	17.93	18.00	18.10
18	12.94	4.53	3.74	4.63	4.96	-	5.30	5.20	7.05	18.03	18.19	18.06
19	12.70	4.45	3.72	-	4.90	-	5.65	5.20	6.90	18.06	18.42	18.08
20	12.46	4.35	3.74	-	4.82	-	5.80	5.22	6.93	18.09	18.50	18.04
21	12.22	4.23	3.77	-	4.74	-	5.74	5.33	7.11	18.15	18.43	18.03
22	11.97	4.21	3.73	-	4.72	-	5.65	5.50	7.50	18.29	18.35	18.04
23	11.70	4.14	3.72	-	4.68	-	5.70	5.70	8.23	18.12	18.32	18.03
24	11.37	4.09	3.93	-	4.53	-	5.87	6.07	9.46	18.25	18.25	17.96
25	11.07	4.00	4.09	4.41	4.45	-	5.87	6.41	10.90	18.32	18.23	17.89
26	10.80	3.83	4.03	4.37	4.31	-	5.70	6.90	12.30	18.28	18.30	17.80
27	10.50	3.90	3.97	4.36	4.08	-	5.60	7.20	13.22	18.25	18.35	17.76
28	10.27	3.95	3.95	4.35	4.11	-	5.48	7.26	13.89	18.13	18.21	17.80
29	10.00	4.00	4.13	4.27	------	-	5.30	7.20	14.63	18.12	18.12	17.90
30	9.82	4.01	4.47	4.24	------	-	5.16	6.84	15.53	18.13	18.00	17.91
31	9.40	------	4.48	-	------	-	------	6.62	------	-	17.80	------
MAX	13.28	8.96	4.48	-	-	-	-	7.26	15.53	18.37	-	18.21
MIN	9.40	3.83	3.72	-	-	-	-	4.65	5.90	16.46	-	17.56

DAILY MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	17.82	11.55	7.82	7.80	3.84	5.45	4.26	4.81	11.38	18.33	18.40	18.10
2	17.65	11.14	7.78	7.96	3.82	5.34	4.21	4.80	12.59	18.38	18.35	18.30
3	17.48	10.82	7.64	7.98	4.10	5.24	4.20	4.73	13.41	18.34	18.40	18.30
4	17.27	10.87	7.32	7.89	5.22	5.16	4.20	4.67	13.86	18.39	18.47	18.16
5	17.01	10.61	7.02	7.85	7.12	5.08	4.25	4.68	14.14	18.37	18.46	18.03
6	16.80	10.27	7.02	7.87	6.66	4.99	4.32	4.76	14.41	18.40	18.44	17.76
7	16.56	9.89	7.09	7.65	6.59	4.91	4.37	4.74	14.46	18.40	18.41	17.60
8	16.27	9.51	7.40	7.38	6.36	4.87	4.35	4.71	14.20	18.40	18.38	17.64
9	15.90	9.22	7.70	7.00	6.16	4.81	4.31	4.69	13.96	18.39	18.30	17.61
10	15.64	9.09	7.73	6.41	6.04	4.79	4.30	4.63	13.90	18.40	18.33	17.61
11	15.28	8.94	7.62	5.80	5.91	4.75	4.30	4.62	14.14	18.45	18.43	17.70
12	14.98	8.68	7.56	5.52	5.80	4.70	4.30	4.68	14.30	18.40	18.43	17.74
13	14.84	8.23	7.47	5.32	5.69	4.62	4.31	4.70	14.40	18.42	18.44	17.83
14	14.81	7.84	7.42	5.10	5.59	4.60	4.44	4.85	15.09	18.43	18.39	18.20
15	14.71	7.40	7.97	4.88	5.48	4.55	4.73	5.00	16.15	18.33	18.37	18.36
16	14.35	6.90	8.38	4.71	5.39	4.50	4.78	5.08	17.56	18.40	18.20	18.34
17	14.00	6.41	8.26	4.61	5.30	4.44	4.70	5.21	18.05	18.38	18.10	18.16
18	13.62	6.20	8.05	4.52	5.23	4.40	4.65	5.58	18.00	18.38	18.29	18.00
19	13.28	6.33	8.00	4.42	5.20	4.37	4.61	6.05	17.92	18.38	18.34	17.83
20	13.10	8.91	7.94	4.37	5.20	4.35	4.60	6.69	17.98	18.38	18.20	17.63
21	13.18	9.60	7.89	4.34	5.10	4.32	4.57	7.27	17.92	18.39	18.10	17.50
22	13.20	10.10	7.95	4.30	5.04	4.41	4.55	7.82	17.91	18.41	18.00	17.51
23	13.09	10.55	8.01	4.23	5.00	4.40	4.58	7.90	17.76	18.31	17.90	17.50
24	12.96	10.78	7.89	4.18	4.96	4.35	4.55	7.61	18.15	18.26	17.97	17.27
25	12.85	11.12	7.82	4.04	4.91	4.31	4.55	7.25	18.37	18.27	18.08	17.01
26	12.73	11.60	7.65	3.99	5.35	4.30	4.54	7.10	18.50	18.26	18.13	16.78
27	12.61	11.27	7.32	3.97	5.67	4.30	4.55	7.05	18.34	18.29	18.10	16.45
28	12.65	10.26	7.09	3.97	5.54	4.33	4.56	7.23	18.10	18.27	18.00	16.32
29	12.56	9.04	7.07	3.83	------	4.35	4.71	7.77	18.20	18.36	18.00	16.38
30	12.31	8.20	7.30	3.75	------	4.32	4.81	8.79	18.34	18.36	17.95	16.28
31	11.95	------	7.62	3.82	------	4.30	------	10.03	------	18.35	17.97	------
MAX	17.82	11.60	8.38	7.98	7.12	5.45	4.81	10.03	18.50	18.45	18.47	18.36
MIN	11.95	6.20	7.02	3.82	3.82	4.30	4.20	4.62	11.38	18.26	17.90	16.28

12-1706. Skagit River at international boundary, near Hope, British Columbia--Continued

DAILY MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16.12	14.13	7.90	5.82				-	8.45	14.15	18.50	18.41
2	15.92	14.15	7.71					-	8.60	15.30	18.43	18.31
3	15.61	14.25	7.44					-	8.40	16.62	18.44	18.25
4	15.25	14.27	7.20					-	8.02	17.78	18.41	18.15
5	15.11	14.00	7.04					-	7.98	17.83	18.35	18.11
6	15.08	13.77	6.98					-	8.10	17.77	18.31	18.21
7	14.89	13.57	6.90					-	7.97	17.85	18.44	18.33
8	14.62	13.34	6.90					-	7.77	17.81	18.42	18.34
9	14.32	13.25	6.67					-	7.96	17.48	18.40	18.12
10	14.05	13.20	6.30					-	8.26	17.56	18.47	17.85
11	13.73	13.11	5.95					5.50	8.41	17.71	18.44	17.59
12	13.62	12.83	5.69					5.51	8.65	17.80	18.40	17.41
13	13.67	12.73	5.44					5.58	7.82	17.95	18.38	17.40
14	13.73	12.78	5.27					5.52	7.76	17.74	18.39	17.25
15	13.63	12.94	5.17					5.50	7.67	17.60	18.40	16.98
16	13.50	13.07	5.04					5.59	7.77	17.80	18.40	16.76
17	13.31	13.06	4.92					5.90	7.76	17.80	18.41	16.75
18	13.04	12.82	4.82					6.24	7.43	17.81	18.45	16.67
19	12.80	12.13	4.78					6.58	7.36	17.83	18.45	16.70
20	12.61	11.63	4.76					6.92	7.21	18.03	18.39	16.98
21	12.58	11.30	4.68					7.00	7.16	18.03	18.40	17.20
22	14.08	11.00	4.64					6.76	7.20	18.01	18.42	17.15
23	15.08	10.88	5.04					6.43	7.64	18.01	18.41	17.00
24	15.33	10.72	5.98					6.23	8.48	18.20	18.40	16.81
25	15.31	10.37	5.95					6.02	9.31	18.30	18.40	16.67
26	15.33	10.30	5.78					5.97	10.12	18.25	18.45	16.70
27	15.30	10.09	5.62					6.15	11.15	18.28	18.49	16.94
28	15.16	9.36	5.47					6.67	12.13	18.28	18.43	16.90
29	14.80	8.61	5.32					7.30	12.80	18.45	18.40	16.63
30	14.60	8.07	5.23		------			7.77	13.30	18.36	18.41	16.69
31	14.37	------	5.42		------		------	8.19	------	18.43	18.45	------
MAX	16.12	14.27	7.90					-	13.30	18.45	18.50	18.41
MIN	12.58	8.07	4.64					-	7.16	14.15	18.31	16.63

DAILY MEAN GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16.99	12.93	4.63	3.73	4.74	4.30	4.02	5.92	6.23	18.34	18.50	18.50
2	17.20	12.76	4.75	3.72	4.61	4.25	4.04	5.62	6.33	18.25	18.52	18.41
3	17.50	12.40	4.72	3.70	4.52	4.23	4.03	5.42	6.62	18.00	18.50	18.19
4	17.76	12.18	4.67	3.69	4.50	4.20	4.02	5.30	6.65	18.17	18.49	18.10
5	17.83	11.90	4.59	3.67	4.79	4.25	4.08	5.12	6.73	18.09	18.48	18.18
6	17.79	11.59	4.51	3.65	4.81	4.28	4.11	4.98	6.89	17.96	18.49	18.30
7	17.80	11.30	4.44	3.61	4.74	4.31	4.07	4.88	6.80	18.32	18.54	18.34
8	17.70	11.07	4.43	3.60	4.69	4.33	4.04	4.88	7.00	18.27	18.52	18.25
9	17.70	11.70	4.43	3.60	4.60	4.34	4.08	4.99	7.73	18.01	18.52	18.11
10	17.30	10.24	4.40	3.59	4.50	4.64	4.13	5.28	8.82	18.16	18.51	18.03
11	17.10	9.70	4.35	3.58	4.41	4.91	4.17	5.35	10.11	18.29	18.51	17.99
12	17.00	9.20	4.29	3.58	4.35	5.05	4.23	5.67	11.30	18.13	18.57	18.04
13	16.95	8.68	4.25	3.57	4.32	5.05	4.35	5.89	12.27	18.12	18.56	18.06
14	16.94	8.23	4.21	3.56	4.28	4.99	4.43	5.91	12.72	18.33	18.50	17.98
15	16.85	7.89	-	3.62	4.22	4.96	4.60	5.90	13.12	18.39	18.50	18.04
16	16.75	7.51	-	3.70	4.20	4.90	-	6.10	13.67	18.40	18.52	18.15
17	16.61	6.92	3.70	3.82	4.20	4.79	-	6.04	14.48	18.48	18.49	18.09
18	16.50	6.30	3.85	3.97	4.28	4.69	-	5.79	15.61	18.43	18.49	17.95
19	16.39	5.62	3.92	4.09	4.41	4.62	-	5.65	16.64	18.44	18.50	17.94
20	16.20	4.93	3.91	4.20	4.60	4.57	-	5.73	16.99	18.49	18.49	17.94
21	16.02	4.55	3.91	4.37	4.60	4.50	5.26	5.77	16.87	18.47	18.49	17.85
22	15.74	4.39	3.90	4.41	4.58	4.45	5.37	5.80	16.71	18.46	18.50	17.80
23	15.45	4.30	3.87	4.40	4.49	4.35	5.37	5.95	16.80	18.46	18.49	17.78
24	15.16	4.41	3.85	4.35	4.42	4.27	5.40	5.90	17.11	18.48	18.45	17.78
25	15.00	4.35	3.83	4.32	4.39	4.25	5.46	5.95	17.44	18.47	18.38	17.79
26	14.77	4.26	3.82	4.30	4.38	4.20	5.61	6.21	17.72	18.50	18.30	17.79
27	14.30	4.18	3.82	4.28	4.45	4.15	5.89	6.55	17.87	18.52	18.22	17.74
28	13.90	4.11	3.81	4.26	4.37	4.11	6.30	6.96	17.89	18.48	18.28	17.58
29	13.57	4.08	3.79	4.32	------	4.00	6.46	7.21	17.97	18.49	18.40	17.40
30	13.23	4.25	3.76	4.46	------	4.03	6.22	6.95	18.20	18.49	18.50	17.41
31	13.01	------	3.74	4.84	------	4.01	------	6.52	------	18.51	18.50	------
MAX	17.83	12.93	4.75	4.84	4.81	5.05	6.46	7.21	18.20	18.52	18.57	18.50
MIN	13.01	4.08	-	3.56	4.20	4.00	4.02	4.88	6.23	17.96	18.22	17.40

12-1720. Big Beaver Creek near Newhalem, Wash.

Location.--Lat 48°46'40", long 121°04'20", in S½ sec.14, T.38 N., R.13 E. (unsurveyed), on left bank an eighth of a mile upstream from mouth, 3 miles north of Ross Dam on Skagit River, and 10½ miles northeast of Newhalem.

Drainage area.--63.2 sq mi (revised).

Records available.--March 1940 to September 1948 (published as Beaver Creek near Newhalem), November 1962 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,600 ft (from river-profile map).

Average discharge.--10 years (1940-48, 1963-65), 389 cfs (281,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,300 cfs), November 1962 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1962	0500	* 3,540	7.04	Oct. 22, 1963	0430	* 4,420	7.59	July 9, 1964	0130	1,640	4.47
Dec. 15, 1962	1800	1,810	4.93	Nov. 26, 1963	2230	1,580	4.38				
Feb. 5, 1963	0230	2,750	6.18	Jan. 1, 1964	1330	1,370	4.08	May 29, 1965	0130	* 1,420	4.16
May 23, 1963	0100	1,400	4.27	June 2, 1964	0600	1,780	4.67				

Annual minimum discharge, November 1962 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Jan. 30, 1963	a 90	-	1965	Jan. 12, 13, 14	82	0.63
1964	Mar. 13, 14, 1964	100	0.75				

a Minimum daily.

1940-48, 1962-65: Maximum discharge, 4,420 cfs Oct. 22, 1963 (gage height, 7.59 ft), from rating curve extended above 1,500 cfs; maximum gage height, 7.76 ft Dec. 2, 1941; minimum, 65 cfs Jan. 14, 1947.

Remarks.--Records excellent. No regulation or diversion above station.

Revisions (water years).--WSP 982: 1942. WSP 1316: 1941(M), 1942(M), 1946(M).

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1		240	354	620	102	381	194	323	780	411	384	354
2		229	334	724	102	348	182	328	688	561	375	354
3		218	304	950	423	315	178	304	604	636	414	312
4		375	268	692	1,330	294	192	289	600	696	453	320
5		553	296	600	2,000	273	213	323	600	608	479	340
6		366	393	480	1,160	254	261	357	580	550	482	320
7		299	437	400	1,210	237	266	348	624	542	459	312
8		378	506	350	895	226	246	326	596	652	459	334
9		331	489	310	732	218	235	310	600	660	479	375
10		337	443	270	620	211	226	297	620	550	489	393
11		345	418	250	528	204	226	291	772	572	538	384
12		366	405	240	462	194	226	302	788	517	588	354
13		342	408	230	414	184	229	307	830	553	692	732
14		317	578	210	372	178	276	340	812	612	538	649
15		297	1,510	200	342	172	393	372	960	572	427	384
16		268	1,400	190	317	164	345	378	1,020	499	372	323
17		256	955	180	297	155	310	414	1,000	553	360	286
18		237	732	170	278	149	291	565	1,000	550	372	244
19		780	592	180	286	151	278	792	930	520	456	220
20		2,390	492	170	294	162	263	1,060	740	499	381	218
21		995	492	160	276	168	266	1,230	644	472	328	235
22		708	443	150	261	194	263	1,260	550	817	299	322
23		546	387	140	249	198	261	1,200	506	588	294	402
24		520	345	130	237	184	256	1,010	612	469	312	276
25		709	312	120	240	182	249	812	628	446	328	249
26		910	291	115	502	182	246	760	531	443	310	240
27		672	273	110	489	186	251	736	450	482	286	268
28		531	261	105	421	218	256	768	424	482	299	328
29		453	293	100	------	218	299	910	421	440	317	342
30		405	473	90	------	207	328	970	390	414	326	263
31		------	660	95	------	200	------	925	------	387	345	------
TOTAL		15,373	15,544	8,731	14,839	6,607	7,705	18,607	20,300	16,753	12,641	10,133
MEAN		512	501	282	530	213	257	600	677	540	408	338
MAX		2,390	1,510	950	2,000	381	393	1,260	1,020	817	692	732
MIN		218	261	90	102	149	178	289	390	387	286	218
CFSM		8.11	7.93	4.46	8.39	3.37	4.06	9.50	10.7	8.55	6.45	5.34
IN.		9.05	9.15	5.14	8.73	3.89	4.53	10.9	11.9	9.86	7.44	5.96
AC-FT		30,490	30,830	17,320	29,430	13,100	15,280	36,910	40,260	33,230	25,070	20,100

12-1720. Big Beaver Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	240	348	420	1,230	155	121	254	307	1,690	900	607	363
2	220	420	372	955	155	114	258	294	1,690	1,030	559	363
3	211	372	342	712	153	111	242	276	1,370	1,010	579	340
4	209	348	326	567	166	111	237	281	1,260	955	900	323
5	178	328	351	476	188	113	233	281	1,530	1,040	684	315
6	182	312	369	417	178	110	231	278	1,490	990	587	307
7	156	304	328	357	170	106	254	281	1,360	1,150	627	302
8	151	294	310	326	162	105	291	328	1,220	1,480	607	289
9	156	289	284	304	156	105	320	410	1,370	1,380	648	258
10	168	294	256	278	153	103	340	484	1,520	1,030	599	233
11	180	278	240	256	149	108	348	462	1,590	1,090	575	218
12	176	307	231	237	146	108	328	480	1,350	1,360	640	209
13	709	519	220	226	138	102	307	515	1,250	1,440	599	207
14	570	825	209	211	137	106	297	476	1,260	1,330	523	207
15	384	780	200	204	135	124	312	456	1,260	1,460	456	211
16	312	635	194	307	135	124	289	487	1,430	1,230	428	289
17	271	603	182	281	135	129	268	658	1,250	980	434	473
18	242	515	176	258	135	137	254	766	1,000	520	508	328
19	200	456	180	242	135	133	244	964	880	785	462	294
20	190	381	194	229	130	128	249	1,090	780	770	391	417
21	1,540	342	186	213	126	124	254	980	734	890	417	304
22	2,940	317	190	200	122	121	263	815	725	810	462	286
23	1,060	307	788	190	120	118	251	671	995	684	480	289
24	980	291	960	180	120	114	249	603	1,090	698	434	320
25	910	297	810	190	118	111	273	535	965	743	473	400
26	680	1,060	623	180	116	111	294	535	945	775	547	297
27	535	1,180	598	170	116	108	294	662	940	785	470	256
28	494	785	438	165	116	108	281	965	805	895	445	240
29	466	603	378	165	116	113	297	1,250	680	955	417	246
30	407	490	378	160	------	133	307	1,480	748	830	490	686
31	360	------	995	160	------	182	------	1,660	------	756	394	------
TOTAL	15,477	14,280	11,638	10,046	4,081	3,641	8,319	19,730	35,177	31,151	16,442	9,270
MEAN	499	476	375	324	141	117	277	636	1,173	1,005	530	309
MAX	2,940	1,180	995	1,230	188	182	348	1,660	1,690	1,480	900	686
MIN	151	278	176	160	116	102	231	276	680	684	391	207
CFSM	7.90	7.53	5.94	5.13	2.23	1.86	4.39	10.1	18.6	15.9	8.39	4.89
IN.	9.11	8.40	6.85	5.91	2.40	2.14	4.90	11.6	20.7	18.3	9.68	5.45
AC-FT	30,700	28,320	23,080	19,930	8,090	7,220	16,500	39,130	69,770	61,790	32,610	18,390

CAL YR 1963: TOTAL 157,711 MEAN 432 MAX 2,940 MIN 90 CFSM 6.84 IN 92.80 AC-FT 312,800
WAT YR 1964: TOTAL 179,252 MEAN 490 MAX 2,940 MIN 102 CFSM 7.75 IN 105.48 AC-FT 355,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	515	336	845	100	323	218	140	658	707	752	684	246
2	663	286	658	98	276	209	147	543	870	895	671	231
3	498	244	504	97	246	202	149	470	1,000	935	603	211
4	391	366	420	91	312	200	153	424	995	960	535	192
5	348	348	366	88	523	200	160	378	1,030	940	480	182
6	360	291	323	89	515	200	162	348	1,060	930	462	170
7	384	266	294	89	410	204	162	337	940	1,040	473	172
8	490	242	297	89	366	213	162	345	935	875	523	190
9	535	233	299	88	315	224	170	407	1,030	627	555	192
10	420	220	284	86	281	258	176	523	1,090	523	563	196
11	348	207	256	84	254	304	184	547	1,190	487	458	184
12	334	196	237	84	231	320	196	725	970	452	607	172
13	340	182	226	82	226	312	218	770	743	512	885	164
14	438	172	213	82	211	304	235	707	631	603	547	260
15	410	164	200	85	198	297	284	698	658	676	466	428
16	345	158	145	95	188	286	348	1,100	684	671	445	263
17	302	156	150	121	186	261	357	825	925	653	470	198
18	273	153	160	133	200	244	345	671	1,010	575	504	170
19	263	147	155	140	263	229	356	599	830	473	535	156
20	266	142	150	172	310	218	557	615	761	438	543	162
21	251	137	140	211	286	207	805	595	712	417	456	178
22	233	133	135	200	261	196	712	627	662	400	434	182
23	222	153	130	199	240	182	627	730	725	434	473	182
24	209	316	125	178	222	172	599	662	752	508	414	188
25	200	281	120	164	211	164	611	698	707	603	366	188
26	188	244	124	160	224	156	696	860	627	676	397	162
27	178	218	124	168	258	151	850	1,050	504	698	397	138
28	170	200	116	164	235	144	1,190	1,240	445	619	307	128
29	170	194	113	190	------	142	1,000	1,230	459	579	263	119
30	244	471	106	305	------	137	815	940	583	543	226	118
31	256	------	103	410	------	135	------	766	------	595	224	------
TOTAL	10,244	6,856	7,518	4,342	7,771	6,689	12,566	21,088	24,235	20,089	15,006	5,722
MEAN	330	229	243	140	278	216	419	680	808	648	484	191
MAX	663	471	845	410	523	320	1,190	1,240	1,190	1,040	885	428
MIN	170	133	103	82	186	135	140	337	445	400	224	118
CFSM	5.23	3.62	3.84	2.22	4.39	3.41	6.63	10.8	12.8	10.3	7.66	3.02
IN.	6.03	4.03	4.42	2.56	4.57	3.94	7.39	12.4	14.3	11.8	8.83	3.37
AC-FT	20,320	13,600	14,910	8,610	15,410	13,270	24,920	41,830	48,070	39,850	29,760	11,350

CAL YR 1964: TOTAL 162,475 MEAN 444 MAX 1,690 MIN 102 CFSM 7.02 IN 95.61 AC-FT 322,300
WAT YR 1965: TOTAL 142,126 MEAN 389 MAX 1,240 MIN 82 CFSM 6.16 IN 83.63 AC-FT 281,900

12-1735. Ruby Creek below Panther Creek, near Newhalem, Wash.

Location.--Lat 48°42'30", long 120°58'10", in NW¼ sec.10, T.37 N., R.14 E. (unsurveyed), on right bank 200 ft downstream from Panther Creek, 4 miles upstream from mouth, and 13 miles northeast of Newhalem.

Drainage area.--206 sq mi (revised).

Records available.--September 1948 to September 1956, October 1962 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,640 ft (by barometer).

Average discharge.--11 years, 728 cfs (527,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,000 cfs), water years 1963-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 20, 1962	0100	* 3,910	7.11	June 10, 1964	2300	* 4,680	7.89	May 28, 1965	2330	3,590	6.89
May 21, 1963	2200	3,540	6.74	July 9, 1964	2330	3,780	7.08	June 10, 1965	2130	* 3,630	6.93

Annual minimum discharge, water years 1963-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Jan. 30, 1963	a 100	-	1965	Jan. 14, 1965	112	1.44
1964	Oct. 10, 20, 1963	143	1.49				

a Result of discharge measurement.

1948-56, 1962-65: Maximum discharge, 8,640 cfs Nov. 27, 1949 (gage height, 10.95 ft), from rating curve extended above 5,600 cfs; minimum, 46 cfs Feb. 10, 1949, Nov. 28, 1952; minimum gage height, 0.70 ft Feb. 10, 1949.

Remarks.--Records good except those for winter periods, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	230	215	424	562	150	468	257	492	2,220	906	468	317
2		212	392	621	195	444	251	472	1,910	1,250	448	352
3		204	376	786	399	416	251	440	1,660	1,370	452	289
4		218	359	640	680	400	254	424	1,600	1,360	464	282
5		272	407	554	1,350	384	266	452	1,640	1,160	476	272
6		242	532	500	967	370	286	464	1,620	1,050	488	257
7		224	512	464	940	359	282	452	1,680	1,030	456	251
8		303	630	444	874	348	275	440	1,570	1,220	436	254
9		269	612	412	840	342	272	440	1,560	1,040	444	275
10		254	576	380	791	334	269	428	1,660	923	448	326
11		248	572	360	735	331	269	440	1,920	874	476	338
12		242	567	330	680	317	272	444	2,290	835	602	286
13		230	549	320	630	306	282	512	2,170	901	890	450
14		218	621	300	585	300	387	594	2,150	918	610	466
15		204	1,010	280	544	289	512	690	2,380	791	452	328
16		193	1,010	260	512	278	448	725	2,480	710	380	278
17		190	846	250	488	269	416	900	2,390	775	352	260
18		182	730	260	460	263	400	1,340	2,260	780	359	239
19		1,060	650	250	476	263	392	1,920	2,080	735	400	221
20		2,400	590	240	468	260	380	2,640	1,800	685	348	209
21		1,170	640	230	444	272	376	3,000	1,520	626	314	207
22		830	562	220	428	320	373	3,100	1,310	665	296	233
23		655	504	200	416	303	370	3,150	1,170	576	306	251
24	317	603	448	190	404	286	366	2,790	1,240	536	303	221
25	289	738	452	180	412	282	366	2,480	1,210	536	320	201
26	272	770	432	170	520	278	366	2,260	1,140	512	331	193
27	251	616	428	160	508	282	366	2,180	972	536	292	204
28	236	524	412	140	488	292	392	2,320	934	540	286	230
29	236	472	424	120	------	282	484	2,580	972	496	282	248
30	236	464	554	110	------	272	512	2,700	901	476	282	212
31	227	------	576	110	------	263	------	2,550	------	464	286	------
TOTAL	7,354	14,422	17,397	10,043	16,384	9,873	10,392	43,819	50,409	25,276	12,747	8,150
MEAN	237	481	561	324	585	318	346	1,414	1,680	815	411	272
MAX	317	2,400	1,010	786	1,350	468	512	3,150	2,480	1,370	890	466
MIN	227	182	359	110	150	260	251	424	901	464	282	193
CFSM	1.15	2.33	2.72	1.57	2.84	1.55	1.68	6.86	8.16	3.96	2.00	1.32
IN.	1.33	2.60	3.14	1.81	2.96	1.78	1.88	7.91	9.10	4.56	2.30	1.47
AC-FT	14,590	28,610	34,510	19,920	32,500	19,580	20,610	86,910	99,980	50,130	25,280	16,170

CAL YR 1962: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1963: TOTAL 226,266 MEAN 620 MAX 3,150 MIN 110 CFSM 3.01 IN 40.85 AC-FT 448,800

12-1735. Ruby Creek below Panther Creek, near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	195	338	496	1,050	230	182	400	416	4,090	2,370	755	345
2	182	373	464	950	218	175	356	396	4,210	2,600	685	334
3	175	348	448	775	215	172	320	380	3,440	2,510	735	317
4	168	331	436	670	233	175	320	400	3,180	2,420	860	304
5	165	310	460	594	227	172	303	400	3,440	2,570	785	298
6	165	303	480	554	215	168	310	392	3,540	2,340	680	289
7	155	292	448	500	210	163	356	420	3,100	2,720	695	286
8	149	289	428	468	210	165	412	508	3,380	3,310	675	277
9	147	282	396	448	208	163	452	603	3,990	3,020	665	256
10	147	275	352	420	208	161	476	700	4,260	2,390	605	240
11	153	266	370	396	202	165	448	675	4,130	2,460	590	232
12	151	282	362	376	198	161	420	745	3,480	2,810	625	225
13	194	356	342	362	195	157	384	775	3,330	2,780	576	218
14	208	488	324	345	190	163	376	745	3,430	2,460	518	212
15	198	[illegible]	317	338	188	170	376	775	3,450	2,200	468	218
16	178	460	303	370	188	175	352	918	4,080	1,820	432	245
17	165	448	292	348	185	188	334	1,280	3,340	1,650	424	307
18	159	416	282	331	182	190	320	1,500	2,750	1,600	472	265
19	149	400	278	310	182	178	331	1,770	2,380	1,390	424	255
20	147	342	272	310	182	172	352	2,080	2,140	1,390	392	334
21	598	331	260	296	182	170	356	1,870	2,040	1,440	404	289
22	1,470	334	275	282	188	165	352	1,550	2,060	1,290	432	274
23	675	320	649	272	190	161	338	1,310	2,580	1,110	436	265
24	665	320	780	260	188	157	352	1,170	2,800	1,120	400	265
25	626	335	680	269	178	155	404	1,070	2,600	1,150	400	310
26	492	996	590	260	180	155	412	1,110	2,600	1,130	432	274
27	424	1,020	536	251	178	155	396	1,400	2,550	1,120	388	248
28	404	735	496	245	182	157	388	2,050	2,060	1,260	392	232
29	388	616	456	242	182	168	424	2,760	1,830	1,240	366	232
30	359	549	456	233	------	208	424	3,280	2,020	1,080	384	524
31	334	------	675	233	------	303	------	3,740	------	875	370	------
TOTAL	9,785	12,658	13,403	12,758	5,714	5,369	11,244	37,188	92,280	59,625	16,465	8,370
MEAN	316	422	432	412	197	173	375	1,200	3,076	1,923	531	279
MAX	1,470	1,020	780	1,050	233	303	476	3,740	4,260	3,310	860	524
MIN	147	266	260	233	178	155	303	380	1,830	875	366	212
CFSM	1.53	2.05	2.10	2.00	.96	.84	1.82	5.82	14.9	9.34	2.58	1.35
IN.	1.77	2.29	2.42	2.30	1.03	.97	2.03	6.71	16.7	10.8	2.97	1.51
AC-FT	19,410	25,110	26,580	25,310	11,330	10,650	22,300	73,760	183,000	118,300	32,660	16,600

CAL YR 1963: TOTAL 222,939 MEAN 611 MAX 3,150 MIN 110 CFSM 2.97 IN 40.25 AC-FT 442,200
WAT YR 1964: TOTAL 284,859 MEAN 778 MAX 4,260 MIN 147 CFSM 3.78 IN 51.43 AC-FT 565,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	424	280	476	150	388	262	240	1,260	1,930	1,670	780	230
2	578	274	448	145	342	256	232	1,080	2,310	1,960	770	222
3	492	256	376	145	314	256	228	944	2,820	2,010	710	218
4	412	295	334	145	359	262	238	850	2,780	1,980	665	208
5	396	274	298	145	480	265	248	765	2,860	1,850	600	198
6	432	256	280	145	464	277	242	705	2,980	1,810	563	190
7	492	248	265	142	400	292	240	695	2,700	1,930	540	182
8	720	235	268	138	370	307	238	740	2,650	1,670	568	182
9	740	235	262	135	328	331	248	896	2,910	1,230	586	182
10	655	228	250	135	304	392	253	1,170	3,150	1,010	590	182
11	550	220	232	132	289	452	256	1,260	3,230	880	563	182
12	496	212	225	130	280	456	277	1,610	2,630	830	610	182
13	468	205	230	130	274	440	307	1,700	2,100	926	655	178
14	476	192	222	140	259	432	328	1,660	1,870	1,060	536	253
15	448	198	198	172	250	420	420	1,650	1,790	1,130	472	298
16	412	198	140	228	245	404	484	2,040	1,860	1,150	456	240
17	384	192	170	277	248	373	468	1,670	2,310	1,090	444	210
18	356	188	180	295	274	345	444	1,450	2,510	992	456	190
19	352	182	180	310	317	331	476	1,340	2,180	835	468	178
20	345	178	175	362	328	317	720	1,400	1,940	775	545	172
21	328	172	170	380	314	307	730	1,330	1,760	740	496	170
22	310	158	170	348	298	295	725	1,370	1,720	690	464	172
23	295	182	170	317	280	280	740	1,480	1,860	700	581	170
24	286	240	165	304	271	265	810	1,400	1,980	780	460	170
25	277	208	160	283	265	262	902	1,530	1,860	855	396	168
26	265	200	155	274	277	250	1,110	1,910	1,710	908	352	162
27	248	178	155	274	307	242	1,470	2,410	1,390	968	324	152
28	248	178	155	283	280	238	1,860	3,060	1,210	865	295	142
29	250	178	155	324	------	232	1,730	3,160	1,700	775	268	135
30	265	349	150	450	------	225	1,490	2,530	1,370	700	242	132
31	268	------	150	476	------	225	------	2,040	------	715	232	------
TOTAL	12,668	6,589	6,964	7,314	8,805	9,691	18,154	47,105	66,070	35,484	15,687	5,650
MEAN	409	220	225	236	314	313	605	1,520	2,202	1,145	506	188
MAX	740	349	476	476	480	456	1,860	3,160	3,230	2,010	780	298
MIN	248	158	140	130	245	225	228	695	1,210	690	232	132
CFSM	1.98	1.07	1.09	1.15	1.53	1.52	2.94	7.38	10.7	5.56	2.46	.91
IN.	2.29	1.19	1.26	1.32	1.59	1.75	3.28	8.50	11.9	6.41	2.83	1.02
AC-FT	25,130	13,070	13,810	14,510	17,460	19,220	36,010	93,430	131,000	70,380	31,110	11,210

CAL YR 1964: TOTAL 275,234 MEAN 752 MAX 4,260 MIN 140 CFSM 3.65 IN 49.69 AC-FT 545,900
WAT YR 1965: TOTAL 240,181 MEAN 658 MAX 3,230 MIN 130 CFSM 3.19 IN 43.36 AC-FT 476,400

12-1750. Ross Reservoir near Newhalem, Wash.

(International gaging station)

Location.--Lat 48°44'00", long 121°04'10", in SE¼ sec.35, T.38 N., R.13 E., at Ross Dam on Skagit River, 1 mile downstream from Ruby Creek and 9 miles northeast of Newhalem.

Drainage area.--999 sq mi (revised), of which 400 sq mi is in Canada.

Records available.--March 1940 to September 1965 (prior to October 1946, month-end elevations and contents only). Prior to October 1945, published as Ruby Reservoir near Newhalem.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (city of Seattle Ross Dam datum); 1.79 ft above mean sea level, U.S. Coast and Geodetic Survey datum of 1929, 1947 adjustment; and 0.88 ft above mean sea level, Geodetic Survey of Canada 1959 datum (by water level transfer of elevation from the international boundary). Prior to Sept. 24, 1940, staff gage on west shore at site just uplake from Ross Dam at same datum. Sept. 24, 1940, to June 28, 1943, water-stage recorder at present site and datum. June 29, 1943, to Apr. 29, 1948, staff gage on right bank at site 500 ft uplake from dam at present datum.

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	Many days	1,405,300	a 1,600.03	Apr. 28, 1961	933,700	1,555.00
1962	do.	1,405,300	1,600.0	Apr. 6, 1962	728,700	1,531,31
1963	do.	1,405,300	1,600.0	May 15, 1963	1,077,800	1,569.90
1964	do.	1,405,300	1,600.0	May 15, 1964	662,900	1,522.87
1965	do.	1,405,300	1,600.0	Apr. 19, 1965	758,900	1,534.95

a Occurred July 31, 1961.

1940-65: Maximum contents observed, 1,406,500 acre-ft Aug. 23, 1954 (elevation, 1,600.10 ft, from plant log); minimum not determined.

Remarks.--Reservoir is formed by concrete dam completed to elevation 1,615 ft in 1949; storage began Mar. 11, 1940. Capacity, 1,404,120 acre-ft between elevation 1,250 (lowest outlet) and 1,600 ft (top of taintor gates). Dead storage negligible. Water used for power and to supplement low flow of Skagit River through city of Seattle's Diablo and Newhalem powerplants. Figures given herein represent total contents.

Cooperation.--Elevation records collected in cooperation with city of Seattle. This station is maintained by the United States under agreement with Canada.

Capacity table, water years 1961-65 (elevation, in feet, contents, in acre-feet)

1,520	641,200	1,550	888,300	1,580	1,182,800	1,600	1,405,300

ELEVATION, IN FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	92.74	84.58	75.10	59.98	59.20	61.87	58.20	56.08	84.91	99.88	100.02	99.88
2	92.58	84.30	74.63	59.60	59.14	61.73	58.72	56.56	85.87	99.96	99.97	99.91
3	92.13	83.96	74.11	58.68	58.93	61.42	59.01	56.85	87.08	99.78	99.90	99.98
4	91.71	83.53	73.82	58.00	58.88	61.42	59.36	56.80	88.34	99.98	99.85	99.96
5	91.21	83.33	72.98	57.66	59.19	61.58	59.54	56.81	89.34	100.00	99.97	99.88
6	90.68	83.22	72.17	57.32	59.52	61.22	59.52	57.15	90.36	99.87	99.97	99.62
7	90.40	82.75	71.48	56.85	59.99	61.01	59.42	57.54	90.82	99.96	99.81	99.19
8	90.36	82.24	70.74	57.00	60.13	60.58	59.45	57.15	91.03	99.89	99.77	98.94
9	90.17	81.71	70.10	56.50	60.33	60.24	59.62	57.19	91.72	99.85	99.61	98.75
10	89.65	81.33	69.64	56.27	60.49	59.84	59.52	57.02	92.67	99.98	99.51	98.68
11	89.07	81.08	69.35	56.23	60.89	59.81	59.21	57.05	93.86	99.93	99.42	98.36
12	88.61	80.94	68.80	56.24	61.20	59.82	59.01	56.93	94.48	99.87	99.51	98.00
13	88.09	80.76	68.40	56.12	61.04	59.43	58.82	57.23	95.23	99.87	99.73	97.70
14	87.56	80.19	68.15	56.44	60.93	59.27	58.58	57.53	96.20	99.88	99.76	97.40
15	87.35	79.67	67.78	58.68	60.78	59.16	58.51	57.41	97.69	99.94	99.81	97.25
16	87.18	79.38	67.09	60.39	60.61	59.10	58.62	57.75	98.87	99.92	99.93	97.26
17	86.71	79.20	66.90	61.28	60.50	59.21	58.53	58.58	99.35	99.90	99.82	97.12
18	86.16	79.07	66.90	61.68	60.39	59.47	58.32	59.71	99.70	100.01	99.81	96.96
19	85.41	79.16	66.40	61.91	60.58	59.60	57.93	61.52	99.71	99.88	99.83	96.70
20	84.93	79.15	65.93	61.96	60.50	59.49	57.65	64.26	99.87	100.00	99.91	96.37
21	84.57	78.64	65.34	62.22	61.25	59.38	57.07	67.13	99.71	99.99	99.86	95.91
22	84.77	78.12	64.85	62.38	61.85	59.19	56.90	68.52	99.68	99.93	99.68	95.61
23	85.36	77.69	64.18	61.84	62.01	58.91	56.82	70.73	99.77	99.85	99.60	95.48
24	85.51	77.93	63.71	61.65	62.10	58.87	56.03	72.41	99.64	99.82	99.52	95.30
25	85.47	77.64	63.60	61.34	62.30	58.84	55.60	73.87	99.82	99.85	99.34	95.22
26	85.37	77.52	63.50	60.88	62.62	59.00	55.27	75.88	99.83	99.96	99.30	95.13
27	85.24	77.32	62.87	60.49	62.27	58.95	55.11	78.59	99.79	99.89	99.30	95.00
28	85.10	76.74	62.28	60.03	61.86	58.79	55.02	80.63	99.62	99.89	99.25	95.00
29	85.02	76.31	61.54	60.06	------	58.58	55.26	82.24	99.75	99.88	99.40	94.92
30	84.93	75.70	60.99	59.66	------	58.30	55.96	83.21	99.93	99.99	99.64	94.80
31	84.68	------	60.33	59.38	------	58.10	------	83.91	------	100.01	99.99	------
MAX	92.74	84.58	75.10	62.38	62.62	61.87	59.62	83.91	99.93	100.01	100.02	99.98
MIN	84.57	75.70	60.33	56.12	58.88	58.10	55.02	56.08	84.91	99.78	99.25	94.80
(†)	1,233.3	1,137.5	983.5	974.9	998.8	962.6	943.0	1,224.6	1,404.1	1,405.3	1,405.3	1,345.5
(‡)	-91,900	-95,800	-154,000	-8,600	+23,900	-36,200	-19,600	+281,600	+179,500	+1,200	0	+20,300

CAL YR 1960.................... ‡ -133,200
WAT YR 1961.................... ‡ +20,300

† Contents, in thousands of acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 1,500.00 ft to obtain elevation above mean sea level.

12-1750. Ross Reservoir near Newhalem, Wash.--Continued

ELEVATION, IN FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	94.76	90.25	78.40	63.94	57.85	50.00	33.16	41.50	62.08	98.40	99.88	99.26
2	94.48	89.74	77.99	63.54	57.89	48.96	32.40	41.77	63.15	98.97	99.87	99.33
3	94.28	89.39	77.69	64.36	58.92	48.36	31.87	42.14	64.39	98.94	99.85	99.35
4	94.06	89.12	77.20	64.88	60.33	47.96	31.65	42.35	65.13	99.01	99.86	99.19
5	94.02	88.82	76.78	65.05	60.56	47.00	31.42	42.69	65.76	99.00	99.91	99.11
6	94.13	88.30	76.19	65.29	60.71	46.18	31.54	43.03	66.42	99.34	99.85	99.07
7	94.28	87.83	75.51	65.86	60.70	45.36	31.72	43.16	67.15	99.68	99.90	99.07
8	94.24	87.27	74.97	66.61	60.57	44.32	32.27	43.18	68.33	99.89	99.83	99.20
9	94.17	86.79	74.27	67.13	60.39	43.47	32.17	43.16	69.71	99.66	99.66	99.37
10	94.05	86.86	73.84	67.30	60.38	42.79	31.97	43.34	71.14	99.35	99.55	99.44
11	93.71	86.99	72.82	67.30	60.55	42.41	31.96	43.60	72.24	99.55	99.61	99.57
12	93.56	87.09	72.07	67.17	60.14	41.43	31.90	43.86	73.27	99.49	99.86	99.53
13	94.03	86.66	71.28	67.12	59.73	40.62	32.01	44.26	74.45	99.37	99.77	99.48
14	94.40	86.33	70.49	67.24	59.21	39.80	32.34	44.37	75.71	99.25	99.62	99.65
15	94.79	85.85	69.69	66.81	58.60	38.69	33.25	44.64	77.41	99.18	99.46	99.71
16	94.71	85.34	69.15	66.48	58.24	38.08	33.59	44.89	79.37	99.32	99.39	99.65
17	94.52	84.76	68.66	66.00	58.09	37.37	34.01	45.24	81.34	99.50	99.51	99.53
18	94.30	84.40	67.74	65.34	58.11	36.93	34.51	45.75	82.91	99.56	99.75	99.56
19	94.06	84.15	67.10	64.44	57.38	34.78	34.07	46.32	84.47	99.62	99.95	99.52
20	93.83	83.46	66.55	63.97	56.65	34.79	35.51	46.93	86.01	99.61	99.99	99.52
21	93.57	82.91	65.71	63.53	56.10	33.68	36.26	47.49	87.36	99.73	99.83	99.52
22	93.25	82.44	65.24	62.73	55.87	33.26	37.26	48.19	88.48	99.75	99.83	99.51
23	93.01	82.26	65.05	61.98	55.05	33.19	37.47	48.93	89.90	99.67	99.72	99.50
24	92.68	81.79	65.22	61.43	54.61	33.23	38.04	49.76	91.55	99.89	99.63	99.45
25	92.37	81.42	65.16	60.75	54.22	33.45	38.64	51.08	93.05	99.76	99.67	99.33
26	92.12	81.10	64.77	60.28	53.14	33.60	39.00	53.08	94.28	99.80	99.89	99.27
27	91.87	80.42	64.17	59.99	52.09	33.68	39.47	55.23	95.11	99.63	99.73	99.20
28	91.60	79.98	63.86	59.88	50.96	33.70	40.25	57.09	95.75	99.55	99.66	99.34
29	91.47	79.39	63.75	59.30	------	33.71	40.98	58.73	96.52	99.57	99.60	99.34
30	91.12	78.80	63.91	58.81	------	33.49	41.15	60.08	97.46	99.53	99.35	99.39
31	90.57	------	63.99	58.29	------	33.32	------	61.16	------	99.89	99.24	------
MAX	94.79	90.25	78.40	67.24	60.71	50.00	41.15	61.16	97.46	99.89	99.99	99.71
MIN	90.57	78.80	63.75	58.29	50.96	33.19	31.42	41.50	62.08	98.40	99.24	99.07
(†)	1,298.4	1,170.1	1,019.2	964.5	897.3	744.9	811.2	992.1	1,376.4	1,404.1	1,396.0	1,398.3
(‡)	-47,100	-128,300	-150,900	-54,700	-67,200	-152,400	+66,300	+180,900	+384,300	+27,700	-8,100	+2,300

CAL YR 1961.................... ‡ +35,700
WAT YR 1962.................... ‡ +52,800

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† Contents, in thousands of acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 1,500.00 ft to obtain elevation above mean sea level.

ELEVATION, IN FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	99.21	92.80	89.16	89.21	75.53	83.61	76.34	71.28	93.45	99.87	99.87	99.70
2	98.98	92.43	89.19	89.31	75.20	83.71	75.95	71.12	94.62	99.95	99.84	99.85
3	98.82	92.14	88.81	89.21	75.54	83.93	75.56	71.02	95.12	99.87	99.95	99.70
4	98.61	92.13	88.52	89.13	76.47	83.78	75.27	71.12	95.45	99.86	99.96	99.61
5	98.37	91.89	88.30	89.21	78.50	84.64	74.94	71.36	95.83	99.92	99.92	99.36
6	98.14	91.56	88.27	89.29	79.72	83.46	74.83	71.03	95.96	99.93	99.90	99.06
7	97.88	91.11	88.44	88.80	80.85	83.22	74.87	70.73	95.88	99.92	99.85	99.07
8	97.48	90.79	88.82	88.50	81.70	83.03	74.57	70.61	95.48	99.80	99.77	99.16
9	97.23	90.56	89.09	88.19	82.39	83.02	74.32	70.38	95.53	99.93	99.75	99.07
10	96.93	90.43	88.97	87.41	83.06	83.04	74.10	70.24	95.47	99.95	99.82	99.19
11	96.50	90.38	88.94	86.72	83.36	82.76	73.88	70.41	95.74	99.99	100.03	99.21
12	96.31	89.83	88.84	86.40	83.58	82.44	73.76	70.59	95.92	99.85	99.98	99.27
13	96.25	89.43	88.72	86.20	83.42	82.12	73.78	70.24	96.20	99.98	99.89	99.50
14	96.31	89.07	88.70	85.70	83.29	81.75	74.10	70.02	96.95	99.88	99.95	99.80
15	96.03	88.52	89.57	85.25	83.11	81.31	73.82	69.92	98.37	99.81	99.78	99.93
16	95.64	88.01	89.31	84.80	83.10	81.27	73.59	70.04	99.59	99.93	99.54	99.78
17	95.25	87.71	89.25	84.27	83.30	81.02	73.39	70.26	99.54	99.90	99.65	99.61
18	94.89	87.46	89.21	83.72	83.04	80.62	73.08	71.09	99.40	99.94	99.91	99.46
19	94.60	88.00	89.27	83.40	82.94	80.12	72.76	72.49	99.47	99.88	99.71	99.25
20	94.48	90.48	89.12	83.17	82.77	79.79	72.89	73.85	99.46	99.90	99.62	99.00
21	94.69	91.20	89.08	82.46	82.66	79.43	73.21	75.80	99.40	99.87	99.49	98.98
22	94.65	91.89	89.28	81.95	82.91	79.13	72.63	77.90	99.19	99.95	99.46	99.07
23	94.49	92.13	89.35	81.31	83.08	78.92	72.43	79.98	99.34	99.81	99.41	98.88
24	94.42	92.38	89.22	80.71	83.18	78.93	72.07	81.80	99.13	99.79	99.50	98.63
25	94.31	92.97	89.24	80.03	82.98	78.51	71.82	83.55	98.96	99.81	99.64	98.40
26	94.11	93.06	88.79	79.63	83.23	78.11	71.60	85.13	99.06	99.75	99.62	98.16
27	94.11	92.28	88.45	79.33	83.46	77.78	71.77	86.13	99.25	99.89	99.55	97.79
28	94.21	91.11	88.24	78.57	83.56	77.42	71.96	87.30	99.53	99.87	99.47	97.86
29	94.01	89.95	88.33	77.63	------	77.02	71.77	88.77	99.78	99.95	99.45	87.85
30	93.62	89.33	88.77	76.82	------	76.81	71.60	90.49	99.88	99.89	99.41	97.68
31	93.23	------	88.86	76.21	------	76.79	------	92.08	------	99.96	99.49	------
MAX	99.21	93.06	89.57	89.31	83.58	83.93	76.34	92.08	99.88	99.99	100.03	99.93
MIN	93.23	87.46	88.24	76.21	75.20	76.79	71.60	69.92	93.45	99.75	99.41	97.68
(†)	1,327.5	1,283.9	1,279.5	1,142.7	1,221.4	1,149.0	1,095.1	1,315.1	1,404.1	1,405.3	1,399.5	1,378.6
(‡)	-70,800	-43,600	-4,400	-136,800	+78,700	-72,400	-53,900	+220,000	+89,000	+1,200	-5,800	-20,900

CAL YR 1962.................... ‡ +260,300
WAT YR 1963.................... ‡ -19,700

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† Contents, in thousands of acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 1,500.00 ft to obtain elevation above mean sea level.

12-1750. Ross Reservoir near Newhalem, Wash.--Continued

ELEVATION, IN FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	97.50	95.56	89.22	85.80	77.81	60.76	39.98	29.10	46.20	96.21	99.92	99.84
2	97.28	95.71	88.90	86.08	77.65	60.00	39.61	28.87	49.70	97.41	99.97	99.79
3	96.84	95.91	88.61	86.29	76.98	59.02	39.24	28.84	52.58	98.88	99.91	99.68
4	96.64	95.61	88.38	86.54	76.60	58.17	38.94	27.41	55.00	99.49	99.80	99.57
5	96.57	95.44	88.30	86.80	76.08	57.17	38.85	26.43	57.71	99.24	99.81	99.64
6	96.50	95.19	88.15	86.64	75.46	56.35	38.47	25.33	60.71	99.43	99.82	99.79
7	96.23	94.96	88.17	86.35	74.87	55.78	38.04	24.52	63.26	99.43	99.95	99.89
8	95.94	94.77	88.20	86.04	74.46	55.21	37.54	23.67	65.05	99.21	99.90	99.75
9	95.68	94.73	87.75	85.73	74.15	54.25	37.17	23.67	67.50	99.27	99.97	99.49
10	95.32	94.78	87.24	85.39	73.49	53.20	36.67	24.36	70.06	99.10	99.94	99.20
11	95.16	94.46	86.73	85.34	72.99	52.30	36.14	24.19	72.70	99.17	99.87	98.91
12	95.04	94.30	86.22	85.22	72.23	51.34	36.06	23.65	74.85	99.44	99.85	98.88
13	95.29	94.24	85.65	84.76	71.64	50.48	35.55	23.35	77.16	99.32	99.85	98.87
14	95.22	94.39	85.42	84.32	70.95	50.06	35.20	23.14	79.67	98.97	99.87	98.55
15	95.07	94.46	85.31	83.89	70.49	49.74	34.86	22.91	81.65	99.17	99.86	98.31
16	94.93	94.64	84.80	83.68	70.27	49.04	34.52	23.38	83.58	99.30	99.93	98.19
17	94.68	94.58	84.31	83.31	69.46	48.34	34.17	24.33	84.86	99.28	99.91	98.20
18	94.38	94.12	83.72	83.21	68.84	47.66	34.05	24.98	85.20	99.28	99.94	98.10
19	94.20	93.40	83.27	83.15	68.12	47.04	34.08	26.06	85.76	99.50	99.90	98.29
20	93.94	93.00	82.65	82.56	67.38	46.46	33.34	27.13	86.33	99.48	99.87	98.67
21	94.55	92.63	82.38	82.02	66.64	46.10	32.64	28.24	87.01	99.50	99.90	98.63
22	96.29	92.44	82.21	81.46	66.22	45.90	32.31	29.09	87.70	99.51	99.97	98.58
23	96.77	92.31	82.15	81.08	65.95	45.20	32.05	30.10	88.61	99.58	99.89	98.39
24	96.77	92.12	82.97	80.65	65.08	44.52	31.72	31.23	90.00	99.77	99.83	98.14
25	96.81	91.63	83.82	80.43	64.27	43.68	31.45	31.45	91.05	99.67	99.80	98.07
26	96.92	91.82	83.91	80.16	63.44	42.94	31.58	31.56	91.96	99.84	99.92	98.34
27	96.76	91.23	84.05	79.69	62.60	42.22	31.06	32.00	93.04	99.69	99.90	98.53
28	96.44	90.43	84.11	79.24	61.70	41.76	30.83	33.19	94.12	99.89	99.82	98.14
29	96.18	89.69	84.21	78.91	61.17	41.57	30.42	35.67	94.48	99.87	99.87	98.04
30	96.02	89.28	84.03	78.47	------	40.98	30.00	39.11	95.17	99.69	99.90	98.37
31	95.76	------	84.56	78.07	------	40.43	------	43.07	------	100.02	99.93	------
MAX	97.50	95.91	89.22	86.80	77.81	60.76	39.98	43.07	95.17	100.02	99.97	99.89
MIN	93.94	89.28	82.15	78.07	61.17	40.43	30.00	22.91	46.20	96.21	99.80	98.04
(†)	1,356.9	1,283.9	1,232.2	1,162.7	992.1	804.3	718.2	827.6	1,350.1	1,405.3	1,404.1	1,386.7
(‡)	-21,700	-73,000	-51,700	-69,500	-170,600	-187,800	-86,100	+109,400	+522,500	+55,200	-1,200	-17,400

CAL YR 1963.................... ‡ -47,300
WAT YR 1964.................... ‡ +8,100

† Contents, in thousands of acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 1,500.00 ft to obtain elevation above mean sea level.

ELEVATION, IN FEET, AT 2400 HOURS, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	98.55	94.33	82.86	66.94	52.83	49.32	41.31	45.32	75.77	99.88	99.95	99.86
2	98.86	94.05	82.87	66.80	52.45	48.95	40.71	46.33	77.23	99.53	99.92	99.74
3	99.14	93.76	82.73	66.60	52.03	48.64	40.34	46.58	79.03	99.48	99.91	99.52
4	99.38	93.55	82.45	65.86	51.94	48.36	40.20	46.56	80.77	99.81	99.93	99.58
5	99.31	93.19	82.30	65.27	52.22	48.11	39.49	46.69	82.66	99.48	99.93	99.74
6	99.23	92.94	82.20	64.66	52.58	48.10	38.77	46.70	84.96	99.57	99.95	99.83
7	99.16	92.70	81.63	63.84	52.98	48.25	38.37	46.73	86.37	99.92	99.97	99.75
8	99.17	92.43	81.43	63.14	53.08	47.95	38.01	47.04	87.70	99.59	99.98	99.61
9	99.09	91.96	81.04	62.54	52.92	47.80	37.57	47.91	89.20	99.56	99.97	99.51
10	98.63	91.43	80.60	62.17	52.71	47.74	37.42	48.38	90.74	99.72	100.01	99.45
11	98.62	90.93	79.98	61.31	52.40	47.78	37.42	49.02	92.13	99.76	100.00	99.44
12	98.46	90.42	79.69	60.49	52.15	47.88	36.90	49.83	93.28	99.58	100.02	99.52
13	98.43	89.89	79.64	59.73	52.03	48.18	36.19	50.72	94.07	99.63	99.98	99.46
14	98.40	89.53	78.88	59.06	52.04	48.61	35.65	51.70	94.44	99.89	99.97	99.45
15	98.30	89.26	78.07	58.36	51.66	48.47	35.22	53.06	94.87	99.81	99.99	99.60
16	98.12	88.69	76.71	57.80	51.27	48.27	35.03	55.00	95.52	99.86	99.94	99.60
17	98.03	88.10	75.52	57.60	51.00	47.96	35.00	55.87	96.51	99.91	99.93	99.40
18	97.94	87.40	74.53	56.93	50.77	47.60	35.30	56.73	97.71	99.96	99.89	99.39
19	97.83	86.64	73.94	56.45	50.64	47.23	35.04	57.37	98.51	99.93	99.91	99.43
20	97.65	85.95	73.51	55.96	50.85	47.21	35.36	58.15	98.55	100.01	99.89	99.42
21	97.39	85.61	72.67	55.58	51.06	47.21	35.88	58.94	98.27	99.96	99.90	99.26
22	97.10	85.37	72.07	55.15	51.07	46.83	36.32	59.90	98.18	99.91	99.95	99.27
23	96.73	84.90	71.16	54.94	50.65	46.29	36.68	61.35	98.46	99.94	99.88	99.25
24	96.51	84.66	70.65	54.71	50.30	45.73	37.31	62.16	98.77	99.98	99.83	99.25
25	96.39	84.05	70.30	54.05	49.91	44.92	38.39	63.06	99.09	99.99	99.74	99.29
26	96.00	83.84	70.01	54.52	49.66	44.28	39.21	64.21	99.27	99.96	99.66	99.29
27	95.58	83.40	69.76	53.15	49.58	44.01	40.37	65.97	99.42	99.92	99.68	99.10
28	95.24	83.02	69.08	52.73	49.70	43.71	42.02	68.22	99.43	99.92	99.78	98.87
29	94.83	82.94	68.33	52.38	------	43.13	43.47	70.77	99.58	99.89	99.92	98.83
30	95.55	82.85	67.59	52.71	------	42.54	44.36	72.98	99.78	99.91	99.96	98.93
31	94.40	------	67.00	53.10	------	41.95	------	74.64	------	100.00	99.95	------
MAX	99.38	94.33	82.87	66.94	53.08	49.32	44.36	74.64	99.78	100.01	100.01	99.86
MIN	94.40	82.85	67.00	52.38	49.58	41.95	35.00	45.32	75.77	99.48	99.66	98.83
(†)	1,341	1,212.7	1,048.7	916.3	885.6	818.1	838.9	1,126	1,403	1,405.3	1,405.3	1,392.5
(‡)	-45,700	-128,300	-164,000	-132,400	-30,700	-67,500	+20,800	+287,100	+277,000	+2,300	0	-12,800

CAL YR 1964.................... ‡ -183,500
WAT YR 1965.................... ‡ +5,800

† Contents, in thousands of acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 1,500.00 ft to obtain elevation above mean sea level.

12-1754. Thunder Creek below McAllister Creek, near Newhalem, Wash.

Location.--Lat 48°38', long 121°03', in SE¼ sec.1, T.36 N., R.13 E. (unsurveyed), on right bank a quarter of a mile downstream from McAllister Creek, 4 miles upstream from mouth, and 10 miles east of Newhalem.

Drainage area.--91.7 sq mi (revised).

Records available.--October 1957 to September 1962 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 1,700 ft (from river-profile map). Prior to Mar. 22, 1959, at datum 0.99 ft higher.

Average discharge.--5 years, 608 cfs (440,200 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-62 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (2,200 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 3, 1961	2200	2,870	7.43	Dec. 11, 1960	136	1.10
	June 17, 1961	2200	* 3,330	8.11			
	July 13, 1961	2200	2,330	6.53			
	Aug. 31, 1961	0930	2,740	7.20			
1962	June 25, 1962a	-	* 2,180	6.28	Mar. 14-22, 1962	b 100	-

a About.
b Minimum daily.

1957-62: Maximum discharge, 4,320 cfs Nov. 23, 1959 (gage height, 9.50 ft, from high watermark in well), from rating curve extended above 2,300 cfs; minimum, 82 cfs Mar. 14, 1960 (gage height, 0.73 ft).

Remarks.--Records good except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

Revisions (water years).--WSP 1636: 1958.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	406	566	182	150	245	292	241	706	1,960	918	1,160	1,810
2	403	394	182	145	262	241	331	694	2,380	954	1,210	1,100
3	361	322	175	140	241	219	526	582	2,590	1,020	1,420	918.
4	310	272	167	150	225	189	448	484	2,590	1,230	1,480	1,010
5	316	245	154	200	400	185	406	421	2,440	1,580	1,530	990
6	462	239	150	230	900	180	358	379	2,530	1,390	1,170	678
7	757	227	150	190	600	175	328	346	2,060	1,150	1,090	550
8	415	207	148	190	500	165	313	337	1,570	1,010	1,050	484
9	307	191	145	210	470	160	285	355	1,480	1,100	1,040	484
10	250	215	139	350	470	160	265	391	1,220	1,320	990	487
11	227	403	139	550	410	155	252	394	1,240	1,640	1,050	436
12	213	295	480	450	370	155	248	385	1,280	1,990	1,150	418
13	194	260	501	550	320	155	243	400	1,320	2,180	1,230	403
14	187	237	448	430	310	180	225	400	1,580	2,110	1,380	382
15	217	223	337	1,500	300	230	219	470	2,140	1,900	1,500	382
16	285	265	270	1,500	280	240	225	682	2,560	1,680	1,720	448
17	260	340	250	520	260	230	290	826	2,970	1,400	1,260	473
18	239	415	240	600	240	220	268	978	2,970	1,400	1,190	484
19	237	355	260	500	240	230	248	1,210	2,440	1,480	1,240	424
20	223	346	240	430	350	240	237	1,540	1,920	1,760	1,330	470
21	355	298	220	370	750	220	223	1,540	1,540	1,840	1,380	349
22	718	262	210	330	700	210	219	1,190	1,430	1,730	1,340	278
23	1,310	248	205	300	500	210	219	1,440	1,630	1,630	1,320	248
24	1,160	250	200	280	400	200	241	1,110	1,710	1,300	1,170	245
25	622	248	190	260	350	200	250	1,090	1,780	1,250	958	361
26	586	223	185	235	300	195	262	1,780	1,680	1,340	826	252
27	484	203	180	217	260	190	295	1,640	1,260	1,360	770	221
28	518	198	170	203	231	185	325	1,220	1,120	1,190	818	421
29	391	192	165	201	------	192	494	1,200	1,060	1,030	890	295
30	327	184	160	235	------	200	646	1,340	914	1,030	826	233
31	533	------	155	255	------	211	------	1,420	------	1,130	2,060	------
TOTAL	13,273	8,323	6,797	11,871	10,884	6,214	9,130	26,950	55,364	44,042	37,548	15,734
MEAN	428	277	219	383	389	200	304	869	1,845	1,421	1,211	524
MAX	1,310	566	501	1,500	900	292	646	1,780	2,970	2,180	2,060	1,810
MIN	187	184	139	140	225	155	219	337	914	918	770	221
CFSM	4.67	3.03	2.39	4.18	4.24	2.19	3.32	9.48	20.1	15.5	13.2	5.72
IN.	5.38	3.38	2.76	4.81	4.41	2.52	3.70	10.9	22.5	17.9	15.2	6.38
AC-FT	26,330	16,510	13,480	23,550	21,590	12,330	18,110	53,450	109,800	87,360	74,480	31,210

CAL YR 1960: TOTAL 200,295 MEAN 547 MAX 2,400 MIN 82 CFSM 5.97 IN 81.23 AC-FT 397,300
WAT YR 1961: TOTAL 246,130 MEAN 674 MAX 2,970 MIN 139 CFSM 7.35 IN 99.82 AC-FT 488,200

Note.--No gage-height record Dec. 18 to Jan. 24.

12-1754. Thunder Creek below McAllister Creek, near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	215	219	168	300	167	135	135	280	694	1,150	1,480	600
2	209	192	157	430	582	131	159	288	898	950	1,320	570
3	221	189	151	1,550	1,160	128	182	307	814	850	1,340	520
4	243	178	170	950	838	129	211	280	630	750	1,350	500
5	571	167	182	650	578	129	211	255	532	850	1,220	550
6	629	164	167	550	466	129	329	237	515	750	1,110	590
7	367	159	157	850	406	122	433	227	662	700	1,110	540
8	278	160	146	1,200	361	117	328	233	990	900	1,090	450
9	596	229	133	800	322	113	285	248	990	1,100	906	450
10	597	622	116	600	290	111	245	295	854	1,050	826	740
11	370	448	118	470	270	108	229	313	778	1,000	902	560
12	832	331	120	410	248	105	227	304	860	950	1,010	400
13	1,380	285	117	350	233	105	265	295	1,050	875	950	470
14	959	307	117	310	229	100	413	301	1,300	800	806	700
15	898	252	115	280	219	100	582	298	1,500	750	922	520
16	902	221	113	260	205	100	462	316	1,700	700	1,030	430
17	599	209	113	240	200	100	421	391	1,500	650	954	380
18	456	201	113	220	192	100	484	415	1,300	625	1,030	350
19	400	191	117	200	185	100	630	406	1,350	662	998	360
20	328	172	145	180	172	100	558	436	1,350	754	1,070	380
21	275	167	132	170	160	100	490	490	1,300	902	1,110	400
22	245	173	124	160	164	100	466	582	1,400	1,100	822	370
23	243	167	154	150	152	105	522	674	1,550	1,380	754	350
24	227	152	262	145	136	110	622	710	1,700	1,540	774	340
25	223	131	221	145	139	125	532	858	1,850	1,560	782	350
26	239	136	192	155	129	129	442	1,050	1,700	1,560	718	360
27	227	139	172	165	135	117	406	1,100	1,450	1,600	558	400
28	207	146	220	150	139	110	364	1,100	1,100	1,650	550	540
29	192	160	380	148	------	101	316	1,020	1,200	1,440	512	700
30	187	156	400	146	------	105	282	814	1,300	1,440	500	650
31	189	------	330	148	------	115	------	750	------	1,490	570	------
TOTAL	13,504	6,423	5,322	12,482	8,477	3,479	11,231	15,273	34,817	32,478	29,174	14,520
MEAN	436	214	172	403	303	112	374	493	1,161	1,048	941	484
MAX	1,380	622	400	1,550	1,160	135	630	1,100	1,850	1,650	1,480	740
MIN	187	131	113	145	129	100	135	227	515	625	500	340
CFSM	4.75	2.33	1.87	4.39	3.30	1.22	4.08	5.37	12.7	11.4	10.3	5.28
IN.	5.48	2.60	2.16	5.06	3.44	1.41	4.55	6.19	14.1	13.2	11.8	5.89
AC-FT	26,780	12,740	10,560	24,760	16,810	6,900	22,280	30,290	69,060	64,420	57,870	28,800

CAL YR 1961: TOTAL 242,986 MEAN 666 MAX 2,970 MIN 113 CFSM 7.26 IN 98.55 AC-FT 482,000
WAT YR 1962: TOTAL 187,180 MEAN 513 MAX 1,850 MIN 100 CFSM 5.59 IN 75.91 AC-FT 371,300

Note.--No gage-height record Dec. 28 to Jan. 28, June 12 to July 18, Aug. 30 to Sept. 30.

12-1755. Thunder Creek near Newhalem, Wash.

Location.--Lat 48°40'20", long 121°04'20", in SE¼ sec.23, T.37 N., R.13 E. (unsurveyed), on right bank half a mile upstream from high waterline of Diablo Reservoir at elevation 1,205 ft, 8 miles east of Newhalem, and 20 miles northeast of Marblemount.

Drainage area.--105 sq mi (revised).

Records available.--October 1930 to September 1965. Published as "above Colonial Creek, near Marblemount" 1930-31.

Gage.--Water-stage recorder. Altitude of gage is 1,220 ft (from river-profile map).

Average discharge.--35 years, 619 cfs (448,100 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,400 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2330	2,610	7.18	Aug. 31, 1961	0800	3,180	7.74	Oct. 22, 1963a	-	* 8,490	11.49
May 26, 1961	1900	2,420	6.91					July 12, 1964	2200	3,010	7.64
June 3, 1961	2400	3,340	7.90	June 25, 1962a	-	* 2,280	6.79				
June 17, 1961a	-	* 3,960	8.45					Aug. 13, 1965	0930	* 2,170	6.75
July 13, 1961	2130	2,610	7.13	Nov. 20, 1962	0100	* 9,610	12.09				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Dec. 11, 1960	159	2.30	1964	Mar. 10, 11, 1964	113	2.20
1962	Mar. 16, 17, 23	106	2.13	1965	Jan. 12, 1965b	105	2.19
1963	Jan. 30, 31, 1963	a 110	-				

a Minimum daily.
b About.

1930-65: Maximum dischage, 10,800 cfs Oct. 25, 1955 (gage height, 12.68 ft), from rating curve extended above 2,900 cfs; minimum not determined, probably less than 50 cfs during periods of ice effect or no gage-height record in February 1936.

Records for floods, prior to establishment of station, are given in WSP 1527.

Remarks.--Records excellent except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1012: 1943. WSP 1286: 1931(M), 1932, 1933(M), 1935(M), 1938-39(M), 1941-42(M), 1950(M), 1952 (annual runoff in acre-feet).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	404	606	207	174	295	385	292	703	2,180	900	1,230	1,900
2	395	428	204	166	322	335	358	694	2,680	1,000	1,300	1,060
3	356	353	200	161	302	298	554	589	2,950	1,100	1,480	915
4	315	318	192	176	283	275	481	506	2,980	1,300	1,560	1,000
5	318	298	178	229	500	265	427	448	2,790	1,600	1,620	995
6	449	288	174	318	1,040	251	385	403	2,940	1,400	1,230	661
7	782	276	174	272	798	240	352	370	2,310	1,300	1,120	554
8	464	256	171	272	585	227	338	358	1,740	1,100	1,080	484
9	345	241	168	278	530	219	318	367	1,500	1,200	1,060	478
10	290	267	162	385	530	212	300	406	1,300	1,400	1,000	492
11	263	455	162	614	460	204	288	406	1,350	1,700	1,060	439
12	254	328	450	488	424	200	285	391	1,350	2,090	1,190	418
13	229	293	491	407	385	202	275	412	1,400	2,350	1,270	403
14	219	269	488	455	355	225	258	415	1,600	2,280	1,440	382
15	254	254	365	1,600	340	298	244	467	2,000	2,070	1,570	376
16	320	305	308	1,700	315	322	247	677	2,500	1,790	1,790	451
17	293	386	283	950	292	310	310	855	3,000	1,460	1,290	464
18	274	474	278	682	270	292	295	1,020	3,500	1,470	1,230	488
19	274	401	308	550	268	295	280	1,320	3,000	1,580	1,270	421
20	258	386	276	470	341	315	260	1,660	2,300	1,900	1,350	464
21	390	338	256	416	1,000	300	249	1,660	1,800	2,010	1,420	346
22	762	293	246	383	788	285	242	1,270	1,500	1,850	1,380	288
23	1,420	276	237	353	573	278	242	1,550	1,700	1,730	1,350	260
24	1,250	281	235	325	484	268	260	1,210	1,800	1,360	1,200	258
25	678	286	223	300	427	260	278	1,140	1,900	1,320	930	367
26	626	261	215	276	376	260	282	1,950	1,800	1,390	784	265
27	536	235	207	258	332	249	310	1,780	1,500	1,430	721	234
28	572	227	196	248	305	240	335	1,290	1,200	1,260	775	424
29	425	217	190	246	------	240	492	1,270	1,000	1,060	870	305
30	374	209	185	272	------	249	641	1,400	900	1,060	811	244
31	590	------	180	295	------	263	------	1,500	------	1,170	2,230	------
TOTAL	14,379	9,505	7,609	13,719	12,920	8,262	9,878	28,487	60,470	46,630	38,611	15,856
MEAN	464	317	245	443	461	267	329	919	2,016	1,504	1,246	529
MAX	1,420	606	491	1,700	1,040	385	641	1,950	3,500	2,350	2,230	1,900
MIN	219	209	162	161	268	200	242	358	900	900	721	234
CFSM	4.42	3.02	2.34	4.21	4.39	2.54	3.14	8.75	19.2	14.3	11.9	5.03
IN.	5.09	3.37	2.70	4.86	4.58	2.93	3.50	10.1	21.4	16.5	13.7	5.62
AC-FT	28,520	18,850	15,090	27,210	25,630	16,390	19,590	56,500	119,900	92,490	76,580	31,450

CAL YR 1960: TOTAL 216,076 MEAN 590 MAX 2,680 MIN 100 CFSM 5.62 IN 76.53 AC-FT 428,600
WAT YR 1961: TOTAL 266,326 MEAN 730 MAX 3,500 MIN 161 CFSM 6.95 IN 94.33 AC-FT 528,200

Note.--No gage-height record June 9 to July 11.

12-1755. Thunder Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	227	236	197	318	197	142	136	315	707	1,200	1,550	643
2	219	206	186	507	605	140	153	322	900	1,000	1,450	627
3	234	206	181	1,760	1,230	139	173	339	841	850	1,450	527
4	251	195	212	970	855	140	201	315	655	800	1,450	527
5	592	184	223	715	603	142	204	292	571	900	1,400	599
6	602	182	204	595	488	139	317	275	538	800	1,200	627
7	364	179	195	910	422	133	450	262	671	750	1,200	595
8	282	179	181	1,270	371	128	345	266	1,010	950	1,200	464
9	584	303	167	850	336	124	299	277	1,020	1,200	1,000	460
10	602	637	151	651	312	121	268	325	875	1,150	900	769
11	370	457	153	538	289	117	249	342	760	1,100	1,000	619
12	814	346	151	464	273	112	245	333	900	1,000	1,100	412
13	1,470	315	148	393	255	110	280	328	1,100	950	1,000	488
14	955	325	145	350	247	109	418	328	1,400	850	900	750
15	905	275	144	312	234	108	611	328	1,600	800	1,000	550
16	910	244	142	287	224	108	499	345	1,800	750	1,100	450
17	577	234	144	266	214	108	454	405	1,550	700	1,050	400
18	448	225	142	236	206	108	520	440	1,400	675	1,100	380
19	400	215	145	218	199	109	659	426	1,450	665	1,050	380
20	325	198	167	200	188	109	595	468	1,450	740	1,200	410
21	282	197	159	185	179	109	534	510	1,400	850	1,100	430
22	258	202	151	175	179	109	513	587	1,500	1,050	900	400
23	260	188	181	170	168	109	563	667	1,600	1,300	800	380
24	251	170	302	165	153	117	647	703	1,800	1,600	800	370
25	236	159	263	165	153	128	575	846	2,000	1,700	800	380
26	254	165	229	175	144	128	496	1,180	1,800	1,700	700	390
27	236	164	204	190	145	123	450	1,220	1,500	1,750	600	380
28	221	177	251	175	147	114	399	1,210	1,100	1,800	550	600
29	206	182	424	170	------	112	353	1,060	1,300	1,550	510	750
30	202	184	445	177	------	114	322	850	1,400	1,550	524	700
31	206	------	358	180	------	119	------	782	------	1,600	603	------
TOTAL	13,743	7,129	6,345	13,737	9,016	3,728	11,928	16,346	36,598	34,280	31,187	15,457
MEAN	443	238	205	443	322	120	398	527	1,220	1,106	1,006	515
MAX	1,470	637	445	1,760	1,230	142	659	1,220	2,000	1,800	1,550	769
MIN	202	159	142	165	144	108	136	262	538	665	510	370
CFSM	4.22	2.26	1.95	4.22	3.07	1.15	3.79	5.02	11.6	10.5	9.58	4.91
IN.	4.87	2.53	2.25	4.87	3.19	1.32	4.22	5.79	13.0	12.1	11.0	5.47
AC-FT	27,260	14,140	12,590	27,250	17,880	7,390	23,660	32,420	72,590	67,990	61,860	30,660

CAL YR 1961: TOTAL 262,050 MEAN 718 MAX 3,500 MIN 142 CFSM 6.84 IN 92.82 AC-FT 519,800
WAT YR 1962: TOTAL 199,494 MEAN 547 MAX 2,000 MIN 108 CFSM 5.21 IN 70.66 AC-FT 395,700

Note.--No gage-height record June 11 to July 18, July 20 to Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	400	287	360	560	128	348	176	302	1,060	650	700	900
2	300	325	330	700	134	320	169	286	935	960	700	900
3	450	302	300	800	500	293	169	263	766	1,080	750	800
4	383	431	280	700	1,170	274	176	246	754	1,160	800	935
5	304	516	310	580	1,480	261	187	269	770	1,020	900	955
6	271	345	400	500	890	248	213	274	762	950	900	835
7	247	285	450	450	790	235	207	267	825	900	850	865
8	264	510	520	400	642	229	202	258	798	1,100	850	1,000
9	287	353	500	350	572	223	194	254	870	1,100	900	1,150
10	255	312	460	320	516	217	192	246	885	900	900	1,080
11	232	299	420	300	434	217	190	248	1,130	950	1,000	990
12	226	273	410	280	422	209	189	248	1,790	880	1,100	1,000
13	268	253	430	260	383	204	194	288	1,470	950	1,200	1,600
14	236	234	947	240	350	200	254	325	1,390	1,000	1,100	1,080
15	214	224	1,290	230	320	192	359	377	1,610	950	1,000	682
16	202	210	840	220	300	185	302	380	1,740	850	900	582
17	201	201	650	210	278	178	272	440	1,740	900	800	488
18	247	193	547	200	261	174	258	634	1,700	900	900	425
19	255	2,480	470	210	298	174	252	955	1,600	860	1,000	395
20	398	4,040	449	200	302	174	244	1,350	1,300	820	900	425
21	663	1,110	484	190	274	181	237	1,680	1,100	800	800	519
22	659	726	413	180	256	207	237	1,690	900	1,300	700	630
23	471	568	359	170	248	200	237	1,600	750	1,000	700	825
24	393	505	330	160	239	173	231	1,330	800	860	750	561
25	353	700	332	150	260	185	229	1,090	900	840	800	530
26	333	900	280	140	547	181	229	1,010	800	840	750	536
27	294	700	260	140	422	185	233	980	700	900	700	774
28	280	550	240	130	371	192	239	1,060	650	900	700	985
29	345	450	270	120	------	194	290	1,280	620	850	750	925
30	353	400	400	110	------	192	302	1,370	600	800	800	654
31	297	------	600	110	------	178	------	1,300	------	750	850	------
TOTAL	10,081	18,682	14,331	9,310	12,787	6,623	6,863	22,300	31,715	28,720	26,450	24,026
MEAN	325	623	462	300	457	214	229	719	1,057	926	853	801
MAX	663	4,040	1,290	800	1,480	348	359	1,690	1,790	1,300	1,200	1,600
MIN	201	193	240	110	128	173	169	246	600	650	700	395
CFSM	3.10	5.93	4.40	2.86	4.35	2.03	2.18	6.85	10.1	8.82	8.13	7.63
IN.	3.57	6.62	5.08	3.30	4.53	2.35	2.43	7.90	11.2	10.2	9.37	8.51
AC-FT	20,000	37,060	28,430	18,470	25,360	13,140	13,610	44,230	62,910	56,970	52,460	47,650

CAL YR 1962: TOTAL 215,371 MEAN 590 MAX 4,040 MIN 108 CFSM 5.62 IN 76.28 AC-FT 427,200
WAT YR 1963: TOTAL 211,888 MEAN 581 MAX 4,040 MIN 110 CFSM 5.53 IN 75.05 AC-FT 420,300

Note.--No gage-height record Dec. 26 to Jan. 31.

12-1755. Thunder Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	586	400	450	1,090	171	127	243	258	2,020	1,270	890	506
2	558	450	400	825	167	128	241	249	2,040	1,460	830	534
3	480	430	370	626	163	125	226	245	1,500	1,350	1,020	494
4	404	400	350	514	178	127	222	245	1,490	1,360	1,380	487
5	348	370	370	451	182	130	218	247	1,700	1,590	1,030	490
6	315	350	400	409	178	127	208	243	1,770	1,480	980	490
7	272	330	360	359	167	120	218	247	1,560	1,870	1,080	484
8	261	320	320	324	161	118	239	280	1,580	2,570	1,030	436
9	258	310	300	302	158	116	267	356	1,910	2,210	1,120	373
10	270	300	280	283	154	115	280	445	2,080	1,670	1,020	345
11	300	290	260	262	150	115	290	424	2,090	1,910	1,060	334
12	300	320	250	245	146	122	274	445	1,710	2,570	1,160	334
13	900	450	240	234	144	116	265	460	1,630	2,480	1,040	332
14	800	700	230	226	139	120	260	430	1,740	2,150	915	342
15	730	800	220	218	135	118	283	427	1,770	2,150	820	385
16	596	650	210	259	134	141	262	481	2,110	1,610	805	630
17	540	500	202	267	135	150	247	674	1,610	1,410	820	840
18	416	400	196	249	135	159	251	694	1,260	1,340	945	546
19	350	350	196	236	137	146	226	865	1,080	1,100	762	624
20	300	320	198	230	134	139	224	1,020	965	1,170	678	805
21	2,500	310	190	222	130	132	226	910	920	1,400	754	518
22	5,000	298	263	208	128	128	236	722	960	1,230	845	498
23	2,500	290	999	198	127	125	234	610	1,380	1,020	695	522
24	1,500	276	880	192	127	122	230	558	1,510	1,080	820	618
25	1,000	305	674	198	125	122	239	487	1,320	1,150	930	921
26	800	1,300	514	186	123	122	258	494	1,320	1,160	1,050	562
27	700	1,000	439	180	122	123	258	658	1,300	1,220	665	466
28	600	700	382	178	123	120	249	980	1,020	1,510	805	421
29	500	600	345	178	125	122	256	1,340	875	1,570	734	450
30	450	500	345	175	------	139	262	1,660	1,020	1,340	714	1,140
31	400	------	758	171	------	190	------	1,870	------	1,100	586	------
TOTAL	24,934	14,019	11,591	9,695	4,198	4,004	7,392	19,024	45,240	48,500	28,383	15,927
MEAN	804	467	374	313	145	129	246	614	1,508	1,565	916	531
MAX	5,000	1,300	999	1,090	182	190	290	1,870	2,110	2,570	1,380	1,140
MIN	258	276	190	171	122	115	208	243	875	1,020	586	332
CFSM	7.66	4.45	3.56	2.98	1.38	1.23	2.35	5.84	14.4	14.9	8.72	5.06
IN.	8.83	4.97	4.11	3.43	1.49	1.42	2.62	6.74	16.0	17.2	10.1	5.64
AC-FT	49,460	27,810	22,990	19,230	8,330	7,940	14,660	37,730	89,730	96,200	56,300	31,590

CAL YR 1963: TOTAL 219,338 MEAN 601 MAX 5,000 MIN 110 CFSM 5.72 IN 77.69 AC-FT 435,100
WAT YR 1964: TOTAL 232,907 MEAN 636 MAX 5,000 MIN 115 CFSM 6.06 IN 82.49 AC-FT 462,000

Note.--No gage-height record Oct. 19 to Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	722	397	850	160	397	214	161	682	790	1,260	1,710	562
2	1,020	332	690	150	326	204	163	570	1,040	1,570	1,640	484
3	682	283	506	140	290	200	161	487	1,300	1,670	1,420	433
4	522	382	415	135	376	200	163	445	1,270	1,680	1,240	388
5	472	326	356	135	562	198	171	400	1,360	1,620	1,170	379
6	530	278	316	130	522	200	173	364	1,420	1,640	1,130	367
7	606	260	292	128	427	208	171	348	1,280	1,910	1,220	388
8	815	239	294	126	367	216	169	370	1,360	1,600	1,370	457
9	780	232	290	118	324	226	180	460	1,490	1,120	1,440	466
10	626	224	280	115	287	258	190	582	1,630	935	1,440	466
11	530	214	258	112	262	294	190	618	1,820	845	1,320	445
12	570	204	247	110	245	306	198	795	1,430	815	1,580	397
13	578	194	243	115	236	302	218	820	1,060	985	1,780	379
14	626	182	236	125	226	294	228	762	950	1,220	1,170	830
15	514	178	218	155	214	283	265	762	945	1,370	1,070	905
16	439	176	190	210	212	271	319	1,120	980	1,350	1,020	518
17	382	171	205	215	214	254	319	845	1,310	1,310	1,120	382
18	342	167	205	222	222	239	309	698	1,490	1,160	1,290	324
19	356	163	200	236	267	226	353	642	1,230	955	1,400	302
20	362	159	195	283	276	218	570	682	1,130	876	1,380	334
21	342	154	190	304	258	214	590	618	1,060	810	1,190	400
22	316	152	190	274	243	204	530	634	1,010	795	1,200	445
23	294	161	185	251	228	196	510	694	1,150	920	1,460	430
24	283	309	185	236	216	180	534	658	1,260	1,140	1,150	460
25	267	239	180	220	210	180	582	710	1,130	1,420	970	439
26	245	220	175	216	216	175	682	910	995	1,590	925	364
27	226	200	170	226	236	167	860	1,170	790	1,680	845	294
28	228	188	165	241	224	161	1,110	1,480	714	1,480	670	265
29	260	202	160	329	------	159	960	1,480	762	1,320	534	251
30	388	671	160	491	------	153	795	1,110	980	1,280	460	258
31	356	------	160	546	------	153	------	855	------	1,420	475	------
TOTAL	14,679	7,257	8,406	6,454	8,083	6,753	11,824	22,771	35,136	39,746	36,789	12,812
MEAN	474	242	271	208	289	218	394	735	1,171	1,282	1,187	427
MAX	1,020	671	850	546	562	306	1,110	1,480	1,820	1,910	1,780	905
MIN	226	152	160	110	210	153	161	348	714	795	460	251
CFSM	4.51	2.30	2.58	1.98	2.75	2.07	3.75	7.00	11.2	12.2	11.3	4.07
IN.	5.20	2.57	2.98	2.29	2.86	2.39	4.19	8.07	12.4	14.1	13.0	4.54
AC-FT	29,120	14,390	16,670	12,800	16,030	13,390	23,450	45,170	69,690	78,840	72,970	25,410

CAL YR 1964: TOTAL 212,705 MEAN 581 MAX 2,570 MIN 115 CFSM 5.53 IN 75.34 AC-FT 421,900
WAT YR 1965: TOTAL 210,710 MEAN 577 MAX 1,910 MIN 110 CFSM 5.50 IN 74.63 AC-FT 417,900

Note.--No gage-height record Dec. 16 to Jan. 17.

12-1765. Diablo Reservoir near Newhalem, Wash.

Location.--Lat 48°43'00", long 121°08'00", in SE¼ sec.5, T.37 N., R.13 E. (unsurveyed), in Diablo Dam on Skagit River, 1 mile downstream from Thunder Creek and 6 miles northeast of Newhalem.

Drainage area.--1,125 sq mi (revised), includes 400 sq mi in Canada.

Records available.--October 1929 to September 1965. October 1929 to September 1938 monthly change in reservoir contents published with records for Skagit River at Newhalem.

Gage.--Water-stage recorder. Datum of gage is at mean sea level (city of Seattle datum). Prior to Oct. 1, 1964, at datum 0.28 ft higher.

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	Jan. 16, 1961	89,920	1,205.76	Oct. 21, 1960	81,050	1,195.68
1962	Aug. 7, 1962	89,850	1,205.69	Aug. 30, 1962	81,040	1,195.67
1963	Aug. 13, 1963	90,080	1,205.93	Oct. 26, 1962	80,780	1,195.36
1964	Aug. 8 or 9, 1964	90,080	1,205.94	July 7, 1964	79,040	1,193.25
1965	Nov. 20, 1964	89,910	1,206.03	Dec. 23, 1964	81,550	1,196.55

1929-65: Maximum contents, 90,600 acre-ft July 14, 1933 (elevation 1,206.5 ft); minimum not determined.

Remarks.--Reservoir is formed by concrete dam completed in 1930; storage began in October 1929. Usable capacity, 76,220 acre-ft between elevations 1,040 (bottom of outlet pipes) and 1,205 ft (top of taintor gates). Dead storage, 13,000 acre-ft. Crest of spillway is at elevation 1,187 ft. Water is used by city of Seattle for power development at Diablo and Newhalem powerplants. Figures given herein represent total contents.

Cooperation.--Gage-height record collected in cooperation with city of Seattle.

MONTH-END ELEVATION AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Elevation (feet) †	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	1,198.7	83,630	+340
Nov. 30	1,198.6	83,550	-80
Dec. 31	1,202.3	86,790	+3,240
Calendar year 1960	-	-	-530
Jan. 31, 1961	1,200.4	85,110	-1,680
Feb. 28	1,200.6	85,290	+180
Mar. 31	1,202.9	87,320	+2,030
Apr. 30	1,200.2	84,940	-2,380
May 31	1,198.9	83,800	-1,140
June 30	1,200.3	85,020	+1,220
July 31	1,199.8	84,590	-430
Aug. 31	1,202.3	86,790	+2,200
Sept. 30	1,201.2	85,820	-970
Water year 1961	-	-	+2,530
Oct. 31	1,200.8	85,460	-360
Nov. 30	1,200.6	85,290	-170
Dec. 31	1,199.7	84,500	-790
Calendar year 1961	-	-	-2,290
Jan. 31, 1962	1,200.1	84,850	+350
Feb. 28	1,204.8	89,040	+4,190
Mar. 31	1,197.7	82,770	-6,270
Apr. 30	1,197.5	82,600	-170
May 31	1,199.4	84,240	+1,640
June 30	a 1,201.4	85,990	+1,750
July 31	1,198.3	83,290	-2,700
Aug. 31	1,199.7	84,500	+1,210
Sept. 30	1,199.6	84,410	-90
Water year 1962	-	-	-1,410
Oct. 31	1,198.8	83,720	-690
Nov. 30	1,201.8	86,340	+2,620
Dec. 31	1,198.5	83,460	-2,880
Calendar year 1962	-	-	-1,040
Jan. 31, 1963	1,196.9	82,080	-1,380
Feb. 28	1,197.0	82,170	+90
Mar. 31	1,200.0	84,760	+2,590
Apr. 30	a 1,201.9	86,430	+1,670
May 31	a 1,201.0	85,640	-790
June 30	a 1,204.9	89,130	+3,490
July 31	a 1,201.2	85,820	-3,310
Aug. 31	a 1,199.6	84,410	-1,410
Sept. 30	a 1,198.7	83,630	-780
Water year 1963	-	-	-780
Oct. 31, 1963	1,201.8	86,340	+2,710
Nov. 30	1,199.2	84,060	-2,280
Dec. 31	1,198.2	83,200	-860
Calendar year 1963	-	-	-260
Jan. 31, 1964	1,198.6	83,550	+350
Feb. 29	1,198.6	83,550	0
Mar. 31	1,199.0	83,890	+340
Apr. 30	1,198.8	83,720	-170
May 31	1,199.6	84,410	+690
June 30	a 1,199.5	84,320	-90
July 31	a 1,203.2	87,590	+3,270
Aug. 31	1,204.2	88,490	+900
Sept. 30	1,201.2	85,820	-2,670
Water year 1964	-	-	+2,190
Oct. 31	1,201.8	86,080	+260
Nov. 30	1,198.6	83,290	-2,790
Dec. 31	a 1,198.9	83,550	+260
Calendar year 1964	-	-	+350
Jan. 31, 1965	1,197.8	82,600	-950
Feb. 28	1,198.5	83,200	+600
Mar. 31	a 1,198.8	83,460	+260
Apr. 30	1,200.3	84,760	+1,300
May 31	1,197.5	82,340	-2,420
June 30	1,202.3	86,520	+4,180
July 31	1,205.5	89,400	+2,880
Aug. 31	1,199.4	83,980	-5,420
Sept. 30	1,197.5	82,340	-1,640
Water year 1965	-	-	-3,480

† Elevation at 2400 hours.
a Elevation furnished by city of Seattle.

12-1775. Stetattle Creek near Newhalem, Wash.

Location.--Lat 48°43'30", long 121°09'20", in NE¼ sec.6, T.37 N., R.13 E., on left bank three-quarters of a mile upstream from mouth, 5½ miles northeast of Newhalem, and 18½ miles northeast of Marblemount.

Drainage area.--22.0 sq mi (revised).

Records available.--December 1913 to November 1915 (fragmentary), September 1933 to September 1965. Published as "near Marblemount" 1913-15.

Gage.--Water-stage recorder. Altitude of gage is 925 ft (by barometer). Dec. 19, 1913, to Nov. 14, 1915, staff gage at site about half a mile downstream at different datum. Sept. 7, 1933, to Aug. 26, 1937, water-stage recorder at site 750 ft upstream at datum 1.69 ft higher. Aug. 27, 1937, to Nov. 20, 1957, water-stage recorder at site 600 ft upstream at present datum.

Average discharge.--32 years (1933-65), 181 cfs (131,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (970 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 23, 1960	1730	1,320	4.03	Oct. 9, 1961	1630	1,040	3.63	Oct. 21, 1963	1400	* 2,150	4.80
Jan. 15, 1961	1700	* 1,850	4.70	Oct. 12, 1961	1900	* 1,390	4.13	Nov. 27, 1963a	-	1,310	3.95
Feb. 21, 1961a	-	-	-	Jan. 3, 1962	0330	1,350	4.07	Dec. 23, 1963	1400	1,080	3.63
June 6, 1961	1130	971	3.53	Feb. 3, 1962	0730	1,040	3.63				
Aug. 31, 1961	0530	1,170	3.82					Nov. 30, 1964	1630	* 780	3.15
Oct. 5, 1961	1130	978	3.54	Nov. 19, 1962	1900	* 4,020	6.15				
				Feb. 4, 1963	1900	1,900	4.56				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	27	1.06	1964	Mar. 10, 1964	24	b 0.63
1962	Mar. 13, 14, 1962	27	1.04	1965	Jan. 11-13, 1965	a 28	-
1963	Feb. 1, 1963	a 23	-				

a Minimum daily.
b Occurred Feb. 29, 1964.

1913-15, 1933-65: Maximum discharge, 8,580 cfs Nov. 26, 1949 (gage height, 9.70 ft), from rating curve extended above 1,600 cfs on basis of slope-area measurement of peak flow; minimum, 9 cfs Nov. 9-11, 1936.

Remarks.--Records excellent except those for period of no gage-height record, which are good. No regulation or diversion above station.

Revisions (water years).--WSP 1316: 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	51	415	77	56	170	148	180	366	716	262	150	507
2	49	250	77	52	300	112	234	330	806	263	148	202
3	45	182	82	49	200	97	550	234	806	273	160	131
4	41	148	77	68	150	88	303	174	794	366	163	114
5	40	139	68	148	300	83	207	143	746	440	171	132
6	66	139	63	203	600	77	160	123	770	290	129	87
7	218	123	61	155	350	72	140	118	620	259	120	68
8	115	103	58	172	250	70	136	125	435	220	116	58
9	81	89	58	180	250	66	127	153	455	258	112	55
10	67	122	56	408	250	64	116	194	343	321	103	52
11	60	307	58	550	200	64	114	177	395	410	103	49
12	71	170	537	368	170	68	118	171	405	465	110	45
13	60	137	520	242	140	85	120	185	415	465	116	43
14	65	123	392	541	120	118	108	180	525	425	127	41
15	96	113	216	1,500	110	204	101	247	692	366	136	42
16	94	160	155	862	95	204	113	395	770	295	164	44
17	76	289	131	381	90	158	237	470	812	241	116	46
18	65	350	148	222	85	143	171	540	800	248	105	48
19	58	284	232	162	85	146	136	620	632	263	108	45
20	53	250	165	135	250	166	112	674	490	308	114	48
21	181	180	133	127	850	143	101	555	362	312	106	41
22	402	141	117	121	550	123	97	450	366	279	101	36
23	699	125	115	111	350	118	101	535	455	252	97	32
24	650	149	115	100	250	118	112	352	475	188	94	31
25	264	178	103	89	138	114	116	415	505	177	77	36
26	390	135	92	77	110	114	123	698	390	180	68	30
27	354	113	82	70	97	105	138	495	267	185	62	29
28	420	98	74	63	90	97	153	381	255	163	64	234
29	242	85	68	58	------	101	366	425	237	131	70	68
30	178	79	63	119	------	114	400	505	207	131	82	52
31	491	------	58	152	------	134	------	550	------	148	454	------
TOTAL	5,742	5,176	4,251	7,541	6,600	3,514	5,190	10,980	15,946	8,584	3,846	2,446
MEAN	185	173	137	243	236	113	173	354	532	277	124	81.5
MAX	699	415	537	1,500	850	204	550	698	812	465	454	507
MIN	40	79	56	49	85	64	97	118	207	131	62	29
CFSM	8.42	7.84	6.23	11.1	10.7	5.15	7.86	16.1	24.2	12.6	5.64	3.71
IN.	9.71	8.75	7.19	12.7	11.2	5.94	8.77	18.6	27.0	14.5	6.50	4.13
AC-FT	11,390	10,270	8,430	14,960	13,090	6,970	10,290	21,780	31,630	17,030	7,630	4,850

CAL YR 1960: TOTAL 66,988 MEAN 183 MAX 912 MIN 25 CFSM 8.32 IN 113.24 AC-FT 132,900
WAT YR 1961: TOTAL 79,816 MEAN 219 MAX 1,500 MIN 29 CFSM 9.94 IN 134.93 AC-FT 158,300

12-1775. Stetattle Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	49	131	130	210	138	38	95	197	204	317	248	97
2	48	105	115	339	527	36	88	197	472	230	213	90
3	46	101	105	1,030	878	34	95	234	330	210	241	74
4	44	88	135	500	560	34	136	194	207	201	376	68
5	295	81	130	303	317	54	129	158	169	237	271	72
6	221	78	95	227	213	45	304	131	171	207	295	77
7	118	80	78	440	177	37	336	120	326	245	234	68
8	83	86	70	555	158	36	204	127	460	343	259	57
9	527	210	63	322	140	34	150	153	381	390	177	52
10	289	600	58	207	127	32	123	191	287	352	150	205
11	183	350	54	156	116	31	105	194	299	330	156	178
12	692	220	51	120	110	29	110	169	299	325	171	101
13	800	170	48	97	103	28	166	160	390	267	146	253
14	371	140	46	88	101	29	313	158	475	227	120	382
15	227	120	44	77	94	30	395	163	575	252	129	156
16	246	105	43	70	87	31	241	185	570	207	143	101
17	146	94	44	64	78	34	227	234	440	217	153	67
18	108	86	45	57	76	35	317	234	390	160	183	85
19	94	78	48	56	71	36	371	210	405	150	185	83
20	78	73	61	55	64	38	271	237	425	191	307	85
21	66	67	72	54	60	38	213	252	405	241	238	85
22	64	62	62	54	57	37	210	263	420	317	136	77
23	83	58	128	54	50	38	303	299	485	362	112	72
24	92	54	545	56	46	50	352	325	550	381	114	71
25	87	52	276	62	44	71	271	428	590	357	110	70
26	160	50	177	75	41	56	197	560	480	352	161	70
27	143	52	129	150	40	52	197	515	325	334	145	80
28	118	80	221	134	38	46	171	505	330	334	147	242
29	99	120	565	110	------	45	158	357	445	259	103	390
30	90	115	470	103	------	51	148	245	430	248	94	241
31	99	------	267	123	------	70	------	223	------	248	92	------
TOTAL	5,766	3,706	4,375	5,948	4,511	1,255	6,396	7,618	11,735	8,491	5,609	3,769
MEAN	186	124	141	192	161	40.5	213	246	391	274	181	126
MAX	800	600	565	1,030	878	71	395	560	590	390	376	390
MIN	44	50	43	54	38	28	88	120	169	150	92	52
CFSM	8.45	5.62	6.41	8.72	7.32	1.84	9.69	11.2	17.8	12.5	8.22	5.71
IN.	9.75	6.26	7.40	10.1	7.63	2.12	10.8	12.9	19.8	14.4	9.48	6.37
AC-FT	11,440	7,350	8,680	11,800	8,950	2,490	12,690	15,110	23,280	16,840	11,130	7,480

CAL YR 1961: TOTAL 78,494 MEAN 215 MAX 1,500 MIN 29 CFSM 9.78 IN 132.69 AC-FT 155,700
WAT YR 1962: TOTAL 69,179 MEAN 190 MAX 1,030 MIN 28 CFSM 8.62 IN 116.94 AC-FT 137,200

Note.--No gage-height record Nov. 5 to Dec. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	183	60	116	270	23	165	84	127	272	190	123	91
2	143	61	111	400	30	140	78	129	262	252	120	56
3	237	57	102	550	566	116	75	116	215	255	132	61
4	118	254	91	300	1,080	102	103	103	237	269	142	81
5	97	279	214	250	895	94	140	142	237	218	152	84
6	94	183	356	181	476	86	174	154	243	195	150	78
7	90	136	276	150	480	81	148	142	262	198	138	77
8	131	220	336	129	325	75	125	125	231	269	140	79
9	245	163	252	121	262	74	113	113	304	255	138	88
10	204	180	202	110	212	71	106	106	322	210	140	97
11	148	185	200	90	172	70	105	113	360	262	156	90
12	129	185	181	76	152	66	103	123	464	210	187	82
13	194	156	220	72	134	62	103	132	350	212	205	255
14	138	131	392	68	114	59	164	156	364	231	146	268
15	112	116	817	64	103	56	200	178	420	237	111	123
16	99	101	485	61	97	52	148	161	424	205	97	114
17	106	92	304	57	91	48	120	208	408	208	97	86
18	160	85	210	54	88	46	105	325	396	193	98	70
19	131	1,620	169	50	130	50	96	428	332	186	136	61
20	216	830	146	48	144	66	88	515	262	167	123	58
21	385	332	181	46	120	85	92	580	222	156	96	56
22	241	212	152	44	106	106	100	505	186	284	82	95
23	148	163	129	42	97	96	103	452	198	202	81	156
24	120	181	106	40	91	88	96	350	276	161	88	84
25	101	380	100	38	124	84	92	294	304	152	86	71
26	94	388	90	36	448	81	90	283	205	148	82	64
27	85	243	85	35	283	91	92	286	161	167	74	68
28	77	174	80	33	202	106	98	342	154	156	78	74
29	82	146	110	30	------	103	142	404	165	142	81	78
30	76	134	275	27	------	98	144	404	161	132	82	64
31	66	------	375	25	------	92	------	360	------	125	86	------
TOTAL	4,450	7,447	6,863	3,497	7,045	2,609	3,427	7,856	8,397	6,247	3,647	2,869
MEAN	144	248	221	113	252	84.2	114	253	280	202	118	95.6
MAX	385	1,620	817	550	1,080	165	200	580	464	284	205	268
MIN	66	57	80	25	23	46	75	103	154	125	74	56
CFSM	6.52	11.3	10.1	5.13	11.4	3.83	5.19	11.5	12.7	9.16	5.35	4.35
IN.	7.52	12.6	11.6	5.91	11.9	4.41	5.79	13.3	14.2	10.6	6.17	4.85
AC-FT	8,830	14,770	13,610	6,940	13,970	5,170	6,800	15,580	16,660	12,390	7,230	5,690

CAL YR 1962: TOTAL 74,092 MEAN 203 MAX 1,620 MIN 28 CFSM 9.23 IN 125.25 AC-FT 147,000
WAT YR 1963: TOTAL 64,354 MEAN 176 MAX 1,620 MIN 23 CFSM 8.01 IN 108.79 AC-FT 127,600

12-1775. Stetattle Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	56	140	140	645	96	58	195	139	620	389	250	181
2	50	172	130	393	89	58	153	127	580	433	225	197
3	46	147	120	255	80	58	129	116	450	377	300	163
4	52	138	120	197	126	61	125	129	476	389	400	153
5	45	123	130	165	141	71	116	132	595	417	300	143
6	48	115	140	143	116	61	116	125	555	389	255	138
7	37	125	130	120	102	55	141	130	463	500	286	141
8	37	115	116	104	93	50	181	167	441	585	255	123
9	34	115	99	100	86	50	190	244	550	468	302	106
10	35	110	82	93	86	50	202	280	570	385	250	94
11	37	110	75	83	83	60	192	241	535	458	250	89
12	39	150	70	75	78	65	167	261	421	560	258	87
13	286	300	66	75	74	54	151	252	413	540	241	86
14	140	400	63	69	67	64	157	212	458	476	197	89
15	94	300	60	67	65	85	174	204	463	520	183	116
16	75	250	58	176	65	75	141	258	525	520	183	174
17	66	275	56	143	70	80	122	365	377	417	192	252
18	61	200	55	125	72	87	105	377	343	365	264	143
19	47	150	71	116	76	75	104	500	295	312	214	214
20	58	130	87	110	70	71	115	490	255	351	174	265
21	1,160	115	82	93	69	69	116	405	252	417	190	172
22	702	111	110	82	67	65	123	305	283	329	209	155
23	298	106	900	74	67	60	116	241	458	298	209	139
24	386	102	585	71	66	54	116	232	405	333	185	147
25	354	100	405	76	61	50	143	207	354	365	248	197
26	241	700	270	69	58	48	143	225	361	365	286	125
27	176	800	199	74	56	47	134	336	340	393	295	106
28	176	400	165	83	55	46	125	481	276	437	252	99
29	176	200	138	98	53	61	143	575	232	430	349	147
30	151	160	223	108	------	99	149	620	322	375	320	665
31	130	------	690	96	------	157	------	620	------	325	235	------
TOTAL	5,293	6,359	5,635	4,178	2,287	2,044	4,284	8,996	12,668	12,918	7,757	4,906
MEAN	171	212	182	135	78.9	65.9	143	290	422	417	250	164
MAX	1,160	800	900	645	141	157	202	620	620	585	400	665
MIN	34	100	55	67	53	46	104	116	232	298	174	86
CFSM	7.76	9.63	8.26	6.13	3.58	3.00	6.49	13.2	19.2	18.9	11.4	7.43
IN.	8.95	10.7	9.53	7.06	3.87	3.46	7.24	15.2	21.4	21.8	13.1	8.29
AC-FT	10,500	12,610	11,180	8,290	4,540	4,050	8,500	17,840	25,130	25,620	15,390	9,730

CAL YR 1963: TOTAL 62,881 MEAN 172 MAX 1,160 MIN 23 CFSM 7.83 IN 106.30 AC-FT 124,700
WAT YR 1964: TOTAL 77,325 MEAN 211 MAX 1,160 MIN 34 CFSM 9.60 IN 130.71 AC-FT 153,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	385	207	635	50	184	104	61	210	240	383	223	72
2	534	138	378	47	138	96	62	168	373	412	205	70
3	316	133	226	45	112	94	63	147	412	422	186	64
4	219	324	172	44	238	95	67	138	417	428	159	59
5	187	205	136	37	422	95	72	122	455	377	143	58
6	185	151	115	36	310	97	70	110	450	409	140	55
7	176	129	103	34	190	100	68	114	410	417	153	56
8	303	110	154	33	179	108	75	134	440	286	164	59
9	285	100	159	32	143	125	79	210	455	198	181	61
10	199	93	138	30	115	162	82	273	480	174	177	62
11	155	86	114	28	99	186	85	273	485	162	153	61
12	138	78	102	28	87	174	92	377	328	177	231	57
13	144	71	100	28	92	155	109	325	228	218	398	61
14	213	65	94	34	87	142	117	293	231	251	179	188
15	187	60	85	56	81	130	170	304	264	273	151	200
16	153	60	60	86	83	115	218	510	332	264	143	92
17	141	62	72	110	99	100	181	310	440	251	149	70
18	125	60	76	108	129	88	153	226	403	202	157	60
19	138	56	74	118	217	82	193	210	314	162	159	55
20	129	55	70	188	202	76	417	260	279	162	153	54
21	111	54	66	190	157	73	440	223	267	142	132	55
22	100	52	67	136	127	68	322	248	257	145	125	58
23	90	95	66	108	106	62	267	293	341	166	136	58
24	87	229	64	94	95	57	267	251	322	202	110	60
25	83	151	62	83	87	56	276	310	279	237	108	58
26	76	125	60	82	114	52	352	417	212	251	142	52
27	70	104	56	97	159	50	470	520	170	237	104	46
28	72	92	53	99	129	50	600	565	159	208	92	42
29	80	129	52	168	------	49	394	480	210	188	79	39
30	232	640	52	368	------	50	286	337	287	181	67	39
31	138	------	51	320	------	50	------	245	------	198	67	------
TOTAL	5,451	3,914	3,712	2,917	4,181	2,941	6,108	8,603	9,940	7,783	4,766	2,021
MEAN	176	130	120	94.1	149	94.9	204	278	331	251	154	67.4
MAX	534	640	635	368	422	186	600	565	485	428	398	200
MIN	70	52	51	28	81	49	61	110	159	142	67	39
CFSM	7.99	5.93	5.44	4.28	6.79	4.31	9.25	12.6	15.1	11.4	6.99	3.06
IN.	9.21	6.62	6.27	4.93	7.07	4.97	10.3	14.5	16.8	13.2	8.06	3.42
AC-FT	10,810	7,760	7,360	5,790	8,290	5,830	12,120	17,060	19,720	15,440	9,450	4,010

CAL YR 1964: TOTAL 73,115 MEAN 200 MAX 665 MIN 46 CFSM 9.08 IN 123.60 AC-FT 145,000
WAT YR 1965: TOTAL 62,337 MEAN 171 MAX 640 MIN 28 CFSM 7.76 IN 105.38 AC-FT 123,600

12-1777. Gorge Reservoir near Newhalem, Wash.

Location.--Lat 48°41'55", long 121°12'20", in N½NW¼ sec.14, T.37 N , R.12 E., on Skagit River, 2 miles upstream from city of Seattle Gorge powerplant at Newhalem.

Drainage area.--1,159 sq mi (revised), includes 400 sq mi in Canada.

Records available.--June 1960 to September 1965.

Gage.--Water-stage recorder. Prior to Apr. 1, 1962, reference point on Gorge Dam or dial in powerhouse. Datum of gage is at mean sea level, Gorge High Dam datum, and 1.792 ft below mean sea level, datum of 1929, supplementary adjustment of 1947 (Corps of Engineers bench mark).

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	July 6, 1961	9,705	879.8	June 18, 1961	6,818	867.4
1962	July 23, 24, 1962	9,493	879.0	Apr. 26, 1962	5,315	858.15
1963	July 7, 1963	9,721	879.86	Aug. 19, 1963	6,173	863.86
1964	Nov. 30, 1963	9,612	879.45	June 22, 1964	6,810	867.36
1965	June 15, 1965	9,493	879.00	July 20, 1965	1,551	819.40

1960-65: Maximum contents recorded, 9,721 acre-ft July 7, 1963 (elevation, 879.86 ft); minimum not determined.

Remarks.--Reservoir is formed by concrete dam completed Dec. 27, 1960; storage began June 27, 1960. Usable capacity, 6,900 acre-ft between elevations 820 (minimum operating level) and 875 ft. Storage between normal operationg elevations 865 and 875 ft, 2,285 acre-ft. Storage below elevation 820 ft, 1,580 acre-ft. Crest of spillway is at elevation 825 ft. Water is used by city of Seattle for power development at Gorge powerplant. Figures given herein represent total contents.

Cooperation.--Gage-height record furnished by city of Seattle.

MONTH-END ELEVATION AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	820.1	1,590	-19
Nov. 30	819.6	1,562	-28
Dec. 31	874.9	8,461	+6,460
Calendar year 1960	-	-	+8,460
Jan. 31, 1961	872.6	7,923	-538
Feb. 28	874.5	8,366	+443
Mar. 31	874.4	8,342	-24
Apr. 30	874.7	8,414	+72
May 31	875.0	8,485	+71
June 30	874.5	8,366	-119
July 31	874.3	8,318	-48
Aug. 31	877.2	9,029	+711
Sept.30	874.9	8,461	-568
Water year 1961	-	-	+6,850
Oct. 31	a 874.2	8,295	-166
Nov. 30	a 874.9	8,461	+166
Dec. 31	a 874.0	8,247	-214
Calendar year 1961	--	-	-214
Jan. 31, 1962	a 874.9	8,461	+214
Feb. 28	a 874.7	8,414	-47
Mar. 31	a 874.7	8,414	0
Apr. 30	873.85	8,212	-202
May 31	875.03	8,492	+280
June 30	873.78	8,196	-296
July 31	870.70	7,500	-696
Aug. 31	871.63	7,704	+204
Sept.30	870.80	7,522	-182
Water year 1962	-	-	-939
Oct. 31	b 873.8	8,200	+678
Nov. 30	869.30	7,201	-999
Dec. 31	871.70	7,720	+519
Calendar year 1962	-	-	-527
Jan. 31, 1963	872.00	7,876	+66
Feb. 28	873.90	8,224	+438
Mar. 31	871.60	7,698	-526
Apr. 30	870.50	7,456	-242
May 31	872.30	7,854	+398
June 30	877.5	9,106	+1,250
July 31	873.40	8,107	-999
Aug. 31	873.85	8,212	+105
Sept.30	874.10	8,271	+59
Water year 1963	-	-	+749
Oct. 31, 1963	870.97	7,558	-713
Nov. 30	878.09	9,256	+1,700
Dec. 31	872.40	7,877	-1,380
Calendar year 1963	-	-	+157
Jan. 31, 1964	871.80	7,742	-135
Feb. 29	872.90	7,991	+249
Mar. 31	868.70	7,077	-914
Apr. 30	873.40	8,107	+1,030
May 31	875.20	8,534	+427
June 30	874.31	8,321	-213
July 31	874.10	8,271	-50
Aug. 31	874.50	8,366	+95
Sept.30	873.37	8,100	-266
Water year 1964	-	-	-171
Oct. 31	872.72	7,950	-150
Nov. 30	877.50	9,106	+1,160
Dec. 31	872.73	7,952	-1,150
Calendar year 1964	-	-	+75
Jan. 31, 1965	870.66	7,491	-461
Feb. 28	873.85	8,212	+721
Mar. 31	874.58	8,385	+173
Apr. 30	872.04	7,795	-590
May 31	872.69	7,943	+148
June 30	872.54	7,909	-34
July 31	827.15	2,074	-5,840
Aug. 31	873.55	8,142	+6,070
Sept.30	874.23	8,302	+160
Water year 1965	-	-	+202

† Elevation at 2400 hours.

a Elevation is city of Seattle's powerhouse dial reading.

b Elevation furnished by city of Seattle.

12-1780. Skagit River at Newhalem, Wash.

Location.--Lat 48°40'20", long 121°14'45", in SE¼ sec.21, T.37 N., R.12 E., on right bank a quarter of a mile upstream from Newhalem Creek, half a mile downstream from city of Seattle powerplant at Newhalem, 11 miles upstream from Bacon Creek, and 13 miles northeast of Marblemount.

Drainage area.--1,175 sq mi (revised), of which 400 sq mi is in Canada.

Records available.--October 1908 to May 1914 and October 1920 to September 1965 in reports of Geological Survey. October 1908 to September 1953 (monthly discharge only) in State Water-Supply Bulletin 6. Published as "near Marblemount" 1908-14, 1920-31.

Gage.--Digital water-stage recorder. Datum of gage is 401.5 ft above mean sea level (river-profile survey). Prior to May 24, 1914, staff gages at site half a mile upstream at datum 91 ft higher. Nov. 15, 1920, to June 4, 1923, staff gage at site about 500 ft upstream at same datum. June 5, 1923, to Nov. 15, 1963, graphic water-stage recorder at present site and datum.

Average discharge.--57 years (1908-65), 4,445 cfs (3,218,000 acre-ft per year), adjusted for storage in Diablo Reservoir since October 1929, Ross Reservoir since March 1940, and Gorge Reservoir since June 1960.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 7, 1961	24,500	89.50	Dec. 17, 1960	869	80.37
1962	July 9, 1962	15,300	87.40	Feb. 15, 1962	925	80.45
1963	Dec. 16, 1962	20,000	88.60	Aug. 17, 21, 1963	901	80.43
1964	July 9, 1964	28,900	90.35	Sept.24, 1964	901	80.43
1965	July 8, 1965	17,500	88.05	Jan. 5, 1965	632	80.02

Annual minimum daily discharge, water years 1961-65

Water year	Date	Discharge	Water year	Date	Discharge
1961	Aug. 30, 1961	1,250	1964	Sept.19, 1964	1,640
1962	Sept. 8, 9, 1962	1,070	1965	Sept. 5, 1965	1,110
1963	Oct. 28, 1962	1,350			

1908-14, 1920-65: Maximum discharge, 63,500 cfs Nov. 29, 1909 (gage height, 22.0 ft, from floodmark, site and datum then in use); minimum, 54 cfs Nov. 1, 1943 (gage height, 78.15 ft); minimum daily, 136 cfs Aug. 24, 1930.

Flood in 1815 reached a stage of approximately 20.5 ft (discharge, about 115,000 cfs). Records for other floods, prior to establishment of station, are given in WSP 1527.

Remarks.--Records excellent. Water is diverted 3 miles above station and returned to river at Seattle powerplant just above station. Flow regulated for power at Gorge Dam since August 1924 and by Diablo, Ross, and Gorge Reservoirs (see elsewhere in this report), having a combined capacity of 1,280,000 acre-ft.

Revisions (water years).--WSP 512: 1909-14. WSP 1012: 1929. WSP 1316: 1914(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,240	5,000	4,060	3,060	4,790	4,620	3,400	5,450	14,900	4,380	4,690	6,160
2	2,160	4,680	4,730	2,820	4,620	4,140	2,600	6,480	20,500	8,320	4,260	3,730
3	4,160	4,800	3,840	5,460	4,530	4,280	4,170	5,840	20,500	8,320	4,080	2,440
4	4,030	4,180	4,040	5,370	2,770	2,220	3,890	7,340	20,500	4,740	3,960	3,660
5	3,860	3,180	5,060	5,580	2,600	2,160	4,340	4,760	19,500	9,140	3,510	4,840
6	3,990	2,840	5,140	5,800	5,360	4,180	4,340	3,340	20,400	9,150	2,730	4,160
7	4,590	4,740	5,200	2,910	5,400	3,800	4,420	2,960	19,300	6,420	4,990	3,760
8	3,460	4,040	5,130	3,660	4,200	3,860	3,020	4,730	16,300	6,040	4,360	3,800
9	2,980	4,500	5,080	5,200	4,460	3,820	2,240	6,100	12,200	6,540	4,420	2,490
10	4,090	4,720	3,860	4,860	4,230	3,980	4,380	5,560	6,680	5,980	3,950	2,170
11	4,420	4,520	3,580	5,160	3,540	3,140	4,740	5,860	5,860	8,150	3,700	3,880
12	4,000	3,390	5,130	5,080	2,190	2,080	4,360	5,140	7,100	8,980	2,780	3,330
13	4,170	2,680	5,440	4,920	4,420	4,180	4,280	4,650	11,400	8,300	2,270	3,500
14	4,030	4,460	5,830	3,900	4,240	3,340	4,220	3,170	7,370	8,140	3,960	3,120
15	2,580	4,580	6,040	5,760	4,080	2,920	2,610	5,060	9,120	8,880	3,800	2,560
16	2,350	4,460	5,040	6,980	4,410	3,720	2,300	5,280	14,700	7,670	4,500	1,840
17	4,000	4,850	4,730	6,680	3,800	3,320	4,580	5,470	19,800	6,350	3,960	2,240
18	4,420	4,790	4,320	4,540	2,870	1,930	4,680	5,320	21,900	4,500	4,290	4,130
19	4,680	3,980	5,340	4,180	2,190	1,600	4,610	5,300	19,800	6,680	2,860	3,440
20	5,170	3,840	5,070	3,940	4,420	3,980	4,680	5,450	14,800	6,760	2,980	3,840
21	1,940	4,760	4,450	3,250	5,350	4,470	4,800	4,520	13,200	7,260	4,840	3,440
22	1,680	4,820	4,760	2,690	3,220	4,500	4,330	5,210	11,300	7,120	3,770	2,400
23	2,190	4,810	2,960	5,220	4,620	3,890	3,650	6,570	10,300	6,940	4,060	1,640
24	5,560	4,020	1,600	4,260	4,700	3,730	4,650	5,600	13,600	5,510	3,920	1,600
25	5,370	3,420	2,400	4,720	3,200	2,140	5,390	5,160	11,300	3,990	3,580	2,220
26	5,100	3,300	2,820	4,580	2,960	1,680	5,410	6,480	11,000	4,120	2,740	2,190
27	4,940	2,750	4,970	4,590	4,980	3,320	5,500	7,000	8,980	5,300	1,960	1,640
28	4,840	4,710	5,020	3,920	5,080	3,320	5,080	3,500	7,180	4,410	3,010	1,980
29	3,280	4,600	4,890	3,480	------	3,620	3,760	4,770	6,800	3,170	1,620	1,800
30	3,030	4,260	5,060	4,940	------	3,640	3,640	10,900	5,400	2,020	1,250	1,980
31	4,710	------	3,500	4,660	------	3,470	------	13,700	------	4,780	2,910	------
TOTAL	118,020	125,680	139,090	142,170	113,230	105,050	124,070	176,650	401,690	198,060	109,710	90,000
MEAN	3,807	4,189	4,487	4,586	4,044	3,389	4,136	5,698	13,390	6,389	3,539	3,000
MAX	5,560	5,000	6,040	6,980	5,400	4,620	5,500	13,700	21,900	9,150	4,990	6,160
MIN	1,680	2,680	1,600	2,650	2,190	1,600	2,240	2,960	5,400	2,020	1,250	1,600
AC-FT	234,100	249,300	275,900	282,000	224,600	208,400	246,100	350,400	796,700	392,800	217,600	178,500
(†)	-91,580	-95,910	-143,900	-10,820	+24,520	-34,190	-21,910	+280,500	+180,600	+722	+2,910	-61,340
MEAN‡	2,318	2,578	2,147	4,411	4,485	2,833	3,768	10,260	16,420	6,400	3,586	1,970
AC-FT‡	142,500	153,400	132,000	271,200	249,100	174,200	224,200	630,900	977,300	393,500	220,500	117,200

CAL YR 1960: TOTAL 1,624,680 MEAN 4,439 MAX 9,420 MIN 1,150 AC-FT 3,223,000 MEAN‡ 4,266 AC-FT‡ 3,097,000
WAT YR 1961: TOTAL 1,843,420 MEAN 5,050 MAX 21,900 MIN 1,250 AC-FT 3,656,000 MEAN‡ 5,091 AC-FT‡ 3,686,000

† Change in contents, in acre-feet, in Ross, Diablo, and Gorge Reservoirs.
‡ Adjusted for change in reservoir contents.

12-1780. Skagit River at Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,220	3,880	4,730	3,150	4,610	6,510	2,490	3,240	3,060	2,710	3,460	1,960
2	2,810	4,450	3,620	5,330	5,530	6,530	2,920	2,650	3,910	4,410	4,720	1,680
3	2,450	3,980	3,580	6,930	4,060	6,120	4,070	3,040	3,060	5,510	5,360	2,060
4	2,210	3,070	4,910	6,340	4,810	4,380	3,940	2,520	3,630	3,440	5,570	2,820
5	3,010	2,770	4,960	5,450	5,250	5,090	3,360	1,940	3,150	4,830	3,200	1,980
6	2,970	4,240	4,950	4,480	5,110	4,500	3,680	2,280	3,070	4,220	6,480	2,040
7	2,160	4,160	4,850	3,790	5,320	5,450	2,750	3,020	3,020	3,830	4,170	1,720
8	1,770	3,950	4,950	5,440	5,120	5,220	2,830	2,870	2,900	4,050	5,980	1,070
9	3,920	4,390	4,000	5,090	5,290	5,340	4,100	3,130	3,250	8,040	4,340	1,070
10	4,040	4,660	4,130	5,060	3,700	4,210	2,550	2,800	2,260	9,710	3,940	1,630
11	4,320	4,070	5,300	5,060	2,540	3,670	3,560	2,900	3,060	5,660	2,720	2,160
12	5,010	3,180	5,580	5,090	4,950	5,600	3,000	2,460	2,880	5,160	2,130	2,420
13	3,840	4,360	5,740	3,770	5,070	5,120	2,530	2,520	2,740	6,600	3,890	2,390
14	2,520	4,680	5,290	3,500	5,080	5,660	2,470	2,460	2,570	7,010	3,570	2,690
15	2,860	4,780	5,240	5,090	4,900	3,810	2,430	3,350	2,590	5,900	3,820	2,130
16	4,370	4,740	4,220	5,040	5,050	5,190	3,200	2,530	2,690	4,200	3,690	2,000
17	3,620	4,450	3,710	5,040	3,630	3,430	3,030	2,540	2,290	3,900	2,620	2,030
18	3,710	3,810	5,120	5,110	2,620	3,300	3,090	2,540	2,840	3,570	2,420	1,910
19	3,650	3,170	5,420	5,350	4,770	5,330	3,420	2,170	2,780	3,520	1,930	2,270
20	3,720	4,950	4,670	5,160	5,480	5,190	3,200	2,460	3,150	3,510	4,020	2,130
21	2,890	5,430	5,230	4,210	5,770	5,410	2,710	2,670	3,170	3,100	4,020	1,880
22	2,980	4,690	4,300	5,310	3,730	4,060	2,810	2,730	3,120	3,940	4,590	2,050
23	4,050	2,640	2,890	5,470	4,910	1,550	3,690	3,320	2,750	7,050	3,250	1,840
24	3,430	3,790	3,100	5,320	3,670	1,540	4,370	3,570	2,090	5,550	3,230	2,730
25	3,430	3,180	3,010	5,040	3,240	1,450	4,040	3,050	4,890	6,210	2,600	2,590
26	4,060	2,860	4,540	5,120	5,680	1,300	3,420	3,780	5,020	8,720	2,320	1,990
27	3,570	4,670	4,380	3,810	5,630	1,130	3,170	2,920	4,770	5,680	3,380	2,260
28	2,980	4,630	4,560	2,910	6,430	1,180	3,500	3,130	3,530	6,370	3,280	3,410
29	2,890	4,510	4,610	4,950	------	1,290	2,610	3,620	3,130	5,140	3,000	2,550
30	3,850	4,740	3,960	4,310	------	1,870	2,830	2,680	2,830	5,890	2,530	2,090
31	4,030	------	3,170	4,070	------	2,050	------	3,020	------	5,160	2,860	------
TOTAL	102,340	122,880	138,720	149,790	131,950	122,480	95,770	87,910	94,200	162,590	113,090	63,550
MEAN	3,301	4,096	4,475	4,832	4,713	3,951	3,192	2,836	3,140	5,245	3,648	2,118
MAX	5,010	5,430	5,740	6,930	6,430	6,530	4,370	3,780	5,020	9,710	6,480	3,410
MIN	1,220	2,640	2,890	2,910	2,540	1,130	2,430	1,940	2,090	2,710	1,930	1,070
AC-FT	203,000	243,700	275,100	297,100	261,700	242,900	190,000	174,400	186,800	322,500	224,300	126,000
(†)	-47,630	-128,300	-151,900	-54,140	-63,060	-158,700	+65,930	+182,800	+385,800	+24,300	-6,690	+2,030
MEAN‡	2,527	1,939	2,004	3,952	3,576	1,369	4,301	5,809	9,623	5,640	3,539	2,151
AC-FT‡	155,400	115,400	123,200	243,000	198,600	84,200	255,900	357,200	572,600	346,800	217,600	128,000

CAL YR 1961: TOTAL 1,824,570 MEAN 4,999 MAX 21,900 MIN 1,220 AC-FT 3,619,000 MEAN‡ 5,044 AC-FT‡ 3,652,000
WAT YR 1962: TOTAL 1,385,270 MEAN 3,795 MAX 9,710 MIN 1,070 AC-FT 2,748,000 MEAN‡ 3,865 AC-FT‡ 2,798,000

† Change in contents, in acre-feet, in Ross, Diablo, and Gorge Reservoirs.
‡ Adjusted for change in reservoir contents.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,620	3,990	3,620	3,660	4,740	4,010	3,860	4,580	2,920	6,160	3,840	2,000
2	3,450	4,020	3,620	4,740	3,710	3,090	4,080	4,500	3,060	5,900	3,600	1,600
3	3,630	2,720	5,140	8,540	3,900	2,300	4,480	3,920	4,580	7,260	3,000	3,680
4	3,900	3,440	5,340	7,340	5,560	4,300	3,900	3,220	5,060	7,400	1,880	4,520
5	3,780	4,620	4,920	4,800	6,710	3,860	4,070	2,900	6,320	7,000	4,580	3,910
6	2,880	3,750	4,940	4,340	5,070	3,640	3,040	4,360	6,080	4,200	4,610	3,290
7	2,770	4,080	5,270	5,160	4,420	3,590	2,140	3,430	9,030	6,290	4,660	2,400
8	4,010	4,380	4,480	6,070	3,920	3,800	4,230	3,770	9,610	6,090	3,680	1,900
9	4,560	4,300	3,080	5,560	3,030	2,720	3,700	3,860	9,060	6,460	4,740	3,890
10	3,960	3,730	5,190	6,120	2,430	2,460	3,520	3,840	8,780	5,800	3,020	3,670
11	3,620	3,300	5,160	6,420	4,320	4,260	3,500	3,420	6,970	5,240	2,580	3,150
12	3,840	4,340	5,670	5,460	4,260	3,590	3,350	2,640	9,700	4,730	4,780	3,260
13	1,970	4,760	4,750	4,000	5,080	4,220	2,150	3,580	11,500	4,460	4,940	2,400
14	2,030	4,560	5,330	5,680	5,060	3,940	2,290	3,500	5,140	6,550	5,940	2,140
15	3,760	4,420	5,510	5,080	5,180	4,240	3,940	4,330	3,200	6,400	3,760	2,710
16	3,860	4,460	12,900	4,900	3,000	3,730	4,080	5,000	3,950	4,900	3,840	3,590
17	3,970	3,660	9,040	4,340	3,370	1,960	4,480	4,400	12,800	4,380	2,950	3,480
18	3,920	3,300	6,280	4,200	4,460	4,660	4,100	2,480	13,000	4,520	2,250	3,420
19	3,470	6,300	6,170	4,370	4,280	4,300	3,660	2,380	11,900	5,780	3,930	3,420
20	2,810	9,320	5,440	3,520	3,150	4,020	3,180	4,640	7,960	3,360	4,580	3,000
21	2,220	5,480	5,340	5,100	3,200	4,170	3,130	4,900	7,800	4,220	3,920	2,440
22	4,080	3,560	4,810	4,920	3,290	4,010	3,340	4,940	7,720	5,230	2,940	2,710
23	3,900	4,530	3,940	4,340	2,800	2,820	4,360	5,260	5,970	5,860	3,310	3,810
24	3,380	3,510	5,450	5,510	2,530	2,440	4,020	5,000	6,760	4,900	1,930	3,730
25	3,240	3,760	3,300	4,340	4,280	4,010	4,060	3,160	6,770	4,000	1,540	3,630
26	3,450	5,920	5,450	4,080	4,120	4,130	3,530	2,540	6,480	3,900	3,260	3,840
27	1,830	9,690	5,490	3,500	4,300	4,180	3,150	3,940	4,740	2,420	3,490	3,130
28	1,350	12,200	5,180	5,350	3,820	4,780	1,520	4,040	3,960	3,360	3,270	2,350
29	3,660	12,800	4,030	5,040	------	4,440	3,480	3,980	2,450	4,820	1,630	2,120
30	3,500	7,040	3,380	5,880	------	3,390	3,620	3,170	2,980	4,040	3,220	3,760
31	3,560	------	4,440	5,690	------	2,660	------	3,520	------	3,000	2,320	------
TOTAL	102,980	155,940	162,660	158,050	113,990	113,720	105,960	119,200	206,250	158,630	107,990	92,950
MEAN	3,322	5,198	5,247	5,098	4,071	3,668	3,532	3,845	6,875	5,117	3,484	3,098
MAX	4,560	12,800	12,900	8,540	6,710	4,780	4,480	5,260	13,000	7,400	5,940	4,520
MIN	1,350	2,720	3,080	3,500	2,430	1,960	1,520	2,380	2,450	2,420	1,540	1,600
AC-FT	204,300	309,300	322,600	313,500	226,100	225,600	210,200	236,400	409,100	314,600	214,200	184,400
(†)	-70,810	-41,980	-6,760	-138,100	+79,230	-70,340	-52,470	+219,600	+93,740	-3,110	-7,100	-21,620
MEAN‡	2,171	4,492	5,136	2,853	5,497	2,526	2,650	7,416	8,450	5,066	3,368	2,736
AC-FT‡	133,500	267,300	315,800	175,400	305,300	155,300	157,700	456,000	502,800	311,500	207,100	162,800

CAL YR 1962: TOTAL 1,442,910 MEAN 3,953 MAX 12,900 MIN 1,070 AC-FT 2,862,000 MEAN‡ 4,311 AC-FT‡ 3,121,000
WAT YR 1963: TOTAL 1,598,320 MEAN 4,379 MAX 13,000 MIN 1,350 AC-FT 3,170,000 MEAN‡ 4,351 AC-FT‡ 3,150,000

† Change in contents, in acre-feet, in Ross, Diablo, and Gorge Reservoirs.
‡ Adjusted for change in reservoir contents.

12-1780. Skagit River at Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,440	4,360	4,290	4,750	3,560	4,120	4,760	5,780	8,500	5,260	5,290	4,050
2	3,520	3,760	5,580	5,530	3,430	5,360	4,700	4,070	8,750	5,990	5,630	3,600
3	2,190	3,010	5,590	5,580	5,040	5,740	4,330	3,160	5,310	3,830	4,360	3,530
4	3,060	4,020	5,680	4,080	4,880	5,770	3,720	7,400	5,260	8,960	8,790	3,150
5	2,640	3,880	5,520	4,000	5,230	6,050	3,600	8,440	5,750	16,900	4,800	2,250
6	1,830	4,230	5,430	5,230	5,240	5,770	4,320	6,340	6,130	14,400	5,150	2,220
7	3,440	4,500	4,260	5,560	5,620	5,040	4,520	6,700	4,370	11,300	4,180	2,840
8	3,150	4,180	3,790	5,080	4,290	4,380	5,180	5,290	9,340	21,300	5,340	3,800
9	3,180	2,970	5,410	5,300	3,320	5,420	5,530	4,190	8,490	18,000	5,670	3,470
10	2,720	2,390	5,280	5,440	5,390	5,740	5,350	3,660	7,860	13,500	4,990	3,240
11	2,900	4,100	5,680	4,100	5,120	6,040	4,100	5,400	9,360	11,400	4,880	3,440
12	2,260	4,850	5,470	2,890	5,000	6,030	5,200	6,500	7,830	14,200	6,560	2,220
13	2,030	4,840	5,750	5,250	5,220	5,940	5,020	6,680	4,910	17,100	4,730	2,210
14	3,360	5,020	4,540	5,150	4,610	4,770	5,270	5,470	3,890	16,100	3,420	3,480
15	2,960	4,980	3,820	5,170	3,750	3,660	5,430	5,700	7,940	12,700	3,410	3,450
16	3,320	4,630	4,870	4,930	3,670	5,460	5,110	4,060	9,470	10,300	3,780	3,500
17	3,580	4,030	5,120	5,040	5,210	5,370	4,970	3,220	10,000	10,100	4,140	3,590
18	4,000	6,330	5,150	4,670	5,330	5,050	3,390	6,160	11,800	8,950	4,260	3,720
19	3,360	6,590	5,310	4,030	5,290	4,820	2,210	5,790	10,900	6,640	3,940	1,640
20	2,660	6,540	4,980	5,380	5,440	4,460	4,620	7,330	7,570	7,870	4,070	2,050
21	5,340	5,720	4,120	5,140	5,240	3,230	5,120	7,750	5,680	8,710	3,810	3,070
22	7,080	5,730	4,090	5,120	3,880	2,930	5,670	5,140	6,910	8,230	2,770	2,860
23	5,680	4,150	5,290	5,490	3,790	4,480	4,990	3,260	9,530	6,320	4,050	4,190
24	5,330	3,160	5,280	4,940	5,670	4,570	3,790	3,630	6,600	6,380	4,660	4,230
25	6,980	5,380	3,780	3,810	5,300	5,270	2,910	5,110	6,050	6,780	3,810	4,130
26	5,900	8,990	4,870	3,650	5,640	5,060	2,760	4,030	8,450	5,950	3,900	1,700
27	4,290	16,900	5,000	4,860	5,970	4,500	5,200	5,610	6,290	9,470	3,630	1,750
28	6,180	11,100	3,660	4,710	5,740	3,190	4,580	5,730	4,780	6,640	4,050	3,860
29	6,100	10,300	3,530	4,520	4,930	2,770	4,840	5,690	8,160	7,370	4,120	3,240
30	5,720	9,270	4,900	4,820	------	4,100	4,970	4,270	5,390	8,410	3,690	5,360
31	3,680	------	5,290	4,550	------	5,050	------	4,640	------	5,070	3,630	------
TOTAL	121,880	169,910	151,330	148,770	140,800	150,140	136,160	166,200	221,270	314,130	139,710	95,920
MEAN	3,932	5,664	4,882	4,799	4,855	4,843	4,539	5,361	7,376	10,130	4,507	3,197
MAX	7,080	16,900	5,750	5,580	5,970	6,050	5,670	8,440	11,800	21,300	8,790	5,360
MIN	1,830	2,390	3,530	2,890	3,320	2,770	2,210	3,160	3,890	3,830	2,770	1,640
AC-FT	241,700	337,000	300,200	295,100	279,300	297,800	270,100	329,700	438,900	623,100	277,100	190,300
(†)	-19,700	-73,580	-53,940	-69,280	-170,400	-188,400	-85,240	+110,500	+522,200	+58,420	-205	-20,340
MEAN‡	3,610	4,427	4,006	3,672	1,893	1,779	3,107	7,159	16,150	11,080	4,503	2,857
AC-FT‡	222,000	263,400	246,300	225,800	108,900	109,400	184,900	440,200	961,100	681,500	276,900	170,000

CAL YR 1963: TOTAL 1,619,860 MEAN 4,438 MAX 16,900 MIN 1,520 AC-FT 3,213,000 MEAN‡ 4,373 AC-FT‡ 3,166,000
WAT YR 1964: TOTAL 1,956,220 MEAN 5,345 MAX 21,300 MIN 1,640 AC-FT 3,880,000 MEAN‡ 5,358 AC-FT‡ 3,890,000

† Change in contents, in acre-feet, in Ross, Diablo, and Gorge Reservoirs.
‡ Adjusted for change in reservoir contents.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,610	3,140	5,860	2,480	5,100	4,400	4,970	3,270	3,440	8,150	3,450	2,770
2	4,440	4,470	5,550	2,460	5,120	4,260	4,920	2,900	3,970	11,100	4,890	2,690
3	3,050	4,330	5,200	2,490	4,840	3,740	3,860	4,880	3,770	10,200	5,270	2,150
4	2,390	4,600	4,980	4,750	4,820	3,770	2,220	4,180	4,400	8,940	4,790	1,120
5	3,930	4,770	4,070	4,220	5,280	3,630	4,840	4,290	3,090	12,800	3,390	1,110
6	3,830	4,940	3,260	4,290	3,690	2,680	4,940	4,220	3,320	9,510	3,940	1,170
7	3,620	3,610	4,620	4,850	2,560	2,010	3,930	3,900	5,180	7,540	3,250	2,490
8	4,450	3,150	5,000	4,820	3,970	4,030	3,700	2,340	5,390	11,800	4,340	2,310
9	3,980	4,940	4,970	3,960	4,000	3,700	3,870	2,490	5,800	7,700	5,120	2,180
10	7,000	5,020	5,170	3,200	4,020	3,610	2,990	4,100	6,290	3,980	4,980	2,050
11	4,140	4,700	4,960	5,050	4,210	3,620	2,380	3,760	7,560	5,210	4,660	1,660
12	5,050	4,850	4,640	4,860	3,760	3,570	4,680	4,070	7,130	7,650	4,380	1,110
13	3,820	4,820	3,970	4,940	3,270	2,640	5,200	4,170	6,040	5,430	5,840	2,530
14	3,390	3,740	5,040	4,390	2,400	1,850	5,520	4,490	6,680	4,650	4,350	2,430
15	4,660	3,270	5,640	4,690	4,210	4,230	4,910	4,190	6,020	7,620	3,820	2,850
16	4,180	4,540	8,240	4,220	4,130	4,540	4,920	3,160	5,960	6,120	4,590	2,710
17	3,760	4,810	7,560	3,590	3,970	4,630	3,630	4,490	5,260	4,810	3,750	2,140
18	3,500	5,230	6,660	4,780	3,680	4,590	2,780	4,390	6,100	5,550	3,400	1,670
19	4,830	5,020	6,060	4,880	4,100	4,470	4,900	4,660	5,640	4,850	3,890	1,280
20	4,060	5,270	5,280	4,650	2,980	3,030	4,750	3,850	10,300	4,390	4,370	2,160
21	3,730	4,320	5,540	4,960	2,290	2,280	4,640	4,000	11,300	4,380	3,540	1,610
22	3,910	3,490	5,620	4,860	3,160	4,220	4,190	2,670	9,240	3,820	4,480	2,150
23	3,960	4,510	5,570	4,210	4,620	4,360	3,830	2,610	7,630	4,030	5,380	1,840
24	2,950	4,980	5,120	3,280	4,320	4,690	2,570	3,890	8,200	3,610	4,530	1,700
25	2,980	5,030	2,820	5,300	4,050	5,130	2,000	3,980	6,840	5,920	3,900	1,200
26	4,550	3,530	3,440	5,180	4,340	5,300	4,310	4,190	6,920	5,240	3,490	1,740
27	4,450	4,460	2,980	4,810	3,760	4,190	4,020	4,620	5,520	6,410	3,510	2,450
28	3,800	3,450	4,960	4,760	2,830	3,120	4,640	4,730	6,740	5,660	2,100	2,240
29	4,030	3,490	4,880	4,960	------	4,440	4,230	3,220	5,330	5,140	1,310	1,510
30	3,980	5,760	4,730	4,700	------	4,330	4,050	2,660	3,930	4,430	2,200	1,530
31	3,030	------	4,280	3,230	------	4,220	------	2,600	------	4,130	1,680	------
TOTAL	124,060	132,240	156,670	133,820	109,480	119,280	122,390	116,970	182,990	200,770	122,590	58,550
MEAN	4,002	4,408	5,054	4,317	3,910	3,848	4,080	3,773	6,100	6,476	3,955	1,952
MAX	7,000	5,760	8,240	5,300	5,280	5,300	5,520	4,880	11,300	12,800	5,840	2,850
MIN	2,390	3,140	2,820	2,460	2,290	1,850	2,000	2,340	3,090	3,610	1,310	1,110
AC-FT	246,100	262,300	310,800	265,400	217,200	236,600	242,800	232,000	363,000	398,200	243,200	116,100
(†)	-45,590	-129,900	-164,900	-133,800	-29,380	-67,070	+21,510	+284,800	+281,100	-660	+650	-14,280
MEAN‡	3,261	2,225	2,373	2,140	3,382	2,757	4,442	8,405	10,820	6,465	3,965	1,711
AC-FT‡	200,500	132,400	145,900	131,600	187,800	169,500	264,300	516,800	644,100	397,500	243,800	101,800

CAL YR 1964: TOTAL 1,926,070 MEAN 5,262 MAX 21,300 MIN 1,640 AC-FT 3,820,000 MEAN‡ 5,011 AC-FT‡ 3,638,000
WAT YR 1965: TOTAL 1,579,810 MEAN 4,328 MAX 12,800 MIN 1,110 AC-FT 3,134,000 MEAN‡ 4,333 AC-FT‡ 3,137,000

† Change in contents, in acre-feet, in Ross, Diablo, and Gorge Reservoirs.
‡ Adjusted for change in reservoir contents.

12-1781. Newhalem Creek near Newhalem, Wash.

Location.--Lat 48°39'30", long 121°14'20", in SE¼ sec.28, T.37 N., R.12 E., on left bank 1½ miles downstream from East Fork, 1½ miles upstream from mouth, and 1½ miles south of Newhalem.

Drainage area.--27.9 sq mi.

Records available.--January 1961 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,080 ft (by barometer).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (750 cfs), January 1961 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 21, 1961	0900	910	4.45	Feb. 3, 1962	0800	776	4.22	(b)	-	1,390	4.99
June 2, 1961	2230	940	4.50					Jan. 1, 1964	1130	992	4.54
June 17, 1961	-	* 975	4.55	Nov. 20, 1962a	-	* 5,600	7.28	June 1, 1964	2330	784	4.22
Aug. 31, 1961	0800	770	4.21	Dec. 15, 1962	1030	841	4.33	July 12, 1964	1930	778	4.23
Sept. 1, 1961	1830	940	4.50	Feb. 4, 1963	2400	1,560	5.16	Sept.30, 1964	1200	* 1,700	5.30
Jan. 3, 1962	0300	* 1,230	4.92	Oct. 22, 1963	0100	1,620	5.17	Oct. 2, 1964	1030	* 855	4.35

a About.
b Nov. 26 or 27, 1963.

Annual minimum discharge, January 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	30	-	1964	Oct. 12,1963,Mar.10, 11, 13, 14, 1964	48	c 1.62
1962	(a)	b 42	-				
1963	Feb. 1, 1963	20	1.07	1965	Jan. 12, 13, 1965	39	1.53

a Oct. 4, Dec. 18, 1961, Mar. 12, 13, 1962.
b Minimum daily.
c Occurred Oct. 12, 1963.

1961-65: Maximum discharge, 5,600 cfs about Nov. 20, 1962 (gage height, 7.28 ft, from floodmarks), from rating curve extended above 750 cfs on basis of slope-area measurement of peak flow; minimum, 20 cfs Feb. 1, 1963 (gage height, 1.07 ft).

Remarks.--Records excellent except those for period of no gage-height record, which are good. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JANUARY TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1				-	186	170	162	262	695	230	134	482
2				-	232	134	206	259	804	250	130	248
3				-	177	116	354	200	820	270	134	150
4				-	158	105	228	167	792	350	137	128
5				-	367	100	179	151	700	450	139	135
6				-	635	94	153	140	760	350	116	104
7				-	391	88	139	125	583	300	105	87
8				-	264	85	134	130	419	270	102	76
9				-	268	84	126	140	440	320	99	69
10				-	277	82	119	160	341	370	93	65
11				-	231	81	116	150	391	405	91	60
12				-	198	80	122	145	419	440	91	55
13				-	174	90	121	150	450	433	100	50
14				-	155	137	109	160	500	384	110	48
15				-	150	215	102	200	600	329	130	47
16				-	137	204	109	250	700	270	150	46
17				-	124	167	155	400	826	217	100	50
18				-	112	155	128	450	782	221	95	54
19				-	114	158	114	520	700	230	90	52
20				-	220	174	104	580	550	254	90	52
21				-	705	151	98	500	450	257	87	49
22				-	360	137	95	450	380	237	81	46
23				-	235	136	96	550	450	217	78	37
24				-	192	136	99	450	500	175	73	34
25				-	163	130	98	400	550	162	66	37
26				111	140	128	96	880	450	170	61	32
27				100	128	119	96	480	350	167	57	30
28				94	118	114	107	351	300	151	55	150
29				93	------	114	204	384	250	130	57	80
30				143	------	115	252	468	200	124	58	60
31		------		184	------	130	------	488	------	130	263	------
TOTAL				-	6,611	3,929	4,221	10,140	16,152	8,263	3,172	2,613
MEAN				-	236	127	141	327	538	267	102	87.1
MAX				-	705	215	354	880	826	450	263	482
MIN				-	112	80	95	125	200	124	55	30
CFSM				-	8.46	4.54	5.04	11.7	19.3	9.55	3.67	3.12
IN.				-	8.81	5.24	5.63	13.5	21.5	11.0	4.23	3.48
AC-FT				-	13,110	7,790	8,370	20,110	32,040	16,390	6,290	5,180

12-1781. Newhalem Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	48	128	132	221	147	51	79	130	206	308	221	84
2	46	102	111	359	336	51	83	136	360	223	186	81
3	44	96	99	910	650	50	82	151	305	208	210	74
4	42	88	121	448	448	45	90	134	210	198	300	69
5	200	81	125	311	272	48	94	116	175	235	348	67
6	150	79	99	249	204	48	219	107	168	221	249	67
7	110	80	84	432	179	48	249	99	228	240	232	65
8	75	87	74	565	167	49	163	102	380	351	230	59
9	400	207	66	344	151	47	131	119	357	377	183	55
10	250	516	58	242	140	45	114	139	277	354	155	135
11	160	332	56	192	131	44	99	134	252	341	148	163
12	600	200	54	163	122	42	98	122	280	317	151	109
13	700	162	51	139	112	42	119	121	308	267	137	162
14	400	145	48	128	111	43	183	121	398	228	121	258
15	200	121	46	115	102	45	237	119	529	230	118	148
16	220	103	45	105	95	45	168	128	524	226	125	109
17	150	94	44	95	90	46	151	148	440	247	132	90
18	110	87	42	85	88	46	183	147	388	179	218	82
19	90	80	50	78	83	46	226	137	402	165	177	79
20	80	71	80	74	74	47	186	140	412	190	165	76
21	75	67	84	74	72	46	158	148	398	235	175	75
22	65	66	70	70	71	45	150	168	398	302	139	72
23	80	61	128	69	64	46	179	202	460	348	118	67
24	90	57	264	66	60	48	215	232	534	364	109	63
25	80	53	170	72	58	51	184	283	565	344	105	60
26	148	51	125	89	55	56	148	412	460	332	130	59
27	128	54	103	118	54	60	145	433	314	317	114	64
28	108	84	174	105	53	54	136	440	308	302	131	146
29	95	115	416	100	------	52	121	348	398	249	103	204
30	91	114	377	114	------	57	112	244	405	232	90	143
31	95	------	242	126	------	66	------	219	------	230	87	------
TOTAL	5,130	3,581	3,638	6,258	4,189	1,509	4,502	5,679	10,839	8,360	5,107	2,985
MEAN	165	119	117	202	150	48.7	150	183	361	270	165	99.5
MAX	700	516	416	910	650	66	249	440	565	377	348	258
MIN	42	51	42	66	53	42	79	99	168	165	87	55
CFSM	5.93	4.28	4.21	7.24	5.36	1.74	5.38	6.57	12.9	9.67	5.90	3.57
IN.	6.84	4.77	4.85	8.34	5.58	2.01	6.00	7.57	14.4	11.1	6.81	3.98
AC-FT	10,180	7,100	7,220	12,410	8,310	2,990	8,930	11,260	21,500	16,580	10,130	5,920

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 61,777 MEAN 169 MAX 910 MIN 42 CFSM 6.07 IN 82.35 AC-FT 122,500

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TD SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	109	53	112	282	20	167	77	102	263	180	125	90
2	90	51	114	366	23	143	72	105	238	260	130	95
3	165	48	102	498	127	127	71	105	201	270	135	75
4	128	106	96	279	729	114	94	97	217	290	145	74
5	102	174	156	197	712	104	114	127	227	240	160	73
6	90	145	352	156	414	94	151	141	215	210	155	70
7	89	122	292	130	369	88	133	128	232	200	145	68
8	142	223	334	121	285	82	116	112	213	150	135	69
9	192	165	270	105	246	78	107	101	288	110	135	72
10	158	175	230	88	208	74	96	92	285	90	140	72
11	126	190	235	80	176	74	86	87	348	160	155	68
12	114	200	208	75	153	68	81	93	470	80	170	67
13	143	160	203	70	135	65	81	89	352	90	200	244
14	118	130	362	67	126	64	122	101	355	110	165	192
15	102	110	736	63	114	62	167	126	422	140	125	111
16	89	95	498	59	109	60	122	122	434	90	90	119
17	85	80	316	54	105	56	102	144	406	95	90	97
18	107	70	230	50	100	54	94	225	386	200	95	82
19	103	1,700	186	46	150	56	87	341	341	190	135	74
20	149	900	156	42	175	61	87	454	276	175	125	69
21	206	350	192	42	150	72	87	502	225	160	105	66
22	188	200	163	39	130	104	84	458	184	150	90	92
23	126	135	133	38	110	94	85	372	176	300	80	138
24	102	170	114	36	96	84	80	310	230	200	85	93
25	84	380	104	34	115	78	74	263	273	150	87	79
26	78	470	96	32	352	76	73	249	199	145	85	74
27	69	250	88	31	243	82	73	243	160	140	77	72
28	63	190	84	29	190	97	72	292	154	170	75	74
29	61	160	110	26	------	97	92	369	169	155	78	74
30	59	146	278	22	------	92	102	376	153	140	82	67
31	56	------	341	21	------	85	------	348	------	130	85	------
TOTAL	3,493	7,348	6,891	3,178	5,862	2,652	2,882	6,674	8,092	5,170	3,684	2,710
MEAN	113	245	222	103	209	85.5	96.1	215	270	167	119	90.3
MAX	206	1,700	736	498	729	167	167	502	470	300	200	244
MIN	56	48	84	21	20	54	71	87	153	80	75	66
CFSM	4.04	8.78	7.97	3.67	7.50	3.07	3.44	7.72	9.67	5.98	4.26	3.24
IN.	4.66	9.79	9.19	4.24	7.81	3.54	3.84	8.90	10.8	6.89	4.91	3.61
AC-FT	6,930	14,570	13,670	6,300	11,630	5,260	5,720	13,240	16,050	10,250	7,310	5,380

CAL YR 1962: TOTAL 67,160 MEAN 184 MAX 1,700 MIN 42 CFSM 6.60 IN 89.52 AC-FT 133,200
WAT YR 1963: TOTAL 58,636 MEAN 161 MAX 1,700 MIN 20 CFSM 5.76 IN 78.16 AC-FT 116,300

Note.--No gage-height record Nov. 9-29, July 1 to Aug. 24.

12-1781. Newhalem Creek near Newhalem, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	61	149	210	714	79	56	167	111	706	458	240	170
2	59	186	190	398	74	54	132	101	645	498	235	150
3	56	156	170	273	73	52	111	97	486	454	304	140
4	60	143	160	208	106	56	109	107	522	458	402	135
5	60	130	170	174	111	57	104	111	610	474	282	130
6	65	124	200	151	92	52	107	105	610	446	263	125
7	55	120	170	132	85	51	127	109	514	575	279	130
8	52	120	150	118	79	50	149	127	522	680	263	150
9	51	127	130	109	75	49	156	180	655	534	292	120
10	49	120	120	100	76	49	167	215	685	438	251	105
11	50	111	110	93	74	52	154	184	615	526	251	95
12	49	185	100	87	69	51	132	201	498	650	251	90
13	141	316	90	85	66	48	120	203	474	640	225	85
14	91	414	85	79	63	57	124	174	518	534	188	82
15	75	324	85	78	62	74	138	169	530	546	174	82
16	67	300	88	157	62	68	115	208	640	470	172	100
17	62	320	90	121	62	89	100	306	474	402	176	200
18	63	250	95	101	66	86	92	320	434	369	243	150
19	56	210	102	92	69	72	91	402	394	320	197	130
20	60	180	116	87	64	65	93	450	338	348	168	240
21	596	160	104	81	63	61	96	410	324	390	165	180
22	723	140	179	77	63	57	98	313	341	341	180	160
23	296	135	577	73	64	56	93	251	486	310	190	140
24	399	130	426	73	63	52	101	232	490	338	190	170
25	383	140	334	73	61	52	114	201	438	362	190	180
26	246	700	235	69	61	52	118	220	434	366	300	121
27	182	660	190	75	58	50	109	324	402	386	230	108
28	171	400	165	80	58	52	105	442	344	438	280	98
29	172	300	144	86	57	63	120	534	302	402	240	160
30	146	230	180	87	------	101	116	650	386	352	250	832
31	133	------	502	82	------	146	------	690	------	302	190	------
TOTAL	4,729	6,980	5,667	4,213	2,055	1,930	3,558	8,147	14,817	13,807	7,261	4,758
MEAN	153	233	183	136	70.9	62.3	119	263	494	445	234	159
MAX	723	700	577	714	111	146	167	690	706	680	402	832
MIN	49	111	85	69	57	48	91	97	302	302	165	82
CFSM	5.47	8.34	6.55	4.87	2.54	2.23	4.25	9.42	17.7	16.0	8.40	5.68
IN.	6.30	9.30	7.55	5.62	2.74	2.57	4.74	10.9	19.8	18.4	9.68	6.34
AC-FT	9,380	13,840	11,240	8,360	4,080	3,830	7,060	16,160	29,390	27,390	14,400	9,440

CAL YR 1963: TOTAL 58,280 MEAN 160 MAX 729 MIN 20 CFSM 5.72 IN 77.69 AC-FT 115,600
WAT YR 1964: TOTAL 77,922 MEAN 213 MAX 832 MIN 48 CFSM 7.63 IN 103.87 AC-FT 154,600

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	454	133	600	53	192	89	69	199	240	390	208	63
2	579	109	380	50	149	85	67	165	358	434	190	62
3	344	112	260	46	128	86	65	146	426	434	182	59
4	230	338	190	46	229	93	66	138	426	426	149	55
5	192	186	156	46	369	94	67	122	462	394	133	52
6	186	140	133	45	276	98	66	111	462	414	128	50
7	174	121	121	44	184	108	63	108	406	434	135	49
8	234	105	144	44	160	118	64	115	442	324	140	49
9	222	97	146	41	132	138	72	148	466	210	168	50
10	169	88	132	41	114	172	77	199	490	190	165	50
11	138	82	114	41	101	182	75	222	498	176	141	51
12	127	76	102	40	96	167	79	310	383	182	178	49
13	126	71	100	42	91	148	91	285	266	225	260	51
14	171	65	93	52	84	133	100	249	246	285	144	155
15	165	63	82	86	79	124	138	279	285	306	120	192
16	149	62	69	153	77	115	172	466	316	288	115	107
17	132	62	73	180	86	100	149	310	430	273	114	81
18	120	60	73	171	112	92	132	240	422	220	121	68
19	126	56	69	186	169	86	179	225	341	178	120	62
20	120	54	66	254	161	81	362	302	324	180	133	57
21	108	52	65	238	133	77	334	238	299	168	108	56
22	97	50	65	171	112	73	251	232	292	151	105	55
23	89	70	64	140	98	68	217	251	352	171	148	55
24	86	250	62	121	91	63	217	227	352	208	115	54
25	86	140	61	104	87	62	222	263	320	238	100	53
26	78	100	59	96	101	60	282	358	243	263	112	51
27	73	80	54	109	132	56	369	454	184	273	104	47
28	74	75	53	121	104	55	450	510	172	222	96	44
29	75	90	53	197	------	54	330	454	217	190	86	42
30	127	500	53	391	------	54	254	341	306	178	72	42
31	98	------	53	320	------	57	------	257	------	190	66	------
TOTAL	5,149	3,487	3,745	3,669	3,847	2,988	5,079	7,924	10,426	8,215	4,156	1,911
MEAN	166	116	121	118	137	96.4	169	256	348	265	134	63.7
MAX	579	500	600	391	369	182	450	510	498	434	260	192
MIN	73	50	53	40	77	54	63	108	172	151	66	42
CFSM	5.95	4.17	4.33	4.24	4.92	3.45	6.07	9.16	12.5	9.50	4.81	2.28
IN.	6.86	4.65	4.99	4.89	5.13	3.98	6.77	10.6	13.9	11.0	5.54	2.55
AC-FT	10,210	6,920	7,430	7,280	7,630	5,930	10,070	15,720	20,680	16,290	8,240	3,790

CAL YR 1964: TOTAL 72,927 MEAN 199 MAX 832 MIN 48 CFSM 7.14 IN 97.21 AC-FT 144,600
WAT YR 1965: TOTAL 60,596 MEAN 166 MAX 600 MIN 40 CFSM 5.95 IN 80.77 AC-FT 120,200

12-1790. Skagit River above Alma Creek, near Marblemount, Wash.

Location.--Lat 48°36'25", long 121°21'35", in SW¼NE¼ sec.15, T.36 N., R.11 E., on right bank three-quarters of a mile upstream from Alma Creek and 7 miles north of Marblemount.

Drainage area.--1,274 sq mi (revised), of which 400 sq mi is in Canada.

Records available.--October 1950 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 358.8 ft above mean sea level (river-profile survey). Prior to May 27, 1964, graphic water-stage recorder at same site and datum.

Average discharge.--15 years, 5,690 cfs (4,119,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 6, 1961	28,200	14.34	Sept.27, 1961	1,180	4.79
1962	July 9, 1962	15,900	11.11	Sept. 7, 1962	1,270	4.87
1963	Nov. 19, 1962	24,800	13.50	Sept.22, 1963	1,310	4.91
1964	July 9, 1964	31,200	15.24	Oct. 11, 1963	1,240	4.85
1965	July 8, 1965	18,600	11.88	Sept.30, 1965	1,180	4.79

1950-65: Maximum discharge, 31,200 cfs July 9, 1964 (gage height, 15.24 ft); minimum, 990 cfs Dec. 29, 1957 (gage height, 4.55 ft); minimum daily, 1,280 cfs Sept. 9, 1962.

Remarks.--Records excellent. All diversions returned to river above gage. Flow partly regulated by powerplants on upper Skagit River and by Ross, Diablo, and Gorge Reservoirs (see elsewhere in this report). Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,480	6,380	4,680	3,590	5,710	5,750	4,120	6,500	16,600	5,590	5,620	7,710
2	2,630	5,820	5,330	4,200	5,870	5,060	3,610	7,870	25,500	9,500	5,040	5,170
3	4,500	5,710	4,470	5,850	5,530	5,080	5,640	6,710	24,800	9,600	4,890	3,390
4	4,190	4,940	4,590	5,890	3,690	2,990	5,140	8,300	24,600	6,410	4,770	4,320
5	4,170	3,960	5,580	6,280	4,200	2,840	5,140	5,660	23,300	10,900	4,330	5,680
6	4,430	3,530	5,630	6,760	8,030	4,730	5,070	4,070	24,400	10,800	3,360	4,910
7	5,490	5,320	5,740	3,980	7,340	4,420	5,090	3,640	22,900	7,770	5,700	4,400
8	4,570	4,610	5,700	4,490	5,550	4,470	3,750	5,330	19,100	7,280	5,010	4,410
9	3,530	5,020	5,480	6,140	5,680	4,380	3,070	6,740	14,400	7,800	5,020	3,080
10	4,630	5,410	4,510	6,520	5,460	4,480	4,860	6,440	8,510	7,460	4,590	2,770
11	4,800	5,800	4,100	7,310	4,600	3,770	5,310	6,720	7,870	9,480	4,300	4,380
12	4,460	4,270	7,230	6,690	3,380	2,660	5,080	6,050	8,760	11,000	3,440	3,820
13	4,630	3,420	7,440	6,170	5,140	4,780	4,810	5,430	12,500	10,000	2,840	3,950
14	4,470	5,200	7,560	5,630	5,130	4,170	4,800	4,070	9,900	9,950	4,550	3,670
15	3,180	5,250	7,250	12,800	4,780	4,100	3,240	5,970	11,900	10,200	4,480	3,050
16	2,830	5,360	6,010	12,300	5,160	4,920	2,870	6,490	17,600	9,010	5,230	2,270
17	4,340	6,330	5,680	9,200	4,590	4,350	5,310	6,920	23,500	7,580	4,650	2,640
18	4,720	6,460	5,190	6,090	3,430	2,800	5,370	7,160	26,400	5,770	4,940	4,630
19	5,020	5,300	6,520	5,370	3,030	2,410	5,190	7,310	23,200	7,560	3,520	3,950
20	5,510	5,120	6,160	4,910	5,530	4,900	5,260	7,930	17,000	8,080	3,590	4,400
21	3,110	5,840	5,320	4,170	8,390	5,330	5,270	6,730	15,100	8,630	5,530	3,860
22	2,780	5,770	5,570	3,670	5,380	5,260	4,910	6,810	13,000	8,160	4,390	2,760
23	4,580	5,670	3,830	5,940	5,930	4,670	4,180	8,580	12,100	8,220	4,650	1,960
24	8,220	4,930	2,410	5,120	5,950	4,570	5,090	7,410	15,300	6,630	4,550	1,870
25	6,750	4,330	2,990	5,310	4,210	2,920	5,890	6,700	13,300	4,900	4,240	2,570
26	6,700	4,120	3,330	5,210	4,000	2,390	5,860	8,420	12,900	5,060	3,340	2,660
27	6,440	3,530	5,640	5,160	5,700	4,330	6,070	9,420	10,400	6,210	2,390	1,990
28	6,620	5,390	5,440	4,460	5,930	3,950	5,650	5,210	8,490	5,300	3,560	2,590
29	4,480	5,290	5,430	4,200	------	4,190	4,820	6,350	8,360	4,040	2,150	2,290
30	3,950	4,850	5,440	5,510	------	4,230	4,840	11,800	6,650	2,700	1,710	2,410
31	6,280	------	4,100	5,510	------	4,100	------	15,900	------	5,490	4,450	------
TOTAL	144,490	152,930	164,350	184,430	147,320	129,000	145,310	218,640	478,340	237,080	130,830	107,580
MEAN	4,661	5,098	5,302	5,949	5,261	4,161	4,844	7,053	15,940	7,648	4,220	3,586
MAX	8,220	6,460	7,560	12,800	8,390	5,750	6,070	15,900	26,400	11,000	5,700	7,710
MIN	2,480	3,420	2,410	3,590	3,030	2,390	2,870	3,640	6,650	2,700	1,710	1,870
AC-FT	286,600	303,300	326,000	365,800	292,200	255,900	288,200	433,700	948,800	470,200	259,500	213,400

CAL YR 1960: TOTAL 1,917,510 MEAN 5,239 MAX 10,100 MIN 1,430 AC-FT 3,803,000
WAT YR 1961: TOTAL 2,240,300 MEAN 6,138 MAX 26,400 MIN 1,710 AC-FT 4,444,000

12-1790. Skagit River above Alma Creek, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,390	4,750	5,840	4,440	7,520	7,260	2,820	4,130	4,010	4,000	4,520	2,450
2	3,200	5,010	4,680	6,840	6,920	7,220	3,380	3,500	5,730	5,520	5,760	2,090
3	2,790	4,870	4,370	11,300	6,870	6,820	4,610	4,120	4,590	6,670	6,580	2,410
4	2,560	3,670	6,020	9,030	6,960	4,980	4,650	3,390	4,770	4,470	6,930	3,280
5	3,810	3,340	6,140	7,280	6,630	5,670	4,000	2,710	4,180	6,140	4,880	2,400
6	3,910	4,880	5,970	5,970	6,430	6,100	4,640	2,900	3,980	5,470	7,770	2,370
7	2,670	4,690	5,820	5,730	6,630	6,140	4,000	3,700	4,040	4,970	5,430	2,050
8	2,330	4,620	5,830	8,130	6,250	5,700	3,680	3,520	4,580	5,490	6,800	1,310
9	5,360	5,370	4,710	6,870	6,300	6,010	4,930	3,830	4,690	9,640	5,800	1,280
10	5,410	7,090	4,810	6,520	4,550	4,660	3,290	3,630	3,440	11,300	4,970	2,100
11	5,480	5,890	6,060	6,220	3,290	4,180	4,000	3,720	4,200	7,380	3,470	2,830
12	7,570	4,520	6,460	6,160	5,730	6,100	3,670	3,180	4,170	6,660	2,900	2,900
13	7,020	5,340	6,520	4,600	5,950	5,710	3,380	3,200	4,180	8,100	4,680	3,050
14	4,100	5,480	6,090	4,320	5,940	6,280	3,280	3,140	4,140	8,480	4,280	3,960
15	4,080	5,710	7,910	5,850	5,620	4,270	3,820	4,150	4,740	7,060	4,570	2,780
16	5,510	5,630	4,760	5,860	5,770	5,700	4,040	3,280	4,700	5,520	4,560	2,590
17	4,600	5,240	4,140	5,800	4,200	3,850	3,960	3,370	4,050	7,040	3,440	2,610
18	4,470	4,530	5,640	5,810	3,200	3,690	4,130	3,370	4,340	4,420	3,270	2,310
19	4,340	3,790	6,170	5,960	5,330	5,930	4,670	2,890	4,450	4,270	2,770	2,670
20	4,420	5,510	5,330	5,880	6,190	5,720	4,130	3,240	4,730	4,410	5,010	2,640
21	3,390	6,320	5,870	4,760	6,520	6,000	3,640	3,540	4,850	4,080	5,200	2,300
22	3,480	5,360	5,140	6,040	4,330	4,640	3,690	3,700	4,780	5,230	5,450	2,410
23	4,730	3,430	3,710	6,080	5,400	1,860	4,490	4,230	4,500	8,600	4,000	2,170
24	4,100	4,080	5,000	6,050	6,120	1,880	5,660	4,730	4,060	7,150	3,880	3,220
25	5,960	3,670	4,270	5,710	3,770	1,760	5,330	4,360	7,000	7,640	3,290	2,950
26	4,920	3,440	5,570	5,950	6,200	1,630	4,330	5,460	7,200	10,100	3,000	2,350
27	4,610	5,100	5,120	4,620	6,350	1,410	4,110	4,750	6,230	7,430	3,920	2,640
28	3,750	5,400	5,230	3,700	7,130	1,460	6,390	4,980	5,040	7,810	3,980	4,260
29	3,610	5,490	6,950	5,730	------	1,550	3,420	5,240	4,790	6,510	3,640	3,610
30	4,590	5,740	6,030	5,150	------	2,100	3,510	5,850	4,500	7,240	5,020	3,010
31	4,740	------	4,640	4,860	------	2,400	------	4,200	------	6,640	3,350	------
TOTAL	132,900	147,960	170,800	187,220	162,100	138,680	123,650	120,010	140,660	205,440	143,120	79,000
MEAN	4,287	4,932	5,510	6,039	5,789	4,474	4,122	3,871	4,689	6,627	4,617	2,633
MAX	7,570	7,090	7,910	11,300	7,520	7,260	6,390	5,850	7,200	11,300	7,770	4,260
MIN	1,390	3,340	3,710	3,700	3,200	1,410	2,820	2,710	3,440	4,000	2,770	1,280
AC-FT	263,600	293,500	338,800	371,300	321,500	275,100	245,300	238,000	279,000	407,500	283,900	156,700

CAL YR 1961: TOTAL 2,230,190 MEAN 6,110 MAX 26,400 MIN 1,390 AC-FT 4,424,000
WAT YR 1962: TOTAL 1,751,540 MEAN 4,799 MAX 11,300 MIN 1,280 AC-FT 3,474,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,230	4,520	4,470	5,750	6,000	5,130	4,490	5,410	4,140	7,240	4,490	2,470
2	4,130	4,560	4,570	7,940	4,800	3,950	4,800	5,340	4,210	7,310	4,390	2,070
3	4,560	3,160	6,040	11,600	5,200	3,050	4,930	4,730	5,790	8,520	3,730	4,090
4	4,690	4,160	6,280	9,500	7,000	4,920	4,590	3,960	6,290	8,980	2,630	5,190
5	4,550	5,700	6,090	6,370	8,400	4,510	4,940	3,780	7,710	8,490	5,360	4,480
6	3,440	4,610	7,030	5,600	7,000	4,470	3,990	5,240	7,400	5,320	5,460	3,810
7	3,350	4,870	6,970	6,380	6,000	4,340	2,970	4,460	10,200	7,530	5,460	2,850
8	4,820	5,300	6,410	7,290	5,560	4,380	4,930	4,550	10,900	7,590	4,530	2,220
9	5,680	5,320	4,690	6,700	4,670	3,310	4,380	4,670	10,800	8,080	5,480	4,400
10	5,080	4,640	6,620	7,220	3,610	3,040	4,230	4,630	10,500	7,130	3,690	4,230
11	4,440	4,180	6,730	8,000	5,390	4,690	4,180	4,090	8,620	6,730	3,410	3,780
12	4,560	5,300	6,890	7,000	5,340	4,210	3,910	3,240	11,900	5,770	5,610	3,680
13	2,950	5,710	6,690	5,600	6,050	4,740	2,730	4,070	13,400	5,670	8,950	3,510
14	2,700	5,390	7,370	7,000	6,140	4,590	3,040	4,190	6,950	7,490	7,410	3,140
15	4,360	5,070	9,340	6,400	6,080	4,830	4,870	5,140	5,140	7,920	4,500	3,330
16	4,560	5,320	15,900	5,800	3,610	4,170	4,910	5,830	5,780	6,230	4,440	4,320
17	4,690	4,240	11,100	5,200	4,200	2,410	5,300	5,390	14,900	5,330	3,550	4,170
18	4,670	4,010	8,130	5,250	5,220	5,350	4,810	3,690	14,900	5,760	2,840	3,950
19	4,120	9,950	7,750	5,600	5,220	4,720	4,380	3,930	13,600	6,860	4,620	3,960
20	3,680	11,700	6,930	4,600	3,980	4,530	3,840	6,930	9,650	4,380	5,480	3,420
21	3,270	7,890	6,780	6,400	3,850	4,850	3,730	7,410	9,370	4,860	4,690	2,830
22	5,130	5,300	6,050	5,800	3,900	4,880	3,930	7,170	9,090	7,110	3,590	3,150
23	4,760	5,820	4,910	5,400	3,430	3,370	5,100	7,190	7,270	7,040	3,890	4,660
24	4,130	4,750	6,630	6,900	3,080	3,000	4,710	6,660	7,810	6,200	2,420	4,310
25	3,880	5,790	4,460	5,400	4,870	4,560	4,710	4,500	8,620	4,930	2,090	4,110
26	4,150	8,300	6,330	5,100	5,970	4,730	4,180	3,750	7,650	4,860	3,730	4,330
27	2,350	11,400	6,470	4,600	5,710	4,890	3,810	5,130	5,900	3,210	4,020	3,670
28	1,760	14,000	6,260	6,600	4,940	5,710	2,010	5,520	4,950	4,130	4,020	2,830
29	4,120	14,200	5,110	6,200	------	5,190	4,180	5,680	3,380	5,960	2,010	2,580
30	4,040	8,760	5,670	7,100	------	4,100	4,380	4,840	3,690	4,800	3,780	4,250
31	4,110	------	6,810	6,600	------	3,270	------	5,180	------	3,700	2,740	------
TOTAL	125,960	193,920	211,480	200,900	145,220	133,890	126,960	156,300	250,510	195,130	133,010	109,790
MEAN	4,063	6,464	6,822	6,481	5,186	4,319	4,232	5,042	8,350	6,295	4,291	3,660
MAX	5,680	14,200	15,900	11,600	8,400	5,710	5,300	7,410	14,900	8,980	8,950	5,190
MIN	1,760	3,160	4,460	4,600	3,080	2,410	2,010	3,240	3,380	3,210	2,010	2,070
AC-FT	249,800	384,600	419,500	398,500	288,000	265,600	251,800	310,000	496,900	387,000	263,800	217,800

CAL YR 1962: TOTAL 1,831,240 MEAN 5,017 MAX 15,900 MIN 1,280 AC-FT 3,632,000
WAT YR 1963: TOTAL 1,983,070 MEAN 5,433 MAX 15,900 MIN 1,760 AC-FT 3,933,000

12-1790. Skagit River above Alma Creek, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,950	5,230	5,730	8,450	4,360	4,420	5,500	6,250	10,600	7,000	6,230	4,860
2	4,080	4,970	6,580	7,750	4,030	5,650	5,280	4,660	11,900	7,880	6,780	4,320
3	2,550	3,830	6,740	7,440	5,810	5,920	4,940	3,580	7,500	5,550	5,450	4,140
4	3,530	5,060	6,790	5,510	5,720	6,100	4,100	7,400	7,530	10,300	10,400	3,760
5	3,040	4,640	6,870	5,180	6,220	6,400	4,140	9,420	8,530	18,500	5,900	2,760
6	2,200	5,040	6,900	6,280	6,080	6,100	4,820	7,080	8,880	16,300	6,280	2,670
7	3,750	5,340	5,430	6,750	6,400	5,350	5,060	7,280	6,650	13,500	5,230	3,180
8	3,570	5,060	4,690	5,890	4,920	4,660	6,600	6,300	11,300	23,900	6,430	4,340
9	3,570	3,770	6,190	6,280	4,000	5,650	5,320	4,740	11,400	21,200	7,050	3,960
10	3,180	3,000	6,190	6,330	6,120	5,950	6,080	4,640	10,600	15,900	5,930	3,500
11	3,250	4,890	6,630	4,930	5,880	6,280	4,860	6,080	11,900	14,000	5,780	3,840
12	2,570	5,810	6,350	3,590	5,650	6,300	5,950	7,120	10,300	17,700	7,630	2,550
13	3,150	6,580	6,520	5,930	6,000	6,180	5,600	7,980	7,050	20,500	5,850	2,450
14	4,080	7,140	5,320	5,940	5,100	5,120	5,980	6,550	5,900	19,200	4,160	3,720
15	3,590	6,720	4,500	5,900	4,280	4,100	6,080	6,500	10,100	16,800	4,080	3,880
16	3,850	6,000	5,530	6,240	4,200	5,780	5,780	4,920	12,000	12,900	4,300	4,020
17	4,070	5,340	5,990	5,990	5,600	5,800	5,720	4,500	12,000	12,000	5,060	4,640
18	4,440	7,640	5,920	5,690	5,950	5,500	3,860	7,450	13,400	10,600	5,140	4,240
19	3,910	7,560	6,200	5,040	5,700	5,140	2,640	7,580	12,600	8,300	4,700	2,310
20	3,090	7,720	5,950	5,990	6,000	4,780	4,900	8,900	9,000	9,130	4,760	3,020
21	9,410	6,760	4,950	6,080	5,820	3,500	5,650	10,200	7,080	10,300	4,600	3,740
22	11,300	6,540	5,120	5,870	4,300	3,080	6,280	6,750	8,300	9,980	3,420	3,500
23	7,610	5,110	8,410	6,300	4,160	4,600	5,580	4,460	11,300	7,730	4,680	4,740
24	7,290	4,070	7,920	5,630	6,000	4,800	4,580	4,680	8,730	7,730	5,480	4,880
25	9,040	6,320	5,790	4,720	5,680	5,220	3,400	6,020	7,880	8,130	4,740	4,880
26	7,450	13,000	6,180	4,300	5,980	5,380	3,300	5,080	10,100	7,430	4,820	2,210
27	5,440	20,200	6,380	5,520	6,300	4,780	5,620	6,820	7,930	11,100	4,640	2,150
28	7,380	13,600	4,830	5,540	6,080	3,400	5,320	7,800	6,250	8,530	4,920	4,280
29	7,360	12,100	4,390	5,350	5,280	3,040	5,300	7,730	9,250	8,930	5,140	3,620
30	6,830	10,700	6,040	5,680	------	4,380	5,480	6,930	7,030	9,880	4,780	8,480
31	4,570	------	8,060	5,400	------	5,680	------	7,480	------	6,780	4,540	------
TOTAL	153,100	209,740	189,090	181,490	157,620	159,040	153,720	202,880	282,990	377,680	168,900	114,640
MEAN	4,939	6,991	6,100	5,855	5,435	5,130	5,124	6,545	9,433	12,180	5,448	3,821
MAX	11,300	20,200	8,410	8,450	6,400	6,400	6,600	10,200	13,400	23,900	10,400	8,480
MIN	2,200	3,000	4,390	3,590	4,000	3,040	2,640	3,580	5,900	5,550	3,420	2,150
AC-FT	303,700	416,000	375,100	360,000	312,600	315,500	304,900	402,400	561,300	749,100	335,000	227,400

CAL YR 1963: TOTAL 2,003,640 MEAN 5,489 MAX 20,200 MIN 2,010 AC-FT 3,974,000
WAT YR 1964: TOTAL 2,350,890 MEAN 6,423 MAX 23,900 MIN 2,150 AC-FT 4,663,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6,400	3,710	8,900	2,940	6,230	4,830	5,250	4,170	4,410	9,330	3,870	3,180
2	6,730	5,050	7,500	2,750	5,880	4,760	5,290	3,630	5,270	12,800	6,180	3,000
3	4,430	4,970	6,550	2,820	5,650	4,170	4,190	5,530	5,290	12,200	5,800	2,600
4	3,440	6,130	6,050	4,930	6,100	4,340	2,700	4,830	6,050	10,700	5,600	1,410
5	4,690	5,700	4,970	4,550	7,280	4,090	5,110	4,930	4,850	14,400	3,950	1,340
6	4,590	5,700	4,050	4,470	4,890	3,340	5,330	4,710	5,030	11,600	4,490	1,360
7	4,290	4,170	5,050	4,890	3,560	2,550	4,250	4,370	6,700	8,780	3,690	2,760
8	5,330	3,660	5,950	5,230	5,030	4,610	4,090	3,050	7,100	13,300	4,870	2,660
9	5,090	5,290	5,780	4,190	4,790	4,300	4,110	3,230	7,680	8,900	5,830	2,510
10	7,530	5,450	5,850	3,420	4,650	4,370	3,410	4,950	8,130	4,730	5,830	2,330
11	4,910	5,130	5,630	5,210	4,710	4,510	2,870	4,730	9,630	5,730	5,290	2,060
12	5,600	5,210	5,310	5,130	4,390	4,350	4,970	5,270	8,650	8,600	4,990	1,320
13	4,510	5,170	4,530	5,130	3,790	3,480	5,480	5,290	7,150	6,300	7,130	2,810
14	4,150	4,190	5,630	4,650	2,960	2,660	6,000	5,480	7,800	5,730	5,270	2,960
15	5,380	3,570	6,000	5,030	4,750	4,750	5,500	5,290	7,200	8,230	4,270	3,590
16	4,890	4,830	8,530	4,730	4,630	5,050	5,730	5,190	6,950	7,700	5,310	3,290
17	4,250	5,050	8,330	4,250	4,590	5,110	4,430	5,750	6,980	5,700	4,230	2,580
18	4,130	5,450	7,180	5,430	4,390	5,170	3,480	5,450	7,680	6,200	3,950	1,990
19	5,380	5,330	6,530	5,700	5,130	4,930	5,550	5,580	6,730	5,700	4,510	1,520
20	4,630	5,500	5,700	5,530	3,930	3,590	6,130	5,090	11,600	5,190	5,030	2,480
21	4,250	4,730	5,950	6,080	3,170	2,810	6,130	5,010	12,500	4,990	3,930	1,880
22	4,270	3,810	6,080	5,780	3,830	4,450	5,330	3,690	10,700	4,490	4,730	2,420
23	4,370	4,850	5,950	4,890	5,190	4,710	4,870	3,650	9,050	4,650	6,250	2,180
24	3,420	5,880	5,580	3,850	4,830	5,090	3,620	4,850	9,430	4,310	5,010	1,990
25	3,380	5,630	3,300	5,800	4,690	5,350	3,090	5,070	8,200	6,800	4,390	1,500
26	4,870	4,390	3,650	5,730	5,130	5,550	5,400	5,600	7,780	6,130	4,030	1,930
27	4,790	4,810	3,440	5,400	4,610	4,630	5,500	6,380	6,400	7,550	4,010	2,780
28	4,110	3,930	5,010	5,530	3,440	3,470	6,650	6,780	7,500	6,550	2,690	2,510
29	4,370	4,050	5,210	6,000	------	4,670	5,650	5,150	6,250	6,050	1,750	1,750
30	4,610	8,230	5,090	6,530	------	4,530	5,150	3,870	5,070	5,210	2,580	1,710
31	3,570	------	4,590	4,690	------	4,490	------	3,740	------	5,170	2,070	------
TOTAL	146,360	149,570	177,870	151,260	132,220	134,710	145,260	150,310	223,760	233,720	141,530	68,400
MEAN	4,721	4,986	5,738	4,879	4,722	4,345	4,842	4,849	7,459	7,539	4,565	2,280
MAX	7,530	8,230	8,900	6,530	7,280	5,550	6,650	6,780	12,500	14,400	7,130	3,590
MIN	3,380	3,570	3,300	2,750	2,960	2,550	2,700	3,050	4,410	4,310	1,750	1,320
AC-FT	290,300	296,700	352,800	300,000	262,300	267,200	288,100	298,100	443,800	463,600	280,700	135,700

CAL YR 1964: TOTAL 2,272,760 MEAN 6,210 MAX 23,900 MIN 2,150 AC-FT 4,508,000
WAT YR 1965: TOTAL 1,854,970 MEAN 5,082 MAX 14,400 MIN 1,320 AC-FT 3,679,000

12-1811. South Fork Cascade River at South Cascade Glacier, near Marblemount, Wash.
(Formerly published as South Fork Cascade River near Marblemount)

Location.--Lat 48°22'14", long 121°04'20", on left bank at outlet of South Cascade Lake, 9 miles upstream from confluence with North Fork and 21 miles southeast of Marblemount.

Drainage area.--2.36 sq mi.

Records available.--July 1957 to September 1961 (seasonal records only; published as "near Marblemount"), October 1961 to September 1965. Prior to October 1960 monthly discharge only, published in WSP 1736; dailies on file in Tacoma district office.

Gage.--Water-stage recorder. Datum of gage is 5,290.61 ft (corrected) above mean sea level (from U.S. Coast & Geodetic Survey triangulation point). Prior to Sept. 23, 1960, at datum 0.47 ft lower and Sept. 23, 1960, to Aug. 10, 1964, at datum 1.34 ft lower.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Aug. 31, 1961	177	3.86	May 1, 6-10, 1961	a 1.0	-
1962	July 27, 1962	114	3.38	-	-	-
1963	Aug. 12, 1963	b 120	c 4.79	Jan. 28-31, 1963	1.2	d 2.04
1964	July 15, 1964	b 122	-	(e)	.60	.16
1965	Aug. 13, 1965	122	3.37	(f)	1.5	g .80

a Minimum daily.
b Maximum daily.
c Occurred Nov. 20, 1962, datum then in use.
d Occurred Jan. 30, 31, 1962.
e Sometime Mar. 21-31, 1964.
f Mar. 30 to Apr. 1, Apr. 3-10, 1965.
g Occurred Apr. 5, 1965.

1957-65: Maximum discharge recorded, 194 cfs Oct. 24, 1959; minimum discharge, 0.60 cfs probably sometime Mar. 21-31, 1964 (gage height, 0.16 ft, from recorded range in stage).

Remarks.--Records good except those for periods of no gage-height record and those for winter periods, which are fair. No regulation or diversion above station. Flow originates at South Cascade Glacier.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	22	3.0					1.0	84	49	76	110
2	24	14	3.0					4.0	86	52	84	74
3	21	12	2.2					3.0	86	57	91	65
4	19	9.8	2.2					2.0	91	64	95	74
5	21	11	2.8					2.0	89	85	94	70
6	36	12	2.8					1.0	95	81	84	53
7	52	10	2.3					1.0	80	65	77	45
8	34	9.5	1.7					1.0	65	61	74	40
9	24	8.4	1.2				† .50	1.0	59	68	71	43
10	20	9.5	1.0					1.0	50	80	72	41
11	16	14	1.1					3.0	53	100	74	38
12	14	10	4.5					4.0	55	122	76	40
13	13	8.7	7.7					3.0	58	128	79	42
14	12	8.2	7.1					3.0	68	118	86	40
15	14	7.7	5.8					3.0	89	109	96	36
16	19	8.7	4.7					4.0	111	95	109	40
17	20	8.7	3.8					6.0	134	84	88	43
18	21	9.8	4.1					10	140	85	91	45
19	18	8.4	4.7					16	118	90	94	43
20	15	8.7	4.1					20	93	102	95	46
21	24	8.2	3.0					30	74	110	93	30
22	57	6.9	2.3					38	74	107	90	23
23	69	6.4	1.8					38	84	99	89	18
24	64	6.7	1.7					32	88	84	82	16
25	38	6.4	1.6					32	89	82	66	22
26	34	5.2	1.7					59	86	90	57	16
27	27	4.1	1.2					42	69	89	54	16
28	22	4.1	1.0					32	64	76	54	32
29	16	7.5	.60		------			39	59	64	63	18
30	14	3.0	.50		------			49	49	65	62	14
31	20	------	.50		------		------	59	------	71	137	------
TOTAL	824	269.6	85.70					539.0	2,440	2,632	2,553	1,233
MEAN	26.6	8.99	2.76					17.4	81.3	84.9	82.4	41.1
MAX	69	22	7.7					59	140	128	137	110
MIN	12	3.0	.50					1.0	49	49	54	14
CFSM	11.3	3.81	1.17					7.37	34.5	36.0	34.9	17.4
IN.	13.0	4.25	1.35					8.49	38.5	41.5	40.2	19.4
AC-FT	1,630	535	170					1,070	4,840	5,220	5,060	2,450

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† Result of field estimate made on this day.
Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1811. South Fork Cascade River at South Cascade Glacier, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	14	8.4	4.5	2.8	1.9	2.0	2.5	3.0	20	65	99	48
2	15	7.7	3.9	3.8	3.2			3.1	31	47	86	54
3	15	8.4	3.7	15	7.0			3.0	28	40	86	48
4	14	7.5	4.2	10	10			2.9	22	36	89	46
5	24	7.1	4.5	8.0	7.7			2.9	18	36	85	46
6	36	6.3	4.1	7.7	6.5			2.9	14	34	74	46
7	18	5.5	3.8	8.7	5.7			2.8	16	34	71	43
8	15	5.5	3.7	11	4.9			3.0	28	49	68	40
9	41	7.3	3.2	8.4	4.4			3.2	28	62	56	54
10	45	15	2.8	6.7	4.5			3.4	25	69	54	58
11	20	12	2.6	5.5	4.3			3.2	23	69	59	53
12	36	8.4	2.2	4.9	4.4			3.2	27	68	64	40
13	85	7.1	2.2	4.2	3.7			3.4	24	63	64	52
14	69	6.9	2.1	4.2	3.7			3.6	31	54	57	74
15	57	6.3	2.0	4.0	3.5			4.0	44	53	65	69
16	61	5.7	2.0	3.8	3.2			4.5	54	56	58	65
17	39	5.2	2.0	3.6	2.9			4.7	56	69	59	61
18	30	5.3	2.5	3.4	2.8			4.5	57	50	65	56
19	24	5.3	3.5	3.2	2.7			4.5	62	43	63	52
20	18	5.2	4.4	2.8	2.5			4.7	61	49	69	48
21	15	5.0	4.9	2.5	2.3			4.7	57	59	62	46
22	14	4.8	4.9	2.3	2.3			5.0	58	71	70	45
23	15	4.5	5.0	2.1	2.3			6.0	64	89	56	44
24	14	4.2	6.1	2.0	2.2			7.0	74	98	58	46
25	11	3.9	5.9	2.6	2.2			10	82	100	64	45
26	11	3.7	5.0	3.3	2.0			15	76	100	62	44
27	10	3.8	3.8	3.3	1.8			21	57	100	44	41
28	9.0	3.8	4.1	2.9	1.8			24	49	104	45	40
29	8.2	3.8	4.7	2.4	------			20	59	95	38	31
30	7.7	3.9	4.5	2.1	------			18	72	96	36	27
31	7.5	------	3.4	1.9	------		------	18	------	99	41	------
TOTAL	798.4	187.5	116.2	149.1	106.4	62.0	75.0	219.2	1,317	2,057	1,987	1,462
MEAN	25.8	6.25	3.75	4.81	3.80	2.00	2.50	7.07	43.9	66.4	64.1	48.7
MAX	85	15	6.1	15	10	-	-	24	82	104	99	74
MIN	7.5	3.7	2.0	1.9	1.8	-	-	2.8	14	34	36	27
CFSM	10.9	2.65	1.59	2.04	1.61	.85	1.06	3.00	18.6	28.1	27.2	20.6
IN.	12.6	2.95	1.83	2.35	1.68	.98	1.18	3.45	20.8	32.4	31.3	23.0
AC-FT	1,580	372	230	296	211	123	149	435	2,610	4,080	3,940	2,900

CAL YR 1961: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1962: TOTAL 8,536.8 MEAN 23.4 MAX 104 MIN - CFSM 9.91 IN 134.53 AC-FT 16,930

Note.--No gage-height record Mar. 1 to May 15. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	29	15	9.4	6.5	1.6	7.9	2.2	3.9	45	35	68	68
2	36	17	8.5	6.8	1.9	6.5	2.0	3.8	40	56	70	75
3	38	16	8.1	8.3	16	5.4	1.9	3.4	34	60	68	66
4	24	18	6.7	6.2	40	4.8	2.0	3.0	30	64	68	63
5	18	24	7.6	4.9	36	4.1	2.0	3.0	30	60	71	64
6	15	18	9.9	4.2	19	3.7	2.0	3.0	32	59	73	64
7	13	15	8.7	3.7	16	3.4	2.2	2.8	34	57	71	60
8	13	22	11	3.6	13	3.1	2.1	2.7	32	70	72	63
9	11	18	10	3.4	14	3.0	1.9	2.5	35	66	77	68
10	9.4	15	9.0	3.2	11	3.0	1.6	2.3	35	76	77	75
11	9.4	13	7.9	3.0	9.2	3.8	1.6	2.2	46	75	97	77
12	9.2	11	7.0	2.9	7.9	3.7	1.4	2.2	72	73	120	75
13	9.4	9.9	6.9	2.7	6.9	3.2	1.4	2.2	72	73	100	98
14	7.9	8.7	11	2.4	6.2	3.0	2.0	2.7	81	79	80	75
15	7.0	8.1	30	2.3	5.5	2.9	3.8	3.8	83	72	66	50
16	6.9	7.4	21	2.3	5.1	2.7	4.2	4.4	85	63	64	35
17	7.4	6.7	14	2.1	4.8	2.5	4.0	6.0	83	63	60	30
18	9.4	6.4	10	2.0	4.5	2.3	3.9	13	81	64	56	24
19	11	29	9.0	1.8	5.2	2.7	4.0	24	80	69	56	25
20	13	95	8.0	1.7	5.2	2.7	4.1	45	74	69	58	30
21	24	46	8.3	1.6	4.7	2.5	3.7	57	68	61	52	34
22	26	27	7.2	1.5	4.2	2.5	3.4	51	60	89	48	45
23	22	20	6.2	1.4	3.8	2.5	3.2	39	49	67	49	60
24	21	16	5.7	1.4	3.7	2.4	2.8	40	49	52	48	51
25	21	17	5.2	1.4	4.7	2.2	2.6	44	53	47	46	46
26	18	16	4.8	1.4	14	2.1	2.4	55	48	47	45	46
27	16	13	4.9	1.4	12	2.2	2.3	49	38	58	45	58
28	15	11	5.5	1.3	9.0	2.4	2.2	51	34	67	49	72
29	18	9.4	6.5	1.3	------	2.7	2.7	53	33	61	55	76
30	19	11	7.9	1.2	------	2.6	3.2	54	29	57	58	63
31	16	------	6.9	1.4	------	2.5	------	53	------	54	60	------
TOTAL	513.0	559.6	282.8	89.3	285.1	101.0	78.8	681.9	1,565	1,963	2,027	1,736
MEAN	16.5	18.7	9.12	2.88	10.2	3.26	2.63	22.0	52.2	63.3	65.4	57.9
MAX	38	95	30	8.3	40	7.9	4.2	57	85	89	120	98
MIN	6.9	6.4	4.8	1.2	1.6	2.1	1.4	2.2	29	35	45	24
CFSM	7.01	7.90	3.87	1.22	4.31	1.38	1.11	9.32	22.1	26.8	27.7	24.5
IN.	8.08	8.82	4.46	1.41	4.49	1.59	1.24	10.7	24.7	30.9	31.9	27.4
AC-FT	1,020	1,110	561	177	565	200	156	1,350	3,100	3,890	4,020	3,440

CAL YR 1962: TOTAL 8,790.1 MEAN 24.1 MAX 104 MIN 1.8 CFSM 10.2 IN 138.52 AC-FT 17,430
WAT YR 1963: TOTAL 9,882.5 MEAN 27.1 MAX 120 MIN 1.2 CFSM 11.5 IN 155.73 AC-FT 19,600

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1811. South Fork Cascade River at South Cascade Glacier, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	55	11	6.5	25	4.8	2.4			65	44	52	28
2	54	12	5.8	16	3.2	2.0			60	54	49	29
3	54	9.9	5.5	10	2.3	1.9			50	57	60	31
4	40	9.9	5.5	8.0	2.6	2.4			40	59	83	32
5	30	8.9	7.1	6.5	3.0	2.8			50	68	71	32
6	24	8.9	8.6	7.4	2.4	2.0		1.5	60	68	63	31
7	20	8.6	7.1	6.0	2.0	1.5			55	79	68	30
8	18	8.3	6.5	4.8	1.7	1.6			45	102	71	28
9	22	8.3	5.8	4.3	1.6	2.8			45	96	72	23
10	32	7.7	4.6	4.6	2.1	2.4	2.2		50	80	73	21
11	36	6.8	4.1	4.3	2.3	2.4			55	83	82	21
12	31	8.0	3.7	3.5	2.0	2.1		1.7	50	99	79	22
13	57	14	3.3	3.3	1.9	2.1		1.7	45	118	64	22
14	77	17	3.2	3.5	1.6	4.1		1.6	40	118	55	21
15	78	14	3.5	4.3	1.6	3.5		1.7	45	122	48	23
16	66	10	3.5	12	2.1	2.1		2.5	40	92	48	34
17	56	9.2	3.7	16	3.2	2.3		5.0	55	73	48	57
18	42	7.7	3.2	9.2	2.8	2.0		10	45	70	52	45
19	25	7.1	3.2	7.1	2.1	1.4		20	35	57	48	52
20	20	5.8	3.2	8.3	1.7	1.1		35	30	57	37	53
21	86	5.3	3.0	6.5	1.5	.80		30	26	71	37	38
22	102	5.5	5.3	5.0	1.2			20	20	72	44	33
23	45	5.0	17	4.6	1.1			10	32	56	52	34
24	35	4.3	25	5.3	1.0			8.0	51	59	57	40
25	29	4.6	16	6.8	.80		1.6	5.0	51	64	61	54
26	23	26	10	4.3	.80	.80		8.0	49	66	85	44
27	18	30	7.4	3.7	.80			10	54	70	73	34
28	17	17	5.8	4.6	.90			20	38	82	75	28
29	15	11	4.6	5.3	1.6			35	32	91	71	38
30	13	7.7	5.8	4.1	------			50	35	79	51	50
31	12	------	21	4.3	------		------	60	------	65	33	------
TOTAL	1,232	309.5	218.5	218.6	56.70	53.70	60.0	351.7	1,348	2,371	1,862	1,028
MEAN	39.7	10.3	7.05	7.05	1.96	1.73	2.00	11.3	44.9	76.5	60.1	34.3
MAX	102	30	25	25	4.8	4.1	-	60	65	122	85	57
MIN	12	4.3	3.0	3.3	.80	-	-	-	20	44	33	21
CFSM	16.8	4.37	2.99	2.99	.83	.73	.85	4.81	19.0	32.4	25.5	14.5
IN.	19.4	4.88	3.44	3.44	.89	.85	.95	5.54	21.2	37.4	29.3	16.2
AC-FT	2,440	614	433	434	112	107	119	698	2,670	4,700	3,690	2,040

CAL YR 1963: TOTAL 10,287.1 MEAN 28.2 MAX 120 MIN 1.2 CFSM 11.9 IN 162.11 AC-FT 20,400
WAT YR 1964: TOTAL 9,109.70 MEAN 24.9 MAX 122 MIN - CFSM 10.5 IN 143.55 AC-FT 18,070

Note.--No gage-height record Mar. 22 to May 11, May 16 to June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	34	22	19	2.5	5.0	3.2	1.6	11	17	52	99	31
2	33	18	14	3.2	3.8	2.5	1.6	8.0	21	64	94	27
3	26	16	9.1	3.0	3.2	2.2	1.5	7.0	29	68	80	26
4	20	20	6.9	2.7	3.8	1.9	1.5	6.0	36	72	68	25
5	19	16	5.7	2.4	4.6	1.8	1.5	5.0	39	80	64	23
6	22	13	5.0	2.1	4.1	1.6	1.5	4.5	42	82	65	22
7	28	11	4.6	2.0	3.3	1.6	1.5	4.5	42	92	72	24
8	40	9.8	5.2	1.9	3.6	1.6	1.5	4.5	45	87	80	26
9	40	9.1	5.7	1.9	3.3	1.6	1.5	6.0	54	66	85	28
10	32	8.6	6.5	1.8	2.8	1.6	1.6	8.0	59	54	87	31
11	30	8.2	8.0	1.8	2.4	1.8	1.7	9.1	64	46	82	30
12	33	7.7	6.9	1.8	2.2	1.9	1.6	13	59	43	97	28
13	34	7.5	7.3	1.8	2.5	1.9	1.6	15	46	50	114	27
14	36	6.9	5.7	3.5	2.8	2.1	1.7	15	41	61	87	48
15	29	6.7	5.5	4.5	2.9	2.2	1.9	15	38	71	73	63
16	22	5.7	4.6	5.0	3.2	2.5	2.3	22	36	78	68	47
17	18	5.5	3.8	6.5	3.0	2.5	3.5	17	44	77	70	35
18	15	5.3	3.3	7.0	2.6	2.3	4.1	12	52	73	80	27
19	14	5.0	3.1	7.0	3.1	2.2	4.0	11	51	61	82	23
20	14	4.8	3.1	9.0	3.3	2.1	4.2	10	50	52	82	22
21	15	4.7	3.3	9.0	3.0	2.1	6.1	9.1	45	48	76	23
22	16	4.6	5.2	7.0	3.0	2.1	6.1	8.2	45	44	70	24
23	14	5.2	5.2	5.0	2.6	1.9	5.0	8.2	46	52	76	24
24	14	7.7	4.4	4.0	2.3	1.8	4.2	8.2	52	66	68	25
25	12	6.9	3.6	3.2	2.1	1.7	4.0	8.4	52	82	59	26
26	10	6.5	3.4	3.0	2.4	1.7	4.0	12	43	96	60	24
27	9.1	5.9	3.3	3.0	3.5	1.8	5.2	19	36	118	58	21
28	9.8	5.2	2.9	3.5	4.1	1.7	8.8	26	32	107	46	18
29	13	6.1	2.5	4.5	------	1.7	14	29	32	92	36	17
30	18	16	2.3	5.5	------	1.6	13	22	38	86	29	17
31	23	------	2.3	6.0	------	1.5	------	18	------	90	31	------
TOTAL	692.9	275.6	171.4	125.1	88.5	60.7	112.3	371.7	1,286	2,210	2,238	832
MEAN	22.4	9.19	5.53	4.04	3.16	1.96	3.74	12.0	42.9	71.3	72.2	27.7
MAX	40	22	19	9.0	5.0	3.2	14	29	64	118	114	63
MIN	9.1	4.6	2.3	1.8	2.1	1.5	1.5	4.5	17	43	29	17
CFSM	9.47	3.89	2.34	1.71	1.34	.83	1.59	5.08	18.2	30.2	30.6	11.8
IN.	10.9	4.34	2.70	1.97	1.39	.96	1.77	5.86	20.3	34.8	35.3	13.1
AC-FT	1,370	547	340	248	176	120	223	737	2,550	4,380	4,440	1,650

CAL YR 1964: TOTAL 8,489.60 MEAN 23.2 MAX 122 MIN .80 CFSM 9.83 IN 133.78 AC-FT 16,840
WAT YR 1965: TOTAL 8,464.2 MEAN 23.2 MAX 118 MIN 1.5 CFSM 9.83 IN 133.38 AC-FT 16,760

12-1812. Salix Creek at South Cascade Glacier, near Marblemount, Wash.

Location.--Lat 48°22'15", long 121°04'35", in SE¼ sec.2, T.33 N., R.13 E. (unsurveyed), on left bank 900 ft west of South Cascade Lake, half a mile upstream from mouth, and 21 miles southeast of Marblemount.

Drainage area.--0.078 sq mi.

Records available.--June to November 1961, May 1962 to January 1964 (fragmentary), May 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 16, 1961	9.9	2.93	Several days	0	-
1962	June 24, 1962	7.6	2.82	do.	0	-
1963	Feb. 3, 1963	29	3.43	do.	0	-
1964	Oct. 21, 1963	11	1.79	(a)	.10	b 0.23
1965	(c)	5.9	1.41	Jan. 12, 13, 1965	0	-

a Oct. 1-20, 24, Dec. 16-22, 1963.
b Occurred Oct. 2, 3, 10, 11, 12, 1963.
c Oct. 2, 1964, July 1, 2, 1965.

1961-65: Maximum discharge, 29 cfs Feb. 3, 1963 (gage height, 3.43 ft), from rating curve extended above 9 cfs; no flow for many days in most years.

Remarks.--Records fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1									-	1.2	.10	1.8
2									-	1.3	.10	1.0
3									-	1.3	.10	.70
4									-	1.3	.10	.60
5									-	1.8	.10	.40
6									-	1.4	0	.40
7									-	1.2	0	.20
8									-	1.0	0	.10
9									-	1.0	0	.10
10									-	1.0	0	.10
11									2.25	1.0	0	.10
12									-	1.0	0	0
13									-	.90	0	0
14									6.26	.90	0	0
15									5.3	.70	.10	0
16									6.3	.60	.60	.10
17									7.0	.50	.20	.10
18									5.6	.40	.10	.10
19									3.2	.40	.10	.10
20									2.2	.30	.10	.50
21									2.1	.30	.10	.40
22									2.6	.30	0	.20
23									2.6	.30	0	.20
24									2.6	.30	0	.10
25									2.4	.30	0	.20
26									1.7	.20	0	.10
27									1.4	.20	0	.10
28									1.4	.20	0	1.0
29					------				1.3	.20	0	.60
30					------				1.1	.10	.10	.60
31		------			------		------		------	.10	3.0	------
TOTAL									-	21.70	4.90	9.90
MEAN									-	.70	.16	.33
MAX									-	1.8	3.0	1.8
MIN									-	.10	0	0
CFSM									-	8.97	2.03	4.23
IN.									-	10.3	2.34	4.72
AC-FT									-	43	9.7	20

12-1812. Salix Creek at South Cascade Glacier, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1961, MAY TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.60	.10						1.3	2.4	2.3	.70	.10
2	.40	.10						1.4	3.8	1.9	.70	.10
3	.20	.10						1.5	2.4	2.1	1.0	.10
4	.20	.10						1.4	1.8	1.8	1.1	.10
5	.90	.10						1.3	1.7	2.3	1.1	0
6	.70	.10						1.2	1.6	1.8	1.0	0
7	.50	.10						1.1	2.7	2.6	1.0	0
8	.40	.10						1.1	3.0	3.2	.70	0
9	2.8	.50						1.2	2.9	3.3	.40	0
10	.70	2.7						1.4	2.4	3.0	.30	.30
11	.40	1.1						1.4	2.6	2.9	.20	.80
12	2.3	.30						1.3	2.7	2.7	.20	.30
13	1.2	.20						1.3	3.0	2.1	.20	1.0
14	.80	.30						1.3	3.7	1.8	.20	.70
15	.70	.20						1.3	4.2	1.8	.10	.20
16	.80	.20						1.3	4.0	1.8	.10	.10
17	.60	.20						1.6	3.3	1.9	.10	.10
18	.40	.10						1.6	3.7	1.5	.30	.10
19	.40	.10						1.5	3.5	1.6	.20	.10
20	.30	.10						1.3	3.5	1.7	.20	.10
21	.30	.10						1.4	3.5	1.7	.30	0
22	.20	.10						1.9	3.7	1.7	.20	0
23	.20	.10						2.1	4.2	1.8	.10	0
24	.20	.10						2.1	4.5	1.8	.10	0
25	.20	.10						2.9	4.4	1.6	.10	0
26	.20	.10						3.3	3.0	1.5	.40	0
27	.20	.10						3.2	2.6	1.4	.30	0
28	.20	.30						3.5	2.7	1.2	.50	0
29	.20	.50			------			2.6	4.0	1.1	.20	0
30	.20	.60			------			1.9	3.0	1.0	.10	0
31	.20	------			------		------	1.9	------	.80	.10	------
TOTAL	17.60	8.90						53.6	94.5	59.70	12.20	4.20
MEAN	.57	.30						1.73	3.15	1.93	.39	.14
MAX	2.8	2.7						3.5	4.5	3.3	1.1	1.0
MIN	.20	.10						1.1	1.6	.80	.10	0
CFSM	7.28	3.80						22.2	40.4	24.7	5.04	1.79
IN.	8.39	4.24						25.6	45.1	28.5	5.82	2.00
AC-FT	35	18						106	187	118	24	8.3

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	.10	-	.20	0	.40	.10	.30	2.3	1.1	-	.10
2	-	.10	-	.20	.30	.40	.10	.20	1.8	1.0	-	.30
3	-	.10	-	.70	11	.30	.10	.20	1.5	1.0	-	.20
4	-	.50	-	.40	6.4	.20	.10	.20	1.8	1.0	-	.10
5	-	.60	-	.30	1.9	.20	.10	.20	1.9	-	-	.10
6	-	.40	-	.20	1.5	.20	.10	.20	2.1	-	-	.10
7	-	.40	-	.20	1.4	.20	.10	.20	1.8	-	-	.10
8	-	1.7	-	.20	1.4	.20	.10	.20	1.6	-	-	.10
9	-	.90	-	.20	1.2	.20	.10	.20	1.9	-	-	.10
10	-	.30	-	.10	1.0	.20	.10	.10	2.4	-	-	.20
11	-	.20	-	.10	.90	.20	.10	.20	2.8	-	-	.10
12	-	1.0	.70	.10	.70	.20	.10	.40	3.5	-	-	.10
13	-	.40	.80	.10	.60	.20	.10	.40	3.1	-	-	1.9
14	-	-	2.3	.10	.50	.20	1.2	.90	2.9	-	-	.80
15	-	-	4.3	.10	.40	.20	.80	.90	3.4	.65	-	.30
16	-	-	1.4	.10	.40	.20	.40	.90	3.1	.40	.10	.30
17	-	-	1.0	.10	.30	.10	.30	1.6	2.8	.40	.10	.20
18	-	-	.70	.10	.20	.10	.20	2.7	2.6	.44	.10	.20
19	-	-	.60	.10	.70	.10	.20	3.6	2.3	.30	.20	.10
20	-	-	.50	.10	.50	.10	.10	5.1	1.9	.43	.20	.10
21	-	-	.40	.10	.40	.10	.10	5.2	1.7	.35	.20	.10
22	-	-	.40	.10	.30	.30	.20	3.2	1.5	.75	.10	.10
23	-	-	.40	.10	.20	.20	.20	2.9	1.3	.46	.10	.30
24	.40	-	.30	.10	.20	.10	.20	2.6	1.3	-	.10	.20
25	.20	-	.20	0	1.0	.10	.20	2.9	1.5	-	.20	.10
26	.20	-	.20	0	1.9	.10	.20	2.1	1.0	-	.10	.10
27	.20	-	.20	0	.90	.10	.20	2.7	1.0	-	.10	.10
28	.10	-	.20	0	.60	.10	.40	2.9	1.0	-	.10	.10
29	.20	-	.20	0	------	.10	.70	3.3	1.2	-	.10	.10
30	.10	-	.20	0	------	.10	.40	3.5	1.0	-	.10	.10
31	.10	------	.20	0	------	.10	------	3.0	------	-	.10	------
TOTAL	-	-	-	4.10	36.80	5.50	7.30	53.00	60.0	-	-	6.80
MEAN	-	-	-	.13	1.31	.18	.24	1.71	2.00	-	-	.23
MAX	-	-	-	.70	11	.40	1.2	5.2	3.5	-	-	1.9
MIN	-	-	-	0	0	.10	.10	.10	1.0	-	-	.10
CFSM	-	-	-	1.70	16.9	2.27	3.12	21.9	25.6	-	-	2.91
IN.	-	-	-	1.95	17.5	2.62	3.48	25.3	28.6	-	-	3.24
AC-FT	-	-	-	8.1	73	11	14	105	119	-		13

12-1812. Salix Creek at South Cascade Glacier, near Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER 1963 TO JANUARY 1964, MAY TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.10	.20	.30	1.9				-	3.7	2.7	1.5	.40
2	.10	.20	.20	.70				-	2.8	2.8	1.4	.60
3	.10	.20	.20	.50				-	2.1	2.9	1.9	.50
4	.10	.20	.30	.40				-	2.9	3.2	1.8	.30
5	.10	.20	.60	.30				-	4.2	3.2	1.4	.30
6	.10	.20	.40	-				-	3.3	3.5	1.4	.30
7	.10	.20	.30	-				-	2.5	4.1	1.2	.30
8	.10	.20	.30	-				-	2.5	3.7	1.0	.30
9	.10	.20	.20	-				-	3.1	3.3	1.2	.20
10	.10	.20	.20	-				-	3.9	3.3	1.0	.20
11	.10	.20	.20	-				-	3.1	4.4	.90	.20
12	.10	.40	.20	-				.40	2.5	5.1	.70	.20
13	.30	1.1	.20	-				.30	2.0	4.5	.70	.20
14	.20	1.1	.20	-				.30	2.4	3.9	.60	.20
15	.10	.60	.20	-				.40	2.2	4.3	.50	.20
16	.10	.40	.20	-				.70	4.1	3.0	.50	.20
17	.10	.30	.10	-				1.3	2.3	2.8	.50	.70
18	.20	.30	.10	-				1.2	1.8	1.9	.60	.30
19	.10	.20	.10	-				1.7	1.5	2.1	.80	1.4
20	.60	.20	.10	-				1.7	1.4	2.3	.50	1.2
21	5.3	.20	.10	-				1.0	1.3	3.0	.40	.50
22	1.8	.20	.90	-				.70	1.7	1.8	.30	.40
23	.60	.20	3.4	-				.50	2.8	2.1	.30	.30
24	.30	.20	1.0	-				.40	2.8	2.3	.30	.40
25	.50	.50	.50	-				.40	2.5	2.4	.40	.60
26	.40	3.3	.30	-				.50	2.7	2.3	.90	.30
27	.30	.80	.30	-				1.2	2.1	2.5	1.1	.20
28	.30	.50	.20	-				1.8	1.3	2.8	1.0	.20
29	.30	.40	.20	-				2.5	1.6	2.2	1.3	1.5
30	.20	.30	1.4	-	------			3.3	2.4	1.8	.70	2.2
31	.20	------	1.7	-	------		------	4.7	------	1.6	.50	------
TOTAL	13.10	13.40	14.60	-				-	75.5	91.8	27.30	14.80
MEAN	.42	.45	.47	-				-	2.52	2.96	.88	.49
MAX	5.3	3.3	3.4	-				-	4.2	5.1	1.9	2.2
MIN	.10	.20	.10	-				-	1.3	1.6	.30	.20
CFSM	5.38	5.77	6.03	-				-	32.3	37.9	11.3	6.28
IN	6.25	6.39	6.96	-				-	36.00	43.77	13.02	7.06
AC-FT	26	27	29	-				-	150	182	54	29

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	.80	.50	1.6	.10	.20	.10	.20	.60	.70	3.4	.20	.10
2	2.5	.30	.60	.10	.20	.10	.20	.50	1.4	3.3	.20	.10
3	1.0	.30	.40	.10	.10	.10	.10	.40	2.1	3.2	.20	.10
4	1.2	1.3	.30	.10	.10	.10	.10	.30	2.6	3.1	.20	.10
5	.70	.50	.20	.10	.10	.10	.20	.30	2.8	2.9	.20	.10
6	.50	.30	.20	.10	.10	.10	.20	.20	3.1	3.1	.20	.10
7	.40	.30	.20	.10	.10	.10	.10	.30	3.0	2.7	.20	.10
8	.80	.20	.20	.10	.10	.10	.10	.50	3.2	1.8	.10	.10
9	.70	.20	.20	.10	.10	.10	.10	.90	3.2	1.5	.20	.10
10	.60	.20	.20	.10	.10	.20	.10	1.2	3.5	1.2	.20	.10
11	.40	.20	.10	.10	.10	.20	.10	1.3	2.5	1.0	.20	.10
12	.40	.20	.10	0	.10	.20	.10	1.9	1.9	1.3	.30	.10
13	.40	.20	.10	0	.10	.30	.20	1.8	1.7	1.5	.90	.20
14	.90	.10	.10	.20	.10	.30	.20	1.7	1.8	1.5	.30	.90
15	.50	.10	.10	.20	.10	.30	.60	1.7	1.9	1.4	.20	.90
16	.50	.10	.10	.20	.10	.30	.80	2.7	2.7	1.3	.20	.30
17	.40	.10	.10	.30	.10	.30	.50	1.1	2.9	1.3	.20	.20
18	.50	.10	.10	.20	.20	.20	.40	.80	2.5	1.0	.10	.10
19	.70	.10	.10	.20	.20	.20	.30	.80	2.1	.80	.10	.10
20	.50	.10	.10	.30	.20	.20	.80	1.0	2.0	.70	.20	.10
21	.30	.10	.10	.30	.20	.20	.50	.70	2.0	.60	.20	.10
22	.30	.10	.10	.20	.10	.20	.40	.90	2.2	.60	.20	.10
23	.20	.20	.10	.20	.10	.20	.30	.90	2.5	.60	.50	.10
24	.20	.20	.10	.20	.10	.20	.50	.80	2.3	.60	.40	.10
25	.20	.20	.10	.20	.10	.10	.70	1.2	2.1	.50	.30	.10
26	.20	.20	.10	.20	.10	.10	1.2	2.1	1.8	.50	.30	.10
27	.20	.20	.10	.20	.10	.10	1.6	2.5	1.4	.60	.20	.10
28	.30	.20	.10	.10	.10	.10	2.1	2.5	1.9	.50	.30	.10
29	.20	.40	.10	.10	------	.10	1.2	1.8	2.3	.40	.20	.10
30	.40	3.1	.10	.30	------	.10	1.0	1.2	2.9	.30	.20	.10
31	.20	------	.10	.30	------	.10	------	.90	------	.30	.20	------
TOTAL	17.10	10.30	6.20	5.00	3.40	5.10	14.90	35.50	69.00	43.50	7.60	5.00
MEAN	.55	.34	.20	.16	.12	.16	.50	1.15	2.30	1.40	.25	.17
MAX	2.5	3.1	1.6	.30	.20	.30	2.1	2.7	3.5	3.4	.90	.90
MIN	.20	.10	.10	0	.10	.10	.10	.20	.70	.30	.10	.10
CFSM	7.07	4.40	2.56	2.07	1.56	2.11	6.37	14.7	29.5	16.0	3.14	2.14
IN.	8.15	4.91	2.96	2.38	1.62	2.43	7.10	16.9	32.9	20.7	3.62	2.38
AC-FT	34	20	12	9.9	6.7	10	30	70	137	86	15	9.9

CAL YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1965: TOTAL 222.60 MEAN .61 MAX 3.5 MIN 0 CFSM 7.82 IN 106.13 AC-FT 442

12-1825. Cascade River at Marblemount, Wash.

Location.--Lat 48°31'25", long 121°23'00", in N½ sec.16, T.35 N., R.11 E., on right bank 1½ miles downstream from Boulder Creek, 2 miles east of Marblemount, and 2½ miles upstream from mouth.

Drainage area.--168 sq mi (revised).

Records available.--September 1928 to September 1965.

Gage.--Water-stage recorder. Datum of gage is 380.3 ft above mean sea level (river-profile survey).

Average discharge.--37 years, 1,024 cfs (741,300 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,600 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	2300	* 8,220	7.80	Nov. 20, 1962	0300	* 18,700	10.59	June 2, 1964	0100	4,520	6.47
June 3, 1961a	-	-	-	Dec. 15, 1962	1200	3,990	6.02	July 12, 1964	2200	4,610	6.52
June 17, 1961	1200	5,530	6.76	Feb. 4, 1963a	-	5,370	6.69	Sept.30, 1964	1400	4,240	6.31
Jan. 3, 1962	0530	* 5,440	6.72	Oct. 22, 1963	0200	* 7,280	7.46	Oct. 2, 1964	1200	* 3,360	5.75
Jan. 8, 1962	0600	4,650	6.36	Nov. 26, 1963	1800	4,030	6.04				
June 26, 1962	0300	3,770	5.90	Jan. 1, 1964	1400	3,840	6.07				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 28, 1961	311	1.97	1964	Oct. 9, 10, 1963	285	1.85
1962	Mar. 19, 1962	305	1.95	1965	Jan. 11 or 12, 1965	a 320	-
1963	Jan. 30, 1963	a 360	-				

a Minimum daily.

1928-65: Maximum discharge, 18,700 cfs Nov. 20, 1962 (gage height, 10.59 ft), from rating curve extended above 5,600 cfs; maximum gage height, 11.47 ft Nov. 27, 1949; minimum discharge, 118 cfs Nov. 30, 1952; minimum gage height, 1.11 ft Feb. 8, 1937.

Flood in about 1815 reached a stage of approximately 22 ft (discharge 46,000 cfs). Records for other floods, prior to establishment of station, are given in WSP 1527.

Remarks.--Records excellent except those for periods of no gage-height record, which are good. No regulation or diversion above station. Records of water temperatures for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 832: 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBEP 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	426	1,640	574	482	910	1,040	787	1,370	2,800	1,290	1,010	2,490
2	412	1,170	558	450	1,070	910	946	1,600	4,200	1,390	1,010	1,680
3	394	946	550	436	910	814	1,460	1,350	4,700	1,490	1,080	1,100
4	368	804	518	466	822	735	1,170	1,100	4,500	1,710	1,130	1,070
5	359	740	482	832	1,500	685	988	1,000	3,950	2,260	1,140	1,020
6	436	715	462	1,120	2,860	650	880	900	4,240	1,930	946	760
7	780	660	443	934	2,000	606	809	820	3,520	1,700	874	640
8	655	592	443	880	1,440	584	804	780	2,530	1,440	844	570
9	518	554	443	904	1,310	566	765	850	2,500	1,560	820	526
10	458	669	432	1,270	1,380	554	710	950	2,050	1,830	787	514
11	426	1,350	432	1,820	1,190	542	710	1,000	2,220	2,140	804	482
12	450	934	1,270	1,480	1,120	542	735	950	2,340	2,440	832	454
13	415	809	1,370	1,200	1,020	566	740	900	2,270	2,440	856	440
14	401	755	1,360	1,400	952	730	695	900	2,680	2,250	910	422
15	454	720	1,020	5,020	928	1,100	650	920	3,720	1,950	970	415
16	538	1,020	868	4,960	868	1,050	670	1,200	4,350	1,710	1,300	443
17	474	1,390	782	2,490	798	904	826	1,500	4,770	1,390	958	426
18	426	1,620	904	1,760	730	856	740	1,700	4,730	1,370	862	440
19	404	1,330	1,110	1,390	804	868	680	2,100	3,840	1,440	868	422
20	380	1,380	928	1,230	1,010	946	635	2,500	2,940	1,630	886	606
21	477	1,100	820	1,160	2,720	856	606	2,300	2,270	1,700	880	502
22	994	940	765	1,080	2,070	782	602	1,900	2,100	1,590	856	415
23	1,650	856	770	988	1,420	760	606	2,100	2,430	1,500	820	371
24	2,460	922	755	892	1,230	750	602	1,700	2,520	1,210	765	347
25	1,310	970	705	814	1,070	710	592	1,600	2,610	1,140	650	404
26	1,290	838	655	745	934	705	584	2,200	2,410	1,210	588	341
27	1,260	740	610	690	844	655	584	2,100	1,800	1,180	538	320
28	1,410	670	570	635	782	630	630	1,900	1,600	1,070	554	526
29	1,100	615	542	640	------	640	1,000	1,700	1,560	928	584	494
30	916	579	522	844	------	650	1,290	1,900	1,330	904	574	418
31	1,270	------	498	946	------	700	------	1,800	------	958	1,800	------
TOTAL	23,311	28,028	22,161	39,958	34,692	23,086	23,496	45,590	89,480	48,750	27,496	19,058
MEAN	752	934	715	1,289	1,239	745	783	1,471	2,983	1,573	887	635
MAX	2,460	1,640	1,370	5,020	2,860	1,100	1,460	2,500	4,770	2,440	1,800	2,490
MIN	359	554	432	436	730	542	584	780	1,330	904	538	320
CFSM	4.48	5.56	4.26	7.67	7.38	4.43	4.66	8.75	17.8	9.36	5.28	3.78
IN.	5.16	6.20	4.91	8.85	7.68	5.11	5.20	10.1	19.8	10.8	6.09	4.22
AC-FT	46,240	55,590	43,960	79,260	68,810	45,790	46,600	90,430	177,500	96,690	54,540	37,800

CAL YR 1960: TOTAL 372,356 MEAN 1,017 MAX 3,910 MIN 272 CFSM 6.06 IN 82.43 AC-FT 738,600
WAT YR 1961: TOTAL 425,106 MEAN 1,165 MAX 5,020 MIN 320 CFSM 6.93 IN 94.11 AC-FT 843,200

Note.--No gage-height record May 2 to June 4.

12-1825. Cascade River at Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	412	588	720	1,260	715	365	443	787	1,300	2,040	1,630	675
2	415	514	640	1,520	1,220	362	474	826	1,850	1,550	1,410	680
3	390	506	602	4,610	2,110	356	462	940	1,920	1,300	1,590	625
4	377	470	695	2,770	1,820	353	514	892	1,440	1,290	1,860	597
5	638	443	750	1,940	1,330	350	518	787	1,220	1,390	1,920	602
6	930	429	635	1,630	1,160	350	933	730	1,140	1,370	1,510	602
7	640	436	584	2,740	994	350	1,330	680	1,260	1,270	1,500	606
8	526	466	534	4,040	922	350	940	685	1,930	1,780	1,510	522
9	909	660	486	2,600	838	341	776	755	1,960	2,100	1,240	498
10	1,220	1,790	440	1,840	792	329	675	856	1,730	2,020	1,100	858
11	776	1,370	422	1,460	755	317	615	856	1,490	1,940	1,080	931
12	1,470	1,000	412	1,210	710	314	610	809	1,670	1,880	1,120	655
13	2,230	862	398	1,040	665	311	710	820	1,630	1,650	1,120	770
14	1,330	850	380	940	655	308	1,040	792	1,980	1,430	970	1,250
15	1,050	720	374	826	615	311	1,370	770	2,640	1,400	970	809
16	1,050	645	365	755	579	311	1,050	798	2,930	1,370	1,040	625
17	814	592	371	690	554	311	952	922	2,630	1,790	1,020	579
18	660	566	356	606	542	311	1,110	934	2,280	1,290	1,190	592
19	597	534	374	558	510	308	1,410	874	2,340	1,100	1,130	592
20	534	494	514	522	486	320	1,210	838	2,350	1,230	1,080	606
21	486	486	558	514	462	314	1,040	814	2,280	1,470	1,220	630
22	454	494	506	506	458	311	982	928	2,280	1,780	946	602
23	538	466	720	490	429	311	1,080	1,160	2,530	2,110	826	574
24	534	443	1,230	482	398	368	1,290	1,330	3,020	2,280	798	579
25	518	408	1,000	518	387	387	1,180	1,480	3,210	2,200	804	584
26	665	394	792	558	374	371	988	2,080	2,920	2,150	922	584
27	615	408	680	610	371	374	976	2,270	1,950	2,100	765	566
28	558	490	917	566	371	359	892	2,450	1,690	2,070	910	750
29	498	579	1,740	554	------	353	798	2,110	2,100	1,790	720	826
30	478	602	1,810	597	------	365	740	1,560	2,370	1,700	665	665
31	490	------	1,330	650	------	394	------	1,410	------	1,710	665	------
TOTAL	22,802	18,705	21,335	39,602	21,222	10,535	27,108	33,943	62,040	52,550	35,231	20,034
MEAN	736	624	688	1,277	758	340	904	1,095	2,068	1,695	1,136	668
MAX	2,230	1,790	1,810	4,610	2,110	394	1,410	2,450	3,210	2,280	1,920	1,250
MIN	377	394	356	482	371	308	443	680	1,140	1,100	665	498
CFSM	4.38	3.71	4.10	7.60	4.51	2.02	5.38	6.52	12.3	10.1	6.76	3.98
IN.	5.05	4.14	4.72	8.77	4.70	2.33	6.00	7.51	13.7	11.6	7.80	4.43
AC-FT	45,230	37,100	42,320	78,550	42,090	20,900	53,770	67,320	123,100	104,200	69,880	39,740

CAL YR 1961: TOTAL 414,448 MEAN 1,135 MAX 5,020 MIN 320 CFSM 6.76 IN 91.75 AC-FT 822,000
WAT YR 1962: TOTAL 365,107 MEAN 1,000 MAX 4,610 MIN 308 CFSM 5.95 IN 80.82 AC-FT 724,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	602	440	846	1,650	500	864	436	725	1,650	1,200	1,040	730
2	574	446	798	1,820	800	774	416	725	1,480	1,510	936	852
3	782	432	736	2,460	2,000	708	416	681	1,260	1,500	967	703
4	615	526	676	1,750	4,000	660	484	640	1,260	1,560	1,010	698
5	526	832	949	1,420	3,200	615	507	764	1,400	1,380	1,010	692
6	498	680	1,820	1,190	2,600	580	665	792	1,380	1,320	1,000	640
7	506	570	1,370	1,030	2,200	552	610	758	1,440	1,320	948	615
8	615	933	1,740	954	1,900	530	556	714	1,360	1,690	954	660
9	776	792	1,580	876	1,600	502	525	670	1,650	1,440	995	708
10	680	798	1,450	725	1,300	484	494	630	1,610	1,300	1,020	725
11	588	814	1,460	635	1,040	494	476	620	1,880	1,580	1,130	714
12	546	750	1,320	620	942	464	468	645	2,670	1,360	1,200	676
13	640	690	1,270	630	858	444	468	630	2,130	1,330	1,560	1,390
14	566	630	1,720	600	786	432	665	686	2,120	1,400	1,170	1,230
15	514	588	3,280	570	720	420	858	780	2,410	1,390	876	747
16	482	546	2,510	540	686	396	676	752	2,520	1,230	764	698
17	474	522	1,790	520	650	376	605	870	2,400	1,250	725	566
18	584	490	1,460	500	635	382	580	1,360	2,280	1,190	720	468
19	610	2,750	1,250	480	870	390	566	1,930	2,120	1,190	876	428
20	825	7,770	1,090	470	882	412	561	2,510	1,800	1,160	798	424
21	1,170	1,980	1,180	460	742	440	548	2,770	1,580	1,060	698	436
22	1,250	1,430	1,060	450	676	502	590	2,590	1,390	1,460	620	566
23	850	1,160	918	440	635	489	610	2,180	1,210	1,140	610	758
24	715	1,090	816	430	595	468	561	1,870	1,380	1,060	645	543
25	645	1,690	752	420	619	456	538	1,650	1,500	1,060	640	484
26	592	1,940	698	410	1,380	448	534	1,600	1,270	988	650	468
27	542	1,480	686	400	1,230	464	538	1,480	1,060	1,070	502	525
28	502	1,220	681	390	930	507	534	1,740	1,000	1,070	585	630
29	514	960	752	380	------	502	681	2,030	1,140	967	620	645
30	506	942	1,490	360	------	489	708	2,100	1,030	900	640	525
31	470	------	1,840	400	------	460	------	2,010	------	870	681	------
TOTAL	19,759	35,891	39,988	23,980	34,976	15,704	16,874	39,902	49,380	38,945	26,590	19,944
MEAN	637	1,196	1,290	774	1,249	507	562	1,287	1,646	1,256	858	665
MAX	1,250	7,770	3,280	2,460	4,000	864	858	2,770	2,670	1,690	1,560	1,390
MIN	470	432	676	360	500	376	416	620	1,000	870	502	424
CFSM	3.79	7.12	7.68	4.60	7.44	3.02	3.35	7.66	9.80	7.48	5.11	3.96
IN.	4.37	7.95	8.85	5.31	7.74	3.48	3.74	8.83	10.9	8.62	5.89	4.41
AC-FT	39,190	71,190	79,320	47,560	69,370	31,150	33,470	79,140	97,940	77,250	52,740	39,560

CAL YR 1962: TOTAL 397,903 MEAN 1,090 MAX 7,770 MIN 308 CFSM 6.49 IN 88.08 AC-FT 789,200
WAT YR 1963: TOTAL 361,933 MEAN 992 MAX 7,770 MIN 360 CFSM 5.90 IN 80.12 AC-FT 717,900

12-1825. Cascade River at Marblemount, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	472	725	900	2,970	630	378	823	630	4,190	2,530	1,460	889
2	440	936	834	2,140	576	354	720	586	3,940	2,890	1,430	889
3	432	804	790	1,540	545	347	655	563	2,970	2,680	1,700	850
4	400	758	801	1,280	640	374	635	586	2,960	2,510	2,210	806
5	372	698	981	1,090	645	406	600	590	3,460	2,720	1,690	790
6	396	670	1,060	974	586	374	590	563	3,460	2,500	1,570	755
7	337	698	867	862	545	347	660	558	2,970	3,120	1,640	750
8	300	736	790	780	504	340	715	610	2,970	3,910	1,570	740
9	294	725	720	735	488	344	750	780	3,400	3,300	1,580	645
10	291	714	650	690	492	340	806	948	3,750	2,590	1,470	590
11	300	655	620	645	492	388	785	862	3,540	3,100	1,510	572
12	300	742	581	610	456	402	735	924	2,930	3,950	1,560	558
13	719	1,200	550	581	440	364	690	967	2,720	3,810	1,380	545
14	650	1,740	527	554	420	402	710	878	2,880	3,350	1,220	540
15	566	1,480	545	563	410	545	801	867	2,970	3,420	1,130	568
16	480	1,210	545	924	413	500	710	1,020	3,780	2,710	1,110	715
17	436	1,190	590	790	416	640	640	1,470	2,900	2,340	1,110	1,170
18	408	1,040	630	715	428	635	595	1,540	2,530	2,220	1,290	780
19	334	981	650	665	444	545	581	1,940	2,320	1,890	1,200	824
20	327	864	690	625	420	488	586	2,340	2,020	1,970	936	1,220
21	2,450	780	635	572	420	452	586	2,240	1,850	2,240	967	867
22	3,730	742	831	540	413	424	665	1,770	1,840	2,060	1,100	867
23	1,440	792	2,210	514	406	399	581	1,440	2,580	1,750	1,210	785
24	1,520	780	1,980	500	396	385	600	1,360	2,810	1,850	1,150	790
25	1,520	948	1,570	590	382	371	655	1,190	2,520	2,020	1,180	1,160
26	1,110	2,820	1,220	532	371	368	665	1,230	2,460	2,040	1,530	806
27	906	2,300	1,040	554	357	350	635	1,640	2,340	2,110	1,330	690
28	900	1,520	912	581	354	347	615	2,300	1,930	2,400	1,460	625
29	900	1,300	823	625	357	399	655	2,760	1,670	2,390	1,280	659
30	816	1,030	823	610	------	550	640	3,460	2,050	2,080	1,400	2,690
31	730	------	1,920	605	------	745	------	3,940	------	1,780	1,060	------
TOTAL	24,276	31,578	28,285	25,956	13,446	13,303	20,084	42,552	84,710	80,230	42,433	25,135
MEAN	783	1,053	912	837	464	429	669	1,373	2,824	2,588	1,369	838
MAX	3,730	2,820	2,210	2,970	645	745	823	3,940	4,190	3,950	2,210	2,690
MIN	291	655	527	500	354	340	581	558	1,670	1,750	936	540
CFSM	4.66	6.27	5.43	4.98	2.76	2.55	3.98	8.17	16.8	15.4	8.15	4.99
IN.	5.37	6.99	6.26	5.75	2.98	2.94	4.45	9.42	18.8	17.8	9.39	5.56
AC-FT	48,150	62,630	56,100	51,480	26,670	26,390	39,840	84,400	168,000	159,100	84,160	49,850

CAL YR 1963: TOTAL 350,434 MEAN 960 MAX 4,000 MIN 291 CFSM 5.71 IN 77.58 AC-FT 695,100
WAT YR 1964: TOTAL 431,988 MEAN 1,180 MAX 4,190 MIN 291 CFSM 7.03 IN 95.63 AC-FT 856,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,940	635	2,900	385	1,280	715	424	1,270	1,440	2,250	1,590	514
2	2,420	581	2,330	380	1,020	665	420	1,060	1,840	2,540	1,520	488
3	1,660	554	1,660	380	884	650	402	924	2,320	2,630	1,370	456
4	1,220	1,220	1,280	380	1,240	655	410	884	2,400	2,520	1,180	424
5	1,040	862	1,040	370	2,020	650	420	790	2,640	2,410	1,040	413
6	960	695	878	365	1,720	660	410	720	2,600	2,460	988	402
7	930	630	790	355	1,300	690	402	700	2,490	2,620	1,060	399
8	1,140	558	845	350	1,140	715	396	715	2,630	2,160	1,160	420
9	1,120	536	850	340	948	760	428	834	2,760	1,540	1,230	420
10	948	500	845	330	834	862	452	1,110	2,820	1,320	1,270	420
11	806	468	750	320	740	942	444	1,220	3,020	1,240	1,160	416
12	790	448	705	320	690	906	460	1,620	2,500	1,180	1,380	396
13	765	424	700	330	700	845	500	1,640	1,760	1,420	1,590	410
14	862	402	645	390	645	796	527	1,520	1,520	1,690	1,110	658
15	872	385	595	500	605	760	700	1,520	1,550	1,840	954	1,010
16	834	382	450	660	650	725	906	2,600	1,680	1,820	942	680
17	745	382	500	980	700	655	828	1,860	2,300	1,760	967	500
18	690	364	510	1,100	770	605	720	1,450	2,400	1,570	1,090	416
19	725	355	490	1,200	960	568	1,130	1,330	2,020	1,320	1,130	362
20	700	345	470	1,390	967	540	1,600	1,540	1,920	1,220	1,190	360
21	645	335	455	1,340	850	522	1,690	1,340	1,800	1,140	974	371
22	595	330	450	1,100	770	504	1,380	1,290	1,780	1,030	912	388
23	558	402	430	906	705	472	1,200	1,320	1,940	1,170	1,140	388
24	536	992	410	818	650	440	1,200	1,260	2,110	1,420	948	396
25	509	690	400	725	615	436	1,220	1,290	1,930	1,640	834	399
26	476	615	410	675	705	413	1,430	1,670	1,560	1,810	867	368
27	444	536	410	765	974	402	1,850	2,320	1,250	1,900	818	345
28	432	484	410	912	818	385	2,330	2,820	1,160	1,660	720	335
29	452	558	410	1,250	------	378	1,890	2,710	1,300	1,460	650	330
30	568	2,460	400	1,960	------	368	1,560	2,080	1,710	1,360	545	330
31	550	------	390	1,820	------	371	------	1,630	------	1,420	500	------
TOTAL	26,932	18,128	23,808	23,096	25,900	19,055	27,729	45,037	61,230	53,520	32,829	13,434
MEAN	869	604	768	745	925	615	924	1,453	2,041	1,726	1,059	448
MAX	2,420	2,460	2,900	1,960	2,020	942	2,330	2,820	3,020	2,630	1,590	1,010
MIN	432	330	390	320	605	368	396	700	1,160	1,030	500	330
CFSM	5.17	3.60	4.57	4.43	5.51	3.66	5.50	8.65	12.1	10.3	6.30	2.67
IN.	5.96	4.01	5.27	5.11	5.73	4.22	6.14	9.97	13.6	11.8	7.27	2.97
AC-FT	53,420	35,960	47,220	45,810	51,370	37,800	55,000	89,330	121,400	106,200	65,120	26,650

CAL YR 1964: TOTAL 416,717 MEAN 1,139 MAX 4,190 MIN 330 CFSM 6.78 IN 92.25 AC-FT 826,500
WAT YR 1965: TOTAL 370,698 MEAN 1,016 MAX 3,020 MIN 320 CFSM 6.05 IN 82.06 AC-FT 735,300

Note.--No gage-height record Dec. 16 to Jan. 18.

12-1860. Sauk River above Whitechuck River, near Darrington, Wash.

Location.--Lat 48°10'00", long 121°27'45", in NW¼ sec.24, T.31 N., R.10 E., on right bank half a mile upstream from Whitechuck River and 9½ miles southeast of Darrington.

Drainage area.--152 sq mi.

Records available.--August to November 1910 (fragmentary gage heights only), October 1917 to September 1922, August 1928 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 930 ft (from river-profile map). Prior to Nov. 18, 1910, staff gage three-eighths of a mile downstream at different datum. Oct. 1, 1917, to Sept. 30, 1922, and Aug. 17, 1928, to Sept. 14, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--42 years (1917-22, 1928-65), 1,138 cfs (823,900 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (4,500 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 15, 1961	2130	* 9,730	8.22	Nov. 25, 1962	1900	4,600	6.13	June 1, 1964	2300	4,640	6.33
Feb. 21, 1961	1030	6,000	6.77	Dec. 15, 1962	1300	4,780	6.22	Sept.30, 1964	1430	5,130	6.48
June 3, 1961	0200	4,550	6.11	Feb. 4, 1963	2400	7,630	7.43				
								Oct. 2, 1964	1330	4,500	6.13
Jan. 3, 1962	0700	* 7,250	7.28	Oct. 22, 1963	0400	6,150	6.83	Nov. 30, 1964	2000	* 6,880	7.05
				Nov. 26, 1963	1800	5,800	6.68	Jan. 30, 1965	1830	6,020	6.77
Nov. 20, 1962	0200	* 13,800	9.63	Jan. 1, 1964	1300	* 6,610	6.92	May 16, 1965	1000	4,700	6.28

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	187	2.12	1964	Oct. 9, 10, 12, 13, 1963	215	2.49
1962	Sept. 9, 1962	254	2.42				
1963	Sept.30, 1963	245	a 2.49	1965	Sept.30, 1965	228	b 2.59

a Occurred Feb. 2, 1963.
b Occurred Jan. 13, 1965.

1917-22, 1928-65: Maximum discharge, 30,200 cfs Nov. 27, 1949 (gage height, 14.90 ft, in gage well), from rating curve extended above 15,000 cfs; minimum, 115 cfs Nov. 15, 16, 30, Dec. 1, 1936.

Remarks.--Records excellent. No regulation or diversion above station.

Revisions (water years).--WSP 752: 1932. WSP 1286: 1918(M), 1920(M), 1921, 1922(M), 1932(M), 1934(M), 1946-47(M), 1949.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	235	2,580	666	485	1,600	1,670	956	1,770	3,200	1,190	580	1,700
2	227	1,710	652	450	1,840	1,290	1,160	2,100	3,920	1,200	586	1,640
3	215	1,280	701	428	1,460	1,080	1,960	1,720	4,240	1,270	632	845
4	208	1,050	680	444	1,260	940	1,570	1,430	4,100	1,470	645	659
5	201	900	586	1,240	2,340	852	1,290	1,260	3,640	2,170	652	574
6	223	815	534	1,650	3,380	808	1,120	1,110	3,580	1,800	574	491
7	618	736	515	1,200	2,550	743	1,010	1,010	3,060	1,500	509	406
8	645	652	503	1,200	1,910	729	980	956	2,430	1,240	485	355
9	467	593	491	1,290	1,760	708	924	1,040	2,310	1,280	479	315
10	380	931	467	1,480	1,700	687	852	1,210	2,040	1,440	455	300
11	330	1,820	479	1,820	1,480	680	792	1,230	2,080	1,540	438	286
12	416	1,200	1,800	1,610	1,380	694	808	1,150	2,060	1,660	433	264
13	411	1,010	1,770	1,350	1,250	708	852	1,120	2,080	1,680	444	243
14	365	964	1,780	2,110	1,150	996	800	1,110	2,370	1,570	461	227
15	370	892	1,270	7,000	1,150	1,430	757	1,160	3,140	1,360	485	223
16	438	1,740	1,050	5,740	1,050	1,390	757	1,500	3,660	1,220	567	235
17	390	2,170	932	3,000	956	1,160	956	1,830	3,960	1,030	467	231
18	345	2,540	1,120	2,140	868	1,040	892	2,150	3,820	1,010	422	235
19	305	2,070	1,480	1,680	1,290	1,050	822	2,650	3,200	1,040	428	239
20	291	2,230	1,160	1,420	2,280	1,300	750	3,090	2,620	1,090	438	345
21	291	1,530	972	1,270	4,910	1,150	701	3,020	2,130	1,110	428	350
22	838	1,220	868	1,180	2,920	1,020	680	2,510	1,920	1,070	406	282
23	1,150	1,110	845	1,080	1,940	1,010	673	2,880	2,130	1,020	385	247
24	2,470	1,560	830	996	1,720	988	652	2,400	2,200	860	375	223
25	1,360	1,610	778	916	1,450	924	645	2,240	2,230	729	325	219
26	1,470	1,220	722	838	1,210	900	638	3,090	2,070	764	305	204
27	1,580	996	659	771	1,090	845	638	2,810	1,600	771	278	190
28	1,860	860	612	722	996	792	708	2,320	1,410	687	278	415
29	1,410	764	567	800	------	785	1,230	2,300	1,360	593	291	560
30	1,050	687	534	1,540	------	800	1,650	2,440	1,330	554	291	433
31	1,640	------	515	1,710	------	852	------	2,400	------	580	956	------
TOTAL	22,199	39,440	26,538	49,560	48,890	30,021	28,223	59,006	79,890	36,498	14,498	12,936
MEAN	716	1,315	856	1,599	1,746	968	941	1,903	2,663	1,177	468	431
MAX	2,470	2,580	1,800	7,000	4,910	1,670	1,960	3,090	4,240	2,170	956	1,700
MIN	201	593	467	428	868	680	638	956	1,330	554	278	190
CFSM	4.71	8.65	5.63	10.5	11.5	6.37	6.19	12.5	17.5	7.75	3.08	2.84
IN.	5.43	9.65	6.49	12.1	12.0	7.35	6.91	14.4	19.5	8.93	3.55	3.17
AC-FT	44,030	78,230	52,640	98,300	96,970	59,550	55,980	117,000	158,500	72,390	28,760	25,660

CAL YR 1960: TOTAL 374,474 MEAN 1,023 MAX 3,980 MIN 201 CFSM 6.73 IN 91.62 AC-FT 742,800
WAT YR 1961: TOTAL 447,699 MEAN 1,227 MAX 7,000 MIN 190 CFSM 8.07 IN 109.54 AC-FT 888,000

12-1860. Sauk River above Whitechuck River, near Darrington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	444	687	1,310	1,560	844	335	537	1,130	1,410	1,770	1,020	365
2	400	619	996	1,890	1,120	320	607	1,190	1,940	1,480	898	355
3	365	632	860	6,220	1,730	310	593	1,330	2,050	1,290	957	340
4	350	580	1,230	3,640	1,770	310	642	1,300	1,620	1,270	1,120	320
5	401	515	1,320	2,600	1,420	305	663	1,110	1,410	1,310	1,410	305
6	822	479	988	2,260	1,180	305	1,830	966	1,290	1,260	1,060	305
7	680	473	822	3,260	1,090	305	2,680	874	1,390	1,190	975	300
8	541	485	708	3,620	1,020	310	1,580	866	1,870	1,490	1,060	281
9	1,030	612	619	2,710	932	330	1,210	939	2,000	1,770	858	263
10	1,760	1,900	541	2,060	868	310	975	1,020	1,880	1,780	710	476
11	1,080	1,640	503	1,680	820	295	840	957	1,700	1,700	653	966
12	1,900	1,160	467	1,450	780	285	900	882	1,750	1,620	653	560
13	2,600	956	461	1,250	733	280	880	858	1,690	1,430	625	586
14	1,600	892	428	1,210	736	275	1,100	850	1,880	1,260	542	1,010
15	1,170	785	416	980	705	275	1,500	858	2,400	1,190	512	718
16	996	694	411	892	649	277	1,300	874	2,830	1,170	554	548
17	822	645	416	820	600	298	1,150	1,010	2,620	1,170	524	462
18	687	593	390	719	572	307	1,200	1,020	2,330	984	618	428
19	626	560	528	656	537	311	1,550	948	2,230	874	580	401
20	586	509	1,130	610	505	320	1,400	882	2,300	975	554	385
21	528	509	1,220	570	467	320	1,300	874	2,270	1,140	653	360
22	503	638	964	540	461	316	1,200	966	2,260	1,320	506	365
23	778	534	1,460	520	444	349	1,400	1,280	2,410	1,500	450	340
24	708	491	2,790	510	389	572	1,750	1,460	2,720	1,580	428	330
25	645	438	1,840	656	363	684	1,540	1,500	2,840	1,540	423	320
26	884	411	1,320	860	340	551	1,310	1,740	2,720	1,430	467	320
27	956	444	1,070	1,020	345	511	1,420	2,030	2,040	1,400	440	320
28	800	632	1,360	860	350	433	1,250	2,290	1,750	1,350	512	601
29	659	838	2,670	740	------	405	1,060	2,000	1,890	1,200	450	1,390
30	586	884	2,580	733	------	400	939	1,640	2,040	1,090	396	975
31	586	------	1,820	796	------	456	------	1,500	------	1,080	375	------
TOTAL	26,493	21,235	33,638	47,892	21,770	11,060	36,206	37,144	61,530	41,613	20,983	14,735
MEAN	855	708	1,085	1,545	778	357	1,207	1,198	2,051	1,342	677	491
MAX	2,600	1,900	2,790	6,220	1,770	684	2,680	2,290	2,840	1,780	1,410	1,390
MIN	350	411	390	510	340	275	537	850	1,290	874	375	263
CFSM	5.62	4.66	7.14	10.2	5.12	2.35	7.94	7.88	13.5	8.83	4.45	3.23
IN.	6.48	5.20	8.23	11.7	5.33	2.71	8.86	9.09	15.1	10.2	5.13	3.61
AC-FT	52,550	42,120	66,720	94,990	43,180	21,940	71,810	73,670	122,000	82,540	41,620	29,230

CAL YR 1961: TOTAL 440,888 MEAN 1,208 MAX 7,000 MIN 190 CFSM 7.95 IN 107.87 AC-FT 874,500
WAT YR 1962: TOTAL 374,299 MEAN 1,025 MAX 6,220 MIN 263 CFSM 6.75 IN 91.58 AC-FT 742,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	725	375	1,040	2,400	315	1,310	625	890	1,640	957	580	315
2	599	365	939	2,840	429	1,110	580	882	1,530	1,200	542	315
3	802	340	850	3,130	5,560	957	586	786	1,350	1,080	518	300
4	702	370	762	2,080	4,790	866	810	710	1,240	1,150	536	286
5	554	702	1,170	1,630	5,100	794	866	930	1,410	1,030	530	286
6	500	725	2,670	1,310	2,940	755	1,210	993	1,380	975	524	272
7	494	560	1,810	1,160	2,650	695	1,050	948	1,350	939	489	268
8	770	850	1,810	1,060	2,160	655	906	914	1,280	1,040	478	272
9	1,280	810	1,750	975	1,870	632	818	850	1,290	975	489	290
10	1,040	993	1,650	810	1,610	618	748	786	1,240	914	484	310
11	818	1,080	1,690	702	1,360	639	702	762	1,570	975	512	310
12	770	1,030	1,550	702	1,190	580	681	762	1,880	898	586	290
13	866	957	1,460	681	1,060	560	681	748	1,750	898	786	525
14	748	834	2,180	625	993	536	930	778	1,770	939	580	988
15	653	710	4,120	586	898	512	1,310	858	2,030	922	445	500
16	580	625	3,420	548	850	494	993	882	2,200	842	396	428
17	536	566	2,360	518	818	472	866	975	2,050	834	365	412
18	586	524	1,820	494	818	472	794	1,410	1,950	810	350	355
19	639	3,780	1,530	450	1,610	560	786	1,900	1,810	810	390	310
20	639	7,680	1,300	434	1,700	646	786	2,370	1,550	770	418	290
21	842	2,890	1,290	412	1,240	653	732	2,740	1,320	725	360	281
22	866	1,900	1,140	396	1,030	802	710	2,670	1,140	957	325	305
23	702	1,450	984	385	906	740	702	2,320	1,020	794	335	380
24	618	1,360	858	370	834	667	667	2,000	1,050	681	390	325
25	560	2,640	778	350	850	632	646	1,800	1,160	667	335	286
26	512	3,010	710	335	2,100	606	667	1,660	1,030	618	325	268
27	494	1,990	695	325	1,610	632	667	1,530	890	632	295	272
28	450	1,490	810	320	1,300	826	667	1,690	850	639	286	300
29	445	1,220	1,230	310	------	818	794	1,890	1,080	599	290	300
30	434	1,210	2,510	315	------	748	874	2,010	939	566	286	258
31	401	------	2,650	330	------	695	------	1,930	------	548	305	------
TOTAL	20,625	43,036	49,536	26,983	48,591	21,682	23,854	42,374	42,749	26,384	13,530	10,297
MEAN	665	1,435	1,598	870	1,735	699	795	1,367	1,425	851	436	343
MAX	1,280	7,680	4,120	3,130	5,560	1,310	1,310	2,740	2,200	1,200	786	988
MIN	401	340	695	310	315	472	580	710	850	548	286	258
CFSM	4.38	9.44	10.5	5.73	11.4	4.60	5.23	8.99	9.37	5.60	2.87	2.26
IN.	5.05	10.5	12.1	6.60	11.9	5.30	5.84	10.4	10.5	6.46	3.31	2.52
AC-FT	40,910	85,360	98,250	53,520	96,380	43,010	47,310	84,050	84,790	52,330	26,840	20,420

CAL YR 1962: TOTAL 406,130 MEAN 1,113 MAX 7,680 MIN 263 CFSM 7.32 IN 99.37 AC-FT 805,500
WAT YR 1963: TOTAL 369,641 MEAN 1,013 MAX 7,680 MIN 258 CFSM 6.66 IN 90.44 AC-FT 733,200

12-1860. Sauk River above Whitechuck River, near Darrington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBEP 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	245	786	1,220	4,780	1,170	548	957	710	4,400	2,720	1,640	898
2	245	1,010	1,080	3,270	922	462	834	646	4,080	3,040	1,780	826
3	245	866	1,000	2,360	778	434	725	599	3,230	2,610	1,860	794
4	241	882	957	1,930	850	548	718	580	3,310	2,450	2,200	725
5	241	834	1,110	1,610	890	618	681	592	4,060	2,650	1,800	695
6	254	834	1,410	1,490	770	500	639	560	3,700	2,550	1,610	667
7	230	975	1,190	1,230	681	450	681	560	3,310	2,950	1,630	674
8	219	1,040	1,060	1,060	612	445	740	612	3,010	3,700	1,510	786
9	215	906	948	966	573	445	786	786	2,980	3,150	1,450	667
10	219	842	866	906	592	445	858	1,120	3,670	2,600	1,330	573
11	223	762	802	842	606	632	874	1,030	3,670	2,890	1,350	512
12	219	794	762	770	554	573	858	1,110	3,060	3,690	1,440	478
13	418	1,270	716	725	518	467	842	1,210	2,940	3,790	1,240	456
14	467	2,210	695	667	494	639	770	1,060	3,010	3,450	1,080	445
15	370	1,880	755	725	484	1,040	957	975	3,180	3,520	975	434
16	310	1,610	826	1,660	467	778	810	1,110	3,790	3,320	930	512
17	272	2,030	930	1,320	530	794	702	1,610	3,160	2,700	922	1,060
18	268	1,580	948	1,060	536	866	639	1,750	2,740	2,430	993	794
19	245	1,460	1,030	914	580	710	612	2,140	2,500	2,080	966	687
20	276	1,150	1,280	818	524	599	632	2,600	2,270	2,080	818	1,280
21	2,250	957	1,100	740	500	536	639	2,830	2,130	2,330	810	930
22	3,950	922	1,400	674	489	489	818	2,400	2,130	2,210	930	834
23	1,980	1,190	3,130	612	478	450	710	1,880	2,770	1,760	1,030	755
24	2,510	1,180	2,580	674	472	412	695	1,710	3,040	1,830	1,020	725
25	2,260	1,260	2,390	1,510	445	396	732	1,490	2,800	2,030	1,020	858
26	1,600	3,820	1,880	1,050	434	396	778	1,450	2,720	2,090	1,610	674
27	1,190	3,630	1,720	914	412	375	748	1,760	2,580	2,090	1,220	573
28	1,210	2,250	1,510	914	406	365	725	2,400	2,180	2,320	1,520	512
29	1,170	1,760	1,300	1,070	423	396	778	2,770	1,950	2,260	1,260	573
30	957	1,430	1,280	1,010	------	542	755	3,310	2,230	2,040	1,340	3,190
31	842	------	2,710	984	------	786	------	3,860	------	1,880	1,050	------
TOTAL	25,341	42,120	40,585	39,255	17,190	17,136	22,693	47,220	90,600	81,210	40,334	23,587
MEAN	817	1,404	1,309	1,266	593	553	756	1,523	3,020	2,620	1,301	786
MAX	3,950	3,820	3,130	4,780	1,170	1,040	957	3,860	4,400	3,790	2,200	3,190
MIN	215	762	695	612	406	365	612	560	1,950	1,760	810	434
CFSM	5.38	9.24	8.61	8.33	3.90	3.64	4.98	10.0	19.9	17.2	8.56	5.17
IN.	6.20	10.3	9.93	9.60	4.21	4.19	5.55	11.6	22.2	19.9	9.87	5.77
AC-FT	50,260	83,540	80,500	77,860	34,100	33,990	45,010	93,660	179,700	161,100	80,000	46,780

CAL YR 1963: TOTAL 364,490 MEAN 999 MAX 5,560 MIN 215 CFSM 6.57 IN 89.18 AC-FT 723,000
WAT YR 1964: TOTAL 487,271 MEAN 1,331 MAX 4,780 MIN 215 CFSM 8.76 IN 119.22 AC-FT 966,500

DISCHARGE, IN CUBIC FEET PER SECONO, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,890	639	5,870	490	2,090	1,030	474	1,680	1,890	1,870	972	326
2	3,360	632	4,320	545	1,610	882	490	1,410	2,190	2,160	990	319
3	2,400	651	2,830	510	1,310	810	434	1,240	2,540	2,250	909	305
4	1,690	1,720	2,090	475	1,500	786	450	1,190	2,700	2,230	762	284
5	1,310	1,200	1,700	460	2,390	754	474	1,040	2,880	2,180	658	264
6	1,130	890	1,410	470	2,120	738	458	942	3,010	2,120	618	258
7	1,040	770	1,230	450	1,600	754	434	891	2,850	2,200	610	252
8	1,060	688	1,480	425	1,520	770	418	891	2,840	1,950	674	246
9	1,060	618	1,660	405	1,270	802	498	999	2,950	1,500	650	246
10	984	586	1,650	375	1,080	882	546	1,280	2,800	1,280	698	246
11	842	542	1,360	345	945	972	506	1,480	2,950	1,200	682	246
12	786	518	1,160	325	864	990	522	1,850	2,560	1,160	810	246
13	748	494	1,060	330	1,030	945	610	1,990	1,980	1,250	1,350	246
14	922	450	966	418	954	891	618	1,900	1,740	1,410	846	688
15	1,100	434	850	653	828	855	778	1,860	1,640	1,420	650	981
16	1,090	418	750	1,120	990	819	1,150	3,850	1,660	1,430	586	786
17	939	414	680	1,360	1,130	746	1,180	2,840	2,160	1,390	562	498
18	810	401	630	1,360	1,150	682	1,030	2,150	2,360	1,240	570	396
19	770	380	600	1,450	1,400	642	1,370	1,850	2,020	1,080	610	340
20	755	370	575	1,610	1,520	602	3,520	1,920	1,960	972	586	298
21	688	365	565	1,650	1,280	570	3,070	1,780	1,760	900	530	277
22	639	350	750	1,430	1,100	562	2,260	1,700	1,720	810	482	264
23	592	522	920	1,210	954	522	1,850	1,670	1,730	837	570	252
24	548	2,580	720	1,100	837	466	1,690	1,610	1,850	990	578	246
25	536	1,520	640	966	778	442	1,630	1,630	1,790	1,100	522	246
26	489	1,240	665	914	999	410	1,820	1,920	1,540	1,210	578	246
27	467	948	680	1,830	1,780	396	2,260	2,520	1,280	1,190	570	246
28	445	802	610	2,080	1,280	368	2,670	3,110	1,150	1,070	490	240
29	440	1,040	570	2,880	------	396	2,340	3,090	1,220	972	458	240
30	530	5,410	530	3,920	------	382	2,000	2,580	1,480	900	389	234
31	625	------	510	3,360	------	375	------	2,110	------	891	347	------
TOTAL	31,685	27,592	40,031	34,916	36,309	21,241	37,550	56,973	63,200	43,162	20,307	9,962
MEAN	1,022	920	1,291	1,126	1,297	685	1,252	1,838	2,107	1,392	655	332
MAX	3,360	5,410	5,870	3,920	2,390	1,030	3,520	3,850	3,010	2,250	1,350	981
MIN	440	350	510	325	778	368	418	891	1,150	810	347	234
CFSM	6.72	6.05	8.50	7.41	8.53	4.51	8.23	12.1	13.9	9.16	4.31	2.18
IN.	7.75	6.75	9.79	8.54	8.88	5.20	9.19	13.9	15.5	10.6	4.97	2.44
AC-FT	62,850	54,730	79,400	69,250	72,020	42,130	74,480	113,000	125,400	85,610	40,280	19,760

CAL YR 1964: TOTAL 478,533 MEAN 1,307 MAX 5,870 MIN 350 CFSM 8.60 IN 117.08 AC-FT 949,200
WAT YR 1965: TOTAL 422,928 MEAN 1,159 MAX 5,870 MIN 234 CFSM 7.62 IN 103.48 AC-FT 838,900

12-1895. Sauk River near Sauk, Wash.

Location.--Lat 48°25'15", long 121°34'00", in NW¼ sec.19, T.34 N., R.10 E., on left bank 5 miles upstream from mouth, 5 miles southeast of Sauk, and 8 miles downstream from Suiattle River.

Drainage area.--714 sq mi.

Records available.--August to October 1910 (fragmentary gage heights), March 1911 to August 1912, July 1928 to September 1965. Published as "near Suiattle Crossing, near Sauk" 1910-1912.

Gage.--Digital water-stage recorder. Datum of gage is 266 ft above mean sea level (from river-profile survey). Prior to Aug. 4, 1912, staff or chain gages at several sites 1 mile downstream to 5 miles upstream from present site at various datums. July 24, 1928, to Sept. 16, 1929, staff gage and Sept. 16, 1929, to Sept. 14, 1965, graphic water-stage recorder, at present site and datum.

Average discharge.--37 years (1928-65), 4,320 cfs (3,128,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (16,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	0230	* 35,500	11.50	Nov. 20, 1962	0430	44,800	12.83	Jan. 1, 1964	1630	* 24,400	9.65
Feb. 21, 1961	1530	26,300	10.00	Nov. 25, 1962	2200	18,300	8.52	June 2, 1964	0400	17,200	8.59
June 4, 1961	0400	17,500	8.36	Dec. 15, 1962	1530	17,200	8.29	July 13, 1964	0230	16,300	8.48
June 18, 1961	0200	18,100	8.47	Feb. 5, 1963	0500	* 25,800	9.90	Sept.30, 1964	1700	17,400	8.59
Jan. 3, 1962	1330	* 27,800	10.27	Oct. 22, 1963	0700	21,500	8.99	Nov. 30, 1964	2000	* 23,800	9.73
Jan. 8, 1962	0630	20,900	9.01	Nov. 26, 1963	2130	22,600	9.25	Jan. 30, 1965	2100	21,600	9.30

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	1,020	a 2.97	1964	Oct. 13, 1964	1,140	3.06
1962	Mar. 13, 1962	1,390	3.33	1965	Sept.30, 1965	1,090	3.21
1963	Jan. 29, 1963	1,310	b 3.30				

a Occurred Oct. 5, 6, 1960.
b Occurred Sept. 20-22, 26, 1963.

1910-12, 1928-65: Maximum discharge, 82,400 cfs Nov. 27, 1949 (gage height, 16.93 ft); minimum, 572 cfs Dec. 5, 1929, but may have been less during period of ice effect Jan. 10-27, 1930.

Remarks.--Records good. No regulation. Small diversion for millpond at Darrington and for domestic use.

Revisions (water years).--WSP 1286: 1929, 1937, 1939.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,420	7,630	2,920	2,200	5,520	6,260	3,550	5,570	11,400	4,420	2,760	1,930
2	1,370	5,520	2,860	2,120	6,840	5,240	4,180	6,660	14,600	4,470	2,760	2,820
3	1,350	4,270	2,930	2,040	5,320	4,400	6,350	5,520	16,000	4,710	2,900	3,170
4	1,270	3,500	2,930	2,070	4,620	3,870	5,350	4,570	15,900	5,300	2,980	3,130
5	1,240	3,110	2,590	5,000	7,520	3,590	4,370	4,220	14,200	6,770	3,080	2,840
6	1,310	2,900	2,420	6,560	12,900	3,400	3,850	3,760	14,300	6,680	2,760	2,550
7	2,250	2,640	2,340	4,980	9,850	3,190	3,480	3,440	12,400	5,650	2,460	2,140
8	2,540	2,450	2,330	5,030	7,030	3,070	3,440	3,340	9,440	4,770	2,330	1,860
9	2,000	2,280	2,310	5,430	6,200	3,050	3,380	3,570	8,900	4,820	2,260	1,700
10	1,700	3,050	2,240	6,540	6,380	2,950	3,190	4,180	7,630	5,300	2,190	1,600
11	1,570	7,030	2,240	8,500	5,520	2,920	3,030	4,200	7,870	5,860	2,150	1,540
12	1,830	4,640	6,380	7,330	5,630	2,950	3,150	3,810	7,870	6,500	2,100	1,470
13	1,860	3,780	6,380	5,800	5,000	3,170	3,250	3,760	7,900	6,770	2,140	1,390
14	1,680	3,700	6,590	7,780	4,620	4,200	3,170	3,650	8,790	6,620	2,190	1,330
15	1,640	3,460	4,800	24,100	4,870	5,880	3,010	3,720	11,700	5,860	2,350	1,290
16	1,930	6,400	3,960	24,700	4,400	5,520	3,010	4,740	14,100	5,280	2,550	1,300
17	1,800	7,700	3,570	12,200	4,080	4,520	3,650	5,970	15,900	4,370	2,590	1,300
18	1,610	10,000	4,340	8,500	3,670	4,030	3,360	6,840	15,900	4,070	2,380	1,330
19	1,540	7,800	5,880	6,470	4,850	3,990	3,130	8,400	13,500	4,120	2,260	1,340
20	1,460	9,080	4,600	5,520	8,400	4,900	2,900	10,200	10,500	4,340	2,240	1,950
21	1,450	6,110	3,870	5,000	20,500	4,400	2,770	10,500	8,300	4,660	2,220	1,800
22	3,050	4,820	3,480	4,620	12,800	3,920	2,680	8,400	7,280	4,420	2,200	1,420
23	4,000	4,570	3,380	4,250	8,180	3,900	2,660	10,000	7,860	4,220	2,170	1,260
24	9,220	6,230	3,290	3,900	7,230	3,850	2,620	8,320	8,270	3,710	2,120	1,160
25	5,000	6,750	3,110	3,590	6,080	3,590	2,590	7,390	8,380	3,190	2,030	1,190
26	5,520	5,080	2,950	3,340	5,110	3,440	2,570	10,800	8,130	3,210	1,900	1,100
27	5,800	4,150	2,750	3,110	4,570	3,250	2,560	10,700	6,280	3,270	1,800	1,040
28	6,410	3,590	2,570	2,920	4,100	3,070	2,690	8,220	5,480	3,110	1,700	1,790
29	4,770	3,210	2,470	3,290	------	3,030	4,080	7,940	5,220	2,760	1,640	2,240
30	3,610	2,970	2,370	5,630	------	3,070	5,490	8,860	4,880	2,610	1,630	1,750
31	3,860	------	2,300	6,080	------	3,210	------	8,500	------	2,630	1,660	------
TOTAL	86,060	148,420	107,150	198,600	191,790	119,830	103,510	199,750	308,880	144,470	70,500	52,730
MEAN	2,776	4,947	3,456	6,406	6,850	3,865	3,450	6,444	10,300	4,660	2,274	1,758
MAX	9,220	10,000	6,590	24,700	20,500	6,260	6,350	10,800	16,000	6,770	3,080	3,170
MIN	1,240	2,280	2,240	2,040	3,670	2,920	2,560	3,340	4,880	2,610	1,630	1,040
CFSM	3.89	6.93	4.84	8.97	9.59	5.41	4.83	9.02	14.4	6.53	3.19	2.46
IN.	4.48	7.73	5.58	10.3	9.99	6.24	5.39	10.4	16.1	7.52	3.67	2.75
AC-FT	170,700	294,400	212,500	393,900	380,400	237,700	205,300	396,200	612,700	286,600	139,800	104,600

CAL YR 1960: TOTAL 1,492,100 MEAN 4,077 MAX 11,900 MIN 1,240 CFSM 5.71 IN 77.72 AC-FT 2,960,000
WAT YR 1961: TOTAL 1,731,690 MEAN 4,744 MAX 24,700 MIN 1,040 CFSM 6.64 IN 90.20 AC-FT 3,435,000

12-1895. Sauk River near Sauk, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,750	2,380	5,570	6,130	3,320	1,660	2,330	3,900	4,960	7,060	4,660	1,900
2	1,660	2,170	4,040	7,260	4,160	1,630	2,480	4,070	6,710	5,740	4,190	1,900
3	1,580	2,190	3,470	24,300	6,460	1,600	2,330	4,660	7,340	4,940	4,190	1,800
4	1,530	2,050	4,470	14,700	6,620	1,600	2,500	4,660	5,800	4,880	5,100	1,720
5	1,530	1,850	5,480	10,200	5,190	1,570	2,680	3,970	5,100	4,990	5,830	1,690
6	2,800	1,770	3,850	8,760	4,290	1,580	5,120	3,550	4,600	4,820	4,600	1,690
7	2,400	1,750	3,300	14,600	4,090	1,600	8,480	3,210	4,880	4,340	4,340	1,720
8	2,080	1,820	2,920	18,900	3,870	1,640	5,160	3,190	6,650	5,620	4,470	1,560
9	2,380	2,290	2,610	12,500	3,620	1,600	3,920	3,400	7,180	6,710	3,760	1,460
10	4,630	6,770	2,290	8,940	3,440	1,530	3,250	3,640	6,800	6,870	3,230	2,030
11	3,340	6,740	2,140	7,090	3,340	1,490	2,860	3,510	5,980	6,590	3,080	3,850
12	4,060	4,740	2,050	5,980	3,150	1,430	2,780	3,270	6,370	6,370	3,080	2,480
13	7,090	3,900	1,980	5,130	3,000	1,400	3,040	3,250	6,070	5,740	3,130	2,550
14	5,220	3,710	1,900	4,600	3,060	1,400	4,120	3,190	6,900	4,990	2,760	4,120
15	3,850	3,320	1,830	4,090	2,900	1,430	5,570	3,170	8,520	4,710	2,650	2,960
16	3,320	2,900	1,820	3,740	2,700	1,490	4,550	3,170	10,200	4,680	2,880	2,290
17	3,020	2,700	1,930	3,420	2,550	1,510	3,990	3,550	9,500	5,100	2,720	1,980
18	2,510	2,570	1,880	3,080	2,460	1,530	4,340	3,580	8,520	4,190	2,960	1,880
19	2,190	2,420	2,120	2,780	2,350	1,530	5,510	3,380	8,240	3,670	2,960	1,830
20	2,100	2,240	5,250	2,600	2,260	1,580	5,050	3,170	8,380	3,970	2,820	1,780
21	1,910	2,100	5,570	2,500	2,140	1,600	4,420	3,110	8,270	4,600	3,080	1,830
22	1,750	2,400	4,260	2,400	2,120	1,510	4,190	3,420	8,270	5,300	2,610	1,780
23	2,270	2,400	6,100	2,350	2,050	1,630	4,500	4,260	8,870	6,190	2,290	1,680
24	2,650	2,200	10,000	2,300	1,850	2,330	5,540	5,080	10,200	6,650	2,240	1,630
25	2,400	1,960	7,280	2,860	1,770	3,060	5,300	5,100	10,900	6,560	2,240	1,620
26	3,490	1,880	5,130	3,470	1,660	2,480	4,390	5,950	10,400	6,160	2,360	1,630
27	3,400	2,000	4,140	4,240	1,680	2,350	4,600	6,960	7,600	6,040	2,190	1,580
28	2,800	2,880	5,550	3,510	1,690	2,100	4,340	7,700	6,310	6,040	2,440	2,210
29	2,350	3,690	10,700	3,060	------	1,950	3,710	7,150	6,960	5,390	2,190	4,290
30	2,080	3,620	10,600	3,040	------	1,930	3,380	5,800	7,930	4,880	1,930	3,170
31	2,050	------	7,020	3,190	------	2,050	------	5,280	------	4,820	1,910	------
TOTAL	86,190	85,410	137,250	201,720	87,790	53,790	124,430	131,300	224,410	168,610	98,890	64,610
MEAN	2,780	2,847	4,427	6,507	3,135	1,735	4,148	4,235	7,480	5,439	3,190	2,154
MAX	7,090	6,770	10,700	24,300	6,620	3,060	8,480	7,700	10,900	7,060	5,830	4,290
MIN	1,530	1,750	1,820	2,300	1,660	1,400	2,330	3,110	4,600	3,670	1,910	1,460
CFSM	3.89	3.99	6.20	9.11	4.39	2.43	5.81	5.93	10.5	7.62	4.47	3.02
IN.	4.49	4.45	7.15	10.5	4.57	2.80	6.48	6.84	11.7	8.78	5.15	3.37
AC-FT	171,000	169,400	272,200	400,100	174,100	106,700	246,800	260,400	445,100	334,400	196,100	128,200

CAL YR 1961: TOTAL 1,698,910 MEAN 4,655 MAX 24,700 MIN 1,040 CFSM 6.52 IN 88.49 AC-FT 3,370,000
WAT YR 1962: TOTAL 1,464,400 MEAN 4,012 MAX 24,300 MIN 1,400 CFSM 5.62 IN 76.28 AC-FT 2,905,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,510	1,570	4,340	9,660	1,540	4,550	2,530	3,360	6,130	3,550	2,980	1,600
2	2,170	1,540	4,090	11,000	1,720	4,040	2,350	3,490	5,620	4,440	2,680	1,600
3	2,670	1,510	3,740	13,000	15,100	3,580	2,360	3,170	4,960	4,390	2,590	1,500
4	2,480	1,510	3,360	8,440	15,400	3,320	3,590	2,880	4,500	4,660	2,700	1,450
5	2,050	2,740	4,740	6,530	19,700	3,110	3,470	3,170	5,080	4,370	2,700	1,450
6	1,880	2,760	9,620	5,390	10,400	2,900	4,570	3,830	4,990	4,090	2,680	1,400
7	1,830	2,090	6,710	4,630	9,050	2,740	4,020	3,470	4,990	4,020	2,570	1,350
8	2,780	2,920	7,120	4,320	7,220	2,610	3,490	3,360	4,740	4,570	2,500	1,400
9	4,340	3,060	6,740	3,970	6,280	2,530	3,150	3,110	5,100	4,240	2,610	1,500
10	3,620	3,850	6,220	3,360	5,450	2,460	2,920	2,920	4,680	3,920	2,570	1,600
11	2,800	4,090	6,250	2,980	4,740	2,570	2,780	2,800	5,800	4,370	2,760	1,600
12	2,590	3,850	5,830	2,860	4,220	2,380	2,650	2,840	7,440	3,920	3,110	1,500
13	2,980	3,670	5,680	2,820	3,850	2,290	2,590	2,720	6,770	3,830	4,370	4,500
14	2,650	3,150	8,300	2,680	3,670	2,240	3,130	2,840	6,740	4,070	3,510	3,440
15	2,350	2,740	14,400	2,570	3,440	2,170	4,390	3,130	7,570	4,040	2,500	2,120
16	2,170	2,420	12,900	2,440	3,320	2,070	3,550	3,190	8,270	3,640	2,100	1,770
17	2,020	2,260	8,910	2,310	3,190	2,000	3,080	3,360	7,960	3,530	1,900	1,640
18	2,150	2,120	6,930	2,220	3,230	1,950	2,900	4,520	7,570	3,380	1,800	1,500
19	2,400	10,600	5,800	2,070	4,680	2,220	2,880	6,280	7,220	3,380	2,000	1,440
20	2,400	27,700	4,960	2,020	5,600	2,670	2,920	7,930	6,220	3,340	2,100	1,430
21	3,190	10,100	5,020	1,930	4,160	2,610	2,840	9,240	5,390	3,110	1,950	1,430
22	3,400	6,800	4,630	1,860	3,600	3,170	2,820	9,390	4,680	3,800	1,700	1,500
23	2,780	5,190	4,020	1,780	3,250	2,900	2,840	8,170	4,070	3,400	1,800	1,770
24	2,420	4,850	3,580	1,750	3,040	2,630	2,670	7,220	4,220	2,960	2,000	1,600
25	2,240	9,510	3,300	1,700	3,040	2,510	2,530	6,280	4,500	3,000	1,800	1,470
26	2,120	12,000	3,080	1,520	7,180	2,440	2,550	5,980	4,240	2,780	1,700	1,460
27	1,980	7,760	2,980	1,580	5,770	2,530	2,550	5,330	3,690	2,920	1,550	1,510
28	1,850	6,040	3,250	1,500	4,630	3,130	2,500	5,860	3,440	3,020	1,450	1,680
29	1,800	4,910	4,850	1,460	------	3,170	2,940	6,740	4,090	2,860	1,500	1,820
30	1,770	4,820	10,900	1,430	------	2,980	3,190	7,380	3,640	2,670	1,450	1,570
31	1,680	------	11,000	1,540	------	2,760	------	7,250	------	2,570	1,550	------
TOTAL	76,070	158,130	193,250	113,320	166,470	85,230	90,740	151,210	164,310	112,840	71,180	51,600
MEAN	2,454	5,271	6,234	3,655	5,945	2,749	3,025	4,878	5,477	3,640	2,296	1,720
MAX	4,340	27,700	14,400	13,000	19,700	4,550	4,570	9,390	8,270	4,660	4,370	4,500
MIN	1,680	1,510	2,980	1,430	1,540	1,950	2,350	2,720	3,440	2,570	1,450	1,350
CFSM	3.44	7.38	8.73	5.12	8.33	3.85	4.24	6.83	7.67	5.10	3.22	2.41
IN.	3.96	8.24	10.1	5.90	8.67	4.44	4.73	7.88	8.56	5.88	3.71	2.69
AC-FT	150,900	313,600	383,300	224,800	330,200	169,100	180,000	299,900	325,900	223,800	141,200	102,300

CAL YR 1962: TOTAL 1,583,000 MEAN 4,337 MAX 27,700 MIN 1,400 CFSM 6.07 IN 82.45 AC-FT 3,140,000
WAT YR 1963: TOTAL 1,434,350 MEAN 3,930 MAX 27,700 MIN 1,350 CFSM 5.50 IN 74.71 AC-FT 2,845,000

12-1895. Sauk River near Sauk, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,470	2,900	4,570	16,300	5,920	2,240	4,020	2,960	16,000	9,500	5,570	3,440
2	1,430	4,040	4,090	12,600	4,740	2,020	3,490	2,760	15,700	11,000	6,010	3,080
3	1,430	3,510	3,740	8,660	3,950	1,910	3,020	2,570	12,300	9,430	6,010	3,060
4	1,400	3,300	3,600	7,220	4,120	2,170	2,900	2,570	11,900	8,760	7,860	2,860
5	1,360	3,080	3,970	5,920	4,370	2,740	2,820	2,590	14,700	9,810	6,250	2,740
6	1,330	3,000	4,820	5,620	3,710	2,360	2,440	2,510	14,000	9,280	5,650	2,670
7	1,290	3,340	4,140	4,880	3,360	2,150	2,760	2,480	12,200	10,500	5,680	2,590
8	1,240	4,070	3,760	4,240	3,020	2,050	3,000	2,630	11,300	14,100	5,570	2,880
9	1,190	3,780	3,420	4,040	2,900	2,170	3,170	3,130	11,600	12,400	5,160	2,550
10	1,170	3,740	3,110	3,870	2,920	2,100	3,420	4,190	14,100	9,690	4,850	2,350
11	1,160	3,320	2,900	3,670	3,040	2,900	3,530	3,850	14,100	10,500	4,800	2,100
12	1,160	3,320	2,780	3,380	2,760	2,960	3,340	4,020	11,600	13,800	5,220	2,000
13	1,700	4,850	2,670	3,250	2,610	2,500	3,300	4,440	10,800	14,400	4,630	1,950
14	2,170	7,400	2,510	3,190	2,440	2,860	3,150	3,830	11,100	13,000	4,260	1,900
15	1,740	7,120	2,780	3,210	2,400	5,050	3,970	3,620	11,600	13,000	3,850	1,650
16	1,530	6,190	3,190	7,010	2,330	3,800	3,490	3,990	14,600	11,600	3,690	2,400
17	1,440	7,600	3,440	5,950	2,500	3,760	3,080	5,680	12,100	9,310	3,070	4,000
18	1,430	6,460	3,690	4,880	2,500	3,990	2,820	6,100	10,400	8,690	3,870	3,100
19	1,400	6,040	3,970	4,340	2,760	3,340	2,700	7,340	9,430	7,220	3,920	2,600
20	1,400	5,080	4,710	3,990	2,480	2,960	2,740	9,090	8,240	7,280	3,270	4,600
21	5,660	4,340	4,190	3,550	2,350	2,670	2,740	10,100	7,540	8,000	3,080	3,300
22	14,500	4,240	4,650	3,230	2,260	2,480	3,470	8,730	7,250	7,570	3,510	3,750
23	6,430	5,420	10,200	2,980	2,170	2,290	3,020	6,680	9,430	6,530	3,760	3,230
24	6,710	5,570	8,690	3,130	2,120	2,120	2,920	6,100	10,800	6,460	3,870	3,060
25	7,090	5,680	7,730	6,280	2,020	2,020	3,110	5,160	9,920	7,060	3,670	3,620
26	5,330	13,600	6,340	4,820	1,950	2,000	3,250	5,020	9,620	7,310	5,130	2,940
27	4,190	13,600	6,010	4,260	1,860	1,930	3,080	6,100	9,280	7,340	4,550	2,530
28	4,240	7,860	5,280	4,440	1,850	1,830	2,960	8,440	7,800	8,300	5,330	2,270
29	4,320	6,250	4,550	5,160	1,850	1,950	3,190	10,000	6,650	8,440	4,630	2,260
30	3,640	5,250	4,240	4,960	------	2,480	3,080	12,000	7,600	7,470	5,130	10,300
31	3,170	------	8,070	4,800	------	3,360	------	14,200	------	6,680	4,040	------
TOTAL	93,720	163,950	141,810	163,830	83,260	81,160	93,980	172,880	333,660	294,430	146,490	91,980
MEAN	3,023	5,465	4,575	5,285	2,871	2,618	3,133	5,577	11,120	9,498	4,725	3,066
MAX	14,500	13,600	10,200	16,300	5,920	5,050	4,020	14,200	16,000	14,400	7,860	10,300
MIN	1,160	2,900	2,510	2,980	1,850	1,830	2,440	2,480	6,650	6,460	3,080	1,650
CFSM	4.23	7.65	6.41	7.40	4.02	3.67	4.39	7.81	15.6	13.3	6.62	4.29
IN.	4.88	8.54	7.39	8.53	4.34	4.23	4.90	9.00	17.4	15.3	7.63	4.79
AC-FT	185,900	325,200	281,300	325,000	165,100	161,000	186,400	342,900	661,800	584,000	290,600	182,400

CAL YR 1963: TOTAL 1,406,380 MEAN 3,853 MAX 19,700 MIN 1,160 CFSM 5.40 IN 73.25 AC-FT 2,790,000
WAT YR 1964: TOTAL 1,861,150 MEAN 5,085 MAX 16,300 MIN 1,160 CFSM 7.12 IN 96.94 AC-FT 3,692,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8,660	2,310	19,500	2,110	7,960	4,280	2,240	5,500	6,170	6,800	4,380	1,680
2	9,600	2,330	14,800	2,330	6,170	3,760	2,180	4,750	7,010	8,100	4,400	1,650
3	7,190	2,290	9,080	2,230	5,100	3,510	2,020	4,250	8,480	8,660	3,980	1,600
4	5,180	6,150	6,620	2,060	5,870	3,430	2,040	4,220	9,120	8,450	3,550	1,530
5	4,200	4,200	5,250	1,970	10,500	3,270	2,110	3,780	9,940	8,450	3,250	1,460
6	3,740	3,190	4,450	2,040	9,190	3,250	2,020	3,450	10,500	8,310	3,100	1,410
7	3,490	2,800	3,890	1,890	6,500	3,270	1,970	3,330	10,100	8,840	3,020	1,400
8	3,890	2,510	4,820	1,850	6,170	3,310	1,930	3,330	9,900	8,030	3,370	1,400
9	4,030	2,350	5,350	1,820	5,300	3,390	2,110	3,570	10,700	6,020	3,390	1,420
10	3,470	2,240	5,350	1,740	4,600	3,690	2,230	4,400	10,300	5,100	3,470	1,460
11	3,080	2,130	4,550	1,650	4,010	3,920	2,110	4,850	11,400	4,800	3,390	1,460
12	2,870	2,010	3,890	1,570	3,690	3,940	2,140	6,050	9,660	4,450	3,650	1,400
13	2,780	1,970	3,650	1,620	4,350	3,720	2,370	6,500	7,220	4,850	4,820	1,370
14	3,060	1,830	3,370	2,080	4,050	3,530	2,350	6,200	6,230	5,600	3,570	2,440
15	3,690	1,760	3,140	2,980	3,630	3,390	2,870	6,110	5,840	5,750	2,890	3,490
16	3,610	1,720	2,910	4,600	4,220	3,290	3,870	12,600	5,780	5,720	2,780	2,870
17	3,250	1,710	2,820	5,280	5,050	3,020	3,760	9,150	7,580	5,520	2,730	2,020
18	2,870	1,680	2,600	5,120	4,950	2,830	3,290	6,980	8,730	5,250	2,850	1,680
19	2,760	1,600	2,490	5,400	5,500	2,690	4,380	6,080	7,400	4,500	3,040	1,480
20	2,690	1,570	2,350	5,990	5,900	2,550	10,900	6,470	7,160	4,010	3,060	1,370
21	2,510	1,530	2,280	6,020	5,050	2,510	9,700	5,900	6,440	3,800	2,780	1,340
22	2,380	1,480	2,980	5,050	4,480	2,420	7,190	5,660	6,320	3,430	2,550	1,350
23	2,230	2,060	3,510	4,320	3,870	2,300	5,840	5,600	6,470	3,570	2,870	1,340
24	2,110	8,660	2,830	4,180	3,570	2,160	5,520	5,380	7,100	4,150	2,830	1,340
25	2,060	5,020	2,560	3,670	3,350	2,130	5,380	5,380	6,800	4,750	2,600	1,340
26	1,940	4,100	2,650	3,510	4,030	2,020	5,870	6,260	5,840	5,220	2,530	1,300
27	1,820	3,350	2,730	6,500	7,190	1,970	7,340	8,140	4,850	5,500	2,560	1,260
28	1,780	2,870	2,460	7,650	5,350	1,910	8,760	10,300	4,380	4,880	2,230	1,180
29	1,800	3,400	2,310	11,000	------	1,990	7,580	10,800	4,600	4,380	2,140	1,140
30	1,930	17,500	2,180	14,000	------	1,940	6,500	8,840	5,400	4,010	1,830	1,100
31	2,210	------	2,130	13,200	------	1,910	------	7,130	------	4,010	1,680	------
TOTAL	106,880	98,320	139,500	135,430	149,600	91,300	128,570	190,960	227,420	174,910	95,290	47,280
MEAN	3,448	3,277	4,500	4,369	5,343	2,945	4,286	6,160	7,581	5,642	3,074	1,576
MAX	9,600	17,500	19,500	14,000	10,500	4,280	10,900	12,600	11,400	8,840	4,820	3,490
MIN	1,780	1,480	2,130	1,570	3,350	1,910	1,930	3,330	4,380	3,430	1,680	1,100
CFSM	4.83	4.59	6.30	6.12	7.48	4.12	6.00	8.63	10.6	7.90	4.31	2.21
IN.	5.57	5.12	7.27	7.05	7.79	4.76	6.70	9.95	11.8	9.11	4.96	2.46
AC-FT	212,000	195,000	276,700	268,600	296,700	181,100	255,000	378,800	451,100	346,900	189,000	93,760

CAL YR 1964: TOTAL 1,806,370 MEAN 4,935 MAX 19,500 MIN 1,480 CFSM 6.91 IN 94.09 AC-FT 3,583,000
WAT YR 1965: TOTAL 1,585,460 MEAN 4,344 MAX 19,500 MIN 1,100 CFSM 6.08 IN 82.58 AC-FT 3,145,000

12-1916. Baker Lake at upper Baker Dam, near Concrete, Wash.

Location.--Lat 48°38'55", long 121°41'25", in NW¼SW¼ sec.31, T.37 N., R.9 E., at upper Baker Dam on Baker River near center of dam, 0.3 mile upstream from Sulpuur Creek and 8 miles north of Concrete.

Drainage area.--215 sq mi.

Records available.--July 1959 to September 1965.

Gage.--Water-stage recorder. Datum of gage is at mean sea level, datum of 1929, adjustment of 1947.

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet), for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	Oct. 23, 1960	285,470	724.00	Jan. 5, 1961	172,100	697.85
1962	June 26, 1962	286,870	724.28	Mar. 31, 1962	167,460	696.56
1963	Sept.14, 1963	285,620	724.03	Feb. 2, 1963	174,110	698.40
1964	Sept.30, 1964	286,720	724.25	Apr. 13, 1964	115,870	680.00
1965	Aug. 1, 1965	285,820	724.07	Apr. 12, 1965	220,480	710.03

1959-65: Maximum contents, 286,870 acre-ft June 26, 1962 (elevation, 724.28 ft); minimum not determined.

Remarks.--Reservoir is formed by concrete dam, completed in June 1959; storage began July 9, 1959. Usable capacity, 220,630 acre-ft between elevations 724 (normal full pool) and 655 ft (minimum operating pool). Dead storage, 64,840 acre-ft. Crest of spillway is at elevation 694 ft. Water is used by Puget Sound Power & Light Co. for power development. Figures given herein represent total contents.

Cooperation.--Gage-height record collected in cooperation with Puget Sound Power & Light Co.

MONTH-END ELEVATION AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	723.62	283,590	+15,370
Nov. 30	717.04	251,910	-31,680
Dec. 31	701.80	186,880	-65,030
Calendar year 1960	-	-	-36,900
Jan. 31, 1961	713.99	237,940	+51,060
Feb. 28	716.20	248,020	+10,080
Mar. 31	715.09	242,930	-5,090
Apr. 30	707.17	208,370	-34,560
May 31	705.20	200,300	-8,070
June 30	715.29	243,840	+43,540
July 31	722.39	277,510	+33,670
Aug. 31	720.82	269,860	-7,650
Sept.30	721.34	272,380	+2,520
Water year 1961...	-	-	+4,160
Oct. 31	716.59	249,830	-22,550
Nov. 30	712.91	233,110	-16,720
Dec. 31	712.93	233,190	+80
Calendar year 1961	-	-	+46,310
Jan. 31, 1962	711.30	226,000	-7,190
Feb. 28	716.55	249,640	+23,640
Mar. 31	696.79	168,280	-81,360
Apr. 30	710.68	223,300	+55,020
May 31	721.09	271,160	+47,860
June 30	723.09	280,960	+9,800
July 31	723.65	283,740	+2,780
Aug. 31	721.77	274,470	-9,270
Sept.30	723.58	283,390	+8,920
Water year 1962...	-	-	+11,010
Oct. 31	719.17	261,940	-21,450
Nov. 30	720.10	266,380	+4,440
Dec. 31	720.50	268,310	+1,930
Calendar year 1962	-	-	+35,120
Jan. 31, 1963	699.02	176,390	-91,920
Feb. 28	723.77	284,330	+107,900
Mar. 31	710.52	222,610	-61,720
Apr. 30	714.40	239,800	+17,190
May 31	723.89	284,930	+45,130
June 30	722.59	278,490	-6,440
July 31	723.56	283,290	+4,800
Aug. 31	723.18	281,400	-1,890
Sept.30	723.64	283,690	+2,290
Water year 1963...	-	-	+300
Oct. 31, 1963	720.39	267,780	-15,910
Nov. 30	720.35	267,590	-910
Dec. 31	716.26	248,300	-19,290
Calendar year 1963	-	-	-20,010
Jan. 31, 1964	702.54	189,750	-58,550
Feb. 29	701.36	185,190	-4,560
Mar. 31	686.90	135,630	-49,560
Apr. 30	689.28	143,010	+7,380
May 31	716.87	251,120	+108,100
June 30	723.97	285,320	+34,200
July 31	723.75	284,230	-1,090
Aug. 31	723.37	282,350	-1,880
Sept.30	723.90	284,980	+2,630
Water year 1964...	-	-	+1,290
Oct. 31	720.61	268,840	-16,140
Nov. 30	720.21	266,910	-1,930
Dec. 31	712.44	231,020	-35,890
Calendar year 1964	-	-	-17,280
Jan. 31, 1965	714.89	242,020	+11,000
Feb. 28	718.42	258,390	+16,370
Mar. 31	710.68	223,300	-35,090
Apr. 30	717.49	254,020	+30,720
May 31	717.94	256,120	+2,100
June 30	722.86	279,820	+23,700
July 31	724.00	285,470	+5,650
Aug. 31	724.01	285,520	+50
Sept.30	722.88	279,920	-5,600
Water year 1965...	-	-	-5,060

† Elevation at 2400 hours.

12-1918. Sulphur Creek near Concrete, Wash.

Location.--Lat 48°40'04", long 121°45'00", in SE¼ sec.22, T.37 N., R.8 E., on left bank 3¼ miles upstream from mouth and 9½ miles north of Concrete.

Drainage area.--8.36 sq mi.

Records available.--February 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is about 1,750 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (175 cfs), February 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Feb. 26, 1963	0330	* 136	1.69	Oct. 24, 1963	1200	175	1.62	Nov. 4, 1964a	-	197	1.70
				Nov. 26, 1963	1630	212	1.75	Dec. 1, 1964	-	* 199	1.58
Oct. 13, 1963	0700	250	2.05	Jan. 1, 1964	0900	224	1.79				
Oct. 21, 1963	1330	* 795	3.05	Sept.30, 1964	0830	244	1.86				

a About.

Annual minimum discharge, February 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Aug. 16, 1963	20	0.94	1965	Mar. 27, 28, 1965	17	0.64
1964	Mar. 7-10, 22-28	a 16	b .64				

a Minimum daily.
b Occurred Mar. 9, 10, 1964.

1963-65: Maximum discharge, 795 cfs Oct. 21, 1963 (gage height, 3.05 ft), from rating curve extended above 96 cfs on basis of slope-area measurement of peak flow; minimum daily, 16 cfs Mar. 7-10, 22-28, 1964.

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1					-	34	23	24	36	30	22	27
2					-	31	22	26	36	34	22	29
3					-	29	24	23	32	35	24	24
4					-	28	34	22	32	33	24	25
5					-	27	39	34	32	28	23	24
6					-	26	41	30	34	28	23	24
7					-	25	32	28	33	29	22	24
8					-	24	29	25	32	43	22	26
9					-	24	26	24	43	50	24	28
10					-	24	24	22	43	33	24	27
11					-	24	25	22	44	35	29	26
12					-	23	25	22	55	28	32	27
13					-	22	27	22	42	28	35	59
14					-	23	33	23	44	31	28	33
15					-	22	38	26	54	35	22	26
16					-	22	29	25	55	31	21	25
17					-	22	25	31	52	29	21	24
18					-	22	24	44	48	27	22	23
19					66	22	24	59	39	24	27	24
20					38	24	23	74	34	24	23	24
21					35	24	23	77	30	24	22	24
22					33	25	23	64	26	74	21	26
23					31	23	24	48	25	36	21	29
24					29	22	22	42	31	28	25	24
25					41	24	22	37	32	25	23	25
26					91	25	23	38	28	24	22	25
27					46	29	22	36	25	25	21	28
28					38	33	22	44	25	25	21	31
29					------	27	28	54	24	24	23	29
30					------	25	29	52	24	22	25	25
31		------			------	23	------	46	------	22	27	------
TOTAL					-	778	805	1,144	1,090	964	741	815
MEAN					-	25.1	26.8	36.9	36.3	31.1	23.9	27.2
MAX					-	34	41	77	55	74	35	59
MIN					-	22	22	22	24	22	21	23
CFSM					-	3.00	3.21	4.41	4.35	3.72	2.86	3.25
IN.					-	3.46	3.58	5.09	4.85	4.29	3.30	3.63
AC-FT					-	1,540	1,600	2,270	2,160	1,910	1,470	1,620

12-1918. Sulphur Creek near Concrete, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	50	43	154	30	18	30	22	105	80	53	31
2	26	54	39	79	27	18	24	20	95	77	54	31
3	25	44	37	59	27	18	22	20	74	72	60	29
4	26	49	43	50	40	18	22	22	124	68	75	30
5	25	43	53	43	34	18	21	22	116	68	54	30
6	25	42	47	39	30	17	21	21	101	68	54	29
7	24	46	43	36	28	16	24	22	84	90	59	31
8	24	44	42	34	26	16	26	23	72	107	50	29
9	24	44	39	33	26	16	26	30	88	86	53	28
10	24	49	36	31	26	16	30	32	101	70	50	28
11	24	42	36	29	26	18	26	28	92	92	54	27
12	26	87	35	29	24	17	22	34	75	116	47	27
13	88	124	34	31	23	17	20	33	70	107	50	27
14	38	120	33	29	23	20	23	28	74	112	42	27
15	30	80	34	31	22	22	23	30	80	116	36	33
16	28	68	36	59	22	18	20	36	92	95	36	40
17	25	65	36	39	22	23	18	46	70	77	37	58
18	24	54	40	34	24	21	18	47	70	65	49	33
19	24	50	58	33	23	18	19	62	62	59	39	40
20	29	43	64	30	21	18	20	67	54	60	34	50
21	310	42	43	30	21	17	20	62	52	64	39	40
22	155	43	52	30	20	16	19	46	53	54	44	39
23	86	54	116	30	20	16	18	35	80	52	46	33
24	120	50	80	31	21	16	19	33	74	62	42	33
25	77	72	68	31	21	16	21	31	67	74	40	36
26	59	159	53	28	20	16	20	35	65	74	42	31
27	49	95	47	32	20	16	20	50	58	74	43	30
28	56	62	44	30	20	16	20	68	64	84	40	29
29	56	52	40	39	20	17	23	80	56	70	44	44
30	46	46	47	33	------	21	22	92	70	60	43	136
31	43	------	84	33	------	25	------	103	------	70	33	------
TOTAL	1,642	1,873	1,502	1,249	707	555	657	1,280	2,338	2,423	1,442	1,109
MEAN	53.0	62.4	48.5	40.3	24.4	17.9	21.9	41.3	77.9	78.2	46.5	37.0
MAX	310	159	116	154	40	25	30	103	124	116	75	136
MIN	24	42	33	28	20	16	18	20	52	52	33	27
CFSM	6.34	7.47	5.80	4.82	2.92	2.14	2.62	4.94	9.32	9.35	5.56	4.42
IN.	7.30	8.33	6.68	5.56	3.15	2.47	2.92	5.69	10.4	10.8	6.41	4.93
AC-FT	3,260	3,720	2,980	2,480	1,400	1,100	1,300	2,540	4,640	4,810	2,860	2,200

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 16,777 MEAN 45.8 MAX 310 MIN 16 CFSM 5.48 IN 74.63 AC-FT 33,280

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	64	50	169	28	37	25	23	35	48	71	41	21
2	95	40	86	31	32	23	22	31	62	76	37	22
3	54	55	65	28	30	25	21	30	72	82	30	20
4	46	125	52	26	57	25	22	29	78	76	27	20
5	40	50	48	28	89	25	22	28	86	69	24	20
6	39	39	44	28	50	27	21	26	80	74	24	20
7	36	36	44	28	38	28	19	27	76	71	27	22
8	46	34	60	28	35	28	19	29	84	46	31	22
9	44	33	50	26	30	29	20	34	78	35	28	22
10	37	32	44	24	28	33	20	41	72	33	28	22
11	35	32	42	24	27	35	21	45	80	31	29	21
12	34	31	39	25	26	35	23	52	58	32	41	21
13	35	30	38	26	28	32	25	49	44	40	65	22
14	53	30	37	28	26	30	27	45	42	45	32	32
15	50	29	36	29	24	30	34	50	45	45	28	35
16	44	29	33	32	26	28	35	102	52	45	28	28
17	40	29	30	32	31	26	32	51	84	40	30	26
18	37	28	32	31	32	24	28	41	67	34	36	25
19	37	28	30	34	38	23	39	41	49	31	37	25
20	34	28	28	40	36	22	60	48	50	33	36	25
21	34	28	28	39	32	22	72	44	50	29	29	26
22	34	30	33	33	28	21	48	41	48	28	29	28
23	34	50	31	31	26	19	40	41	51	31	30	28
24	33	95	29	30	25	20	42	40	49	40	27	30
25	33	50	28	28	25	18	41	42	46	44	24	30
26	33	47	38	29	34	18	45	52	39	41	27	29
27	32	43	33	31	39	18	54	76	35	40	25	28
28	33	40	30	38	28	18	65	82	33	37	22	28
29	33	60	28	49	------	19	50	71	40	35	20	28
30	34	160	26	76	------	18	42	54	55	32	19	28
31	42	------	26	52	------	18	------	45	------	36	20	------
TOTAL	1,275	1,391	1,337	1,012	957	762	1,032	1,422	1,753	1,402	931	754
MEAN	41.1	46.4	43.1	32.6	34.2	24.6	34.4	45.9	58.4	45.2	30.0	25.1
MAX	95	160	169	76	89	35	72	102	86	82	65	35
MIN	32	28	26	24	24	18	19	26	33	28	19	20
CFSM	4.92	5.55	5.16	3.90	4.09	2.94	4.11	5.49	6.99	5.41	3.59	3.01
IN.	5.67	6.19	5.95	4.50	4.26	3.39	4.59	6.33	7.80	6.24	4.14	3.35
AC-FT	2,530	2,760	2,650	2,010	1,900	1,510	2,050	2,820	3,480	2,780	1,850	1,500

CAL YR 1964: TOTAL 15,763 MEAN 43.1 MAX 169 MIN 16 CFSM 5.15 IN 70.12 AC-FT 31,270
WAT YR 1965: TOTAL 14,028 MEAN 38.4 MAX 169 MIN 18 CFSM 4.60 IN 62.40 AC-FT 27,820

12-1930. Lake Shannon at Concrete, Wash.

Location.--Lat 48°32'55", long 121°44'25", in SW¼ sec.2, T.35 N., R.8 E., at Baker Dam on Baker River near left bank, half a mile north of Concrete and 1 mile upstream from mouth of Baker River.

Drainage area.--297 sq mi.

Records available.--November 1925 to September 1965.

Gage.--Water-stage recorder. Prior to Nov. 11, 1959, water-stage indicator in powerplant. Datum of gage is at mean sea level, datum of 1929, adjustment of 1947. Prior to March 1959, at datum 1.72 ft lower.

Extremes.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Contents	Elevation	Date	Contents	Elevation
1961	Feb. 6, 1961	160,690	439.15	May 24, 1961	135,940	427.51
1962	Jan. 9, 1962	159,960	438.82	Apr. 22, 1962	115,540	417.00
1963	Nov. 19, 1962	161,320	439.43	Feb. 13, 1963	106,370	412.08
1964	(a)	160,020	438.85	Apr. 14, 1964	79,610	397.32
1965	Nov. 4, 1964	160,020	438.85	Sept.30, 1965	132,800	425.95

a Nov. 15, 1963, Sept. 30, 1964.

1925-65: Maximum contents, 161,320 acre-ft Nov. 19, 1962 (elevation, 439.43 ft); minimum not determined.

Remarks.--Reservoir is formed by concrete dam, completed in June 1927; storage began in November 1925. Capacity, 142,400 acre-ft between elevations 355 and 438.6 ft (lowest and normal full pool elevation, respectively, for capacity operation). Dead storage unknown. Water is used by Puget Sound Power & Light Co. for power development. Figures given herein represent contents above elevation 341.7 ft (center line of outlet tunnel).

MONTH-END ELEVATION AND CONTENTS, WATER YEARS OCTOBER 1960 TO SEPTEMBER 1965

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents (acre-feet)
Oct. 31, 1960	438.87	160,070	+4,240
Nov. 30	435.83	153,390	-6,680
Dec. 31	435.58	152,850	-540
Calendar year 1960	-	-	+7,870
Jan. 31, 1961	435.89	153,520	+670
Feb. 28	434.22	149,920	-3,600
Mar. 31	433.77	148,960	-960
Apr. 30	438.23	158,650	+9,690
May 31	437.66	157,390	-1,260
June 30	435.48	152,630	-4,760
July 31	437.12	156,200	+3,570
Aug. 31	437.30	156,600	+400
Sept.30	437.84	157,790	+1,190
Water year 1961	-	-	+1,960
Oct. 31	436.86	155,630	-2,160
Nov. 30	437.28	156,560	+930
Dec. 31	435.65	153,000	-3,560
Calendar year 1961	-	-	+150
Jan. 31, 1962	436.05	153,870	+870
Feb. 28	436.09	153,960	+90
Mar. 31	432.05	145,310	-8,650
Apr. 30	419.85	120,890	-24,420
May 31	437.59	157,240	+36,350
June 30	434.14	149,750	-7,490
July 31	438.03	158,200	+8,450
Aug. 31	438.08	158,320	+120
Sept.30	438.41	159,050	+730
Water year 1962	-	-	+1,260
Oct. 31	437.44	156,910	-2,140
Nov. 30	437.68	157,430	+520
Dec. 31	437.60	157,260	-170
Calendar year 1962	-	-	+4,260
Jan. 31, 1963	429.24	139,470	-17,790
Feb. 28	424.16	129,260	-10,210
Mar. 31	436.44	154,720	+25,460
Apr. 30	432.01	145,230	-9,490
May 31	433.74	148,900	+3,670
June 30	435.92	153,590	+4,690
July 31	437.78	157,650	+4,060
Aug. 31	437.98	158,090	+440
Sept.30	437.83	157,760	-330
Water year 1963	-	-	-1,290
Oct. 31, 1963	438.10	158,360	+600
Nov. 30	437.64	157,350	-1,010
Dec. 31	437.75	157,590	+240
Calendar year 1963	-	-	+330
Jan. 31, 1964	437.10	156,160	-1,430
Feb. 29	435.05	151,700	-4,460
Mar. 31	410.72	103,830	-47,870
Apr. 30	403.14	89,860	-13,970
May 31	423.95	128,840	+38,980
June 30	438.03	158,200	+29,360
July 31	437.83	157,760	-440
Aug. 31	437.10	156,160	-1,600
Sept.30	438.20	158,580	+2,420
Water year 1964	-	-	+820
Oct. 31	437.59	157,240	-1,340
Nov. 30	438.30	158,800	+1,560
Dec. 31	432.77	146,830	-11,970
Calendar year 1964	-	-	-10,760
Jan. 31, 1965	435.89	153,520	+6,690
Feb. 28	434.29	150,070	-3,450
Mar. 31	435.85	153,440	+3,370
Apr. 30	431.11	143,340	-10,100
May 31	431.62	144,410	+1,070
June 30	429.77	140,560	-3,850
July 31	429.01	138,910	-1,650
Aug. 31	427.33	135,580	-3,330
Sept.30	425.95	132,800	-2,780
Water year 1965	-	-	-25,780

† Elevation at 2400 hours.

12-1935. Baker River at Concrete, Wash.

Location.--Lat 48°32'35", long 121°44'35", on west line of NW¼NW¼ sec.11, T.35 N., R.8 E., on left bank just upstream from fish barrier, 1,500 ft downstream from Baker River powerplant, a quarter of a mile northeast of Concrete, and half a mile upstream from mouth.

Drainage area.--297 sq mi.

Records available.--September 1910 to March 1915, September 1943 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Mar. 5, 1915, staff gage at site a quarter of a mile downstream at different datum. Sept. 1, 1943, to Jan. 22, 1958, graphic water-stage recorder at site 700 ft upstream at datum 172.6 ft above mean sea level (from river-profile survey). Jan. 23 to June 11, 1958, powerplant record. June 12, 1958, to May 7, 1963, graphic water-stage recorder at present site and datum. Supplementary graphic water-stage recorder on left bank about 40 ft downstream from fish barrier and on tailrace of powerhouse at same datum.

Average discharge.--26 years (1910-14, 1943-65), 2,627 cfs (1,902,000 acre-ft per year), adjusted for storage in Lake Shannon since November 1925, and Baker Lake since July 1959.

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum daily		
	Date	Discharge (cfs)	Elevation (feet)	Date	Discharge (cfs)	Elevation (feet)
1961	Oct. 23, 1960	21,700	182.00	Oct. 2, 1960	65	-
1962	Aug. 4, 1962	9,820	177.77	Sept. 2, 1962	91	-
1963	Nov. 19, 1962	36,600	186.6	Feb. 24, 1963	82	-
1964	Oct. 22, 1963	27,000	183.85	Oct. 12, 1963	71	-
1965	Oct. 2, 1964	18,400	180.97	Dec. 26, 1964	110	-

1910-15, 1943-65: Maximum discharge, 36,600 cfs Nov. 19, 1962 (elevation, 186.6 ft), computation of peak flow over dam; minimum daily, 55 cfs Feb. 17, 1957.

Remarks.--Records excellent except those for period Feb. 3 to Apr. 11, 1961, and those below 150 cfs, which are good. No diversions which are not returned to river above gage. Flow regulated by Baker River powerplants and Baker and Shannon Lakes (see stations 12-1916, 12-1930). Records of chemical analyses for the water years 1962-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1286: 1911-13(M), 1944(M), 1945-46, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	76	5,720	2,730	2,550	2,740	2,680	639	3,670	4,750	87	4,020	3,200
2	65	4,680	3,000	3,030	2,410	3,590	87	3,810	5,070	90	3,270	2,220
3	1,910	2,690	3,140	3,910	2,960	3,070	2,940	3,700	5,000	90	3,560	1,780
4	1,810	3,840	2,850	3,420	737	1,700	2,800	4,050	4,530	97	2,750	497
5	1,650	3,960	3,920	3,070	90	1,760	2,400	3,360	4,480	324	832	1,690
6	1,190	2,860	4,000	2,990	5,460	3,550	2,300	2,470	5,250	936	638	2,680
7	1,850	3,590	4,150	2,980	6,520	3,140	2,260	1,700	5,590	1,740	2,300	1,840
8	1,920	2,800	4,360	2,100	5,330	3,120	1,120	3,860	5,680	697	2,120	2,180
9	1,860	3,440	4,850	4,000	6,060	2,730	82	2,720	5,220	97	2,220	1,520
10	1,330	3,670	2,930	3,500	6,020	2,710	1,460	3,830	5,140	4,020	202	372
11	1,710	3,530	3,090	4,430	6,060	2,130	3,120	3,650	4,750	3,760	2,020	519
12	2,110	3,000	3,530	5,360	6,050	784	2,820	3,670	4,460	3,440	1,400	195
13	171	2,930	4,020	3,420	5,590	2,940	3,120	3,400	3,880	5,400	84	69
14	1,080	3,770	4,260	1,250	3,930	3,110	3,060	1,820	3,700	4,890	2,210	157
15	604	2,990	4,480	4,390	3,370	2,870	2,340	3,730	3,640	2,860	1,740	186
16	1,140	3,230	4,380	5,890	3,360	2,750	2,470	3,210	3,590	2,910	2,080	214
17	1,590	4,350	3,830	4,310	3,340	2,570	3,300	3,510	3,600	3,600	2,100	1,170
18	1,240	4,570	3,760	4,460	2,770	1,350	2,720	3,810	2,910	3,000	2,120	497
19	2,200	4,390	4,360	2,980	1,780	1,780	2,160	4,460	3,160	2,850	936	1,660
20	1,120	4,170	3,680	2,270	3,760	2,400	3,260	4,710	4,590	2,850	276	1,610
21	1,640	4,690	3,750	3,450	4,230	1,810	3,570	4,600	4,770	2,710	2,910	1,620
22	290	4,440	3,790	2,950	4,830	1,990	3,760	4,930	3,430	2,310	1,900	964
23	8,790	4,090	3,720	3,730	5,610	1,490	3,640	5,290	3,430	1,940	2,160	238
24	11,300	2,050	3,390	3,100	5,520	1,090	4,100	4,380	4,480	3,200	2,350	124
25	4,620	2,940	1,380	3,130	5,550	368	3,980	4,140	4,340	2,940	2,030	1,220
26	4,690	3,800	2,890	2,690	5,000	87	3,520	4,380	3,640	3,060	2,170	1,210
27	6,580	3,520	4,020	2,390	4,360	2,660	3,260	2,940	2,400	2,510	198	1,100
28	6,000	4,050	3,670	2,540	3,170	1,890	2,670	1,530	3,040	2,420	1,790	1,700
29	2,510	3,660	3,650	2,300	------	1,700	2,100	3,600	4,340	420	1,680	1,980
30	3,230	3,010	3,510	2,790	------	2,100	250	3,860	3,200	714	2,090	1,430
31	3,890	------	3,460	2,880	------	1,460	------	4,550	------	3,210	2,270	------
TOTAL	80,166	110,430	112,550	102,260	116,607	67,779	75,308	113,340	126,260	69,172	58,426	36,042
MEAN	2,586	3,681	3,631	3,299	4,165	2,186	2,510	3,656	4,209	2,231	1,885	1,201
MAX	11,300	5,720	4,850	5,890	6,520	3,590	4,100	5,290	5,680	5,400	4,020	3,200
MIN	65	2,050	1,380	1,250	90	87	82	1,530	2,400	87	84	69
AC-FT	159,000	219,000	223,200	202,800	231,300	134,400	149,400	224,800	250,400	137,200	115,900	71,490
(†)	+19,610	-38,360	-65,570	+51,730	+6,480	-6,050	-24,870	-9,330	+38,780	+37,240	-7,250	+3,710
MEAN‡	2,905	3,035	2,563	4,139	4,282	2,088	2,092	3,505	4,860	2,836	1,766	1,264
AC-FT‡	178,600	180,600	157,600	254,500	237,800	128,400	124,500	215,500	289,200	174,400	108,600	75,200

CAL YR 1960: TOTAL 998,121 MEAN 2,727 MAX 11,300 MIN 65 AC-FT 1,980,000 MEAN‡ 2,688 AC-FT‡ 1,951,000
WAT YR 1961: TOTAL 1,068,340 MEAN 2,927 MAX 11,300 MIN 65 AC-FT 2,119,000 MEAN‡ 2,935 AC-FT‡ 2,125,000

† Change in contents, in acre-feet, in Baker Lake and Lake Shannon.
‡ Adjusted for change in contents in Baker Lake and Lake Shannon.

12-1935. Baker River at Concrete, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	776	2,540	2,700	1,640	210	1,560	1,180	1,310	3,980	4,460	1,950	1,000
2	1,940	1,600	2,070	3,660	1,270	2,180	2,080	414	4,730	2,430	2,660	91
3	1,300	1,530	2,210	3,600	2,870	2,780	2,150	636	4,680	170	3,130	177
4	1,030	469	2,670	4,350	1,540	1,880	2,420	616	4,390	1,160	6,660	1,350
5	2,160	975	1,970	4,770	1,640	2,110	2,030	737	1,980	2,910	4,070	1,230
6	2,380	1,590	2,800	3,790	3,220	1,480	1,720	354	1,530	2,030	1,820	596
7	1,720	1,110	3,030	3,930	1,020	1,620	994	1,540	326	2,040	4,510	1,140
8	714	1,790	2,920	5,870	2,990	1,790	274	634	1,220	2,340	3,810	1,700
9	2,430	2,490	3,460	5,810	3,540	885	2,280	101	4,320	3,630	2,280	117
10	2,960	3,400	3,610	6,680	2,640	1,350	1,690	405	2,530	3,750	2,130	1,900
11	3,650	3,270	3,630	3,680	676	856	1,440	1,240	3,720	2,820	1,570	2,820
12	3,970	2,820	4,350	3,200	1,490	1,920	1,500	600	2,990	3,330	1,710	2,020
13	5,720	2,940	4,030	1,530	1,720	3,260	1,710	101	3,120	3,170	2,060	2,110
14	4,980	2,610	3,540	964	2,060	3,350	2,110	883	3,130	1,850	1,920	3,150
15	3,860	3,680	3,360	2,450	2,130	4,070	1,310	812	4,830	2,030	1,620	2,760
16	3,830	2,970	1,560	2,640	1,400	4,020	2,150	126	4,720	1,460	1,610	375
17	4,360	3,950	930	2,250	1,050	3,000	1,490	257	4,590	1,760	2,350	1,200
18	2,840	3,060	2,330	2,870	1,130	2,180	2,680	409	4,500	2,310	2,560	1,810
19	3,160	1,180	1,910	3,920	1,720	2,620	3,080	94	5,130	1,290	3,400	1,320
20	3,180	2,650	1,720	4,260	1,210	2,190	3,070	188	4,890	1,760	2,500	2,150
21	3,360	2,160	2,520	5,000	936	1,920	2,080	538	3,470	3,100	3,520	2,540
22	3,200	1,910	1,670	5,610	548	2,860	554	444	3,400	2,970	2,530	1,350
23	2,250	1,870	3,040	5,100	1,520	2,420	1,420	1,220	3,210	3,340	2,490	1,580
24	1,450	1,870	1,710	936	1,420	2,390	1,590	1,740	3,120	3,900	1,840	1,630
25	1,780	1,860	936	2,230	1,300	2,670	1,560	1,100	4,290	3,860	1,190	244
26	2,030	1,300	1,880	760	2,180	3,990	1,680	2,580	4,940	3,680	624	1,200
27	3,360	2,170	2,840	1,580	1,890	3,660	2,150	3,090	4,740	3,840	2,080	1,780
28	2,940	2,560	1,220	160	1,590	3,590	2,310	1,750	4,300	3,990	2,080	4,190
29	2,440	2,490	2,460	2,870	------	2,480	1,370	1,940	3,980	2,220	2,210	4,610
30	2,680	2,960	3,550	886	------	3,210	2,680	2,200	4,140	2,870	3,350	1,930
31	3,120	------	2,110	318	------	718	------	3,290	------	3,450	3,000	------
TOTAL	85,570	67,774	78,738	97,314	46,910	75,007	54,752	31,349	110,906	83,920	79,234	50,070
MEAN	2,760	2,259	2,540	3,139	1,675	2,420	1,825	1,011	3,697	2,707	2,556	1,669
MAX	5,720	3,950	4,350	6,680	3,540	4,070	3,080	3,290	5,130	4,460	6,660	4,610
MIN	714	469	930	160	210	718	274	94	326	170	624	91
AC-FT	169,700	134,400	156,200	193,000	93,040	148,800	108,600	62,180	220,000	166,500	157,200	99,310
(†)	-24,710	-15,790	-3,480	-6,320	+23,730	-90,010	+30,600	+84,210	+2,310	+11,230	-9,150	+9,650
MEAN‡	2,358	1,993	2,483	3,036	2,103	956	2,339	2,381	3,736	2,890	2,407	1,832
AC-FT‡	145,000	118,600	152,700	186,700	116,800	58,790	139,200	146,400	222,300	177,700	148,000	109,000

CAL YR 1961: TOTAL 997,276 MEAN 2,732 MAX 6,520 MIN 69 AC-FT 1,978,000 MEAN‡ 2,796 AC-FT‡ 2,024,000
WAT YR 1962: TOTAL 861,546 MEAN 2,360 MAX 2,360 MIN 91 AC-FT 1,709,000 MEAN‡ 2,377 AC-FT‡ 1,721,000

† Change in contents, in acre-feet, in Baker Lake and Lake Shannon.
‡ Adjusted for change in contents in Baker Lake and Lake Shannon.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,860	1,930	2,100	6,370	3,020	627	1,210	2,320	3,590	1,250	715	93
2	2,740	1,420	1,700	5,700	4,640	84	1,980	332	3,040	1,010	1,470	917
3	3,120	1,530	1,580	8,730	3,450	84	1,920	91	3,490	1,920	2,210	2,400
4	3,630	2,590	1,630	3,520	4,050	245	1,530	162	2,720	1,350	974	1,460
5	2,580	2,870	2,090	3,960	3,080	94	1,480	706	2,640	3,800	1,630	1,530
6	1,980	2,980	5,320	4,580	2,720	353	2,560	2,120	2,940	2,380	2,040	1,210
7	2,280	3,110	4,340	4,380	3,400	1,010	1,720	1,420	2,450	811	2,040	1,190
8	2,080	2,740	4,700	2,680	2,900	744	2,170	1,410	1,280	3,460	1,380	1,590
9	2,300	2,510	3,930	2,900	2,170	1,070	1,170	1,560	1,250	3,480	2,070	2,300
10	2,620	2,970	3,180	3,740	2,030	1,180	670	1,000	3,270	3,360	1,970	1,750
11	3,040	3,240	2,860	4,840	2,670	2,210	1,610	519	3,220	3,590	1,430	1,670
12	1,390	2,930	3,450	3,390	1,980	1,220	1,420	384	4,510	1,840	3,170	1,160
13	1,460	1,750	3,460	3,460	1,600	1,370	1,420	1,420	4,160	2,410	2,980	3,600
14	2,430	2,950	8,120	1,990	1,250	1,990	1,010	1,120	3,640	2,310	2,280	3,780
15	2,350	3,760	8,760	1,700	2,020	3,220	1,490	1,400	3,880	2,920	1,360	981
16	2,880	1,790	7,770	3,390	161	2,980	1,590	635	3,760	2,890	1,850	2,680
17	1,620	1,560	3,500	3,860	97	3,000	1,630	1,290	4,680	2,590	717	1,340
18	3,000	2,200	2,080	4,270	224	2,330	1,640	2,150	4,260	2,100	1,020	967
19	2,300	8,570	2,670	4,520	1,120	4,000	1,860	4,320	3,420	1,600	3,790	88
20	2,620	13,700	2,870	3,100	1,780	3,310	1,830	4,740	4,150	2,370	2,010	970
21	1,360	4,780	2,730	4,270	1,640	2,470	1,050	4,570	3,310	2,370	1,790	1,860
22	3,260	4,030	2,960	2,110	498	3,130	1,540	4,630	2,900	4,080	1,680	1,530
23	3,750	3,030	2,270	1,740	84	2,920	1,460	3,630	1,860	4,790	1,470	2,250
24	2,620	3,870	1,580	2,430	82	2,340	1,880	3,790	1,290	3,530	732	1,720
25	3,040	5,010	304	843	1,370	1,840	1,880	1,820	1,860	2,990	1,740	974
26	2,410	6,050	1,300	1,610	310	2,940	1,340	166	2,600	1,620	948	746
27	928	4,810	1,710	1,830	914	3,680	2,360	1,290	1,850	93	1,630	1,390
28	1,840	3,420	1,800	4,200	1,600	3,690	2,370	1,580	2,220	239	1,810	710
29	1,500	3,180	3,220	4,110	------	3,970	1,810	2,230	2,480	2,250	841	1,840
30	2,850	2,680	6,690	5,470	------	3,090	2,050	1,570	1,960	2,160	1,570	1,520
31	3,040	------	5,890	3,980	------	464	------	4,680	------	1,880	2,010	------
TOTAL	74,878	107,960	106,564	113,673	50,860	61,655	49,650	59,055	88,680	73,443	53,327	46,216
MEAN	2,415	3,599	3,438	3,667	1,816	1,989	1,655	1,905	2,956	2,369	1,720	1,541
MAX	3,750	13,700	8,760	8,730	4,640	4,000	2,560	4,740	4,680	4,790	3,790	3,780
MIN	928	1,420	304	843	82	84	670	91	1,250	93	715	88
AC-FT	148,500	214,100	211,400	225,500	100,900	122,300	98,480	117,100	175,900	145,700	105,800	91,670
(†)	-23,590	+4,960	+1,760	-109,700	+97,690	-36,260	+7,700	+48,800	-1,750	+8,860	-1,450	+1,960
MEAN‡	2,031	3,682	3,467	1,883	3,576	1,399	1,785	2,698	2,928	2,514	1,698	1,574
AC-FT‡	124,900	219,100	213,200	115,800	198,600	86,040	106,200	165,900	174,200	154,600	104,400	93,630

CAL YR 1962: TOTAL 918,866 MEAN 2,517 MAX 13,700 MIN 91 AC-FT 1,823,000 MEAN‡ 2,572 AC-FT‡ 1,862,000
WAT YR 1963: TOTAL 885,961 MEAN 2,427 MAX 13,700 MIN 82 AC-FT 1,757,000 MEAN‡ 2,426 AC-FT‡ 1,756,000

† Change in contents, in acre-feet, in Baker Lake and Lake Shannon.
‡ Adjusted for change in contents in Baker Lake and Lake Shannon.

12-1935. Baker River at Concrete, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,270	2,790	1,260	5,400	2,450	4,550	2,980	210	1,150	6,010	4,030	2,820
2	1,040	3,420	3,320	4,470	2,420	4,800	4,010	100	1,180	5,240	2,660	1,770
3	1,270	2,360	3,420	5,360	2,790	5,000	4,040	100	307	4,630	2,750	681
4	1,370	2,380	3,570	5,400	2,670	3,210	4,130	1,220	452	4,510	6,010	754
5	1,330	2,570	3,740	2,990	2,890	2,670	4,300	1,670	3,090	3,990	3,260	1,140
6	3,280	3,460	2,550	3,100	1,520	3,160	1,860	687	6,490	4,500	2,610	1,140
7	2,320	2,850	1,390	3,150	911	2,880	2,230	444	4,360	6,820	3,480	2,040
8	2,130	2,230	2,110	3,820	618	4,110	4,010	381	5,540	8,120	2,750	3,340
9	1,460	1,560	2,530	3,840	1,410	4,900	4,850	101	7,460	9,350	3,150	4,040
10	2,220	1,730	2,530	3,300	1,950	5,410	4,120	101	6,980	8,580	3,160	3,280
11	995	3,240	3,990	3,140	1,850	4,830	4,360	1,410	6,870	6,780	2,830	2,330
12	71	3,990	4,250	3,260	1,830	5,060	4,020	2,120	5,060	12,400	2,760	1,270
13	79	5,770	4,430	2,100	1,360	4,340	2,900	1,030	4,740	11,300	3,500	557
14	2,200	8,900	4,080	3,070	1,950	2,750	650	1,050	5,680	9,440	3,010	189
15	3,010	5,560	4,160	3,350	1,210	1,710	142	750	5,460	13,900	2,790	103
16	2,590	5,870	3,430	4,200	1,110	1,570	546	104	7,290	13,500	2,250	1,740
17	1,830	4,890	2,940	3,990	1,550	1,830	1,620	103	4,770	8,130	2,620	2,200
18	2,430	4,220	3,250	4,550	1,910	1,730	838	106	3,700	7,420	2,390	979
19	3,500	4,060	2,750	3,890	1,070	1,570	133	484	5,010	6,140	2,590	1,190
20	3,290	3,020	3,500	3,810	686	2,520	1,160	491	3,240	4,440	2,720	3,280
21	8,550	1,930	3,600	3,970	588	1,090	1,080	740	3,690	4,040	2,460	3,180
22	15,700	1,600	2,740	3,370	790	295	738	1,600	3,290	4,580	1,310	2,270
23	8,100	3,170	4,480	3,750	620	2,460	529	330	5,160	3,550	2,360	2,170
24	6,620	1,770	4,210	2,800	787	3,140	829	111	5,660	2,970	2,430	1,000
25	3,220	3,030	3,500	3,730	765	4,190	582	1,070	3,560	5,250	2,710	2,560
26	3,890	16,500	4,130	3,740	1,100	3,820	148	1,600	4,170	3,990	2,990	1,740
27	4,790	8,900	2,300	3,460	2,830	2,890	1,030	2,310	4,440	3,370	3,210	1,460
28	5,120	4,500	1,290	3,040	2,610	2,220	605	2,150	4,970	4,320	3,410	1,320
29	4,780	4,800	3,110	2,850	3,360	1,510	535	1,420	3,020	4,910	3,710	3,050
30	4,660	2,940	3,570	2,580	------	2,070	701	134	3,270	3,900	3,820	10,600
31	2,680	------	3,920	2,810	------	2,300	------	134	------	4,370	2,910	------
TOTAL	105,795	124,010	100,050	112,290	47,605	94,585	59,676	24,261	130,459	200,450	92,640	64,213
MEAN	3,413	4,134	3,227	3,622	1,642	3,051	1,989	783	4,349	6,466	2,988	2,140
MAX	15,700	16,500	4,480	5,400	3,360	5,410	4,850	2,310	7,460	13,900	6,010	10,600
MIN	71	1,560	1,260	2,100	588	295	133	100	307	2,970	1,310	103
AC-FT	209,800	246,000	198,400	222,700	94,420	187,600	118,400	48,120	258,800	397,600	183,700	127,400
(†)	-15,310	-1,200	-19,050	-59,980	-9,020	-97,430	-6,590	+147,100	+63,560	-1,530	-3,480	+5,050
MEAN‡	3,163	4,114	2,918	2,646	1,485	1,466	1,879	3,175	5,418	6,442	2,931	2,225
AC-FT‡	194,500	244,800	179,400	162,700	85,400	90,170	111,800	195,200	322,400	396,100	180,200	132,400

CAL YR 1963: TOTAL 926,414 MEAN 2,538 MAX 16,500 MIN 71 AC-FT 1,838,000 MEAN‡ 2,511 AC-FT‡ 1,818,000
WAT YR 1964: TOTAL 1,156,034 MEAN 3,159 MAX 16,500 MIN 71 AC-FT 2,293,000 MEAN‡ 3,161 AC-FT‡ 2,295,000

† Change in contents, in acre-feet, in Baker Lake and Lake Shannon.
‡ Adjusted for change in contents in Baker Lake and Lake Shannon.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5,000	3,130	11,000	483	3,770	3,080	2,020	150	2,800	2,570	2,410	1,160
2	8,440	2,440	5,690	992	901	4,270	1,670	151	3,000	3,000	2,730	1,200
3	2,690	2,470	3,990	520	2,370	2,110	154	3,080	3,500	3,560	2,750	1,240
4	2,510	8,200	3,570	1,770	2,100	786	2,220	4,590	4,000	3,920	2,410	1,140
5	2,580	4,470	2,640	1,020	2,510	658	2,170	4,040	4,500	4,240	2,300	932
6	2,310	3,050	2,190	229	2,250	688	1,610	3,530	4,990	4,420	1,540	673
7	2,220	3,170	2,110	111	1,250	1,690	137	2,400	5,100	4,590	1,580	733
8	2,290	2,500	2,270	114	3,460	2,890	1,350	152	5,060	4,050	1,810	974
9	2,620	3,050	3,120	148	3,800	2,550	1,730	152	4,960	3,750	2,040	1,160
10	2,590	3,030	2,500	111	1,930	2,030	156	2,210	5,020	2,870	2,310	1,140
11	1,720	2,230	2,990	1,040	1,870	2,440	355	3,140	4,760	2,270	2,560	1,360
12	1,500	1,360	3,820	114	1,940	2,830	2,090	3,390	4,000	2,240	2,520	1,350
13	2,430	732	4,820	114	1,280	3,630	2,630	2,900	3,500	2,650	3,310	1,280
14	1,870	1,810	3,870	761	1,370	3,170	1,470	3,140	3,000	2,630	3,060	1,360
15	3,200	1,610	2,830	1,930	1,890	3,690	1,590	2,190	2,600	2,900	2,290	1,390
16	2,860	2,240	3,120	2,360	1,470	4,580	1,870	1,670	2,800	2,860	2,060	1,580
17	2,280	1,420	2,650	2,880	2,080	3,890	151	5,300	3,100	2,560	1,950	1,880
18	2,410	1,990	2,660	1,120	3,010	2,330	144	3,710	3,300	2,220	2,030	1,650
19	1,280	2,400	1,980	795	4,170	1,830	2,620	1,990	2,900	2,420	2,180	1,270
20	1,580	1,430	2,750	2,500	3,570	325	2,590	3,640	3,100	2,530	2,260	1,110
21	1,620	805	2,670	2,470	3,970	1,360	3,470	4,410	3,000	2,190	2,060	1,110
22	1,420	1,350	2,460	3,440	2,960	2,180	3,940	4,290	3,100	2,050	1,980	1,420
23	1,520	1,340	2,850	2,860	3,330	2,450	4,560	2,610	3,000	1,880	2,020	1,570
24	660	2,580	4,160	4,120	2,790	2,260	159	3,330	3,050	1,970	2,180	1,460
25	2,380	1,050	629	614	1,830	1,730	1,620	3,640	2,800	2,420	1,460	1,130
26	2,590	1,780	110	2,420	2,830	1,520	3,840	4,250	2,520	2,760	1,320	736
27	2,830	1,240	111	2,900	3,750	1,840	4,270	4,850	2,040	3,000	2,010	590
28	1,750	1,560	503	3,130	2,590	237	4,740	4,970	1,920	3,000	2,030	508
29	1,990	2,390	717	4,330	------	135	3,820	5,070	2,220	2,970	1,620	451
30	1,960	3,350	1,330	4,590	------	128	2,360	4,920	2,350	2,670	1,350	406
31	3,660	------	1,180	4,980	------	1,520	------	4,090	------	2,060	1,140	------
TOTAL	76,760	70,177	87,290	54,966	71,041	64,847	62,106	97,955	101,950	89,420	65,670	34,025
MEAN	2,476	2,339	2,816	1,773	2,537	2,092	2,070	3,160	3,400	2,885	2,118	1,134
MAX	8,440	8,200	11,000	4,980	4,170	4,580	4,740	5,300	5,100	4,590	3,310	1,880
MIN	660	732	110	111	901	128	137	150	1,920	1,880	1,140	406
AC-FT	152,300	139,200	173,100	109,000	140,900	128,600	123,200	194,300	202,300	177,400	130,300	67,490
(†)	-17,480	-370	-47,860	+17,690	+12,920	-31,720	+20,620	+3,170	+19,850	+4,000	-3,280	-8,380
MEAN‡	2,192	2,333	2,036	2,061	2,769	1,576	2,417	3,212	3,734	2,950	2,065	993
AC-FT‡	134,800	138,800	125,200	126,700	153,800	96,880	143,800	197,500	222,200	181,400	127,000	59,110

CAL YR 1964: TOTAL 1,060,406 MEAN 2,897 MAX 13,900 MIN 100 AC-FT 2,103,000 MEAN‡ 2,858 AC-FT‡ 2,075,000
WAT YR 1965: TOTAL 876,247 MEAN 2,401 MAX 11,000 MIN 110 AC-FT 1,738,000 MEAN‡ 2,358 AC-FT‡ 1,707,000

† Change in contents, in acre-feet, in Baker Lake and Lake Shannon.
‡ Adjusted for change in contents in Baker Lake and Lake Shannon.

12-1940. Skagit River near Concrete, Wash.

Location.--Lat 48°31'30", long 121°46'10", in NE¼ sec.16, T.35 N., R.8 E., on right bank at dalles, 1½ miles southwest of Concrete and 2½ miles downstream from Baker River.

Drainage area.--2,737 sq mi (revised), of which 400 sq mi is in Canada.

Records available.--September 1924 to September 1965.

Gage.--Digital water-stage recorder. Datum of gage is 130.0 ft above mean sea level, datum of 1929. Prior to Dec. 10, 1924, staff gage 200 ft upstream and Dec. 10, 1924, to Sept. 30, 1937, graphic water-stage recorder, at present site; both gages at datum 12.7 ft higher. Oct. 1, 1937, to Nov. 22, 1963, graphic water-stage recorder at present site and datum.

Average discharge.--41 years, 14,930 cfs (10,810,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Jan. 16, 1961	79,000	30.61	Oct. 2, 1960	3,650	13.50
1962	Jan. 3, 1962	56,000	26.82	Sept.10, 1962	3,900	13.64
1963	Nov. 20, 1962	114,000	35.73	Aug. 30, Sept. 28	4,610	14.03
1964	Oct. 22, 1963	73,800	29.8	Oct. 12, 1963	4,260	13.84
1965	Dec. 1, 1964	52,600	26.20	Sept.30, 1965	a 3,790	-

a Minimum daily.

1924-65: Maximum discharge, 154,000 cfs Nov. 27, 1949 (gage height, 40.8 ft); minimum, probably less than 2,160 cfs during period Oct. 1-24, 1925, when recorder was not operating and gates in Baker River Dam were first closed; minimum daily recorded, 2,610 cfs Nov. 14, 1936.

Maximum stage known, 69.3 ft, present datum, at site 200 ft upstream, from floodmarks (discharge, about 500,000 cfs), occurred about 1815. Records of other floods, prior to establishment of station, are given in WSP 1527.

Remarks.--Records excellent. Flow regulated by powerplants on Baker and upper Skagit Rivers, by Ross, Diablo, and Gorge Reservoirs, Baker Lake, and Lake Shannon (see elsewhere in this report).

Revisions (water years).--WSP 1566: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	3,940	26,100	12,600	10,100	18,300	19,200	10,700	19,800	38,300	13,000	14,300	21,200
2	4,550	21,100	13,300	10,100	20,200	18,500	11,700	24,200	49,000	16,400	12,800	19,400
3	7,340	16,000	12,700	12,200	18,300	15,900	19,800	20,500	52,000	16,900	13,400	10,700
4	8,120	15,200	12,800	12,500	13,300	12,400	18,000	21,100	51,500	16,100	12,500	9,700
5	7,710	13,700	13,500	16,100	16,400	11,100	15,700	16,900	48,400	20,400	10,100	11,600
6	7,250	11,500	13,700	20,700	34,500	13,600	14,500	13,700	49,400	24,600	8,800	11,400
7	11,000	12,800	13,900	16,200	33,200	13,200	13,600	11,300	47,700	19,500	11,300	9,180
8	11,300	11,600	13,900	14,600	25,300	12,900	11,300	14,500	40,400	15,600	10,900	9,420
9	9,100	12,200	14,600	18,700	24,100	12,200	9,500	15,600	35,200	14,700	10,900	7,220
10	8,440	13,300	11,300	21,700	25,100	12,300	12,700	17,900	27,900	20,800	8,280	5,580
11	8,640	21,900	11,100	28,300	22,100	11,000	13,600	18,400	26,800	22,600	9,750	7,020
12	9,400	15,700	21,700	26,100	20,800	8,950	13,800	16,900	26,300	26,400	8,440	5,980
13	7,660	13,000	24,500	20,400	20,300	12,400	14,200	15,500	27,500	27,700	6,620	5,880
14	8,030	14,900	25,200	19,200	18,000	14,600	13,600	12,900	29,600	27,400	9,320	5,960
15	7,000	14,200	21,100	51,800	17,300	17,600	11,500	15,500	34,200	23,200	10,000	5,280
16	6,910	18,200	18,100	60,300	16,800	17,500	10,500	18,200	39,200	21,300	11,900	4,570
17	8,260	22,200	15,900	37,000	16,000	15,800	14,500	21,400	48,600	19,300	11,100	5,620
18	8,130	29,500	16,300	28,100	12,900	11,600	14,100	23,600	50,900	16,000	10,700	6,200
19	9,400	23,600	22,000	21,800	13,000	11,600	12,900	27,400	47,300	17,400	8,260	7,520
20	8,640	25,500	18,500	17,700	21,400	16,100	13,900	30,600	40,500	18,700	7,480	8,560
21	8,510	22,200	16,400	17,400	42,800	14,800	13,800	30,600	34,000	19,600	11,700	8,800
22	8,610	19,700	15,200	15,400	34,300	14,000	13,700	26,700	29,700	17,400	9,910	5,650
23	20,200	18,200	14,700	16,600	26,800	12,900	12,700	31,200	28,900	17,600	9,940	4,550
24	36,300	17,100	12,200	15,900	25,000	12,400	13,800	27,700	32,500	16,800	10,100	5,320
25	22,000	19,300	9,600	14,800	21,600	9,910	14,300	23,900	32,800	13,600	9,120	5,690
26	21,600	17,000	11,000	14,200	19,200	8,730	14,200	30,400	31,600	13,700	8,190	5,340
27	24,300	14,900	13,800	13,100	18,400	11,800	13,800	32,000	24,400	14,000	5,040	4,850
28	24,700	15,200	13,500	12,100	16,800	11,500	12,900	21,600	21,600	12,800	7,570	6,670
29	16,200	14,600	13,200	12,100	------	10,900	14,000	23,100	22,500	9,400	6,730	8,370
30	13,700	13,200	13,400	16,700	------	11,500	14,900	29,100	18,800	7,940	6,360	6,360
31	16,500	------	11,900	19,100	------	11,200	------	34,500	------	11,600	12,700	------
TOTAL	373,440	523,600	471,600	631,000	612,200	408,090	408,200	686,700	1,087.5M	552,440	304,210	239,590
MEAN	12,050	17,450	15,210	20,350	21,860	13,160	13,610	22,150	36,250	17,820	9,813	7,986
MAX	36,300	29,500	25,200	60,300	42,800	19,200	19,800	34,500	52,000	27,700	14,300	21,200
MIN	3,940	11,500	9,600	10,100	12,900	8,730	9,500	11,300	18,800	7,940	5,040	4,550
AC-FT	740,700	1,039M	935,400	1,252M	1,214M	809,400	809,700	1,362M	2,157M	1,096M	603,400	475,200

CAL YR 1960: TOTAL 5,537,750 MEAN 15,130 MAX 36,300 MIN 3,940 AC-FT 10,980,000
WAT YR 1961: TOTAL 6,298,570 MEAN 17,260 MAX 60,300 MIN 3,940 AC-FT 12,490,000

M Expressed in thousands.

12-1940. Skagit River near Concrete, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5,400	11,600	17,200	17,000	11,100	11,300	7,560	11,600	16,400	20,400	14,400	6,860
2	6,860	10,200	14,000	20,900	15,200	11,800	9,290	10,800	20,300	16,700	14,800	5,250
3	6,470	10,400	12,300	48,900	22,800	12,000	10,000	11,800	23,000	14,100	16,700	5,280
4	5,810	7,940	14,800	38,300	21,100	9,890	10,500	12,000	19,100	13,800	22,400	7,260
5	7,270	7,720	16,900	29,000	18,100	9,670	10,300	10,100	14,400	16,300	20,800	6,500
6	12,000	9,000	15,200	24,900	17,800	9,940	13,100	8,730	13,100	15,800	16,500	5,750
7	9,280	9,130	14,400	30,600	14,900	10,100	19,800	10,300	11,800	13,900	18,500	6,050
8	6,590	9,500	13,500	44,400	16,300	9,900	12,300	9,330	16,200	16,500	17,400	6,000
9	9,940	11,200	12,400	34,700	16,500	9,460	13,800	9,360	20,300	22,000	16,400	4,060
10	18,200	13,700	12,400	27,700	13,800	8,420	11,200	10,300	16,900	27,700	12,100	6,680
11	15,100	22,200	13,200	22,800	10,700	7,580	9,860	10,800	17,200	21,500	10,500	11,500
12	18,800	15,800	13,900	19,800	11,600	9,590	10,100	9,560	16,900	20,500	9,960	8,920
13	30,000	14,300	13,900	15,000	12,600	11,100	10,600	8,460	17,100	19,800	11,100	8,880
14	19,400	14,000	12,800	13,100	13,000	11,800	12,000	9,480	18,300	18,500	10,900	14,000
15	14,700	14,700	12,500	14,800	12,600	11,600	14,600	9,840	23,400	16,700	10,200	10,900
16	15,100	13,200	9,500	15,000	11,700	11,300	13,800	8,830	26,100	15,000	10,900	6,720
17	14,900	13,900	8,160	13,700	9,930	10,100	12,300	9,190	24,600	15,000	10,500	7,380
18	11,700	11,800	10,700	13,800	8,960	8,000	14,200	9,760	22,500	14,100	10,600	7,400
19	11,400	9,060	11,000	14,200	10,100	10,300	16,700	8,460	22,900	11,500	11,500	6,780
20	11,100	11,000	13,700	14,500	10,900	10,400	15,700	8,540	23,000	12,000	11,500	7,700
21	10,200	11,700	15,800	14,100	10,800	10,300	13,200	9,220	21,500	14,200	14,200	8,010
22	9,780	11,300	13,400	15,400	8,790	11,500	11,000	9,610	21,300	16,000	12,200	7,700
23	10,500	9,720	15,900	15,300	9,640	7,700	12,700	11,900	21,700	21,600	11,000	6,620
24	9,900	8,760	22,500	10,700	9,190	7,590	16,000	14,500	23,400	21,800	9,400	7,160
25	9,600	8,840	17,700	12,200	7,820	9,270	16,000	13,900	27,400	22,100	8,080	5,960
26	12,500	7,670	15,600	12,000	10,300	9,610	13,500	17,600	29,200	23,600	7,500	6,220
27	14,300	9,780	15,400	13,400	10,800	9,020	13,800	19,900	23,800	22,600	9,480	6,940
28	12,000	12,200	14,800	10,200	11,200	8,540	14,200	19,900	19,800	21,100	10,100	11,800
29	10,100	13,800	25,500	12,900	------	7,400	11,300	19,500	20,300	18,100	9,460	15,500
30	11,100	14,400	29,200	11,600	------	8,190	12,100	15,900	21,900	17,700	9,580	10,500
31	11,400	------	19,800	10,800	------	6,040	------	16,300	------	18,200	9,450	------
TOTAL	371,400	348,520	468,060	611,700	358,230	299,410	381,510	365,470	613,800	558,800	388,510	236,280
MEAN	11,980	11,620	15,100	19,730	12,790	9,658	12,720	11,790	20,460	18,030	12,530	7,870
MAX	30,000	22,200	29,200	48,900	22,800	12,000	19,800	19,900	29,200	27,700	22,400	15,500
MIN	5,400	7,670	8,160	10,200	7,820	6,040	7,560	8,460	11,800	11,500	7,500	4,060
AC-FT	736,700	691,300	928,400	1,213M	710,500	593,900	756,700	724,900	1,217M	1,108M	770,600	468,700

CAL YR 1961: TOTAL 6,117,910 MEAN 16,760 MAX 60,300 MIN 4,550 AC-FT 12,130,000
WAT YR 1962: TOTAL 5,001,690 MEAN 13,700 MAX 48,900 MIN 4,060 AC-FT 9,921,000

M Expressed in thousands.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9,180	8,600	15,500	29,500	11,500	13,200	9,600	12,800	18,100	12,700	9,630	5,990
2	10,200	8,700	14,400	32,300	11,800	11,100	10,600	11,500	16,600	15,700	10,200	6,680
3	12,100	7,650	15,000	44,200	27,000	9,610	10,300	10,900	17,200	17,100	10,200	8,760
4	12,500	8,530	14,500	26,000	35,600	9,860	11,700	9,280	16,200	18,300	8,530	8,950
5	10,400	13,300	15,900	23,100	46,900	9,900	12,000	10,600	18,600	20,000	10,300	9,520
6	8,820	12,900	30,200	20,800	28,800	10,000	14,100	13,400	18,400	15,100	11,600	8,120
7	8,760	11,800	24,600	19,500	26,400	10,100	11,800	12,900	19,400	14,000	11,700	7,200
8	10,800	12,800	25,900	18,100	21,200	9,320	11,700	11,500	20,800	18,600	10,500	6,840
9	14,400	12,800	23,100	17,100	17,800	9,080	11,200	11,800	22,100	19,600	11,000	8,650
10	14,500	13,900	21,500	17,300	15,400	8,380	9,660	10,300	23,000	16,900	10,200	9,260
11	12,200	14,400	22,000	17,700	15,900	10,500	10,500	9,600	22,300	18,100	9,770	8,830
12	10,400	14,400	22,100	15,500	14,400	9,830	9,780	8,960	29,100	14,400	13,000	7,820
13	10,100	15,500	21,300	13,800	13,800	9,640	9,170	9,870	30,200	14,500	16,300	11,500
14	9,880	13,500	30,300	12,900	13,600	10,300	9,050	10,100	22,600	15,000	17,100	14,100
15	9,930	13,700	41,500	12,500	13,800	11,500	12,900	11,700	22,700	18,500	10,400	8,280
16	11,200	11,500	44,400	13,700	10,100	10,400	12,100	11,100	22,900	16,000	9,780	10,200
17	9,620	9,580	29,000	13,300	9,500	10,000	11,900	12,400	32,100	13,300	7,880	8,630
18	11,000	10,200	24,600	13,200	10,500	9,580	11,300	13,400	32,200	13,400	7,420	7,580
19	10,600	28,100	21,200	13,300	13,300	12,200	11,300	18,900	30,400	13,600	11,600	6,440
20	10,300	81,700	19,200	11,300	15,000	12,100	10,500	24,600	25,500	13,100	10,800	6,900
21	10,300	41,000	19,100	12,900	12,100	11,100	9,480	28,100	22,100	12,000	10,400	7,200
22	14,000	24,900	18,600	11,000	10,700	12,800	9,880	28,300	20,200	17,900	8,660	6,690
23	13,500	19,300	15,700	9,930	9,000	11,400	11,000	25,000	17,100	18,100	8,110	9,820
24	10,900	18,700	14,200	11,600	8,380	9,780	11,000	22,900	14,200	15,400	7,110	9,190
25	10,900	25,200	11,800	9,020	10,400	9,920	10,700	17,300	20,300	13,100	7,200	7,340
26	10,200	36,600	12,600	9,420	17,600	11,300	10,100	14,000	17,300	11,400	7,160	7,320
27	7,270	31,000	13,800	8,820	16,800	12,500	10,900	14,400	14,600	8,520	8,220	7,740
28	6,930	30,100	13,900	12,300	14,400	14,100	9,320	16,700	13,300	8,860	9,260	6,580
29	7,220	27,800	16,500	12,200	------	14,300	9,840	18,900	13,100	12,400	6,020	7,590
30	9,880	23,100	29,600	14,300	------	12,300	11,900	19,000	11,500	11,600	7,610	7,680
31	10,000	------	32,600	13,100	------	8,430	------	22,200	------	9,780	8,130	------
TOTAL	327,990	601,260	674,600	509,690	471,680	334,530	325,280	472,410	624,100	456,960	305,790	247,400
MEAN	10,580	20,040	21,760	16,440	16,850	10,790	10,840	15,240	20,800	14,740	9,864	8,247
MAX	14,500	81,700	44,400	44,200	46,900	14,300	14,100	28,300	32,200	20,000	17,100	14,100
MIN	6,930	7,650	11,800	8,820	8,380	8,380	9,050	8,960	11,500	8,520	6,020	5,990
AC-FT	650,600	1,193M	1,338M	1,011M	935,600	663,500	645,200	937,000	1,238M	906,400	606,500	490,700

CAL YR 1962: TOTAL 5,417,560 MEAN 14,840 MAX 81,700 MIN 4,060 AC-FT 10,750,000
WAT YR 1963: TOTAL 5,351,690 MEAN 14,660 MAX 81,700 MIN 5,990 AC-FT 10,610,000

M Expressed in thousands.

12-1940. Skagit River near Concrete, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7,370	12,500	16,400	39,300	16,400	13,400	16,000	11,500	37,400	29,700	20,600	13,400
2	7,320	16,200	15,200	34,100	14,300	13,700	16,400	10,300	40,300	31,900	19,900	11,800
3	6,670	12,900	16,400	27,800	14,900	14,500	15,100	8,650	30,300	28,600	17,900	10,200
4	6,550	13,100	16,200	23,700	15,300	13,300	13,800	10,700	28,500	28,700	29,100	9,670
5	6,180	12,900	17,900	18,100	16,900	14,200	14,300	17,000	35,900	37,700	22,100	8,890
6	7,980	13,200	18,200	18,600	14,000	13,700	11,600	12,600	39,000	37,100	19,800	8,240
7	7,260	13,600	14,200	18,000	12,900	12,600	12,500	11,600	33,000	37,500	18,500	9,510
8	7,560	14,100	13,400	16,900	11,100	12,800	15,100	12,200	34,900	51,700	19,200	12,300
9	6,500	12,200	14,300	16,900	10,900	14,400	17,500	10,400	39,100	52,500	19,700	12,500
10	7,340	11,400	13,900	16,000	12,200	15,600	16,900	12,400	40,900	37,400	17,800	10,700
11	5,760	13,400	15,400	14,200	12,900	16,300	16,800	13,800	41,600	35,300	17,000	9,630
12	5,030	15,100	15,400	12,900	12,200	17,300	16,100	15,700	36,100	47,600	19,900	7,660
13	6,140	22,200	15,400	12,800	11,700	15,700	14,900	17,200	31,600	50,500	18,600	6,400
14	9,840	30,400	14,000	14,200	11,600	13,400	12,500	15,100	31,700	47,100	15,000	6,770
15	9,720	26,000	13,500	14,500	10,100	14,900	13,700	13,600	33,900	49,400	13,800	7,020
16	9,050	22,800	14,000	21,700	9,340	13,600	13,300	12,500	41,500	42,400	12,500	9,340
17	7,980	23,100	14,300	19,800	10,900	14,900	13,200	14,300	38,000	34,600	14,600	13,300
18	9,000	22,300	15,100	18,700	12,200	15,200	10,800	17,000	34,300	31,200	14,200	10,600
19	9,440	21,200	15,400	16,600	11,700	13,200	8,380	21,300	35,500	26,300	14,600	8,470
20	8,740	19,800	17,500	16,500	10,900	13,200	10,500	25,400	28,100	23,800	13,400	14,600
21	27,000	15,800	15,800	16,500	10,600	10,100	11,800	29,100	26,000	28,600	12,700	13,200
22	58,600	14,500	14,600	14,300	9,470	8,160	12,800	25,100	24,300	29,100	10,900	12,000
23	26,700	16,600	30,600	15,300	8,580	11,000	11,900	17,000	31,600	23,500	12,900	11,500
24	26,300	15,000	29,700	13,600	10,500	12,400	11,200	15,300	34,700	21,600	14,800	10,700
25	26,000	17,700	24,500	17,800	10,400	13,300	9,420	16,200	29,700	26,000	13,900	13,500
26	20,900	50,800	21,000	15,600	10,400	13,500	9,550	16,500	29,800	25,500	16,100	9,900
27	17,400	52,000	18,600	15,500	12,400	11,900	11,200	19,000	29,800	26,400	15,700	8,060
28	19,300	33,700	15,200	16,200	12,200	9,860	11,300	26,100	27,000	28,600	17,400	8,670
29	19,600	29,300	14,800	16,400	12,300	8,950	11,000	27,700	22,900	29,100	16,600	10,600
30	18,300	22,600	16,300	16,400	------	10,300	11,600	29,300	25,500	27,600	18,400	33,500
31	13,800	------	26,900	16,100	------	13,800	------	32,600	------	24,600	14,900	------
TOTAL	425,330	616,400	535,100	565,000	349,190	409,170	391,150	537,150	992,900	1,051.6M	522,500	332,630
MEAN	13,720	20,550	17,260	18,230	12,040	13,200	13,040	17,330	33,100	33,920	16,850	11,090
MAX	58,600	52,000	30,600	39,300	16,900	17,300	17,500	32,600	41,600	52,500	29,100	33,500
MIN	5,030	11,400	13,400	12,800	8,580	8,160	8,380	8,650	22,900	21,600	10,900	6,400
AC-FT	843,600	1,223M	1,061M	1,121M	692,600	811,600	775,800	1,065M	1,969M	2,086M	1,036M	660,200

CAL YR 1963: TOTAL 5,324,670 MEAN 14,590 MAX 58,600 MIN 5,030 AC-FT 10,560,000
WAT YR 1964: TOTAL 6,728,320 MEAN 18,380 MAX 58,600 MIN 5,030 AC-FT 13,350,000

M Expressed in thousands.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	27,900	10,900	49,500	7,380	23,500	15,200	10,700	14,100	17,800	21,700	13,600	6,440
2	32,200	11,500	38,100	7,170	17,800	16,200	10,900	11,700	20,100	29,000	16,600	6,770
3	21,000	11,400	26,800	6,680	17,000	12,800	8,030	15,200	23,000	30,900	14,800	6,670
4	15,300	25,200	21,700	9,070	18,300	11,700	8,830	17,100	24,900	29,000	14,500	5,410
5	14,500	18,800	17,500	9,000	28,100	10,800	9,370	15,600	26,200	32,300	12,400	4,830
6	13,800	14,600	14,300	7,760	25,700	10,500	10,300	14,100	27,500	30,300	11,700	4,570
7	12,600	13,100	13,900	7,860	17,500	10,300	8,360	12,600	28,000	27,500	10,500	4,680
8	13,700	11,000	16,000	8,310	19,100	13,000	8,510	9,090	28,500	30,500	11,600	5,000
9	15,300	12,200	18,300	7,380	18,200	13,200	9,530	9,010	30,200	24,200	13,400	5,820
10	15,600	12,700	17,100	6,400	14,900	13,200	7,330	14,300	30,300	16,700	14,400	5,800
11	12,800	11,400	16,500	8,410	14,000	14,300	6,760	16,000	33,000	15,100	13,600	5,620
12	12,100	10,100	16,100	7,850	13,200	14,400	9,500	18,800	29,700	17,700	13,800	5,070
13	12,300	9,530	16,200	7,810	12,900	14,100	12,100	19,100	22,600	17,800	18,300	5,440
14	11,400	9,660	15,400	8,940	11,900	12,500	11,400	19,100	21,000	17,800	15,500	7,600
15	14,600	8,460	14,400	11,500	12,100	13,800	12,100	17,800	20,200	19,600	11,400	10,600
16	14,400	9,920	15,300	14,300	13,400	15,300	14,100	26,900	19,000	21,700	12,200	10,000
17	12,700	9,450	16,300	16,100	15,400	14,500	11,700	26,600	23,300	18,300	10,900	8,160
18	11,400	10,300	14,500	14,900	16,100	12,600	9,560	20,800	25,500	16,400	11,100	6,500
19	11,300	10,800	13,200	15,500	18,900	11,500	13,600	17,600	22,500	16,700	11,700	5,410
20	11,000	9,660	12,800	18,500	18,600	8,780	24,400	20,400	25,300	14,600	12,700	5,480
21	10,600	9,140	12,700	19,600	16,400	8,680	25,100	20,400	25,100	13,900	10,900	5,150
22	9,840	7,350	13,400	18,800	14,300	10,300	21,500	18,000	24,900	12,900	10,200	5,720
23	9,630	9,270	14,400	15,800	15,200	11,000	19,400	16,200	23,000	12,600	13,600	6,000
24	7,880	21,100	14,500	15,700	14,200	11,100	13,600	17,500	24,300	13,400	12,400	5,580
25	9,190	14,900	8,940	12,300	12,500	10,500	13,800	17,900	23,200	16,400	10,500	4,980
26	10,500	14,100	7,500	14,600	14,600	10,700	18,900	20,600	20,200	17,900	9,790	5,150
27	10,800	11,100	8,020	18,000	20,400	10,300	22,300	25,000	17,200	19,400	10,400	5,060
28	9,220	10,800	8,950	20,700	16,300	7,060	26,300	29,300	16,600	18,200	9,300	4,720
29	9,450	11,100	9,530	28,500	------	7,710	23,300	29,000	16,100	16,600	7,430	4,210
30	9,970	34,500	10,100	31,100	------	8,010	19,400	23,900	17,100	15,300	6,620	3,790
31	11,600	------	9,610	33,000	------	9,220	------	20,700	------	13,700	6,030	------
TOTAL	414,580	384,040	501,550	428,920	470,500	363,260	421,280	574,400	706,300	618,100	371,870	176,230
MEAN	13,370	12,800	16,180	13,840	16,800	11,720	14,040	18,530	23,540	19,940	12,000	5,874
MAX	32,200	34,500	49,500	33,000	28,100	16,200	26,300	29,300	33,000	32,300	18,300	10,600
MIN	7,880	7,350	7,500	6,400	11,900	7,060	6,760	9,010	16,100	12,600	6,030	3,790
AC-FT	822,300	761,700	994,800	850,700	933,200	720,500	835,600	1,139M	1,401M	1,226M	737,600	349,500

CAL YR 1964: TOTAL 6,451,660 MEAN 17,630 MAX 52,500 MIN 6,400 AC-FT 12,800,000
WAT YR 1965: TOTAL 5,431,030 MEAN 14,880 MAX 49,500 MIN 3,790 AC-FT 10,770,000

M Expressed in thousands.

12-1960. Alder Creek near Hamilton, Wash.

Location.--Lat 48°31'40", long 121°56'55", in NW¼NE¼ sec.18, T.35 N., R.7 E., on left bank 3 ft downstream from logging road culvert, a quarter of a mile upstream from highway bridge, three-quarters of a mile upstream from mouth, and 2 miles east of Hamilton.

Drainage area.--10.7 sq mi.

Records available.--August 1943 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 125 ft (by barometer). Prior to Jan. 14, 1960, at several sites within 350 ft downstream of present site at various datums.

Average discharge.--22 years, 35.4 cfs (25,630 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	a 253	-	(b)	8.2	1.60
1962	Jan. 3, 1962c	189	2.88	Sept. 4, 5, 6,1962	8.7	d 1.64
1963	Nov. 19, 1962	230	3.86	Aug. 30, 1963	6.6	e 2.47
1964	Nov. 26, 1963	238	3.50	Aug. 25-29, 1964	9.7	f 2.41
1965	Jan. 29, 1965	263	3.66	Sept. 4-8, 1965	6.5	2.15

a Maximum daily.
b Aug. 14, 15, 16, 19, 20, 1961.
c About.
d Occurred Oct. 3, 4, 5, 1961.
e Occurred Jan. 29, 30, Feb. 2, 1963.
f Occurred Aug. 24, 1964.

1943-65: Maximum discharge, 714 cfs Dec. 9, 1956 (gage height, 5.28 ft, site and datum then in use); minimum, 4.3 cfs Sept. 16, 1956.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. No regulation or diversion above station.

Revisions (water years).--WSP 1286: 1945(M), 1947, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	39	58	47	40	81	55	34	23	15	12	28
2	11	37	55	46	48	74	58	34	23	16	11	20
3	11	32	53	44	46	68	74	34	22	16	11	15
4	11	30	52	48	46	65	68	34	22	16	11	15
5	11	27	51	72	56	60	63	38	21	19	12	14
6	12	25	49	74	65	59	59	36	21	17	12	13
7	16	24	48	69	72	52	56	34	21	17	11	13
8	19	22	47	66	66	52	60	35	21	16	11	12
9	16	21	48	65	63	51	59	37	21	16	11	12
10	16	32	47	69	59	48	55	38	20	16	11	12
11	16	65	46	76	63	51	55	37	19	15	11	12
12	17	53	47	78	65	53	59	35	18	15	9.6	12
13	16	49	48	75	63	65	60	32	17	14	9.6	12
14	16	68	49	75	62	74	58	34	16	15	8.9	11
15	16	74	48	80	66	80	55	30	16	15	8.9	11
16	16	100	48	81	63	76	53	29	17	14	11	11
17	15	96	48	78	66	69	56	28	16	14	11	11
18	14	96	55	70	63	66	53	27	17	13	8.9	11
19	14	98	72	65	110	66	52	26	17	13	8.9	11
20	14	108	65	60	224	70	52	25	17	13	8.9	12
21	17	98	62	56	253	66	51	24	16	13	9.6	11
22	20	90	58	53	168	65	47	23	16	14	9.6	11
23	30	86	55	51	124	65	46	28	16	14	9.6	9.6
24	40	91	53	48	117	62	43	24	16	14	9.6	9.6
25	28	90	52	44	105	59	40	22	15	14	11	9.6
26	40	81	51	44	88	58	38	24	16	13	11	9.6
27	53	74	49	40	76	53	37	30	15	13	11	9.6
28	56	68	48	39	70	52	36	25	15	14	11	20
29	47	63	47	42	------	49	37	25	15	13	11	16
30	40	59	47	43	------	47	36	25	15	12	11	14
31	37	------	47	39	------	47	------	24	------	12	20	------
TOTAL	697	1,896	1,603	1,837	2,407	1,903	1,571	931	540	451	334.1	388.0
MEAN	22.5	63.2	51.7	59.3	86.0	61.4	52.4	30.0	18.0	14.5	10.8	12.9
MAX	56	108	72	81	253	81	74	38	23	19	20	28
MIN	11	21	46	39	40	47	36	22	15	12	8.9	9.6
CFSM	2.10	5.91	4.83	5.54	8.03	5.74	4.89	2.81	1.68	1.36	1.01	1.21
IN.	2.42	6.59	5.57	6.38	8.37	6.61	5.46	3.24	1.88	1.57	1.16	1.35
AC-FT	1,380	3,760	3,180	3,640	4,770	3,770	3,120	1,850	1,070	895	663	770

CAL YR 1960: TOTAL 13,760.5 MEAN 37.6 MAX 131 MIN 9.6 CFSM 3.51 IN 47.83 AC-FT 27,290
WAT YR 1961: TOTAL 14,558.1 MEAN 39.9 MAX 253 MIN 8.9 CFSM 3.73 IN 50.60 AC-FT 28,880

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1960. Alder Creek near Hamilton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	42	60	120	53	19	30	30	18	15	11	9.3
2	12	34	56	150	52	19	29	35	23	15	11	9.3
3	12	35	56	180	55	18	28	35	23	14	13	9.0
4	12	30	59	140	59	18	27	30	22	14	17	9.0
5	20	27	59	120	55	18	35	30	21	15	19	9.0
6	22	24	53	100	52	19	45	27	20	15	17	9.0
7	18	22	49	100	49	19	50	25	20	14	15	9.0
8	14	20	47	110	48	20	60	25	20	14	16	9.0
9	20	36	45	100	46	20	60	26	19	13	14	9.0
10	23	60	40	80	46	21	50	27	19	13	13	12
11	24	58	35	70	43	21	40	27	18	13	12	13
12	43	52	35	60	40	21	30	26	19	13	13	11
13	53	46	30	50	39	21	30	25	19	13	13	14
14	35	40	30	45	40	21	35	25	17	13	12	14
15	25	35	30	40	37	22	31	26	17	13	12	13
16	21	30	30	40	36	23	30	27	16	13	12	12
17	17	27	25	35	34	24	29	27	16	13	12	11
18	15	26	25	35	32	25	26	26	16	13	12	11
19	13	25	30	30	31	26	26	25	15	12	12	11
20	11	21	50	30	30	34	25	24	15	12	12	11
21	11	26	50	30	28	35	25	23	15	12	11	11
22	11	46	45	30	26	33	24	22	15	12	11	11
23	24	39	60	30	25	38	30	21	15	12	11	11
24	23	32	80	30	24	43	35	20	15	11	11	10
25	22	27	70	30	23	42	35	20	15	12	10	10
26	58	23	60	40	22	40	30	20	15	11	10	9.7
27	60	23	60	51	21	39	30	19	16	11	10	11
28	47	32	80	50	20	35	32	19	15	11	11	16
29	40	40	100	40	------	33	30	19	15	11	10	15
30	35	43	100	35	------	32	25	19	15	11	9.7	13
31	30	------	90	40	------	31	------	18	------	11	9.3	------
TOTAL	784	1,021	1,639	2,041	1,066	830	1,012	768	524	395	382.0	332.3
MEAN	25.3	34.0	52.9	65.8	38.1	26.8	33.7	24.8	17.5	12.7	12.3	11.1
MAX	60	60	100	180	59	43	60	35	23	15	19	16
MIN	11	20	25	30	20	18	24	18	15	11	9.3	9.0
CFSM	2.36	3.18	4.94	6.15	3.56	2.50	3.15	2.32	1.63	1.19	1.15	1.04
IN.	2.72	3.55	5.70	7.09	3.71	2.88	3.52	2.67	1.82	1.37	1.33	1.15
AC-FT	1,560	2,030	3,250	4,050	2,110	1,650	2,010	1,520	1,040	783	758	659

CAL YR 1961: TOTAL 13,806.1 MEAN 37.8 MAX 253 MIN 8.9 CFSM 3.54 IN 47.99 AC-FT 27,380
WAT YR 1962: TOTAL 10,794.3 MEAN 29.6 MAX 180 MIN 9.0 CFSM 2.76 IN 37.52 AC-FT 21,410

Note.--No gage-height record Dec. 9 to Jan. 26. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	14	68	154	20	77	28	30	16	11	11	7.7
2	12	13	66	179	22	70	26	38	17	11	11	7.7
3	14	13	59	179	31	60	29	40	15	11	11	7.3
4	13	15	56	130	60	52	40	37	15	11	11	7.3
5	13	19	72	109	81	46	46	36	16	11	11	7.3
6	13	20	94	94	68	42	66	34	15	11	10	7.7
7	14	18	87	77	56	38	59	33	15	11	7.4	7.7
8	16	20	81	73	51	36	54	30	15	13	8.1	7.7
9	17	22	72	62	45	32	48	29	20	15	8.3	7.7
10	16	24	64	52	41	32	42	28	16	14	8.3	7.7
11	16	23	54	46	37	33	38	26	15	13	10	8.3
12	18	23	51	43	32	30	36	24	15	12	11	9.4
13	19	26	48	42	31	28	32	23	14	11	11	18
14	18	25	60	41	30	28	31	22	14	12	9.7	14
15	18	24	57	42	28	26	31	21	13	12	9.4	12
16	17	23	54	38	30	25	31	20	12	12	9.4	11
17	17	23	57	37	26	24	28	20	12	11	9.4	11
18	17	22	51	33	28	24	30	19	11	10	9.4	10
19	17	84	52	31	32	32	30	18	12	10	11	9.4
20	17	182	49	30	33	30	32	18	12	10	11	9.4
21	17	125	68	29	31	28	30	18	12	10	10	9.4
22	18	92	60	28	29	26	31	16	13	13	10	9.4
23	17	73	57	26	26	25	30	15	12	13	9.2	9.4
24	16	64	49	26	26	24	29	15	12	11	7.7	8.9
25	16	81	46	25	32	24	28	15	13	11	7.3	8.9
26	16	92	42	23	98	24	26	15	12	11	7.3	9.1
27	15	87	46	22	98	24	25	15	12	11	7.3	11
28	15	77	66	21	81	34	24	15	11	11	7.3	11
29	15	68	83	20	------	32	24	16	11	11	7.3	12
30	14	75	137	20	------	30	24	16	11	11	7.3	12
31	14	------	144	22	------	30	------	16	------	11	7.3	------
TOTAL	487	1,467	2,050	1,754	1,203	1,066	1,028	718	409	356	286.4	289.4
MEAN	15.7	48.9	66.1	56.6	43.0	34.4	34.3	23.2	13.6	11.5	9.24	9.65
MAX	19	182	144	179	98	77	66	40	20	15	11	18
MIN	12	13	42	20	20	24	24	15	11	10	7.3	7.3
CFSM	1.47	4.57	6.18	5.29	4.02	3.21	3.20	2.16	1.27	1.07	.86	.90
IN.	1.69	5.10	7.13	6.10	4.18	3.71	3.57	2.50	1.42	1.24	1.00	1.01
AC-FT	966	2,910	4,070	3,480	2,390	2,110	2,040	1,420	811	706	568	574

CAL YR 1962: TOTAL 11,354.3 MEAN 31.1 MAX 182 MIN 9.0 CFSM 2.91 IN 39.46 AC-FT 22,520
WAT YR 1963: TOTAL 11,113.8 MEAN 30.4 MAX 182 MIN 7.3 CFSM 2.85 IN 38.63 AC-FT 22,040

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1960. Alder Creek near Hamilton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	21	55	107	94	40	60	43	40	27	15	11
2	13	25	47	99	84	36	62	40	37	26	15	11
3	13	23	40	84	73	37	55	38	36	25	16	10
4	14	22	37	77	69	46	59	37	37	24	15	10
5	14	22	37	71	64	81	62	36	36	23	14	10
6	14	23	47	75	57	75	55	36	35	23	13	10
7	13	28	38	64	50	64	55	35	33	22	13	12
8	13	34	40	57	47	62	55	35	33	22	13	12
9	13	34	37	55	47	60	57	40	31	21	13	12
10	13	41	35	55	47	62	60	40	30	20	13	12
11	13	42	31	52	50	71	66	38	28	19	13	12
12	13	45	28	47	46	73	75	40	28	19	13	12
13	18	45	27	49	44	66	75	40	27	19	13	12
14	16	49	26	50	43	75	79	38	26	19	13	12
15	15	54	41	57	44	99	92	37	26	20	13	13
16	14	54	59	75	44	84	84	37	28	21	14	13
17	14	73	60	75	44	96	75	38	28	21	13	20
18	14	81	52	75	47	90	68	38	40	20	13	16
19	14	89	49	77	49	77	62	40	33	19	12	17
20	15	79	64	68	47	69	59	44	31	18	12	19
21	20	73	59	60	47	64	59	52	30	18	11	17
22	35	73	60	52	44	57	71	59	28	17	11	18
23	26	87	66	47	41	52	62	50	26	16	11	16
24	30	98	60	50	38	50	59	52	25	16	11	15
25	30	111	73	75	37	47	55	49	24	16	10	14
26	24	190	64	73	35	52	52	47	23	15	10	13
27	22	172	57	71	33	49	55	46	25	14	12	16
28	28	112	49	77	33	47	49	44	44	14	11	30
29	22	81	43	88	36	47	47	43	32	14	10	30
30	21	68	41	81	------	52	44	41	30	15	13	47
31	20	------	44	81	------	55	------	40	------	15	12	------
TOTAL	556	1,949	1,466	2,124	1,434	1,935	1,868	1,293	930	598	392	472
MEAN	17.9	65.0	47.3	68.5	49.4	62.4	62.3	41.7	31.0	19.3	12.6	15.7
MAX	35	190	73	107	94	99	92	59	44	27	16	47
MIN	12	21	26	47	33	36	44	35	23	14	10	10
CFSM	1.08	6.07	4.42	6.40	4.62	5.83	5.82	3.90	2.90	1.80	1.18	1.47
IN.	1.93	6.77	5.10	7.38	4.98	6.73	6.49	4.49	3.23	2.08	1.36	1.64
AC-FT	1,100	3,870	2,910	4,210	2,840	3,840	3,710	2,560	1,840	1,190	778	936

CAL YR 1963: TOTAL 11,080.8 MEAN 30.4 MAX 190 MIN 7.3 CFSM 2.84 IN 38.51 AC-FT 21,980
WAT YR 1964: TOTAL 15,017 MEAN 41.0 MAX 190 MIN 10 CFSM 3.83 IN 52.19 AC-FT 29,790

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	40	25	90	31	126	70	27	25	22	11	8.4	6.8
2	36	23	70	50	95	62	26	24	20	12	8.4	6.8
3	35	27	55	45	81	57	25	26	19	12	8.8	6.6
4	28	50	42	38	87	54	25	25	18	12	8.8	6.5
5	26	38	35	34	126	54	25	25	18	11	8.8	6.5
6	21	30	31	31	120	50	25	28	18	11	8.8	6.5
7	19	28	29	30	100	48	24	28	18	11	8.8	6.5
8	23	26	29	33	109	45	24	26	17	11	8.8	6.8
9	30	24	31	31	93	42	25	26	18	11	9.4	6.8
10	25	24	36	30	77	42	24	25	18	11	9.4	6.8
11	20	25	33	27	71	41	23	24	18	11	9.4	6.8
12	17	23	31	27	66	39	23	23	17	11	11	6.8
13	18	20	31	30	89	37	24	23	17	11	11	7.6
14	25	19	28	40	79	36	23	22	16	11	9.8	9.4
15	28	18	27	56	79	34	23	25	15	11	9.4	10
16	25	17	26	52	123	34	24	44	15	11	9.4	8.8
17	23	16	25	47	143	32	24	45	15	10	9.4	8.4
18	21	17	28	44	113	32	22	38	14	10	8.8	8.4
19	19	16	32	43	109	29	26	36	14	11	8.8	8.4
20	18	16	29	60	95	29	32	39	15	11	9.4	8.4
21	18	15	27	75	91	39	29	36	15	11	8.8	8.4
22	17	14	30	70	81	36	29	34	15	11	8.8	8.4
23	17	20	33	62	71	30	28	33	14	11	9.4	8.4
24	16	46	30	60	64	29	29	30	14	10	9.4	8.4
25	16	40	28	62	57	28	27	28	12	9.8	9.4	8.4
26	16	42	47	73	71	28	27	27	13	9.4	8.8	8.4
27	15	35	42	126	89	28	26	25	13	8.8	8.4	8.4
28	15	30	36	192	79	27	25	24	13	8.8	8.4	8.4
29	15	30	32	194	------	28	25	23	12	8.4	7.6	8.4
30	17	70	29	182	------	26	25	24	12	8.4	7.2	8.4
31	19	------	28	159	------	25	------	22	------	8.4	7.2	------
TOTAL	678	824	1,100	2,034	2,584	1,191	764	883	475	326.0	278.2	233.8
MEAN	21.9	27.5	35.5	65.6	92.3	38.4	25.5	28.5	15.8	10.5	8.97	7.79
MAX	40	70	90	194	143	70	32	45	22	12	11	10
MIN	15	14	25	27	57	25	22	22	12	8.4	7.2	6.5
CFSM	2.04	2.57	3.32	6.13	8.62	3.59	2.38	2.66	1.48	.98	.84	.73
IN.	2.36	2.86	3.82	7.07	8.98	4.14	2.66	3.07	1.65	1.13	.97	.61
AC-FT	1,340	1,630	2,180	4,030	5,130	2,360	1,520	1,750	942	647	552	464

CAL YR 1964: TOTAL 13,648 MEAN 37.3 MAX 107 MIN 10 CFSM 3.49 IN 47.44 AC-FT 27,070
WAT YR 1965: TOTAL 11,371.0 MEAN 31.2 MAX 194 MIN 6.5 CFSM 2.91 IN 39.52 AC-FT 22,550

Note.--No gage-height record Dec. 20 to Jan. 25.

12-1962. Day Creek below Day Lake, near Lyman, Wash.

Location.--Lat 48°24'31", long 121°58'45", in SE¼NW¼ sec.25, T.34 N., R.6 E., on right bank 1,000 ft downstream from outlet of Day Lake and 9 miles southeast of Lyman.

Drainage area.--6.56 sq mi.

Records available.--August 1963 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,600 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (250 cfs), August 1963 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.13, 1963	2030	* 60	2.46	Jan. 1, 1964	1400	279	3.87	Feb. 5, 1965	1930	251	3.74
								Feb. 17, 1965	0730	282	3.88
Oct. 22, 1963	0300	417	4.42	Dec. 1, 1964	1700	* 498	4.70				
Nov. 26, 1963	1530	* 474	4.62	Jan. 30, 1965	1700	477	4.63				

Annual minimum discharge, August 1963 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Aug. 17, 1963	6.8	1.52	1965	Sept.13, 1965	5.5	1.47
1964	Oct. 3, 1963	8.7	1.59				

1963-65: Maximum discharge, 498 cfs Dec. 1, 1964 (gage height, 4.70 ft), from rating curve extended above 130 cfs; minimum, 5.5 cfs Sept. 13, 1965 (gage height, 1.47 ft).

Remarks.--Records excellent. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1											14	11
2											13	11
3											12	11
4											11	11
5											10	10
6											10	9.7
7											9.7	9.7
8											9.3	9.3
9											9.0	8.7
10											8.7	8.7
11											7.9	8.4
12											8.4	8.4
13											9.0	32
14											9.3	47
15											9.0	30
16											8.2	23
17											8.2	22
18											8.4	18
19											30	15
20											38	13
21											28	12
22											25	12
23											21	14
24											30	14
25											25	13
26											20	12
27											17	11
28											15	10
29					------						13	10
30					------						12	9.0
31		------			------		------		------		11	------
TOTAL											460.1	433.9
MEAN											14.8	14.5
MAX											38	47
MIN											7.9	8.4
CFSM											2.26	2.20
IN.											2.61	2.46
AC-FT											913	861

12-1962. Day Creek below Day Lake, near Lyman, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	9.0	57	52	210	148	42	132	61	135	47	18	42
2	9.0	116	44	166	106	36	92	57	121	44	26	35
3	9.0	86	39	106	76	34	71	52	101	41	29	29
4	10	68	39	89	86	63	68	56	118	39	30	25
5	11	61	59	73	85	71	66	60	135	36	27	23
6	14	58	77	70	62	51	57	58	132	36	22	21
7	13	81	58	58	51	39	63	63	110	36	19	23
8	12	111	52	48	44	36	74	67	95	38	17	36
9	12	96	46	54	43	39	77	116	91	36	17	30
10	11	125	40	54	52	40	152	127	92	33	16	25
11	10	96	35	46	62	50	150	95	83	30	16	22
12	10	87	31	40	49	55	107	93	76	30	15	20
13	40	124	29	48	42	44	84	92	71	28	14	19
14	45	118	28	58	36	47	116	72	71	32	14	17
15	30	137	99	62	40	105	186	68	72	46	13	17
16	22	147	161	140	43	85	116	80	90	66	12	19
17	18	183	131	113	52	106	77	101	86	52	12	66
18	16	137	106	84	83	107	60	106	100	40	13	52
19	14	124	117	65	97	74	55	117	89	32	14	69
20	14	86	153	61	64	57	55	131	70	29	13	131
21	103	66	121	52	50	47	72	164	59	26	12	91
22	303	68	92	44	43	40	138	155	55	24	12	93
23	137	142	110	43	38	37	90	117	55	22	11	65
24	123	163	87	46	36	33	75	98	52	21	11	49
25	155	254	117	126	33	34	74	85	49	19	11	40
26	123	370	85	104	30	35	72	89	47	17	13	36
27	91	252	89	95	29	31	74	107	47	16	20	32
28	97	130	76	101	29	30	72	117	68	16	34	28
29	92	86	58	120	32	37	75	111	59	15	61	36
30	74	63	52	117	------	60	75	123	51	14	83	177
31	58	------	76	113	------	85	------	135	------	17	58	------
TOTAL	1,685.0	3,692	2,359	2,606	1,641	1,650	2,675	2,973	2,480	978	683	1,368
MEAN	54.4	123	76.1	84.1	56.6	53.2	89.2	95.9	82.7	31.5	22.0	45.6
MAX	303	370	161	210	148	107	186	164	135	66	83	177
MIN	9.0	57	28	40	29	30	55	52	47	14	11	17
CFSM	8.29	18.8	11.6	12.8	8.63	8.11	13.6	14.6	12.6	4.81	3.36	6.95
IN.	9.55	20.9	13.4	14.8	9.30	9.35	15.2	16.9	14.1	5.54	3.87	7.76
AC-FT	3,340	7,320	4,680	5,170	3,250	3,270	5,310	5,900	4,920	1,940	1,350	2,710

CAL YR 1963: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1964: TOTAL 24,790.0 MEAN 67.7 MAX 370 MIN 9.0 CFSM 10.3 IN 140.54 AC-FT 49,170

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	142	58	456	27	127	80	56	58	36	11	7.6	13
2	157	65	300	38	84	60	51	49	34	11	7.3	12
3	117	57	169	35	66	54	44	53	34	11	7.3	11
4	71	178	105	29	77	52	43	83	32	11	7.3	10
5	52	114	73	26	200	51	44	69	32	10	7.0	9.7
6	42	69	58	26	179	51	44	58	30	10	7.0	9.3
7	36	52	52	25	109	52	40	56	29	9.7	7.0	8.4
8	45	43	71	26	102	52	39	52	28	9.7	7.0	7.9
9	61	37	93	23	83	52	44	53	25	9.0	6.8	7.9
10	49	34	100	21	65	60	50	57	24	9.0	6.8	7.6
11	38	38	77	20	53	66	46	58	25	9.0	6.8	5.8
12	32	35	62	19	49	66	46	60	25	9.0	9.7	5.8
13	29	31	57	19	170	58	52	56	23	9.0	18	6.0
14	42	28	50	33	135	52	56	53	21	9.0	19	25
15	87	25	45	47	91	50	68	56	20	9.0	16	47
16	96	23	35	65	148	47	89	130	19	8.7	14	44
17	69	22	32	69	260	41	91	118	18	8.4	12	30
18	52	22	30	63	172	36	69	85	17	8.4	11	23
19	43	21	29	69	150	35	83	69	17	8.2	10	19
20	36	20	29	98	141	34	152	77	16	9.0	12	16
21	32	19	29	142	98	36	147	70	16	9.7	13	14
22	29	19	38	101	77	41	106	60	15	9.7	12	12
23	26	53	43	70	61	38	85	56	14	9.7	11	12
24	25	188	34	87	52	34	98	52	14	9.7	14	11
25	23	132	29	72	48	33	89	48	13	9.3	16	9.7
26	22	114	48	65	92	30	84	45	13	9.0	21	9.7
27	20	76	57	152	179	30	86	46	13	9.0	22	8.4
28	19	56	45	269	124	32	84	46	13	8.4	20	8.2
29	19	65	36	301	------	56	71	44	12	8.4	19	8.4
30	28	346	31	341	------	53	64	41	12	8.2	16	7.9
31	30	------	29	246	------	47	------	38	------	7.9	14	------
TOTAL	1,569	2,040	2,342	2,624	3,192	1,479	2,121	1,896	640	288.1	377.6	419.7
MEAN	50.6	68.0	75.5	84.6	114	47.7	70.7	61.2	21.3	9.29	12.2	14.0
MAX	157	346	456	341	260	80	152	130	36	11	22	47
MIN	19	19	29	19	48	30	39	38	12	7.9	6.8	5.8
CFSM	7.72	10.4	11.5	12.9	17.4	7.27	10.8	9.32	3.25	1.42	1.86	2.13
IN.	8.89	11.6	13.3	14.9	18.1	8.38	12.0	10.7	3.63	1.63	2.14	2.38
AC-FT	3,110	4,050	4,650	5,200	6,330	2,930	4,210	3,760	1,270	571	749	832

CAL YR 1964: TOTAL 23,005 MEAN 62.9 MAX 456 MIN 11 CFSM 9.58 IN 130.42 AC-FT 45,630
WAT YR 1965: TOTAL 18,988.4 MEAN 52.0 MAX 456 MIN 5.8 CFSM 7.93 IN 107.65 AC-FT 37,660

12-1964. Day Creek near Hamilton, Wash.

Location.--Lat 48°29'10", long 122°02'00", in NE¼ sec.33, T.35 N., R.6 E., on left bank 2 miles upstream from mouth and 3¼ miles southwest of Hamilton.

Drainage area.--32.3 sq mi.

Records available.--September 1962 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 140 ft (from topographic map). Prior to Aug. 24, 1965, graphic water-stage recorder at same site and datum.

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,000 cfs), water years 1963-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Nov. 19, 1962	1200	* 5,500	5.87	Oct. 21, 1963	2100	3,450	5.20	Nov. 24, 1964	0200	3,650	5.28
Dec. 30, 1962	0730	3,020	5.01	Nov. 26, 1963	0930	3,790	5.33	Nov. 30, 1964	1000	3,380	5.17
Jan. 1, 1963	1800	3,480	5.21	Jan. 1, 1964	0830	* 5,180	5.78	Jan. 30, 1965	1400	* 3,940	5.38
Feb. 4, 1963	1500	3,200	5.10	Sept. 30, 1964	0830	4,360	5.52				

Annual minimum discharge, water years 1963-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1963	Aug. 17, 1963	16	1.55	1965	Aug. 7-12, Sept. 11-13, 1965	12	1.32
1964	Oct. 2, 3, 1963	22	1.62				

1962-65: Maximum discharge, 5,500 cfs Nov. 19, 1962 (gage height, 5.87 ft), from rating curve extended above 1,200 cfs; minimum, 12 cfs Aug. 7-12, Sept. 11-13, 1965 (gage height, 1.32 ft).

Remarks.--Records excellent. No regulation or diversion above station.

Discharge, in cubic feet per second, 1962

Sept. 20, 1962..	40	Sept. 23, 1962..	35	Sept. 26, 1962..	30	Sept. 29, 1962..	390
21........	39	24........	33	27........	39	30........	178
22........	36	25........	31	28........	364		

DISCHARGE, IN CUSIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	108	52	246	1,740	56	304	161	385	45	54	36	28
2	81	50	282	1,820	349	225	142	669	50	46	33	36
3	423	47	225	1,380	672	178	428	412	45	41	30	29
4	181	196	259	530	1,260	149	827	350	47	37	27	26
5	114	616	944	330	849	129	800	857	62	33	26	24
6	103	299	737	246	434	114	813	512	50	29	26	21
7	264	166	482	204	317	105	452	360	46	30	24	20
8	633	214	470	204	225	97	365	262	47	68	24	20
9	770	539	335	178	175	93	312	214	91	256	22	19
10	322	576	274	121	147	87	236	198	66	121	22	18
11	250	470	258	115	126	91	201	175	51	85	22	19
12	370	390	211	105	108	83	191	161	51	68	24	19
13	278	530	278	98	101	80	188	147	45	56	28	294
14	184	576	839	93	112	81	282	144	39	51	24	136
15	142	335	576	89	103	78	312	166	35	49	23	76
16	117	239	355	83	178	73	211	144	32	43	20	60
17	99	221	345	80	204	74	178	144	29	39	18	58
18	103	194	236	73	322	78	194	155	27	36	19	46
19	95	2,260	225	64	326	296	218	147	28	31	154	38
20	89	1,200	188	60	228	308	225	136	37	28	87	33
21	108	440	377	57	155	239	207	119	37	31	57	29
22	114	282	228	56	126	194	188	99	49	244	50	28
23	99	207	161	52	108	139	225	83	39	165	46	49
24	87	290	126	52	97	114	178	74	66	89	126	38
25	76	1,160	110	50	463	114	152	69	131	68	69	32
26	76	780	97	46	1,160	131	142	62	78	56	52	29
27	74	530	105	45	458	290	121	58	80	49	43	27
28	66	340	404	44	335	500	112	57	78	43	37	25
29	62	258	1,160	43	------	304	272	54	69	39	32	24
30	57	345	2,170	42	------	232	358	50	71	37	28	24
31	54	------	1,200	41	------	198	------	49	------	36	26	------
TOTAL	5,599	13,802	13,903	8,141	9,194	5,178	8,691	6,512	1,621	2,058	1,255	1,325
MEAN	181	460	448	263	328	167	290	210	54.0	66.4	40.5	44.2
MAX	770	2,260	2,170	1,820	1,260	500	827	857	131	256	154	294
MIN	54	47	97	41	56	73	112	49	27	28	18	18
CFSM	5.59	14.2	13.9	8.13	10.2	5.17	8.97	6.50	1.67	2.06	1.25	1.37
IN.	6.45	15.9	16.0	9.37	10.6	5.96	10.0	7.50	1.87	2.37	1.44	1.53
AC-FT	11,110	27,380	27,580	16,150	18,240	10,270	17,240	12,920	3,220	4,080	2,490	2,630

CAL YR 1962:	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1963:	TOTAL 77,279	MEAN 212	MAX 2,260	MIN 18	CFSM 6.55	IN 88.98	AC-FT 153,300

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1964. Day Creek near Hamilton, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	23	294	179	2,000	650	171	568	211	574	241	119	111
2	23	558	162	580	385	128	296	185	496	205	186	100
3	22	296	150	410	274	128	225	176	400	182	126	84
4	43	288	160	345	502	302	245	208	636	168	194	71
5	39	330	301	283	345	292	225	215	608	168	119	62
6	47	261	355	288	225	191	215	218	622	171	91	57
7	35	585	215	215	179	147	257	245	420	194	76	124
8	33	484	201	179	157	140	296	265	360	222	68	162
9	32	478	174	229	157	152	320	854	435	165	73	100
10	29	666	144	233	229	165	748	435	435	144	65	79
11	27	365	128	222	233	325	496	340	375	157	57	66
12	28	755	117	171	171	241	370	380	320	160	53	57
13	237	698	107	249	142	168	283	335	296	140	55	52
14	126	730	106	257	128	482	627	265	335	222	49	48
15	73	802	418	315	154	699	688	278	330	257	45	52
16	54	722	580	895	168	375	360	340	450	335	42	68
17	46	1,030	455	460	185	666	253	445	335	182	39	441
18	43	508	420	385	372	425	211	484	410	142	60	152
19	38	472	556	310	325	265	205	538	315	119	55	383
20	45	301	932	270	201	201	211	601	249	111	44	558
21	715	237	440	201	157	171	338	666	222	109	41	299
22	1,250	360	450	165	137	154	528	615	237	98	37	296
23	430	1,250	532	152	128	137	296	385	274	88	35	176
24	580	722	370	279	119	124	274	365	229	84	33	133
25	629	1,520	544	756	109	119	274	315	215	79	42	111
26	415	2,230	296	360	104	124	253	370	211	74	71	98
27	278	830	395	527	96	117	261	490	249	68	146	86
28	478	425	288	435	96	119	249	478	390	68	150	76
29	395	292	211	774	111	171	283	455	245	60	300	370
30	257	222	229	490	------	278	225	562	245	60	301	1,390
31	208	------	472	657	------	415	------	622	------	125	154	------
TOTAL	6,678	18,711	10,087	13,092	6,239	7,592	10,080	12,341	10,918	4,598	2,926	5,862
MEAN	215	624	325	422	215	245	336	398	364	148	94.4	195
MAX	1,250	2,230	932	2,000	650	699	748	854	636	335	301	1,390
MIN	22	222	106	152	96	117	205	176	211	60	33	48
CFSM	6.67	19.3	10.1	13.1	6.66	7.58	10.4	12.3	11.3	4.59	2.92	6.05
IN.	7.69	21.5	11.6	15.1	7.18	8.74	11.6	14.2	12.6	5.29	3.37	6.75
AC-FT	13,250	37,110	20,010	25,970	12,370	15,060	19,990	24,480	21,660	9,120	5,800	11,630

CAL YR 1963: TOTAL 79,451 MEAN 218 MAX 2,230 MIN 18 CFSM 6.74 IN 91.48 AC-FT 157,600
WAT YR 1964: TOTAL 109,124 MEAN 298 MAX 2,230 MIN 22 CFSM 9.23 IN 125.64 AC-FT 216,400

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	440	345	2,120	119	417	263	211	204	158	45	13	24
2	828	287	1,050	236	287	207	155	172	185	42	13	22
3	330	321	566	158	235	185	130	238	175	38	14	21
4	198	1,140	356	123	547	188	135	356	172	36	14	19
5	147	345	221	115	1,440	185	135	229	172	32	14	18
6	119	205	204	119	636	188	125	201	155	29	14	16
7	106	160	197	106	365	194	115	201	147	28	13	15
8	152	130	461	104	438	197	117	191	150	26	12	14
9	182	119	406	98	292	214	150	214	130	26	12	14
10	133	111	444	89	221	267	164	243	123	27	12	13
11	107	137	259	83	181	283	150	259	147	27	12	12
12	93	119	214	80	182	255	155	283	108	26	78	12
13	93	106	207	94	834	207	188	221	92	23	186	17
14	267	94	178	243	375	185	197	194	89	22	53	174
15	446	88	153	300	287	172	283	297	83	21	36	182
16	315	82	120	391	833	158	375	870	89	20	28	111
17	198	91	115	341	1,100	133	332	509	96	19	23	64
18	150	89	110	296	594	115	229	314	85	18	21	46
19	122	82	108	375	730	106	518	283	73	17	19	37
20	106	76	106	553	473	98	754	406	72	42	43	31
21	93	74	104	689	327	119	644	283	66	38	32	28
22	84	76	175	361	255	135	396	243	63	26	25	26
23	77	995	153	267	201	110	327	221	64	22	27	23
24	74	1,450	119	456	175	93	490	201	56	20	48	21
25	71	532	106	271	167	87	361	197	51	19	44	19
26	66	430	286	394	557	78	385	214	48	17	66	18
27	62	253	247	982	987	77	411	259	46	18	57	17
28	59	185	164	1,580	411	87	346	239	44	18	45	16
29	57	619	135	1,180	------	211	243	194	46	16	41	16
30	130	2,280	119	1,910	------	155	243	188	47	15	33	15
31	94	------	108	802	------	150	------	155	------	14	28	------
TOTAL	5,399	11,021	9,311	12,915	13,547	5,102	8,464	8,279	3,032	787	1,076	1,061
MEAN	174	367	300	417	484	165	282	267	101	25.4	34.7	35.4
MAX	828	2,280	2,120	1,910	1,440	283	754	870	185	45	186	182
MIN	57	74	104	80	167	77	115	155	44	14	12	12
CFSM	5.39	11.4	9.30	12.9	15.0	5.10	8.73	8.27	3.13	.79	1.07	1.09
IN.	6.22	12.7	10.7	14.9	15.6	5.87	9.75	9.53	3.49	.91	1.24	1.22
AC-FT	10,710	21,860	18,470	25,620	26,870	10,120	16,790	16,420	6,010	1,560	2,130	2,100

CAL YR 1964: TOTAL 99,379 MEAN 272 MAX 2,280 MIN 33 CFSM 8.41 IN 114.42 AC-FT 197,100
WAT YR 1965: TOTAL 79,994 MEAN 219 MAX 2,280 MIN 12 CFSM 6.79 IN 92.10 AC-FT 158,700

12-1965. Day Creek near Lyman, Wash.

Location.--Lat 48°30'05", long 122°02'45", near north line of NW¼NW¼ sec.28, T.35 N., R.6 E., on left bank at highway bridge, 1 mile upstream from mouth and 1¾ miles southeast of Lyman.

Drainage area.--34.2 sq mi (revised).

Records available.--July 1943 to September 1961, October 1961 to September 1962 (monthly discharge only), discontinued.

Gage.--Water-stage recorder. Altitude of gage is 90 ft (from topographic map).

Average discharge.--18 years, 268 cfs (194,000 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water year 1961 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (3,000 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Nov. 16, 1960	0600	3,060	6.20	Aug. 2, 3, 1961	9.5	a 0.89
	Jan. 15, 1961	1930	4,190	7.06			
	Feb. 20, 1961	1900	* 6,000	8.25			

a Minimum observed; occurred Sept. 25-27, 1961.

1943-61: Maximum discharge, 6,000 cfs Feb. 20, 1961 (gage height, 8.25 ft); maximum gage height, 8.80 ft Dec. 9, 1956; minimum discharge, 5.9 cfs Feb. 1, 1945.

Remarks.--Records good except those for July 13 to Sept. 30, 1961, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1316: 1944(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	546	359	59	345	800	782	385	131	27	12	575
2	25	374	222	55	591	600	664	434	124	24	11	284
3	23	239	410	50	430	500	746	307	109	22	11	107
4	22	168	254	109	491	450	341	228	99	20	11	94
5	20	133	162	990	913	400	243	228	84	110	12	77
6	28	107	123	550	1,480	350	205	207	92	84	12	60
7	390	88	105	397	759	300	187	183	205	68	12	45
8	325	74	96	524	486	270	240	233	118	51	12	35
9	157	66	94	586	486	248	270	367	118	41	12	31
10	92	421	85	1,090	421	212	214	338	104	34	12	28
11	72	822	100	1,130	624	277	312	270	94	30	12	25
12	159	277	966	752	513	376	470	202	83	25	12	22
13	98	212	788	609	387	580	307	183	72	23	13	20
14	83	445	466	895	341	1,090	243	200	65	22	13	19
15	66	338	257	2,490	694	1,180	214	198	58	20	12	18
16	56	1,120	171	1,280	425	659	221	214	55	23	25	18
17	48	996	192	663	387	420	374	223	51	23	47	17
18	43	1,010	570	491	308	378	254	226	47	20	30	16
19	38	1,260	726	328	1,400	391	209	223	44	17	24	16
20	36	929	351	269	3,870	692	187	209	42	16	21	16
21	272	471	225	236	3,750	399	196	165	40	13	20	16
22	629	329	177	199	2,500	418	196	145	38	13	19	16
23	1,210	435	162	171	1,300	758	181	221	36	13	17	16
24	1,350	869	146	146	1,500	485	165	155	35	13	17	16
25	481	752	143	125	1,300	334	155	141	33	14	17	16
26	1,780	425	113	113	1,000	331	153	149	32	14	17	16
27	1,470	269	96	103	700	259	149	207	31	14	17	16
28	966	192	83	94	500	223	183	155	28	16	18	19
29	416	157	72	372	------	218	391	151	32	17	18	169
30	265	146	67	695	------	218	456	139	36	16	18	100
31	335	------	62	392	------	345	------	131	------	14	366	------
TOTAL	10,981	13,670	7,843	15,973	27,901	14,161	8,908	6,817	2,136	857	870	1,923
MEAN	354	456	253	515	996	457	297	220	71.2	27.6	28.1	64.1
MAX	1,780	1,260	966	2,490	3,870	1,180	782	434	205	110	366	575
MIN	20	66	62	50	308	212	149	131	28	13	11	16
CFSM	10.4	13.3	7.40	15.1	29.1	13.4	8.68	6.43	2.08	.81	.82	1.87
IN.	11.9	14.9	8.53	17.4	30.3	15.4	9.69	7.41	2.32	.93	.95	2.09
AC-FT	21,780	27,110	15,560	31,680	55,340	28,090	17,670	13,520	4,240	1,700	1,730	3,810

CAL YR 1960: TOTAL 96,523 MEAN 264 MAX 1,850 MIN 12 CFSM 7.71 IN 104.96 AC-FT 191,500
WAT YR 1961: TOTAL 112,040 MEAN 307 MAX 3,870 MIN 11 CFSM 8.98 IN 121.84 AC-FT 222,200

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

Results of discharge measurements, in cubic feet per second, water year October 1961 to September 1962

Oct. 23, 1961	615	Jan. 24, 1962	89.7	Apr. 23, 1962	223	July 1962	-
Nov. 28	585	February	-	May 25	195	Aug. 6	385
December	-	Mar. 21	164	June 27	68.2	Sept.12	54.5

Estimated monthly mean and minimum daily discharges, in cubic feet per second, water year October 1961 to September 1962

Date	Monthly mean discharge	Minimum daily discharge	Date	Monthly mean discharge	Minimum daily discharge	Date	Monthly mean discharge	Minimum daily discharge
October	280	27	February	220	50	June	170	58
November	300	65	March	160	52	July	34	20
December	480	58	April	360	140	August	110	20
January	480	87	May	260	110	September	96	22

CAL YR 1961: MONTHLY MEAN 310 MINIMUM DAILY 10.5
WAT YR 1962: MONTHLY MEAN 270 MINIMUM DAILY 20

Note.--Estimated monthly data are based on intermittent gage-height readings by employees of Skagit County P.U.D. No. 1, and bridge construction crew.

12-1998. East Fork Nookachamps Creek near Big Lake, Wash.

Location.--Lat 48°24'50", long 122°09'25", in SW¼SW¼ sec.22, T.34 N., R.5 E., on right bank 2½ miles upstream from Walker Creek and 3¾ miles northeast of town of Big Lake.

Drainage area.--3.56 sq mi.

Records available.--November 1961 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 1,700 ft (from topographic map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (175 cfs), November 1961 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 3, 1962	1330	* 560	5.10	Oct. 21, 1963	2100	* 610	5.15	Nov. 30, 1964	2300	309	4.76
Jan. 8, 1962	0100	385	4.88	Jan. 1, 1964	0900	534	5.07	Jan. 28, 1965	2200	332	4.80
				Sept. 30, 1964	0800	420	4.94	Jan. 30, 1965	1330	378	4.87
Nov. 19, 1962	1200	458	4.98					May 16, 1965	0230	208	4.56
Jan. 2, 1963	2300	398	4.90	Nov. 4, 1964	0600	208	4.56				
Feb. 4, 1963	1500	* 490	5.02	Nov. 24, 1964	0300	* 499	5.03				

Annual minimum discharge, November 1961 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1962	July 30,31, Aug.1,2	0.50	2.56	1964	Oct. 2, 3, 1963	1.5	2.64
1963	Aug. 17, 18, Sept. 9, 10,1963	1.2	2.61	1965	Aug. 1, 2, 7-11	.40	2.60

1961-65: Maximum discharge, 610 cfs Oct. 21, 1963 (gage height, 5.15 ft), from rating curve extended above 130 cfs; minimum, 0.40 cfs Aug. 1, 2, 7-11, 1965; minimum gage height, 2.56 ft July 30, 31, Aug. 1, 2, 1962.

Remarks.--Records good except those for period of no gage-height record and those for winter periods, which are fair. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, NOVEMBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			35	18	30	4.9	40	78	18	3.8	.60	4.0
2			15	60	56	5.8	27	44	82	3.8	.60	3.7
3			12	191	64	6.6	20	62	53	3.2	1.8	3.0
4			49	58	43	4.4	46	29	40	3.0	66	2.7
5			16	43	20	8.0	32	22	43	5.3	85	2.3
6			12	44	15	14	145	19	25	8.4	47	2.2
7			9.7	208	20	11	69	18	25	5.5	46	2.2
8			8.0	163	28	10	29	28	22	3.5	40	1.9
9			6.6	47	30	8.0	21	48	17	2.9	14	1.8
10			6.2	25	28	6.9	16	34	14	2.6	9.7	6.6
11			6.0	19	17	6.2	15	27	15	2.2	7.5	7.7
12			5.8	15	15	5.5	29	26	15	2.0	7.5	4.4
13			5.1	13	16	6.4	56	20	15	2.3	7.3	19
14			4.7	11	40	8.0	70	19	15	2.2	5.3	35
15			4.7	10	19	11	54	21	15	1.9	4.0	12
16			4.7	9.9	15	15	30	22	13	1.9	4.2	6.9
17			4.7	8.8	14	17	43	22	11	2.9	6.2	4.9
18			4.2	8.0	19	15	52	20	9.9	3.7	8.2	3.8
19			28	7.5	14	12	56	16	9.9	2.4	13	3.5
20			47	7.0	11	12	29	15	9.5	2.0	32	3.5
21			28	7.0	9.5	9.7	38	16	9.1	1.7	20	3.4
22			34	7.0	9.1	8.8	34	20	8.2	1.3	10	3.4
23			204	6.6	7.5	8.4	38	41	7.7	1.2	7.5	3.3
24			125	6.6	6.5	13	46	52	7.1	1.0	5.8	3.2
25			20	28	6.0	16	32	35	6.2	.90	4.9	3.0
26			13	73	5.5	15	24	25	6.0	.80	11	3.0
27			12	80	5.0	14	58	24	6.9	.70	8.6	3.5
28			88	47	5.1	12	35	47	5.1	.60	17	30
29			107	27	------	20	30	32	4.4	.60	8.8	20
30		67	41	27	------	26	35	20	3.8	.60	6.2	10
31		------	20	26	------	36	------	17	------	.60	4.9	------
TOTAL		-	976.4	1,301.4	568.2	366.6	1,249	919	531.8	75.50	510.60	213.9
MEAN		-	31.5	42.0	20.3	11.8	41.6	29.6	17.7	2.44	16.5	7.13
MAX		-	204	208	64	36	145	78	82	8.4	85	35
MIN		-	4.2	6.6	5.0	4.4	15	15	3.8	.60	.60	1.8
CFSM		-	8.85	11.8	5.70	3.32	11.7	8.33	4.98	.68	4.63	2.00
IN.		-	10.2	13.6	5.94	3.83	13.0	9.60	5.56	.79	5.33	2.23
AC-FT		-	1,940	2,580	1,130	727	2,480	1,820	1,050	150	1,010	424

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-1998. East Fork Nookachamps Creek near Big Lake, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6.0	4.7	13	192	3.8	22	9.7	35	5.0	7.2	3.1	2.3
2	10	4.2	15	186	34	17	9.5	38	4.5	5.9	2.9	3.4
3	35	3.8	12	110	102	15	20	28	6.0	5.4	2.4	2.5
4	12	23	34	38	144	13	67	36	8.0	4.4	2.1	1.9
5	9.0	47	142	24	64	11	66	106	15	4.0	2.0	1.6
6	8.5	17	70	17	35	11	69	55	10	3.8	2.0	1.6
7	20	11	55	15	21	11	35	42	6.0	4.2	1.9	1.5
8	60	20	56	20	17	11	31	36	13	21	1.8	1.4
9	7	35	31	15	14	9.7	28	30	40	37	1.7	1.3
10	35	30	25	12	12	9.1	26	28	12	17	1.6	1.3
11	16	26	22	10	9.7	9.3	26	27	7.7	12	1.6	1.6
12	33	30	17	9.5	8.6	8.0	26	24	13	9.0	2.0	3.3
13	20	56	30	9.0	8.0	7.5	26	22	7.7	7.2	2.3	35
14	14	54	75	8.0	10	7.3	39	18	5.9	7.7	1.9	12
15	11	23	70	8.8	9.1	6.6	32	16	4.8	8.0	1.6	5.9
16	9.7	16	28	8.4	18	6.6	22	14	4.0	6.5	1.5	5.0
17	8.6	15	34	7.5	16	6.4	19	13	3.6	5.0	1.3	5.0
18	9.7	14	18	6.6	37	6.2	24	13	3.2	4.6	1.2	3.6
19	8.6	209	17	5.8	46	17	24	12	4.2	4.2	33	2.9
20	9.5	66	15	5.5	20	41	32	12	6.1	3.7	7.7	2.4
21	14	22	49	5.1	13	34	38	11	15	4.2	4.3	2.2
22	17	17	20	5.1	11	20	36	11	16	22	3.2	2.1
23	12	14	14	4.9	9.3	14	39	10	8.0	13	3.6	3.4
24	8.4	18	11	4.7	8.2	11	27	10	19	6.3	22	2.6
25	7.3	80	9.9	4.2	48	12	26	10	25	5.2	7.0	2.1
26	8.4	55	9.1	3.8	94	15	26	10	16	4.4	4.4	1.9
27	8.4	24	10	3.5	30	32	23	9.0	18	3.7	3.6	1.6
28	7.1	17	24	3.4	21	46	22	8.0	14	3.2	3.0	1.6
29	5.8	15	77	3.3	------	17	45	7.0	12	3.1	2.5	1.6
30	5.3	15	158	3.2	------	13	37	6.0	9.6	3.1	2.0	1.6
31	5.1	------	122	3.2	------	11	------	5.5	------	3.1	1.8	------
TOTAL	504.4	981.7	1,283.0	752.5	863.7	470.7	950.2	702.5	332.3	249.1	133.0	116.2
MEAN	16.3	32.7	41.4	24.3	30.8	15.2	31.7	22.7	11.1	8.04	4.29	3.87
MAX	70	209	158	192	144	46	69	106	40	37	33	35
MIN	5.1	3.8	9.1	3.2	3.8	6.2	9.5	5.5	3.2	3.1	1.2	1.3
CFSM	4.57	9.19	11.6	6.82	8.66	4.27	8.90	6.37	3.11	2.26	1.21	1.09
IN.	5.27	10.3	13.4	7.86	9.02	4.92	9.93	7.34	3.47	2.60	1.39	1.21
AC-FT	1,000	1,950	2,540	1,490	1,710	934	1,880	1,390	659	494	264	230

CAL YR 1962: TOTAL 8,505.10 MEAN 23.3 MAX 209 MIN .60 CFSM 6.55 IN 88.85 AC-FT 16,870
WAT YR 1963: TOTAL 7,339.3 MEAN 20.1 MAX 209 MIN 1.2 CFSM 5.65 IN 76.67 AC-FT 14,560

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those *shown in other reports; the differences can be attributed to rounding.*

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1.6	36	13	144	38	9.9	66	20	92	34	14	12
2	1.6	48	11	41	25	9.6	26	18	83	30	18	11
3	1.6	26	9.9	26	22	9.3	24	18	59	26	25	8.5
4	4.3	27	13	22	56	22	25	21	110	24	30	7.0
5	2.8	24	26	20	36	15	21	23	85	26	13	5.6
6	3.4	24	22	18	24	11	24	24	94	28	8.3	5.2
7	2.2	40	14	14	20	9.3	31	30	54	30	6.3	32
8	2.2	44	16	13	16	9.0	34	50	52	34	5.6	24
9	2.2	39	12	14	17	8.3	42	110	77	25	7.7	12
10	1.8	46	9.0	12	24	8.3	84	60	61	22	6.3	8.3
11	1.6	29	8.3	12	21	12	32	35	59	24	4.6	6.5
12	1.6	83	7.7	11	16	9.9	23	38	46	24	4.3	5.4
13	12	74	6.5	18	14	8.5	20	40	40	20	5.2	4.6
14	5.9	80	7.0	16	12	18	52	34	50	37	4.3	4.3
15	3.1	53	32	17	12	38	47	32	47	30	4.0	5.0
16	2.3	52	48	79	12	24	24	40	83	32	3.6	11
17	2.1	70	38	26	12	68	19	48	48	19	3.2	69
18	2.4	30	41	20	41	36	19	55	110	13	7.6	18
19	2.2	25	60	16	31	24	22	70	48	12	8.0	42
20	3.0	20	68	15	22	19	24	80	40	12	5.4	78
21	66	17	21	12	18	15	26	90	35	12	4.4	44
22	97	23	31	12	17	13	32	75	41	11	3.8	40
23	24	90	38	10	16	12	22	55	43	8.5	3.2	22
24	32	55	24	13	14	11	26	50	37	8.0	2.9	16
25	33	115	27	53	13	10	29	40	35	7.5	3.7	12
26	22	144	15	24	12	9.3	26	45	32	6.5	14	10
27	18	51	22	42	11	9.0	22	55	42	5.6	34	8.8
28	38	25	20	31	12	12	24	60	44	5.4	27	7.7
29	33	18	15	50	10	27	30	76	36	4.6	43	35
30	22	16	18	32	------	44	22	97	36	5.2	48	109
31	20	------	36	32	------	56	------	101	------	11	20	------
TOTAL	464.9	1,424	729.4	865	594	587.4	918	1,590	1,719	587.3	388.4	673.9
MEAN	15.0	47.5	23.5	27.9	20.5	18.9	30.6	51.3	57.3	18.9	12.5	22.5
MAX	97	144	68	144	56	68	84	110	110	37	48	109
MIN	1.6	16	6.5	10	10	8.3	19	18	32	4.6	2.9	4.3
CFSM	4.21	13.3	6.61	7.84	5.75	5.32	8.60	14.4	16.1	5.32	3.52	6.31
IN.	4.86	14.9	7.62	9.04	6.21	6.14	9.59	16.6	18.0	6.14	4.06	7.04
AC-FT	922	2,820	1,450	1,720	1,180	1,170	1,820	3,150	3,410	1,160	770	1,340

CAL YR 1963: TOTAL 7,188.5 MEAN 19.7 MAX 192 MIN 1.2 CFSM 5.53 IN 75.10 AC-FT 14,260
WAT YR 1964: TOTAL 10,541.3 MEAN 28.8 MAX 144 MIN 1.6 CFSM 8.09 IN 110.12 AC-FT 20,910

12-1998. East Fork Nookachamps Creek near Big Lake, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	61	199	8.2	32	20	25	22	27	4.8	.50	1.7
2	65	44	95	17	23	20	16	20	32	4.2	.40	1.6
3	25	32	43	11	20	21	14	21	30	3.7	.70	1.6
4	15	91	26	9.0	39	23	19	24	28	3.2	.80	1.4
5	11	25	19	8.0	125	23	19	19	28	2.6	.90	1.2
6	9.7	16	16	8.0	44	24	14	22	26	2.3	.70	.90
7	8.2	13	16	7.4	27	26	12	28	24	2.1	.50	.80
8	20	10	40	6.8	26	27	13	30	24	2.9	.40	.70
9	15	10	30	6.4	20	32	18	35	20	2.6	.40	.60
10	10	10	32	5.8	17	38	18	37	18	3.1	.40	.70
11	8.0	9.7	18	5.4	14	38	14	40	25	2.8	.50	.70
12	7.1	8.9	14	5.0	17	34	17	42	14	2.3	17	.70
13	8.9	8.2	13	6.0	75	28	26	34	12	2.0	18	2.3
14	50	7.3	11	17	29	25	28	29	10	1.7	5.2	26
15	49	7.1	9.7	22	21	23	42	42	9.7	1.4	2.8	52
16	32	7.7	9.0	28	60	20	44	81	12	1.3	1.7	13
17	20	10	8.4	25	121	15	34	42	14	1.2	1.2	6.4
18	14	9.4	7.8	22	64	13	27	35	11	1.1	.90	4.6
19	11	8.7	7.4	30	96	12	62	36	8.9	1.0	.80	3.6
20	9.2	8.0	7.3	40	44	10	96	57	9.7	6.6	5.2	2.9
21	8.0	7.7	7.6	60	30	14	57	36	8.4	6.6	3.1	2.8
22	7.1	8.7	14	35	22	16	38	34	8.0	3.2	1.9	2.8
23	6.4	66	11	18	19	12	36	32	8.0	2.3	3.1	2.3
24	6.6	120	8.6	26	16	11	71	29	6.6	1.6	7.7	1.9
25	6.6	30	7.6	17	16	9.2	45	31	5.8	1.2	5.4	1.7
26	6.0	21	23	29	34	8.4	56	35	5.8	1.0	13	1.6
27	5.4	15	18	87	55	8.2	53	41	5.2	1.1	8.4	1.6
28	5.0	12	13	182	26	7.7	44	38	5.2	1.1	6.6	1.4
29	5.2	67	10	123	------	9.4	34	30	5.4	.90	5.4	1.4
30	18	186	8.4	191	------	13	30	37	5.2	.60	3.6	1.4
31	9.4	------	7.4	56	------	17	------	25	------	.50	2.3	------
TOTAL	503.8	930.4	750.2	1,112.0	1,132	597.9	1,022	1,064	446.9	73.00	119.50	142.30
MEAN	16.3	31.0	24.2	35.9	40.4	19.3	34.1	34.3	14.9	2.35	3.85	4.74
MAX	65	186	199	191	125	38	96	81	32	6.6	18	52
MIN	5.0	7.1	7.3	5.0	14	7.7	12	19	5.2	.50	.40	.60
CFSM	4.57	8.71	6.80	10.1	11.4	5.42	9.57	9.64	4.18	.66	1.08	1.33
IN.	5.26	9.72	7.84	11.6	11.8	6.25	10.7	11.1	4.67	.76	1.25	1.49
AC-FT	999	1,850	1,490	2,210	2,250	1,190	2,030	2,110	886	145	237	282

CAL YR 1964: TOTAL 10,107.4 MEAN 27.6 MAX 199 MIN 2.9 CFSM 7.76 IN 105.59 AC-FT 20,050
WAT YR 1965: TOTAL 7,894.00 MEAN 21.6 MAX 199 MIN .40 CFSM 6.08 IN 82.47 AC-FT 15,660

Note.--No gage-height record Dec. 20 to Jan. 22.

12-2000. East Fork Nookachamps Creek near Clear Lake, Wash.

Location.--Lat 48°25'30", long 122°12'30", in NE¼ sec.19, T.34 N., R.5 E., on right bank at highway bridge, 3 miles southeast of town of Clear Lake and 3½ miles upstream from mouth.

Drainage area.--20.5 sq mi (revised).

Records available.--July 1943 to September 1950, December 1961 to September 1963 (discontinued).

Gage.--Staff gage read twice daily. Altitude of gage is 70 ft (from topographic map). Prior to December 1961, at different datum.

Average discharge.--8 years (1943-50, 1962-63), 86.8 cfs (62,840 acre-ft per year).

Extremes.--Maximum and minimum discharges for December 1961 to September 1963 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (750 cfs, revised), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1962	Dec. 23, 1961	-	827	5.22	Aug. 1, 1962	2.5	0.95
	Jan. 3, 1962	a 1300	* 1,270	6.45			
	Jan. 7, 1962	-	984	5.67			
1963	Nov. 19, 1962	a 1300	* 1,210	6.30	Aug. 23, 1963	3.0	b 1.32
	Nov. 25, 1962	-	755	5.10			
	Jan. 2, 1963	-	895	5.50			

a About.
b Occurred Nov. 3, 1961.

1943-50, 1961-63: Maximum discharge observed, 2,710 cfs Oct. 25, 1945 (gage height, 10.3 ft, from high watermark), from rating curve extended above 500 cfs; minimum observed, 0.1 cfs July 8, 9, 1944.

Remarks.--Records good. Several small diversions for domestic use and irrigation above station. No regulation.

Revisions (water years).--WSP 1012: 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1			180	110	68	22	81	173	38	8.3	2.6	8.3
2			120	112	87	23	76	103	269	8.3	2.8	7.6
3			100	715	89	24	68	116	203	8.1	7.5	6.9
4			250	256	87	25	87	82	123	8.3	128	6.7
5			133	121	55	60	81	64	106	8.3	214	6.6
6			92	151	48	87	305	57	78	13	88	6.2
7			81	764	43	71	180	46	57	12	62	5.9
8			68	521	53	98	85	52	50	9.9	49	5.6
9			54	208	73	73	62	55	46	7.9	40	5.3
10			50	126	56	66	56	53	37	7.0	33	8.6
11			44	98	50	64	55	48	32	6.6	21	18
12			43	89	42	53	57	44	33	6.6	18	17
13			44	68	38	46	79	42	36	6.4	17	9.7
14			46	61	113	44	69	41	31	6.2	15	56
15			45	56	115	52	121	46	27	6.2	12	42
16			76	52	76	73	77	44	24	6.0	9.5	14
17			210	58	50	66	62	44	22	6.2	12	12
18			154	46	46	63	67	46	20	6.2	19	8.6
19			172	38	43	55	64	44	18	5.9	22	7.6
20			213	34	38	141	59	42	16	5.9	21	7.0
21			208	33	33	81	56	35	15	5.9	53	6.9
22			172	33	32	66	53	36	13	5.8	19	6.7
23			622	30	30	63	47	67	12	5.5	13	6.7
24			580	30	28	147	44	135	11	5.0	11	6.6
25			127	71	26	136	46	102	11	4.2	9.5	6.4
26			154	159	23	104	53	64	11	3.7	18	6.2
27			123	215	21	96	53	54	9.9	3.4	19	6.7
28			115	157	19	68	91	92	9.9	3.2	30	55
29			346	104	------	73	119	72	9.2	2.9	20	36
30			214	81	------	72	119	56	8.6	2.7	13	19
31		------	126	74	------	77	------	46	------	2.6	9.5	------
TOTAL			4,962	4,671	1,482	2,189	2,472	2,001	1,376.6	198.2	1,008.4	455.8
MEAN			160	151	52.9	70.6	82.4	64.5	45.9	6.39	32.5	15.2
MAX			622	764	115	147	305	173	269	13	214	96
MIN			43	30	19	22	44	35	8.6	2.6	2.6	5.3
CFSM			7.81	7.35	2.58	3.44	4.02	3.15	2.24	.31	1.59	.74
IN.			9.00	8.47	2.69	3.97	4.48	3.63	2.50	.36	1.83	.83
AC-FT			9,840	9,260	2,940	4,340	4,900	3,970	2,730	393	2,000	904

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2000. East Fork Nookachamps Creek near Clear Lake, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	9.5	125	554	28	78	54	216	9.3	18	7.6	5.0
2	13	8.3	94	748	101	52	48	202	8.5	15	7.3	8.5
3	171	7.7	91	478	293	44	49	222	8.5	14	6.6	7.3
4	34	16	95	165	218	42	129	119	12	12	6.3	6.6
5	25	102	319	117	263	41	87	319	21	12	6.0	5.4
6	23	48	251	80	122	40	194	132	14	11	6.0	4.6
7	22	29	119	69	72	39	125	119	8.2	7.9	6.0	4.4
8	45	48	91	64	52	37	116	85	14	36	5.7	4.1
9	227	74	72	69	44	31	80	64	102	75	6.0	3.9
10	64	69	62	64	42	30	64	49	69	37	5.7	5.0
11	55	48	57	62	38	28	56	44	44	24	6.0	4.6
12	88	57	50	59	38	27	51	40	31	19	7.9	3.9
13	67	119	69	48	36	27	48	38	24	15	8.2	56
14	49	114	177	40	35	26	52	36	14	19	7.0	30
15	28	88	137	42	42	27	85	33	11	13	6.0	25
16	23	76	103	40	50	25	77	31	9.8	11	5.2	24
17	18	65	78	38	76	25	83	28	8.5	8.2	4.6	20
18	22	71	69	35	88	25	83	27	7.3	7.6	4.1	16
19	20	876	62	33	112	34	83	25	6.6	7.0	66	13
20	19	295	57	31	83	77	74	24	12	6.3	19	10
21	26	91	97	31	51	56	68	24	13	6.3	11	9.3
22	28	72	77	31	43	42	72	24	16	26	4.8	8.2
23	27	57	58	30	36	37	59	24	18	17	5.2	7.3
24	26	77	45	31	33	32	51	24	17	15	46	7.0
25	23	440	40	31	73	31	44	24	65	13	13	6.6
26	19	234	35	30	276	32	42	24	42	11	11	5.7
27	16	136	62	29	91	38	40	20	31	10	8.5	5.4
28	15	112	94	28	83	171	39	15	25	9.3	8.2	5.2
29	13	80	231	27	------	112	50	13	31	8.5	7.3	4.8
30	12	124	538	25	------	97	106	12	24	8.2	5.4	4.6
31	11	------	462	27	------	84	------	10	------	7.9	5.2	------
TOTAL	1,242	3,643.5	3,917	3,156	2,519	1,487	2,209	2,067	716.7	500.2	322.8	321.4
MEAN	40.1	121	126	102	90.0	48.0	73.6	66.7	23.9	16.1	10.4	10.7
MAX	227	876	538	748	293	171	194	319	102	75	66	56
MIN	11	7.7	35	25	28	25	39	10	6.6	6.3	4.1	3.9
CFSM	1.95	5.92	6.16	4.97	4.39	2.34	3.59	3.25	1.17	.79	.51	.52
IN.	2.25	6.61	7.11	5.73	4.57	2.70	4.01	3.75	1.30	.91	.59	.58
AC-FT	2,460	7,230	7,770	6,260	5,000	2,950	4,380	4,100	1,420	992	640	637

CAL YR 1962: TOTAL 24,656.5 MEAN 67.6 MAX 876 MIN 2.6 CFSM 3.30 IN 44.73 AC-FT 48,910
WAT YR 1963: TOTAL 22,101.6 MEAN 60.6 MAX 876 MIN 3.9 CFSM 2.95 IN 40.10 AC-FT 43,840

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2005. Skagit River near Mount Vernon, Wash.

Location.--Lat 48°26'40", long 122°20'00", in SE¼ sec.7, T.34 N., R.4 E., on drawrest of and 150 ft downstream from bridge on U.S. Highway 99 and 1 mile north of Mount Vernon.

Drainage area.--3,093 sq mi (revised), of which 400 sq mi is in Canada.

Records available.--October 1940 to September 1965. Monthly discharge only October 1940, published in WSP 1316.

Gage.--Digital water-stage recorder and crest-stage gage. Datum of gage is at mean sea level, datum of 1929. Supplementary water-stage recorder in bridge pier a quarter of a mile downstream from base gage Dec. 3, 1957, to Oct. 15, 1964. Prior to Mar. 25, 1965, graphic water-stage recorder at present site and datum.

Average discharge.--25 years, 16,490 cfs (11,940,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, elevation in feet).

Annual maximum discharge (*) and peak discharges above base (50,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation	Date	Time	Discharge	Elevation
Jan. 16, 1961	1530	* 76,000	29.40	Nov. 20, 1962	1930	* 83,200	30.44	July 9, 1964	1100	56,500	26.11
Feb. 22, 1961	0300	64,300	27.52	Jan. 3, 1963	1600	54,600	25.75				
June 4, 1961	2030	54,900	25.82	Feb. 5, 1963	1430	59,500	26.65	Dec. 2, 1964	0300	* 59,300	26.62
June 18, 1961	1900	53,200	25.62					Jan. 31, 1965	0800	51,800	25.19
				Oct. 22, 1963	1500	62,800	27.26				
Jan. 4, 1962	0230	* 61,600	27.03	Nov. 27, 1963	0930	* 72,100	28.80				
Jan. 8, 1962	1500	54,100	25.66	Jan. 2, 1964	0500	54,400	25.72				

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Elevation	Water year	Date	Discharge	Elevation
1961	Sept.25, 1961	4,080	a 9.80	1964	Oct. 13, 1963	4,720	10.13
1962	Sept.10, 1962	4,800	10.17	1965	Sept.27, 1965	4,960	10.26
1963	Aug. 30, 1963	5,860	10.76				

a Occurred Oct. 2, 1960.

1940-65: Maximum discharge, 144,000 cfs Feb. 11, 1951 (elevation, 36.85 ft); minimum, 2,740 cfs Oct. 26, 1942 (elevation, 7.37 ft).

Maximum stage known, 37 ft in 1906, from Great Northern Railway high-water profile, discharge, 180,000 cfs.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by powerplants on Baker and upper Skagit Rivers, by Ross, Diablo, and Gorge Reservoirs, Baker Lake, and Lake Shannon (see elsewhere in this report). Small diversion for domestic and municipal use. Records of chemical analyses for the water years 1961-65 and of water temperatures for the water years 1962-65 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	4,780	23,900	14,400	11,500	19,500	22,000	13,000	17,500	36,100	15,300	13,300	15,300
2	4,990	22,700	14,200	10,900	21,400	21,900	15,100	23,200	45,500	14,400	13,300	24,300
3	5,390	19,000	14,700	12,100	20,700	19,500	17,900	22,500	53,300	16,500	13,000	13,800
4	8,030	16,000	14,100	13,200	17,500	16,700	21,500	20,900	54,300	16,900	12,800	10,600
5	8,070	15,100	14,100	16,100	17,100	13,400	17,900	19,900	52,400	16,400	11,600	10,600
6	7,930	13,700	14,400	22,100	29,900	13,900	16,200	16,400	50,800	23,000	10,100	11,900
7	8,650	12,600	14,400	20,500	40,400	15,500	15,300	14,000	52,200	20,300	9,800	10,600
8	12,700	13,200	14,200	16,400	29,000	14,600	14,400	16,100	44,400	16,800	11,100	10,100
9	10,400	12,400	15,100	18,200	25,200	14,400	12,800	16,700	36,100	15,000	11,300	8,730
10	8,710	13,300	13,100	21,900	26,400	14,300	12,400	17,900	31,500	17,100	10,100	7,150
11	8,600	21,400	11,900	30,500	24,500	13,600	14,800	19,300	26,400	20,000	9,210	6,640
12	9,760	20,100	17,200	31,200	24,000	12,900	16,100	18,000	25,400	23,300	9,630	7,130
13	8,960	15,300	26,700	24,000	21,500	12,800	15,800	16,500	25,700	24,700	8,270	6,600
14	8,310	15,200	26,700	21,900	20,200	17,600	15,600	15,900	28,700	26,300	7,770	6,530
15	8,090	16,200	22,500	38,800	20,300	21,700	14,500	14,500	30,100	22,600	10,000	6,260
16	7,250	18,800	19,600	72,200	19,000	21,200	12,600	17,900	35,800	20,700	10,700	5,750
17	7,550	23,100	17,400	51,400	18,900	19,500	13,800	20,200	45,600	19,300	11,800	5,610
18	8,600	32,300	17,100	33,700	16,600	16,100	16,200	22,400	52,400	16,800	10,900	5,830
19	8,860	27,500	22,800	25,900	16,500	13,900	15,100	25,200	50,700	16,500	10,000	7,710
20	9,260	29,000	21,600	20,900	26,000	16,600	14,400	28,400	43,400	17,300	8,210	7,970
21	9,380	25,200	18,100	18,900	48,400	18,600	14,600	30,300	43,400	18,200	8,900	8,900
22	9,130	22,000	16,600	18,100	53,200	16,300	14,600	26,900	29,700	17,600	11,100	7,690
23	12,700	20,100	16,200	16,800	32,800	16,300	14,700	28,300	27,200	16,900	9,890	5,840
24	37,700	20,600	14,400	17,600	28,700	15,300	13,900	29,700	29,200	16,300	10,100	4,670
25	27,000	22,800	12,600	16,100	26,700	13,600	14,900	23,400	31,800	14,500	9,850	4,720
26	22,600	20,400	11,300	15,500	22,500	11,700	15,500	26,100	29,800	13,400	9,020	6,050
27	28,000	17,800	13,000	14,300	20,700	11,600	14,500	32,900	25,700	13,700	7,790	5,660
28	27,300	16,200	14,500	13,700	19,300	13,400	14,500	25,800	21,700	13,500	6,420	6,000
29	21,600	16,400	14,100	13,300	------	12,600	14,600	21,000	20,900	11,800	7,770	8,960
30	15,800	15,300	13,700	16,100	------	12,700	17,300	24,800	19,800	9,320	6,990	7,470
31	15,100	------	13,400	20,600	------	13,300	------	32,500	------	9,420	9,130	------
TOTAL	391,200	577,600	504,100	694,400	706,900	487,500	454,500	685,100	1,100.0M	533,840	309,850	255,070
MEAN	12,620	19,250	16,260	22,400	25,250	15,730	15,150	22,100	36,670	17,220	9,995	8,502
MAX	37,700	32,300	26,700	72,200	53,200	22,000	21,500	32,900	54,300	26,300	13,300	24,300
MIN	4,780	12,400	11,300	10,900	16,500	11,600	12,400	14,000	19,800	9,320	6,420	4,670
AC-FT	775,900	1,146M	999,900	1,377M	1,402M	966,900	901,500	1,359M	2,182M	1,059M	614,600	505,900

CAL YR 1960: TOTAL 5,805,740 MEAN 15,860 MAX 37,700 MIN 4,740 AC-FT 11,520,000
WAT YR 1961: TOTAL 6,700,060 MEAN 18,360 MAX 72,200 MIN 4,670 AC-FT 13,290,000

M Expressed in thousands.

12-2005. Skagit River near Mount Vernon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	6,530	13,700	20,300	20,100	12,800	11,700	8,330	14,100	17,300	20,600	17,100	9,530
2	6,130	12,200	17,900	21,000	14,700	12,000	10,200	14,400	18,000	18,800	14,600	7,270
3	7,850	11,700	14,900	44,700	21,100	12,400	10,600	13,700	25,100	15,900	15,800	7,250
4	6,830	10,400	14,900	52,800	24,200	11,700	11,700	17,600	21,000	15,000	18,800	7,250
5	6,110	8,960	20,200	33,600	20,700	10,300	12,300	12,900	17,600	14,600	24,500	8,070
6	11,000	8,980	16,900	29,600	18,400	11,200	13,100	11,100	15,300	17,200	17,500	6,930
7	11,300	10,200	15,900	31,300	17,600	10,800	23,000	11,400	13,300	15,300	19,100	6,650
8	8,520	10,000	14,900	50,800	17,000	11,100	16,900	11,000	14,700	15,600	18,900	6,780
9	7,530	11,500	14,100	44,500	17,800	11,100	14,100	11,200	18,800	16,000	18,300	5,920
10	16,100	22,400	13,400	32,700	16,600	10,000	14,200	11,700	19,700	26,000	14,300	5,710
11	15,500	26,200	13,300	26,200	13,800	9,510	11,900	11,600	17,000	16,900	13,300	9,850
12	16,800	19,700	14,200	22,600	11,800	8,730	11,700	11,700	17,900	20,200	11,100	11,200
13	27,000	15,700	14,500	19,400	13,700	11,400	11,800	10,200	17,500	20,300	11,400	9,240
14	23,600	15,200	13,900	16,200	14,400	12,100	13,200	10,400	17,900	19,300	12,300	12,800
15	16,800	15,700	13,200	15,200	14,400	12,400	15,900	10,700	21,200	17,400	11,600	13,900
16	14,800	14,300	12,200	16,400	13,600	11,800	15,600	10,600	24,600	16,500	11,500	9,550
17	15,900	14,400	10,700	15,700	12,400	12,200	14,300	10,200	24,900	14,700	11,600	7,890
18	13,300	13,100	10,600	14,900	10,600	9,800	14,600	10,700	22,300	15,000	11,300	6,310
19	12,400	11,700	12,100	15,100	10,400	10,100	16,700	10,300	22,500	13,300	12,400	8,010
20	11,800	10,600	15,500	15,300	11,700	12,000	17,600	9,550	22,500	12,400	11,900	8,170
21	11,500	12,400	17,900	15,700	11,900	11,900	15,800	10,000	21,600	13,900	14,500	8,670
22	10,800	12,700	16,900	15,400	11,000	12,000	13,700	10,100	21,200	15,500	13,600	8,650
23	11,900	11,900	20,700	16,300	9,630	10,900	13,000	11,800	21,000	18,100	12,500	7,550
24	12,500	9,570	27,600	14,100	10,900	9,240	15,600	14,500	22,600	21,200	10,800	7,790
25	10,900	10,200	24,200	12,500	9,360	11,100	17,600	15,400	24,100	20,700	10,200	7,230
26	15,100	9,300	17,900	14,500	9,490	11,300	15,800	15,900	28,500	22,000	9,130	6,970
27	17,100	9,380	17,400	17,200	11,200	11,100	15,000	19,300	25,300	23,200	9,240	7,130
28	15,100	14,100	18,100	15,100	11,900	10,700	16,900	15,800	21,600	20,000	10,600	9,570
29	12,700	16,600	26,900	12,700	------	9,510	14,800	20,100	19,900	20,600	10,900	15,900
30	11,600	16,200	36,100	15,000	------	8,960	13,800	17,800	20,800	16,600	10,500	14,900
31	12,400	------	24,900	13,100	------	9,400	------	16,000	------	17,800	10,800	------
TOTAL	397,400	398,990	542,200	699,700	393,280	338,450	429,730	405,750	615,700	550,600	420,070	264,260
MEAN	12,820	13,300	17,490	22,570	14,050	10,920	14,320	13,090	20,520	17,760	13,550	8,809
MAX	27,000	26,200	36,100	52,800	24,200	12,400	23,000	20,100	28,500	26,000	24,500	15,900
MIN	6,110	8,960	10,600	12,500	9,360	8,730	8,330	9,550	13,300	12,400	9,130	5,710
AC-FT	788,200	791,400	1,075M	1,388M	780,100	671,300	852,400	804,800	1,221M	1,092M	833,200	524,200

CAL YR 1961: TOTAL 6,565,750 MEAN 17,990 MAX 72,200 MIN 4,670 AC-FT 13,020,000
WAT YR 1962: TOTAL 5,456,150 MEAN 14,950 MAX 52,800 MIN 5,710 AC-FT 10,820,000

M Expressed in thousands.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10,200	9,660	20,700	33,300	13,500	16,300	10,100	14,100	20,100	12,600	9,580	7,770
2	9,980	9,700	16,400	38,500	12,400	15,100	11,300	14,700	17,200	15,200	10,700	6,910
3	12,400	8,920	16,200	48,800	20,700	12,700	11,500	14,100	16,700	15,700	11,200	8,070
4	13,500	9,020	16,000	38,700	33,400	11,000	14,100	12,300	16,500	18,700	10,400	9,860
5	12,400	12,300	17,100	28,200	53,600	12,000	14,600	12,400	17,500	18,700	9,340	9,760
6	10,800	15,400	29,000	24,000	37,700	11,300	17,300	15,600	18,700	18,200	12,000	9,130
7	9,760	13,400	26,600	22,200	29,000	10,900	16,500	15,400	18,400	14,100	12,400	8,920
8	11,100	13,000	27,100	20,300	24,800	11,100	14,000	14,000	19,800	17,200	11,500	7,310
9	15,300	14,600	25,200	19,600	21,100	10,500	12,000	13,300	21,000	19,400	10,800	8,030
10	17,500	16,000	22,100	18,700	18,600	9,870	11,500	12,600	21,700	18,000	12,000	9,680
11	14,400	16,800	22,400	18,000	17,000	10,300	11,000	11,900	21,800	17,800	10,800	9,490
12	12,700	16,100	22,600	17,000	16,900	12,000	11,500	10,800	24,500	16,400	10,500	9,150
13	12,200	16,100	21,600	16,000	15,700	10,100	11,000	10,100	29,300	15,200	14,800	9,060
14	12,500	15,900	26,700	15,200	15,100	11,400	10,500	11,400	24,600	14,300	18,200	15,500
15	10,400	15,600	40,000	14,300	15,500	11,900	11,000	11,600	21,800	18,100	12,800	11,100
16	12,100	13,800	46,700	14,800	14,400	12,200	14,000	12,900	22,000	17,400	10,600	9,400
17	11,100	12,000	39,000	15,300	11,500	11,600	13,000	12,800	26,200	14,900	10,200	10,400
18	11,400	11,800	28,700	15,100	11,800	9,740	12,500	13,900	31,300	14,600	8,090	9,000
19	12,300	15,600	23,000	14,800	13,200	11,700	12,500	17,100	29,600	13,400	10,300	7,610
20	11,400	69,400	21,000	13,900	17,600	14,600	12,000	21,300	26,600	14,400	12,100	7,350
21	11,800	54,800	20,200	12,900	15,400	12,700	11,500	26,000	23,200	12,700	11,400	7,610
22	12,400	29,800	21,300	13,900	13,600	13,500	11,000	27,500	20,600	14,900	10,100	7,570
23	14,900	21,700	18,000	12,300	11,500	13,600	12,000	25,500	19,100	19,900	9,240	8,840
24	13,000	19,500	16,100	11,600	10,300	12,000	12,700	23,000	15,600	16,500	8,520	10,600
25	11,600	22,600	15,100	12,200	10,200	9,870	12,100	20,300	19,300	15,000	8,330	8,070
26	11,700	41,000	12,200	10,300	18,600	11,800	11,800	16,000	17,100	13,100	7,770	8,130
27	9,780	32,200	15,000	10,600	21,300	13,700	11,100	14,300	16,900	11,200	8,400	8,230
28	8,210	31,700	15,400	11,400	18,100	15,100	11,300	16,200	14,400	9,490	9,110	7,850
29	7,570	28,200	18,000	12,600	------	16,200	10,400	17,800	14,400	11,100	8,540	7,610
30	9,980	25,600	29,300	13,900	------	15,100	12,700	19,400	13,000	12,700	7,150	7,970
31	10,800	------	39,400	14,500	------	12,100	------	19,600	------	11,800	8,770	------
TOTAL	365,180	632,200	728,100	582,900	532,500	381,980	368,500	497,900	618,900	473,090	326,440	265,840
MEAN	11,780	21,070	23,490	18,800	19,020	12,320	12,280	16,060	20,630	15,260	10,530	8,861
MAX	17,500	69,400	46,700	48,800	53,600	16,300	17,300	27,500	31,300	19,900	18,200	15,500
MIN	7,570	8,920	12,200	10,300	10,200	9,740	10,100	10,100	13,000	9,490	7,150	6,910
AC-FT	724,300	1,254M	1,444M	1,156M	1,056M	757,600	730,900	987,600	1,228M	938,400	647,500	527,300

CAL YR 1962: TOTAL 5,843,040 MEAN 16,010 MAX 69,400 MIN 5,710 AC-FT 11,590,000
WAT YR 1963: TOTAL 5,773,530 MEAN 15,820 MAX 69,400 MIN 6,910 AC-FT 11,450,000

M Expressed in thousands.

12-2005. Skagit River near Mount Vernon, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8,520	13,500	21,900	36,000	20,400	14,700	17,600	13,200	37,500	27,600	22,500	16,000
2	8,230	17,600	17,300	46,000	19,300	14,600	19,000	13,100	43,600	32,100	20,500	13,500
3	7,650	17,000	18,200	31,800	17,400	15,600	17,200	11,400	36,100	31,200	19,500	12,000
4	7,230	13,800	17,600	27,500	17,600	15,600	15,700	10,800	30,200	27,300	23,900	11,000
5	7,330	15,200	18,900	22,400	20,300	16,100	16,300	16,800	35,300	34,600	26,000	10,000
6	8,110	14,200	21,000	20,500	17,500	15,900	14,100	15,600	42,600	38,400	20,000	9,500
7	7,990	15,600	18,400	20,300	15,300	15,200	13,900	13,700	37,700	37,400	19,000	9,000
8	8,290	16,900	16,100	19,300	14,500	14,200	15,200	13,900	34,200	45,600	18,500	11,000
9	7,550	15,600	16,100	18,600	13,600	15,300	18,700	13,400	39,200	55,400	18,500	13,700
10	7,790	14,700	16,300	18,500	13,300	16,600	19,200	14,900	44,300	43,800	20,000	12,600
11	7,370	14,300	16,800	18,000	15,500	16,900	19,900	14,800	44,400	35,800	17,500	11,100
12	6,150	15,600	16,600	16,500	14,700	19,600	18,000	17,100	41,200	42,800	17,000	9,890
13	5,860	23,200	17,000	14,100	14,000	18,400	18,100	19,100	34,600	51,500	19,500	8,440
14	9,910	29,000	16,100	16,600	13,800	15,300	15,700	17,700	32,600	50,800	17,500	7,250
15	10,200	30,700	15,800	16,800	13,500	19,200	17,000	15,500	33,200	49,800	15,000	8,110
16	10,100	26,200	16,900	21,200	11,000	16,100	16,700	15,400	39,900	47,900	14,000	8,750
17	8,790	26,400	16,800	24,300	11,900	17,000	15,800	16,000	43,800	38,400	13,500	12,700
18	9,050	24,500	18,100	21,800	14,000	18,800	14,700	17,700	37,100	32,500	15,500	14,300
19	9,830	23,500	17,700	21,100	14,900	16,700	11,800	21,900	38,100	29,100	15,000	10,400
20	9,660	23,000	20,600	19,200	13,100	15,800	10,700	25,400	32,400	23,600	16,000	14,300
21	13,800	18,800	20,600	19,200	12,600	13,600	13,400	30,600	28,100	26,800	14,000	14,800
22	54,100	17,100	17,000	17,200	11,900	11,400	15,100	28,900	25,600	28,900	12,500	14,800
23	36,400	19,100	26,500	17,700	11,100	10,800	15,100	23,000	28,700	25,200	12,000	13,200
24	25,200	20,600	33,400	16,400	10,600	13,800	13,600	18,400	35,800	21,800	13,500	12,200
25	30,800	19,500	28,400	19,800	12,100	13,600	12,400	17,600	32,300	23,800	15,000	13,200
26	24,200	37,600	23,600	20,300	11,700	14,900	11,700	19,300	29,500	26,700	14,500	13,300
27	19,900	67,900	21,700	18,000	13,300	14,200	11,900	19,400	31,400	23,700	16,000	10,100
28	19,300	46,400	19,600	19,800	14,500	12,700	13,700	25,000	30,200	27,700	14,500	8,730
29	21,200	32,800	16,900	19,700	12,400	11,300	13,000	28,800	24,800	27,300	13,500	10,900
30	20,200	26,100	17,400	21,100	------	10,300	13,500	30,300	26,100	27,900	17,500	21,500
31	17,500	------	23,600	19,500	------	14,300	------	33,400	------	25,000	19,000	------
TOTAL	448,210	696,400	602,900	659,200	415,800	468,500	458,700	592,100	1,050.5M	1,060.4M	530,900	356,270
MEAN	14,460	23,210	19,450	21,260	14,340	15,110	15,290	19,100	35,020	34,210	17,130	11,880
MAX	54,100	67,900	33,400	46,000	20,400	19,600	19,900	33,400	44,400	55,400	26,000	21,500
MIN	5,860	13,500	15,800	14,100	10,600	10,300	10,700	10,800	24,800	21,800	12,000	7,250
AC-FT	889,000	1,381M	1,196M	1,308M	824,700	929,300	909,800	1,174M	2,084M	2,103M	1,053M	706,700

CAL YR 1963: TOTAL 5,795,560 MEAN 15,880 MAX 67,900 MIN 5,860 AC-FT 11,500,000
WAT YR 1964: TOTAL 7,339,880 MEAN 20,050 MAX 67,900 MIN 5,860 AC-FT 14,560,000

M Expressed in thousands.
Note.--No gage-height record Aug. 6 to Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	36,600	12,200	55,000	10,200	30,900	17,200	10,500	18,500	19,500	18,500	14,300	6,780
2	31,400	12,800	52,000	9,000	23,300	18,000	12,600	14,300	20,000	25,700	15,900	7,620
3	29,000	12,900	35,300	9,340	20,200	16,000	10,800	13,900	22,900	30,400	15,600	7,540
4	19,500	22,600	25,900	8,860	19,900	14,000	9,780	17,900	24,900	29,300	15,400	6,900
5	16,000	24,600	21,600	11,000	30,400	13,200	9,280	17,400	26,600	29,700	13,900	5,790
6	15,600	17,600	18,000	9,940	34,500	12,500	11,500	15,900	27,600	30,700	12,600	5,320
7	14,400	15,500	15,300	9,340	24,100	11,600	10,700	14,900	27,700	28,100	12,000	5,100
8	14,100	12,800	17,200	9,590	21,100	13,000	9,150	12,400	28,400	29,400	12,200	6,270
9	16,300	12,600	20,100	9,340	22,100	14,900	9,830	10,400	29,900	27,200	12,700	6,500
10	15,700	13,500	19,200	8,460	19,000	15,200	10,100	12,900	30,200	20,400	14,300	6,440
11	15,500	12,400	19,500	7,850	16,200	15,400	8,480	16,700	31,800	16,700	14,300	6,390
12	12,200	11,900	17,600	9,800	15,700	16,100	8,030	18,600	31,800	16,900	13,900	6,330
13	13,300	10,800	18,200	8,880	16,000	16,600	12,800	20,200	25,800	18,300	17,000	5,530
14	12,900	10,400	17,000	10,200	16,300	15,000	12,500	19,600	21,700	17,900	18,100	7,270
15	15,300	9,720	15,900	11,500	14,300	13,700	12,800	19,200	20,900	18,400	13,700	10,300
16	16,200	10,100	17,000	15,300	16,200	15,800	14,400	26,200	19,900	22,100	12,200	11,400
17	14,900	10,900	18,000	17,600	20,700	16,500	15,100	29,800	22,200	19,000	12,300	9,290
18	13,500	10,000	16,000	18,200	19,900	14,100	11,800	25,000	24,600	17,900	11,900	8,070
19	12,500	11,300	14,700	17,200	21,400	13,300	11,300	20,500	24,200	17,200	11,900	6,830
20	12,000	10,500	14,100	19,100	23,200	11,500	23,000	21,200	23,700	15,700	12,600	5,870
21	11,800	10,600	13,500	21,900	20,400	9,940	27,700	22,000	24,800	15,100	13,000	6,350
22	11,300	8,960	14,100	21,700	17,600	10,300	24,900	20,900	25,800	14,200	11,400	5,930
23	10,600	9,050	15,100	18,100	17,000	12,400	21,800	18,500	23,200	13,300	12,300	6,790
24	9,940	22,200	16,400	18,900	17,100	11,900	18,600	17,900	24,200	13,600	13,300	6,420
25	9,600	21,100	12,800	15,000	15,500	11,700	15,400	19,000	23,900	15,000	11,700	6,190
26	10,600	17,400	9,340	16,100	15,400	11,300	17,400	20,300	21,600	17,700	10,700	5,290
27	11,100	13,400	10,400	19,200	22,300	11,600	22,600	24,000	19,400	18,800	10,900	5,200
28	11,300	13,100	9,360	26,200	22,400	10,000	25,800	28,900	17,000	19,000	10,900	5,100
29	9,590	12,700	10,900	36,700	------	8,460	26,800	30,500	17,100	17,900	9,200	5,000
30	10,200	28,100	11,100	36,500	------	9,360	21,600	27,100	17,500	16,100	7,640	4,900
31	12,000	------	10,900	45,600	------	9,600	------	23,400	------	15,000	7,740	------
TOTAL	464,930	421,730	581,500	506,600	573,100	410,160	457,050	618,000	718,800	625,200	395,580	198,710
MEAN	15,000	14,060	18,760	16,340	20,470	13,230	15,240	19,940	23,960	20,170	12,760	6,624
MAX	36,600	28,100	55,000	45,600	34,500	18,000	27,700	30,500	31,800	30,700	18,100	11,400
MIN	9,590	8,960	9,340	7,850	14,300	8,460	8,030	10,400	17,000	13,300	7,640	4,900
AC-FT	922,200	836,500	1,153M	1,005M	1,137M	813,500	906,500	1,226M	1,426M	1,240M	784,600	394,100

CAL YR 1964: TOTAL 7,060,530 MEAN 19,290 MAX 55,400 MIN 7,250 AC-FT 14,000,000
WAT YR 1965: TOTAL 5,971,360 MEAN 16,360 MAX 55,000 MIN 4,900 AC-FT 11,840,000

M Expressed in thousands.

12-2015. Samish River near Burlington, Wash.

Location.--Lat 48°32'45", long 122°20'15", in SE¼SE¼ sec.6, T.35 N., R.4 E., on left bank 500 ft downstream from bridge on U.S. Highway 99, half a mile downstream from Friday Creek, and 5 miles north of Burlington.

Drainage area.--87.8 sq mi.

Records available.--July 1943 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 45 ft (from topographic map). Prior to Dec. 1, 1948, at site 500 ft upstream at datum 0.75 ft higher. Dec. 1, 1948, to Jan. 7, 1949, staff gage 200 ft upstream at datum 3.14 ft higher than present datum.

Average discharge.--22 years, 244 cfs (176,600 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,100 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 16, 1961	0830	1,330	6.21	Nov. 19, 1962	2200	* 1,590	7.30	Jan. 1, 1964	1430	1,150	6.26
Feb. 6, 1961	2130	2,140	7.55	Dec. 31, 1962	0230	1,200	6.55				
Feb. 21, 1961	1800	* 3,770	9.80	Jan. 3, 1963	0330	1,400	6.94	Dec. 2, 1964	0900	1,510	6.99
								Jan. 29, 1965	0200	* 3,740	9.77
Jan. 3, 1962	2000	1,180	6.51	Nov. 26, 1963	1830	* 1,540	7.06	Feb. 5, 1965	2100	1,990	7.68
Jan. 7, 1962	1700	* 1,220	6.60	Dec. 20, 1963	1130	1,240	6.45	Feb. 16, 1965	2330	2,130	7.88

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 25, 1961	22	2.50	1964	Oct. 10, 1963	16	2.64
1962	July 30, 1962	25	2.69	1965	Sept. 8, 1965	17	2.72
1963	Sept.12, 23, 24	20	a 2.68				

a Occurred Sept. 12, 1963.

1943-65: Maximum discharge, 5,830 cfs Dec. 28, 1949 (gage height, 11.89 ft); minimum recorded, 11 cfs July 10, 1951 (gage height, 2.01 ft).

Remarks.--Records good. State fish hatchery on Friday Creek diverts about 4 cfs, which is returned above station. There is evidence of slight regulation and there may be some pumping for irrigation. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey.

Revisions (water years).--WSP 1216: Drainage area. WSP 1286: 1944(M), 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	38	155	220	185	308	1,000	476	234	124	48	31	46
2	37	146	201	174	454	700	618	230	116	48	31	61
3	36	136	201	157	394	626	726	230	109	49	31	43
4	37	116	190	157	317	549	514	240	103	48	31	40
5	36	103	168	518	377	486	415	349	96	78	31	38
6	36	96	153	596	1,030	486	361	305	100	85	30	37
7	55	87	142	439	1,540	462	320	255	159	64	29	34
8	74	80	134	360	837	427	394	240	139	59	29	31
9	63	76	124	333	578	458	382	290	124	54	28	32
10	54	107	116	327	462	421	332	272	120	51	30	30
11	50	230	114	398	502	412	361	238	118	48	27	28
12	57	176	140	474	544	421	642	216	109	47	28	27
13	52	140	155	384	446	444	546	206	102	45	27	27
14	50	242	179	356	394	538	424	208	94	44	27	27
15	50	305	140	673	478	746	370	196	89	44	26	27
16	48	494	122	1,230	502	710	335	188	84	42	27	27
17	47	394	130	789	695	618	340	178	80	40	42	27
18	44	380	200	539	556	493	325	167	75	36	41	27
19	43	317	556	431	970	440	330	158	71	36	32	27
20	42	427	394	366	2,160	582	315	151	68	36	31	27
21	47	470	273	320	3,260	634	288	142	67	34	30	27
22	87	373	225	287	2,560	496	272	136	64	33	30	27
23	88	349	211	259	2,000	476	252	149	60	33	27	26
24	134	596	206	240	1,400	472	238	138	58	33	27	26
25	118	774	223	223	1,600	409	224	128	55	32	27	25
26	178	600	204	208	1,400	382	214	130	53	35	27	25
27	246	409	185	195	1,000	352	206	214	54	35	27	26
28	253	317	168	183	900	325	200	165	55	34	26	43
29	183	267	157	213	------	302	228	151	54	35	25	68
30	142	233	153	256	------	292	258	142	51	33	25	52
31	128	------	172	256	------	437	------	133	------	32	41	------
TOTAL	2,553	8,595	5,956	11,526	27,664	15,596	10,906	6,179	2,651	1,371	921	1,008
MEAN	82.4	287	192	372	988	503	364	199	88.4	44.2	29.7	33.6
MAX	253	774	556	1,230	3,260	1,000	726	349	159	85	42	68
MIN	36	76	114	157	308	292	200	128	51	32	25	25
CFSM	.94	3.26	2.19	4.23	11.3	5.73	4.14	2.27	1.01	.50	.34	.38
IN.	1.08	3.64	2.52	4.88	11.7	6.61	4.62	2.62	1.12	.58	.39	.43
AC-FT	5,060	17,050	11,810	22,860	54,870	30,930	21,630	12,260	5,260	2,720	1,830	2,000

CAL YR 1960: TOTAL 75,505 MEAN 206 MAX 1,210 MIN 27 CFSM 2.35 IN 31.98 AC-FT 149,800
WAT YR 1961: TOTAL 94,926 MEAN 260 MAX 3,260 MIN 25 CFSM 2.96 IN 40.21 AC-FT 188,300

12-2015. Samish River near Burlington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	48	184	332	493	290	138	252	272	117	43	31	45
2	42	167	315	451	292	141	238	302	136	41	30	43
3	40	161	290	786	360	135	220	310	153	41	31	44
4	39	142	328	850	450	144	229	298	161	41	91	41
5	42	128	370	628	358	216	231	242	150	45	204	39
6	81	118	305	597	318	252	502	208	138	46	123	38
7	81	112	278	1,060	290	231	611	187	123	44	93	35
8	67	106	248	1,060	275	265	408	180	116	41	85	36
9	68	172	226	780	272	265	328	193	111	38	66	34
10	126	524	204	600	288	229	285	176	105	37	55	40
11	94	400	190	496	260	214	252	162	96	36	48	53
12	130	305	182	429	235	204	233	153	92	36	47	42
13	220	245	180	381	227	187	227	146	89	37	53	43
14	125	218	180	355	285	178	227	139	86	37	45	73
15	89	196	206	352	268	172	248	150	80	37	41	85
16	79	178	295	335	240	170	214	148	76	36	42	65
17	72	167	391	369	220	174	199	136	73	36	61	55
18	65	206	385	315	216	182	189	131	71	38	55	50
19	63	252	437	268	204	229	180	125	67	36	55	47
20	60	224	521	233	189	419	168	122	64	35	53	45
21	58	200	552	205	178	408	161	119	61	33	70	47
22	57	275	472	200	199	338	157	118	57	32	57	47
23	113	252	542	200	180	340	150	138	56	31	49	46
24	119	234	730	240	164	360	144	195	54	30	45	45
25	99	208	638	300	155	366	155	197	51	31	43	40
26	216	190	566	400	143	355	148	168	50	34	43	45
27	270	184	454	534	139	375	166	151	50	35	43	46
28	248	250	694	457	139	330	210	144	47	32	51	90
29	180	312	1,000	378	------	298	220	141	45	30	50	114
30	142	290	846	338	------	280	204	131	44	27	47	86
31	125	------	614	310	------	265	------	123	------	30	45	------
TOTAL	3,258	6,600	12,971	14,400	6,834	7,864	7,156	5,405	2,619	1,126	1,859	1,567
MEAN	105	220	418	465	244	254	239	174	87.3	36.3	60.0	52.2
MAX	270	524	1,000	1,060	450	419	611	310	161	46	204	114
MIN	39	106	180	200	139	138	144	118	44	27	30	34
CFSM	1.20	2.51	4.77	5.29	2.78	2.89	2.72	1.99	.99	.41	.68	.59
IN.	1.38	2.80	5.49	6.10	2.89	3.33	3.03	2.29	1.11	.48	.79	.66
AC-FT	6,460	13,090	25,730	28,560	13,560	15,600	14,190	10,720	5,190	2,230	3,690	3,110

CAL YR 1961: TOTAL 100,651 MEAN 276 MAX 3,260 MIN 25 CFSM 3.14 IN 42.63 AC-FT 199,600
WAT YR 1962: TOTAL 71,659 MEAN 196 MAX 1,060 MIN 27 CFSM 2.24 IN 30.35 AC-FT 142,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	70	99	454	847	122	426	187	272	65	45	47	30
2	64	98	454	1,320	134	417	170	372	69	43	45	32
3	69	96	499	1,260	288	342	170	310	64	41	42	30
4	85	152	447	880	290	300	265	248	64	41	41	29
5	77	313	492	656	300	270	355	282	72	39	39	28
6	81	280	569	538	260	245	502	270	65	39	38	25
7	101	229	471	464	238	224	482	240	63	40	36	25
8	180	288	435	420	220	214	375	210	65	69	36	25
9	220	292	381	384	197	197	318	187	122	120	35	24
10	199	300	338	328	180	185	275	166	90	98	38	24
11	182	275	312	278	170	176	240	151	73	77	38	22
12	204	278	285	255	161	170	220	143	70	73	38	22
13	170	298	285	242	155	164	212	133	64	62	38	26
14	143	285	365	238	150	161	206	125	60	58	37	33
15	122	260	350	268	144	157	260	122	56	58	35	29
16	111	233	305	265	144	151	310	116	53	56	33	25
17	105	260	292	242	141	157	278	110	50	51	32	27
18	111	248	272	224	185	151	258	106	47	48	32	26
19	117	712	285	208	210	228	268	99	46	47	36	24
20	110	1,240	262	195	218	231	310	96	47	45	42	26
21	110	744	320	182	187	199	278	90	46	45	36	25
22	140	524	312	178	170	174	242	85	46	53	36	25
23	161	414	275	170	161	162	242	81	45	63	35	23
24	136	365	245	168	153	155	229	78	46	52	44	22
25	131	509	227	162	231	157	216	76	56	48	39	25
26	126	618	212	155	760	153	201	73	50	44	37	30
27	128	566	242	148	600	170	187	71	51	43	35	32
28	120	524	448	136	444	292	176	69	49	42	33	33
29	114	435	632	125	------	245	198	66	51	41	32	32
30	106	444	1,040	117	------	218	233	65	47	48	30	30
31	102	------	1,030	125	------	195	------	67	------	47	31	------
TOTAL	3,895	11,383	12,536	11,178	6,613	6,686	7,863	4,579	1,792	1,676	1,146	809
MEAN	126	379	404	361	236	216	262	148	59.7	54.1	37.0	27.0
MAX	220	1,240	1,040	1,320	760	426	502	372	122	120	47	33
MIN	64	96	212	117	122	151	170	65	45	39	30	22
CFSM	1.43	4.32	4.61	4.11	2.69	2.46	2.99	1.68	.68	.62	.42	.31
IN.	1.65	4.82	5.31	4.73	2.80	2.83	3.33	1.94	.76	.71	.49	.34
AC-FT	7,730	22,580	24,860	22,170	13,120	13,260	15,600	9,080	3,550	3,320	2,270	1,600

CAL YR 1962: TOTAL 76,644 MEAN 210 MAX 1,240 MIN 27 CFSM 2.39 IN 32.46 AC-FT 152,000
WAT YR 1963: TOTAL 70,156 MEAN 192 MAX 1,320 MIN 22 CFSM 2.19 IN 29.72 AC-FT 139,200

12-2015. Samish River near Burlington, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	28	155	381	828	840	330	390	292	242	116	70	69
2	26	238	342	768	696	320	396	275	224	108	81	66
3	26	206	305	572	558	300	338	258	204	105	71	62
4	36	232	305	502	527	366	322	250	233	102	93	57
5	32	369	350	471	492	684	405	245	233	96	104	54
6	30	328	541	597	417	684	360	229	265	93	85	52
7	28	295	438	510	369	544	330	231	231	87	73	70
8	30	320	454	441	340	482	320	222	220	93	70	99
9	29	305	474	438	348	464	312	332	212	125	71	76
10	28	328	378	604	363	499	399	328	195	105	71	65
11	27	292	330	544	454	499	520	270	192	90	63	60
12	28	347	298	468	381	506	506	275	172	84	61	56
13	32	510	272	502	363	457	492	310	162	78	63	53
14	43	530	262	583	335	457	527	265	155	87	60	50
15	36	447	468	562	366	586	680	245	148	99	57	51
16	32	372	608	628	405	506	625	235	187	100	56	57
17	29	482	506	586	420	576	534	238	195	92	54	214
18	27	457	450	625	541	558	441	245	214	85	67	139
19	28	614	520	664	548	454	387	238	212	81	65	134
20	30	538	1,050	586	447	417	358	268	182	77	57	224
21	35	417	985	502	390	381	374	363	162	77	55	172
22	306	405	716	441	355	342	600	590	146	85	53	235
23	195	584	676	411	328	315	464	482	138	87	51	172
24	157	660	586	441	305	292	387	432	130	81	48	138
25	258	656	569	569	280	322	355	352	125	77	46	122
26	312	1,040	506	530	265	375	332	320	117	73	47	111
27	242	1,120	450	510	250	322	363	302	112	69	54	99
28	278	724	417	684	242	295	372	288	170	67	70	92
29	250	548	372	664	242	282	338	260	150	63	66	110
30	197	444	342	708	------	298	310	262	128	63	96	607
31	166	------	366	650	------	322	------	260	------	71	81	------
TOTAL	3,001	13,963	14,717	17,589	11,867	13,235	12,537	9,162	5,446	2,716	2,059	3,566
MEAN	96.8	465	475	567	409	427	418	296	182	87.6	66.4	119
MAX	312	1,120	1,050	828	840	684	680	590	265	125	104	607
MIN	26	155	262	411	242	282	310	222	112	63	46	50
CFSM	1.10	5.30	5.41	6.46	4.66	4.86	4.76	3.37	2.07	1.00	.76	1.35
IN.	1.27	5.91	6.23	7.45	5.03	5.61	5.31	3.88	2.31	1.15	.87	1.51
AC-FT	5,950	27,700	29,190	34,890	23,540	26,250	24,870	18,170	10,800	5,390	4,080	7,070

CAL YR 1963: TOTAL 74,023 MEAN 203 MAX 1,320 MIN 22 CFSM 2.31 IN 31.35 AC-FT 146,800
WAT YR 1964: TOTAL 109,858 MEAN 300 MAX 1,120 MIN 26 CFSM 3.42 IN 46.53 AC-FT 217,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	499	226	1,280	292	1,310	470	208	148	117	50	26	35
2	499	295	1,390	594	970	418	187	138	114	48	25	35
3	408	265	1,160	516	786	385	169	132	107	46	28	35
4	295	527	796	411	768	364	160	180	102	43	30	32
5	238	423	608	387	1,590	343	162	182	97	39	29	31
6	206	312	492	441	1,590	325	158	178	97	42	27	31
7	180	268	441	393	1,100	307	154	150	92	42	26	30
8	227	233	457	429	1,090	290	146	140	88	41	25	28
9	229	214	457	411	935	282	146	134	86	39	24	29
10	201	214	478	363	732	282	154	132	82	36	24	26
11	178	238	414	330	613	276	146	130	97	35	24	27
12	162	238	396	305	565	257	140	130	94	36	47	27
13	153	216	417	320	905	238	158	121	85	37	140	30
14	162	197	396	414	804	223	156	109	78	35	68	68
15	240	187	358	471	809	210	158	112	73	32	48	69
16	275	176	280	506	1,520	198	169	231	68	30	38	69
17	231	168	270	496	1,790	187	162	208	64	32	35	44
18	204	159	280	457	1,170	176	146	169	59	32	33	30
19	182	151	270	478	1,040	169	171	160	57	31	31	26
20	168	146	255	608	905	165	236	323	69	39	37	23
21	157	143	262	910	764	180	203	257	69	38	34	24
22	150	139	378	820	732	238	180	203	66	33	32	26
23	143	141	328	672	613	194	165	182	67	30	35	24
24	151	474	282	752	529	171	228	171	64	29	42	24
25	146	396	252	650	470	165	194	158	62	24	43	23
26	136	552	312	847	505	158	178	148	59	25	51	24
27	130	496	474	1,640	625	152	180	142	57	29	52	24
28	125	384	390	2,460	561	154	169	142	55	30	52	21
29	120	381	342	3,130	------	176	152	132	54	27	59	23
30	123	710	310	2,520	------	169	146	130	54	25	44	24
31	122	------	288	2,130	------	158	------	128	------	25	39	------
TOTAL	6,440	8,669	14,513	25,153	25,791	7,480	5,081	5,000	2,332	1,080	1,248	964
MEAN	208	289	468	811	921	241	169	161	77.7	34.8	40.3	32.8
MAX	499	710	1,390	3,130	1,790	470	236	323	117	50	140	69
MIN	120	139	252	292	470	152	140	109	54	24	24	21
CFSM	2.37	3.29	5.33	9.24	10.5	2.75	1.93	1.84	.89	.40	.46	.37
IN.	2.73	3.67	6.15	10.7	10.9	3.17	2.15	2.12	.99	.46	.53	.42
AC-FT	12,770	17,190	28,790	49,890	51,160	14,840	10,080	9,920	4,630	2,140	2,480	1,950

CAL YR 1964: TOTAL 107,799 MEAN 295 MAX 1,390 MIN 46 CFSM 3.35 IN 45.66 AC-FT 213,800
WAT YR 1965: TOTAL 103,771 MEAN 284 MAX 3,130 MIN 21 CFSM 3.24 IN 43.95 AC-FT 205,800

12-2050. Nooksack River below Cascade Creek, near Glacier, Wash.

Location.--Lat 48°54'20", long 121°50'30", in SE¼SW¼ sec.36, T.40 N., R.7 E., on right bank a quarter of a mile downstream from Cascade Creek, half a mile downstream from Dead Horse Creek, 4½ miles east of Glacier, and 6 miles upstream from Glacier Creek.

Drainage area.--105 sq mi.

Records available.--October 1937 to September 1965. Prior to October 1958, published as "above Cascade Creek, near Glacier."

Gage.--Water-stage recorder. Altitude of gage is 1,245 ft (from river-profile map). Supplementary water-stage recorder on left bank at datum 1.19 ft lower (used as principal gage prior to Oct. 1, 1953, and Oct. 8, 1958, to Sept. 30, 1959).

Average discharge.--28 years, 763 cfs (552,400 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (3,600 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 23, 1960	1800	* 5,910	8.70	Nov. 19, 1962	2000	* 9,000	10.50	Oct. 21, 1963	2200	* 9,680	10.20
Jan. 15, 1961	1930	4,740	8.00	Dec. 15, 1962	0830	5,600	7.79	Nov. 14, 1963	0900	3,640	6.55
June 18, 1961	2100	3,710	7.00	Feb. 4, 1963	2100	7,300	8.90	Nov. 26, 1963	1700	4,100	7.30
								July 15, 1964	0500	3,650	7.55
Jan. 7, 1962	2130	* 4,010	7.23	Oct. 13, 1963	1100	4,240	7.40				
								May 16, 1965	0600	* 2,410	6.67

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 1960	224	2.44	1964	Feb. 28, 1964	178	b 2.80
1962	Mar. 15, 1962	199	2.73	1965	Jan. 12, 1965	175	3.55
1963	Mar. 18, 1963	148	a 2.20				

a Occurred Jan. 23-25, 1963.
b Occurred Nov. 6, 1963.

1937-65: Maximum discharge, 10,300 cfs Nov. 26, 1949 (gage height, 10.50 ft, supplementary gage), from rating curve extended above 2,900 cfs on basis of contracted opening measurement at gage height 8.13 ft (supplementary gage); minimum, 73 cfs Feb. 16, 1949.

Remarks.--Records good. No diversion above station. Some regulation at low flow by powerplant at Excelsior.

Revisions (water years).--WSP 1092: 1946.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	342	996	630	316	624	600	576	1,000	2,100	916	862	1,600
2	329	804	532	296	975	493	696	1,050	2,520	991	874	922
3	316	744	488	288	654	440	1,120	816	2,590	1,100	922	682
4	292	672	440	356	582	406	828	678	2,530	1,300	946	724
5	288	624	392	515	996	383	678	612	2,400	1,580	1,010	790
6	542	554	374	559	2,510	374	588	542	2,570	1,420	826	565
7	2,140	504	356	498	1,600	352	532	520	2,420	1,270	760	485
8	804	455	352	600	1,050	352	532	537	1,710	1,050	736	435
9	515	435	352	618	1,070	347	504	702	1,630	1,080	706	420
10	430	516	338	1,100	1,030	338	471	768	1,390	1,240	688	410
11	383	822	360	1,450	954	334	466	702	1,470	1,620	718	382
12	374	588	1,750	1,000	834	334	466	618	1,310	1,930	766	370
13	334	532	1,380	768	720	334	460	594	1,380	2,070	778	362
14	316	510	1,020	998	654	520	420	588	1,680	1,970	650	346
15	406	471	762	3,970	744	919	392	630	2,320	1,680	862	345
16	415	702	636	2,460	630	738	396	858	2,760	1,390	934	370
17	365	1,280	570	1,420	564	594	520	1,090	3,030	1,100	790	366
18	338	1,140	712	989	510	532	476	1,330	3,300	1,090	742	378
19	329	989	864	768	520	542	435	1,690	2,770	1,140	772	358
20	316	919	672	672	753	636	406	1,940	2,170	1,310	808	350
21	553	714	582	648	2,060	542	388	1,820	1,660	1,380	754	322
22	762	612	532	624	1,160	520	383	1,470	1,540	1,300	718	282
23	3,560	576	526	564	798	594	383	1,660	1,710	1,190	732	254
24	2,860	732	520	520	738	559	383	1,230	1,810	952	670	254
25	1,400	720	488	476	618	515	378	1,140	1,940	910	570	322
26	1,770	582	455	445	476	510	383	1,660	1,800	977	530	258
27	1,350	504	415	415	493	466	383	1,560	1,280	970	495	254
28	1,150	455	378	392	466	435	401	1,240	1,090	868	505	650
29	898	425	365	406	------	430	846	1,300	1,040	784	545	410
30	774	435	347	610	------	435	982	1,560	946	772	560	354
31	1,070	------	324	606	------	466	------	1,580	------	838	1,740	------
TOTAL	25,721	20,012	17,912	25,347	24,783	15,040	15,872	33,485	58,866	38,188	24,169	14,021
MEAN	830	667	578	818	885	485	529	1,080	1,962	1,232	780	467
MAX	3,560	1,280	1,750	3,970	2,510	919	1,120	1,940	3,300	2,070	1,740	1,600
MIN	288	425	324	288	466	334	378	520	946	772	495	254
CFSM	7.90	6.35	5.50	7.79	8.43	4.62	5.04	10.3	18.7	11.7	7.43	4.45
IN.	9.11	7.09	6.34	8.98	8.78	5.33	5.62	11.9	20.8	13.5	8.56	4.97
AC-FT	51,020	39,690	35,530	50,280	49,160	29,830	31,480	66,420	116,800	75,740	47,940	27,810

CAL YR 1960: TOTAL 277,084 MEAN 757 MAX 3,560 MIN 177 CFSM 7.21 IN 98.14 AC-FT 549,600
WAT YR 1961: TOTAL 313,416 MEAN 859 MAX 3,970 MIN 254 CFSM 8.18 IN 111.01 AC-FT 621,700

12-2050. Nooksack River below Cascade Creek, near Glacier, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	322	520	682	664	465	250	270	580	868	1,200	1,210	634
2	298	450	550	975	1,120	240	290	570	1,770	964	1,080	610
3	294	425	475	2,660	2,010	235	290	646	1,330	898	1,240	525
4	294	390	510	1,390	1,450	230	330	535	970	922	1,570	510
5	649	370	485	964	998	230	338	475	832	1,170	1,330	525
6	560	358	415	790	802	235	753	430	778	1,030	1,350	530
7	440	350	390	2,360	796	240	910	402	904	1,030	1,310	505
8	374	370	366	2,900	766	240	600	398	1,250	1,270	1,390	420
9	917	666	330	1,640	730	235	480	460	1,250	1,340	1,040	410
10	682	1,900	294	1,190	646	225	415	515	1,090	1,310	904	763
11	510	1,120	280	952	570	220	378	535	984	1,270	898	844
12	980	742	270	784	515	215	370	510	1,030	1,230	1,110	535
13	1,640	634	260	664	475	210	450	505	1,140	1,120	1,050	870
14	970	600	250	600	480	205	622	485	1,350	977	850	1,210
15	826	515	245	525	435	202	910	480	1,670	904	880	730
16	826	470	235	485	410	205	670	495	1,800	886	991	550
17	595	440	240	445	386	211	610	570	1,580	1,010	1,030	525
18	505	410	225	394	370	214	718	610	1,410	832	1,190	560
19	460	398	250	380	362	214	856	560	1,410	736	1,110	550
20	410	362	334	360	338	220	778	565	1,390	808	1,410	570
21	370	358	406	340	330	211	640	585	1,500	998	1,230	595
22	354	350	366	340	326	202	610	694	1,500	1,220	862	540
23	390	330	520	350	302	205	700	820	1,650	1,390	778	500
24	378	310	844	360	274	220	922	874	1,800	1,450	772	510
25	499	286	570	370	270	229	820	977	1,900	1,430	748	520
26	1,040	278	475	370	262	232	658	1,170	1,850	1,390	790	510
27	670	390	410	420	258	238	760	1,330	1,450	1,500	628	560
28	545	605	555	370	254	250	646	1,390	1,250	1,470	670	1,250
29	470	535	1,050	366	------	250	555	1,240	1,450	1,310	605	1,100
30	430	622	958	370	------	254	505	991	1,410	1,270	585	862
31	435	------	718	390	------	244	------	880	------	1,300	610	------
TOTAL	18,133	15,554	13,958	25,172	16,400	7,011	17,854	21,277	40,566	35,635	31,221	19,323
MEAN	585	518	450	812	586	226	595	686	1,352	1,150	1,007	644
MAX	1,640	1,900	1,050	2,900	2,010	254	922	1,390	1,900	1,500	1,570	1,250
MIN	294	278	225	340	254	202	270	398	778	736	585	410
CFSM	5.57	4.94	4.29	7.73	5.58	2.15	5.67	6.54	12.9	10.9	9.59	6.13
IN.	6.42	5.51	4.94	8.92	5.81	2.48	6.32	7.54	14.4	12.6	11.1	6.84
AC-FT	35,970	30,850	27,690	49,930	32,530	13,910	35,410	42,200	80,460	70,680	61,930	38,330

CAL YR 1961: TOTAL 297,416 MEAN 815 MAX 3,970 MIN 225 CFSM 7.76 IN 105.34 AC-FT 589,900
WAT YR 1962: TOTAL 262,104 MEAN 718 MAX 2,900 MIN 202 CFSM 6.84 IN 92.83 AC-FT 519,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	712	465	520	998	250	600	330	455	1,090	778	694	718
2	652	505	430	1,140	350	520	310	460	1,040	970	748	754
3	996	460	430	1,350	840	470	306	420	910	964	844	622
4	605	974	394	916	3,970	435	378	402	910	1,050	852	694
5	495	1,060	608	736	3,340	406	435	697	922	952	698	662
6	455	754	880	628	2,320	386	510	682	886	886	856	616
7	475	622	834	565	2,180	370	465	590	856	904	862	622
8	550	784	1,160	545	1,320	358	435	520	898	1,170	874	694
9	760	700	958	465	1,110	345	410	490	1,070	1,270	892	766
10	646	670	850	398	934	334	390	450	1,030	1,030	898	760
11	580	664	856	350	802	330	378	435	1,250	1,110	1,030	706
12	778	634	784	340	706	310	378	435	1,570	964	1,220	712
13	1,400	670	1,020	350	634	294	420	420	1,310	970	1,160	1,450
14	838	580	1,570	350	570	290	695	465	1,270	1,110	868	1,030
15	682	515	3,950	346	515	282	904	540	1,480	1,070	588	640
16	580	460	2,200	322	485	274	634	540	1,530	984	610	570
17	525	445	1,410	310	450	254	530	622	1,530	998	580	510
18	682	410	1,080	294	425	250	470	874	1,510	958	595	445
19	634	3,400	910	274	530	262	435	1,220	1,480	928	1,050	410
20	942	3,610	772	270	515	334	402	1,600	1,190	922	765	425
21	1,330	1,380	991	258	445	354	386	1,740	1,040	1,000	622	490
22	1,170	958	802	250	410	390	386	1,650	904	2,280	570	622
23	862	724	682	244	394	334	390	1,340	868	1,290	610	724
24	736	766	595	244	378	305	370	1,140	1,020	1,020	712	480
25	652	1,500	560	235	407	354	366	1,010	1,010	916	706	495
26	664	1,470	520	226	1,190	338	366	998	874	898	634	450
27	616	1,000	500	220	868	370	362	991	790	964	570	570
28	575	730	495	215	685	450	362	1,080	736	940	595	662
29	600	670	648	210	------	402	455	1,260	736	862	640	622
30	565	605	1,120	200	------	370	500	1,310	706	808	676	515
31	490	------	946	250	------	350	------	1,250	------	730	706	------
TOTAL	22,307	28,265	29,585	13,499	27,026	11,123	13,158	26,086	32,416	31,696	24,114	19,476
MEAN	720	942	954	435	965	359	439	841	1,081	1,022	778	649
MAX	1,400	3,610	3,950	1,350	3,970	600	904	1,740	1,570	2,280	1,220	1,450
MIN	455	410	394	200	250	250	306	402	706	730	570	410
CFSM	6.85	8.97	9.09	4.15	9.19	3.42	4.18	8.01	10.3	9.74	7.41	6.18
IN.	7.90	10.0	10.5	4.78	9.57	3.94	4.66	9.24	11.5	11.2	8.54	6.90
AC-FT	44,250	56,060	58,680	26,770	53,610	22,060	26,100	51,740	64,300	62,870	47,830	38,630

CAL YR 1962: TOTAL 294,616 MEAN 807 MAX 3,950 MIN 202 CFSM 7.69 IN 104.35 AC-FT 584,400
WAT YR 1963: TOTAL 278,751 MEAN 764 MAX 3,970 MIN 200 CFSM 7.27 IN 98.73 AC-FT 552,900

12-2050. Nooksack River below Cascade Creek, near Glacier, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	455	646	626	1,910	452	266	488	357	2,490	1,650	1,190	659
2	415	784	575	1,160	405	251	425	342	2,390	1,740	1,120	700
3	398	658	540	857	385	245	385	328	1,880	1,650	1,350	654
4	450	682	570	718	443	260	385	357	2,460	1,620	1,700	615
5	378	640	694	632	452	260	377	349	2,570	1,740	1,340	605
6	394	610	632	585	405	245	369	357	2,500	1,750	1,190	570
7	338	646	555	535	373	242	385	385	1,990	2,310	1,270	654
8	390	688	530	492	349	239	421	425	1,780	2,760	1,150	600
9	460	640	488	479	338	233	438	545	2,190	2,350	1,270	520
10	450	634	456	456	338	233	470	605	2,460	1,850	1,130	492
11	445	560	452	434	331	272	466	555	2,410	2,160	1,160	456
12	466	1,190	430	413	310	260	421	600	2,000	2,700	1,230	456
13	2,630	1,910	413	448	310	245	405	632	1,850	2,680	1,230	456
14	1,850	3,030	405	417	310	263	421	570	1,860	2,750	1,000	456
15	1,280	2,140	417	409	306	320	466	565	1,950	3,020	920	530
16	970	1,690	409	670	296	306	417	637	2,190	2,110	89[illegible]	772
17	850	1,620	409	545	292	345	397	832	1,830	1,970	849	1,140
18	766	1,420	448	470	306	349	385	983	1,800	1,710	1,020	724
19	610	1,310	545	438	310	310	385	1,260	1,660	1,400	864	730
20	634	1,220	648	401	289	289	353	1,430	1,410	1,440	790	920
21	5,490	1,140	545	401	282	275	361	1,300	1,300	1,580	626	736
22	3,770	1,110	595	405	278	263	385	1,050	1,330	1,460	899	736
23	1,580	1,290	1,820	357	275	248	361	885	1,810	1,280	927	724
24	1,730	1,230	1,480	357	275	245	373	790	1,840	1,330	664	730
25	1,370	1,350	1,130	397	272	239	385	712	1,660	1,440	852	760
26	1,020	3,220	844	369	266	233	385	742	1,610	1,440	962	615
27	832	1,550	724	417	260	227	373	997	1,510	1,470	906	565
28	862	1,030	642	430	260	227	353	1,340	1,380	1,730	885	530
29	820	802	595	525	263	245	381	1,630	1,180	1,760	685	6[illegible]
30	694	688	647	474	------	296	369	2,030	1,380	1,520	969	2,[illegible]
31	616	------	1,340	466	------	381	------	2,380	------	1,520	736	------
TOTAL	33,413	36,128	20,604	17,067	9,431	8,312	12,025	25,970	56,670	57,890	32,473	20,889
MEAN	1,078	1,204	665	551	325	268	401	838	1,889	1,867	1,048	696
MAX	5,490	3,220	1,820	1,910	452	381	488	2,380	2,570	3,020	1,700	2,130
MIN	338	560	405	357	260	227	353	328	1,180	1,280	736	456
CFSM	10.3	11.5	6.33	5.24	3.10	2.55	3.82	7.98	18.0	17.3	9.98	6.63
IN.	11.8	12.8	7.30	6.04	3.34	2.94	4.26	9.20	20.1	20.5	11.5	7.40
AC-FT	66,270	71,660	40,870	33,850	18,710	16,490	23,850	51,510	112,400	114,800	64,410	41,430

CAL YR 1963: TOTAL 288,739 MEAN 791 MAX 5,490 MIN 200 CFSM 7.53 IN 102.27 AC-FT 572,700
WAT YR 1964: TOTAL 330,872 MEAN 904 MAX 5,490 MIN 227 CFSM 8.61 IN 117.19 AC-FT 656,300

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,170	1,000	1,890	278	667	450	334	764	1,060	1,610	1,290	520
2	1,760	626	1,180	282	570	425	313	661	1,410	1,770	1,190	500
3	1,050	675	823	282	515	415	301	608	1,670	1,840	1,060	460
4	844	1,750	673	274	752	415	301	586	1,730	1,880	894	435
5	778	790	576	271	1,140	415	309	526	1,860	1,790	810	420
6	778	614	526	268	816	420	297	510	1,790	1,620	816	406
7	778	554	515	257	643	445	289	485	1,670	1,990	901	415
8	892	500	581	254	581	465	285	505	1,770	1,540	947	445
9	934	470	559	247	515	495	305	559	1,890	1,090	968	445
10	778	450	520	247	465	554	321	697	1,840	940	1,020	450
11	706	420	475	241	445	586	317	752	2,020	875	954	425
12	718	402	465	241	415	576	338	1,000	1,700	875	1,260	402
13	796	374	435	254	465	542	374	1,000	1,270	1,070	1,780	406
14	1,050	352	415	301	415	515	384	882	1,160	1,290	982	5[illegible]6
15	839	343	374	356	397	495	465	989	1,150	1,390	836	[illegible]64
16	748	338	290	455	420	465	554	1,800	1,270	1,330	764	[illegible]5
17	670	330	330	495	515	435	520	1,110	1,740	1,260	849	430
18	637	317	350	505	542	410	470	862	1,730	1,040	975	379
19	654	309	340	548	643	384	510	823	1,460	888	1,000	370
20	637	297	325	661	637	374	875	968	1,480	888	940	384
21	600	285	313	703	559	370	1,260	849	1,400	816	790	415
22	575	285	313	603	500	356	842	901	1,320	790	778	425
23	545	406	297	554	465	325	727	968	1,430	868	804	445
24	550	691	285	542	425	309	733	886	1,430	1,070	721	455
25	515	480	278	475	406	305	739	1,020	1,320	1,300	661	425
26	492	435	289	475	500	297	816	1,230	1,070	1,410	752	370
27	470	384	297	515	655	282	1,130	1,650	920	1,360	661	334
28	479	361	297	620	510	278	1,530	1,890	862	1,240	576	309
29	488	415	293	875	------	282	1,100	1,800	996	1,070	515	293
30	615	1,580	289	1,060	------	274	934	1,540	1,300	1,000	460	305
31	575	------	282	908	------	274	------	1,180	------	1,140	485	------
TOTAL	23,181	16,233	14,875	14,047	15,578	12,633	17,673	30,003	43,718	39,240	27,459	12,923
MEAN	748	541	480	453	556	408	589	968	1,457	1,266	886	431
MAX	1,760	1,750	1,890	1,060	1,140	586	1,530	1,890	2,020	1,990	1,780	764
MIN	470	285	278	241	397	274	285	485	862	790	460	293
CFSM	7.12	5.15	4.57	4.32	5.30	3.88	5.61	9.22	13.9	12.1	8.44	4.10
IN.	8.21	5.75	5.27	4.98	5.52	4.47	6.26	10.6	15.5	13.9	9.73	4.58
AC-FT	45,980	32,200	29,500	27,860	30,900	25,060	35,050	59,510	86,710	77,830	54,460	25,630

CAL YR 1964: TOTAL 295,016 MEAN 806 MAX 3,020 MIN 227 CFSM 7.68 IN 104.49 AC-FT 585,200
WAT YR 1965: TOTAL 267,563 MEAN 733 MAX 2,020 MIN 241 CFSM 6.98 IN 94.77 AC-FT 530,700

12-2072. Nooksack River near Deming, Wash.

Location.--Lat 48°52'25", long 122°08'55", in NW¼NW¼ sec.15, T.39 N., R.5 E., on left bank 1 mile downstream from Coal Creek, 2¾ miles upstream from Middle Fork, and 4½ miles northeast of Deming.

Drainage area.--282 sq mi.

Records available.--September 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 345 ft (from river-profile map).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (5,200 cfs), September 1964 to September 1965

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Sept.30, 1964	1300	* 7,450	6.38	Nov. 4, 1964	0930	6,120	5.88	Jan. 30, 1965	1700	6,590	6.06
				Nov. 30, 1964	1530	* 7,040	6.23	Feb. 5, 1965	1830	5,570	5.66
Oct. 2, 1964	1030	6,530	6.04	Jan. 29, 1965	0130	5,260	5.53				

Annual minimum discharge, September 1964 to September 1965

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1964	Sept. 13, 1964	589	2.71	1965	Sept. 29, 1965	398	2.13

1964-65: Maximum discharge, 7,450 cfs Sept. 30, 1964 (gage height, 6.38 ft); minimum, 398 cfs Sept. 29, 1965 (gage height, 2.13 ft).

Remarks.--Records excellent except those for Aug. 13 to Sept. 30, 1965, which are good. Slight regulation by powerplant at Excelsior. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1964

DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.	DAY	SEPT.
1	1,300	7	1,300	13	625	19	1,530	25	1,490
2	1,200	8	1,100	14	625	20	2,130	26	1,180
3	1,200	9	900	15	760	21	1,630	27	1,030
4	1,150	10	800	16	1,320	22	1,630	28	913
5	1,100	11	700	17	2,880	23	1,460	29	1,260
6	1,100	12	650	18	1,660	24	1,460	30	4,590
								31	-
TOTAL									40,673
MEAN									1,356
MAX									4,590
MIN									625
AC-FT									80,670

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,630	1,780	6,090	556	2,490	1,570	869	1,660	2,000	2,250	1,740	607
2	4,090	1,300	4,570	598	1,980	1,420	792	1,440	2,360	2,440	1,640	572
3	2,610	1,220	3,050	564	1,670	1,320	730	1,300	2,740	2,490	1,440	532
4	1,950	4,390	2,330	548	2,640	1,280	730	1,270	2,700	2,560	1,260	524
5	1,640	2,340	1,920	516	4,820	1,260	740	1,170	2,890	2,460	1,110	508
6	1,500	1,730	1,660	548	3,470	1,240	710	1,060	2,890	2,480	1,110	486
7	1,450	1,520	1,490	493	2,420	1,230	670	1,030	2,610	2,680	1,180	493
8	1,670	1,310	1,710	493	2,420	1,270	652	1,030	2,780	2,230	1,320	524
9	1,670	1,190	1,670	479	1,960	1,330	700	1,150	3,090	1,640	1,280	532
10	1,390	1,100	1,570	472	1,640	1,490	750	1,400	2,950	1,410	1,360	532
11	1,220	1,030	1,370	458	1,450	1,570	720	1,550	3,380	1,330	1,310	516
12	1,220	957	1,270	444	1,330	1,530	750	1,900	2,890	1,240	1,700	479
13	1,280	880	1,190	472	1,860	1,410	880	1,940	2,210	1,500	2,970	493
14	1,770	814	1,110	670	1,530	1,320	880	1,760	1,950	1,740	1,640	882
15	1,830	781	990	946	1,420	1,230	1,070	1,880	1,920	1,880	1,390	1,400
16	1,490	750	750	1,350	1,980	1,170	1,350	3,610	2,000	1,840	1,370	742
17	1,310	730	814	1,520	2,590	1,050	1,260	2,480	2,640	1,740	1,370	548
18	1,170	700	858	1,460	2,330	979	1,120	2,020	2,700	1,500	1,620	486
19	1,160	661	825	1,690	2,630	924	1,230	1,880	2,230	1,270	1,700	479
20	1,130	634	770	2,070	2,410	880	2,000	2,310	2,210	1,280	1,620	486
21	1,040	607	740	2,090	1,980	891	2,490	2,040	2,120	1,190	1,360	472
22	957	589	730	1,700	1,700	880	1,980	2,000	2,010	1,090	1,310	532
23	880	781	690	1,450	1,480	803	1,700	2,060	2,120	1,160	1,370	540
24	924	2,470	652	1,330	1,350	740	1,690	1,900	2,130	1,450	1,170	548
25	847	1,480	616	1,160	1,260	730	1,630	2,010	1,960	1,710	1,010	532
26	750	1,320	661	1,190	1,700	690	1,770	2,260	1,670	1,900	1,160	486
27	700	1,150	670	1,360	2,440	670	2,230	2,780	1,480	1,880	1,040	444
28	670	1,030	598	2,920	1,890	652	2,870	3,300	1,320	1,700	781	424
29	700	1,160	572	3,940	------	680	2,310	3,220	1,450	1,520	634	410
30	935	4,810	556	4,680	------	652	1,940	2,780	1,820	1,410	548	417
31	891	------	540	3,690	------	652	------	2,260	------	1,530	556	------
TOTAL	43,474	41,214	43,032	42,457	58,840	33,513	39,213	60,450	69,220	54,520	41,069	16,626
MEAN	1,402	1,374	1,388	1,370	2,101	1,081	1,307	1,950	2,307	1,759	1,325	554
MAX	4,090	4,810	6,090	4,680	4,820	1,570	2,870	3,610	3,380	2,680	2,970	1,400
MIN	670	589	540	444	1,260	652	652	1,030	1,320	1,090	548	410
CFSM	4.97	4.87	4.92	4.86	7.45	3.83	4.63	6.91	8.18	6.24	4.70	1.96
IN	5.73	5.44	5.68	5.60	7.76	4.42	5.17	7.97	9.13	7.19	5.42	2.19
AC-FT	86,230	81,750	85,350	84,210	116,700	66,470	77,780	119,900	137,300	108,100	81,460	32,980

CAL YR 1964: TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965: TOTAL 543,628	MEAN 1,489	MAX 6,090	MIN 410	CFSM 5.28	IN 71.70	AC-FT 1,078,000

12-2080. Middle Fork Nooksack River near Deming, Wash.

Location.--Lat 48°46'45", long 122°06'20", in lot 7 or 8, in SW¼ sec.13, T.38 N., R.5 E., on left bank half a mile upstream from Heislers Creek, 5½ miles upstream from mouth, and 6 miles southeast of Deming.

Drainage area.--73.3 sq mi (revised).

Records available.--October 1910 to March 1911 (fragmentary gage heights and discharge measurements only), August 1920 to September 1921, February 1934 to September 1935, June to October 1954, October 1964 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 580 ft (from river-profile map). Oct. 11, 1910, to Mar. 14, 1911, Aug. 28, 1920, to Sept. 30, 1921, June 3 to Oct. 31, 1954, staff or wire-weight gages at site three-quarters of a mile downstream at different datums. Feb. 18 to Apr. 6, 1934, Nov. 16, 1934, to Sept. 30, 1935, staff gage and Apr. 7 to Nov. 5, 1934, water-stage recorder, at present site and datum.

Extremes.--Maximum and minimum discharges for the water year 1965 are contained in the following table:

Annual maximum discharge (*), peak discharges above base (2,700 cfs), and annual minimum discharge

Water year	Maximum				Minimum		
	Date	Time	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1965	Nov. 4, 1964	0300	3,750	7.90	Sept. 29, 30, 1965	32	4.05
	Nov. 24, 1964	0400	2,750	7.44			
	Nov. 30, 1964	1230	3,620	7.84			
	Jan. 28, 1965	2300	3,640	8.05			
	Jan. 30, 1965	1430	* 3,800	8.02			

1920-21, 1934-35, 1954, 1964-65: Maximum discharge not determined, probably occurred Nov. 5, 1934 (gage height, 15.0 ft, from floodmarks, present site and datum); minimum, 32 cfs Sept. 29, 30, 1965 (gage height, 4.05 ft).

Remarks.--Records good except those for period of no gage-height record, which are fair. Since February 1962, the city of Bellingham diverts about 95 cfs at times at dam about 1¾ miles upstream for municipal use. No regulation.

Revisions.--WSP 1346: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,100	666	2,690	140	928	650	265	387	542	590	420	167
2	1,500	369	1,900	180	720	500	176	308	765	656	396	158
3	950	509	1,280	160	616	350	135	273	868	677	324	108
4	700	2,210	963	150	1,160	378	138	276	868	677	258	58
5	550	972	758	140	1,730	378	146	222	911	622	232	54
6	500	570	649	135	1,030	392	132	189	844	635	243	54
7	500	410	616	140	635	410	122	192	796	670	284	58
8	550	348	945	150	635	425	122	215	876	477	304	73
9	570	304	720	120	477	494	146	325	860	312	351	67
10	460	254	570	110	392	622	170	460	796	254	363	64
11	410	218	430	105	340	649	143	534	1,060	229	284	48
12	410	208	378	100	328	576	155	698	691	215	618	41
13	430	164	344	120	583	472	236	596	472	300	1,250	44
14	706	127	304	200	410	435	243	482	405	405	392	476
15	788	112	265	350	356	340	420	637	420	430	308	623
16	528	109	190	550	682	262	546	1,340	472	396	273	332
17	405	102	170	500	1,050	205	405	705	772	378	276	169
18	332	86	190	450	868	182	300	622	677	292	336	91
19	336	77	200	600	1,070	173	408	590	510	243	352	86
20	296	90	170	850	788	164	945	876	540	280	396	88
21	258	109	175	750	558	176	981	609	510	250	378	95
22	240	107	180	504	470	176	596	583	460	218	369	100
23	188	729	170	396	420	140	477	540	534	250	387	102
24	218	1,500	160	400	360	100	576	488	460	352	254	105
25	170	602	150	328	330	97	528	546	392	425	202	97
26	138	482	190	344	600	93	705	687	324	455	262	86
27	122	382	170	728	1,000	91	981	984	265	440	215	56
28	122	332	150	1,510	850	91	1,050	1,030	243	400	195	33
29	114	1,160	140	1,840	------	102	663	867	312	344	179	32
30	179	2,340	130	2,130	------	97	522	750	455	312	161	32
31	138	------	120	1,390	------	102	------	552	------	360	161	------
TOTAL	13,908	15,648	15,467	15,570	19,386	9,322	12,432	17,563	18,100	12,544	10,463	3,597
MEAN	449	522	499	502	692	301	414	567	603	405	338	120
MAX	1,500	2,340	2,690	2,130	1,730	650	1,050	1,340	1,060	677	1,250	623
MIN	114	77	120	100	328	91	122	189	243	215	161	32
CFSM	6.56	7.63	7.29	7.34	10.1	4.40	6.06	8.28	8.82	5.92	4.93	1.75
IN.	7.56	8.51	8.41	8.47	10.5	5.07	6.76	9.55	9.84	6.82	5.69	1.96
AC-FT	27,590	31,040	30,680	30,880	38,450	18,490	24,660	34,840	35,900	24,880	20,750	7,130

CAL YR 1964: TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
WAT YR 1965: TOTAL 164,000	MEAN 449	MAX 2,690	MIN 32	CFSM 6.57	IN 89.17	AC-FT 325,300

Note.--No gage-height record Dec. 16 to Jan. 20.

12-2090. South Fork Nooksack River near Wickersham, Wash.

Location.--Lat 48°39'50", long 122°07'50", in lot 2, SW¼SW¼ sec.26, T.37 N., R.5 E., on left bank three-quarters of a mile upstream from Skookum Creek and 4 miles east of Wickersham.

Drainage area.--103 sq mi.

Records available.--October 1933 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 385 ft (from river-profile map). Prior to July 9, 1934, staff gage and July 9, 1934, to Aug. 24, 1965, graphic water-stage recorder, at same site and datum.

Average discharge.--32 years, 733 cfs (530,700 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (5,200 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 24, 1960	0230	6,190	7.86	Jan. 7, 1962	2400	5,390	7.43	Nov. 26, 1963	1300	* 9,700	9.45
Nov. 17, 1960	1800	6,120	7.82					Jan. 1, 1964	1200	8,010	8.73
Jan. 10, 1961	2200	5,340	7.40	Nov. 19, 1962	2000	* 14,400	11.17	Sept.30, 1964	1000	8,550	8.81
Jan. 15, 1961	1800	* 14,100	11.06	Dec. 30, 1962	2300	5,480	7.48				
Feb. 6, 1961	1330	5,610	7.55	Jan. 2, 1963	2400	6,350	7.94	Oct. 2, 1964	1000	5,230	7.19
Feb. 21, 1961	0800	10,100	9.62	Feb. 26, 1963	0530	6,060	7.77	Nov. 4, 1964	0500	5,480	7.48
								Dec. 1, 1964	0730	5,780	7.64
Dec. 29, 1961	1530	* 5,810	7.64	Oct. 22, 1963	0200	5,980	7.75	Jan. 30, 1965	1430	* 6,290	7.91

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Aug. 30, 1961	92	1.94	1964	Oct. 3, 1963	105	2.03
1962	Sept. 9, 1962	126	a 2.16	1965	Sept.12, 13, 1965	86	1.94
1963	Sept.11, 12, 1963	90	2.00				

a Occurred Oct. 5, Sept. 9, 1961.

1933-65: Maximum discharge, 19,300 cfs Nov. 3, 1955 (gage height, 13.40 ft), from rating curve extended above 11,000 cfs; minimum, 66 cfs Oct. 9, 1940, Sept. 11-13, 1944; minimum gage height, 1.91 ft Aug. 26, 27, 1958.

Remarks.--Records excellent except those for period of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 832: 1935-36.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	140	1,230	630	400	1,290	1,950	1,460	1,260	1,140	309	152	1,480
2	135	908	582	372	2,230	1,100	1,680	1,510	1,300	313	150	818
3	130	696	588	355	1,260	860	2,720	1,140	1,230	325	150	368
4	127	582	559	413	1,140	743	1,380	888	1,140	359	150	540
5	122	504	460	1,250	2,300	676	1,100	821	1,020	441	152	408
6	132	455	415	1,260	4,630	642	965	750	1,060	395	150	309
7	926	410	396	930	2,420	598	860	694	1,140	395	139	241
8	583	374	383	1,210	1,410	598	965	718	788	321	134	205
9	356	352	378	1,230	1,290	648	958	1,050	828	309	129	183
10	273	730	370	2,840	1,140	615	802	1,100	700	325	127	169
11	238	1,740	374	3,030	1,210	626	788	923	712	346	122	158
12	320	848	2,720	1,980	1,180	648	993	762	648	368	122	147
13	273	666	1,860	1,280	972	730	845	706	615	355	119	139
14	320	804	1,440	1,940	895	1,530	750	724	688	346	117	139
15	292	748	860	11,300	1,160	2,000	688	743	847	301	117	137
16	262	1,860	682	3,700	965	1,450	712	937	916	278	163	137
17	228	2,390	620	1,820	930	1,060	895	1,060	951	248	214	132
18	206	1,940	1,280	1,310	821	944	736	1,140	930	234	152	132
19	181	1,760	2,340	1,050	1,370	972	659	1,300	750	231	132	129
20	178	1,810	1,180	937	3,960	1,470	615	1,360	620	234	124	150
21	311	1,070	860	909	8,470	1,060	593	1,190	505	234	119	142
22	938	840	730	854	2,640	902	588	937	475	228	115	132
23	2,130	848	688	755	1,760	1,140	598	1,250	515	217	107	124
24	3,200	1,380	664	682	1,640	1,060	588	923	510	202	103	119
25	1,100	1,450	637	632	1,260	895	571	847	525	183	103	127
26	2,510	1,020	576	576	1,030	834	560	1,110	485	177	101	119
27	2,090	769	520	530	958	736	550	1,290	382	180	98	117
28	1,890	636	470	500	895	670	620	937	346	177	98	719
29	1,060	564	441	642	------	682	1,410	930	338	175	96	479
30	818	515	422	1,510	------	724	1,450	923	325	163	96	289
31	1,100	------	413	1,260	------	972	------	860	------	155	758	------
TOTAL	22,569	29,899	24,538	47,458	51,226	29,535	28,149	30,783	22,429	8,524	4,609	8,488
MEAN	728	997	792	1,531	1,830	953	938	993	748	275	149	283
MAX	3,200	2,390	2,720	11,300	8,470	2,000	2,720	1,510	1,300	441	758	1,480
MIN	122	352	370	355	821	598	550	694	325	155	96	117
CFSM	7.07	9.68	7.68	14.9	17.8	9.25	9.11	9.64	7.26	2.67	1.44	2.75
IN.	8.15	10.8	8.86	17.1	18.5	10.7	10.2	11.1	8.10	3.08	1.66	3.06
AC-FT	44,760	59,300	48,670	94,130	101,600	58,580	55,830	61,060	44,490	16,910	9,140	16,840

CAL YR 1960: TOTAL 255,652 MEAN 699 MAX 3,430 MIN 111 CFSM 6.78 IN 92.31 AC-FT 507,100
WAT YR 1961: TOTAL 308,207 MEAN 844 MAX 11,300 MIN 96 CFSM 8.20 IN 111.28 AC-FT 611,300

12-2090. South Fork Nooksack River near Wickersham, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	245	874	2,000	1,390	847	254	550	1,080	585	480	207	188
2	195	610	1,160	1,570	1,500	258	520	952	1,420	420	191	182
3	172	555	916	4,050	2,170	237	450	1,360	1,090	380	240	168
4	152	480	1,580	2,030	1,720	244	550	966	791	385	694	159
5	344	422	1,190	1,400	1,000	301	600	721	670	460	1,360	154
6	637	408	795	1,220	777	322	2,500	618	640	445	647	144
7	505	408	664	3,200	826	314	2,000	550	700	425	646	136
8	386	455	571	3,500	910	344	1,000	575	868	475	756	134
9	1,030	1,200	485	1,600	889	322	800	742	756	470	500	131
10	1,080	2,900	432	1,220	812	293	650	721	629	430	376	324
11	648	1,450	408	959	688	274	580	652	585	400	310	700
12	1,640	979	382	812	629	258	540	585	618	385	331	390
13	1,670	776	368	670	590	251	650	575	640	344	395	660
14	782	706	351	570	770	254	1,100	565	756	305	293	906
15	560	604	346	465	640	262	1,200	585	682	289	254	596
16	505	535	355	400	555	297	900	590	875	270	244	395
17	465	485	408	360	500	339	700	634	770	380	289	318
18	413	465	377	330	475	344	800	585	646	435	344	270
19	386	455	545	300	445	353	924	535	624	297	440	240
20	351	427	916	280	410	445	819	520	646	278	410	223
21	321	413	1,100	260	380	410	700	495	652	289	545	213
22	313	490	874	250	380	380	682	560	664	305	346	201
23	676	460	1,640	240	344	405	770	735	670	331	289	191
24	566	427	2,130	300	301	460	1,060	826	714	335	254	185
25	465	395	1,160	590	281	585	966	735	700	301	226	176
26	1,630	377	828	984	262	525	714	791	682	285	266	165
27	1,120	436	676	1,440	262	535	896	868	682	278	274	185
28	730	1,670	2,190	882	262	470	889	980	535	274	326	1,050
29	571	1,520	4,100	721	------	440	756	791	590	251	258	1,310
30	495	1,330	2,450	721	------	410	700	634	560	223	220	670
31	460	------	1,520	770	------	450	------	575	------	217	201	------
TOTAL	19,513	22,712	32,917	33,484	19,625	11,036	25,966	22,101	21,640	10,842	12,334	10,824
MEAN	629	757	1,062	1,080	701	356	866	713	721	350	398	361
MAX	1,670	2,900	4,100	4,050	2,170	585	2,500	1,360	1,420	480	1,360	1,310
MIN	152	377	346	240	262	237	450	495	535	217	191	131
CFSM	6.11	7.35	10.3	10.5	6.80	3.46	8.40	6.92	7.00	3.40	3.86	3.50
IN.	7.05	8.20	11.9	12.1	7.09	3.98	9.38	7.98	7.81	3.91	4.45	3.91
AC-FT	38,700	45,050	65,290	66,410	38,930	21,890	51,500	43,840	42,920	21,500	24,460	21,470

CAL YR 1961: TOTAL 306,343 MEAN 839 MAX 11,300 MIN 96 CFSM 8.15 IN 110.61 AC-FT 607,600
WAT YR 1962: TOTAL 242,994 MEAN 666 MAX 4,100 MIN 131 CFSM 6.46 IN 87.74 AC-FT 482,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	445	254	735	2,840	300	973	480	812	465	274	191	114
2	362	244	721	3,390	400	791	435	966	480	297	182	149
3	922	226	640	3,380	1,480	658	621	791	435	281	174	141
4	607	549	612	1,540	2,330	585	1,260	638	415	278	168	122
5	445	1,380	1,340	1,120	2,290	535	1,500	1,030	450	254	162	112
6	410	1,090	1,740	856	1,380	485	1,680	945	415	244	159	108
7	702	714	1,360	749	1,490	450	1,070	833	430	234	159	101
8	819	1,020	1,580	742	959	425	868	646	420	440	154	99
9	1,440	1,330	1,200	658	847	410	735	580	828	754	146	97
10	1,030	1,340	1,030	545	735	385	646	555	596	490	144	92
11	833	1,200	1,030	500	634	400	590	520	545	425	141	92
12	945	1,260	917	480	570	367	596	515	590	376	154	90
13	1,100	1,210	1,270	470	525	344	612	470	480	310	201	233
14	812	1,020	2,440	420	510	335	770	490	475	297	154	530
15	640	840	1,950	395	475	314	1,010	555	515	435	139	318
16	555	670	1,440	371	525	297	721	545	510	360	131	240
17	480	640	1,200	348	525	285	602	585	475	301	122	210
18	535	580	910	326	624	281	575	735	440	270	114	182
19	510	6,070	819	301	974	395	585	868	405	248	201	165
20	602	4,280	694	285	903	500	590	980	371	230	188	149
21	700	1,590	1,310	278	618	530	580	952	326	230	159	141
22	833	1,200	952	270	530	555	596	854	305	690	146	141
23	585	903	694	254	470	460	634	640	278	694	139	220
24	480	966	580	251	425	395	565	565	314	415	248	174
25	415	1,890	530	244	575	415	515	515	435	339	197	152
26	390	2,000	480	230	4,070	460	520	495	326	293	171	139
27	367	1,300	480	220	1,690	735	480	495	322	262	152	129
28	335	973	634	210	1,180	1,040	460	525	335	244	136	124
29	310	847	1,630	210	------	728	736	580	322	223	126	122
30	289	868	4,210	200	------	580	847	585	289	210	117	112
31	274	------	2,880	300	------	535	------	540	------	197	112	------
TOTAL	19,172	38,454	38,008	22,423	28,034	15,648	21,879	20,805	12,992	10,815	4,687	4,798
MEAN	618	1,282	1,226	723	1,001	505	729	671	433	349	158	160
MAX	1,440	6,070	4,210	3,390	4,070	1,040	1,680	1,030	828	850	248	530
MIN	274	226	480	200	300	281	435	470	278	197	112	90
CFSM	6.00	12.4	11.9	7.02	9.72	4.90	7.08	6.52	4.20	3.39	1.53	1.55
IN.	6.92	13.9	13.7	8.10	10.1	5.65	7.90	7.51	4.69	3.90	1.76	1.73
AC-FT	38,030	76,270	75,390	44,480	55,600	31,040	43,400	41,270	25,770	21,450	9,690	9,520

CAL YR 1962: TOTAL 263,486 MEAN 722 MAX 6,070 MIN 131 CFSM 7.01 IN 95.14 AC-FT 522,600
WAT YR 1963: TOTAL 237,915 MEAN 652 MAX 6,070 MIN 90 CFSM 6.33 IN 85.90 AC-FT 471,900

12-2090. South Fork Nooksack River near Wickersham, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	110	742	715	4,420	1,130	465	1,200	562	2,400	1,280	545	436
2	108	1,160	638	1,680	808	382	814	510	2,140	1,240	600	386
3	108	791	594	1,260	655	355	633	475	1,700	1,050	545	351
4	194	819	628	1,060	903	534	650	550	2,820	1,000	757	319
5	157	910	882	840	869	794	667	545	2,870	988	540	293
6	185	770	882	801	655	572	622	545	2,420	938	500	274
7	149	875	685	685	556	445	691	600	1,900	1,150	500	373
8	146	1,020	661	600	500	409	782	655	1,620	1,500	445	445
9	152	945	584	628	485	409	794	1,040	1,820	1,260	480	327
10	136	1,190	505	622	556	400	1,130	1,120	2,140	952	427	265
11	126	889	465	562	594	485	1,040	861	1,840	1,070	414	264
12	129	1,970	432	515	500	500	854	945	1,480	1,250	418	250
13	1,260	2,690	396	611	445	404	745	959	1,390	1,200	440	240
14	525	2,560	373	644	404	759	794	782	1,460	1,200	368	232
15	301	1,940	540	650	427	1,080	1,100	794	1,550	1,320	323	268
16	230	1,630	834	1,160	445	715	769	938	1,810	1,280	308	360
17	197	2,450	769	924	480	910	622	1,210	1,450	917	300	1,000
18	185	1,420	820	801	588	840	550	1,300	1,850	801	436	505
19	168	1,230	1,390	733	650	606	535	1,650	1,520	661	391	698
20	176	882	1,870	633	515	515	572	1,780	1,180	685	311	956
21	3,020	721	1,130	556	450	436	600	1,690	1,030	715	285	709
22	3,190	805	966	495	404	404	782	1,330	1,050	703	300	847
23	1,320	1,440	2,020	445	391	368	633	1,060	1,340	594	308	572
24	2,410	1,360	1,470	520	368	343	616	1,010	1,280	633	289	470
25	1,580	1,470	1,620	959	343	343	655	952	1,180	679	282	450
26	1,240	6,580	1,020	733	327	339	611	1,080	1,130	655	364	373
27	868	2,540	875	794	308	319	600	1,510	1,050	644	485	335
28	1,040	1,440	801	875	311	315	572	1,750	1,820	691	594	311
29	1,080	1,060	679	1,210	339	386	622	1,860	1,240	655	622	567
30	833	834	709	1,050	------	572	578	2,110	1,250	572	959	4,130
31	707	------	1,900	924	------	769	------	2,390	------	697	556	------
TOTAL	22,030	45,133	27,853	28,390	15,406	16,173	21,833	34,563	49,730	28,980	14,092	17,065
MEAN	711	1,504	898	916	531	522	728	1,115	1,658	935	455	569
MAX	3,190	6,580	2,020	4,420	1,130	1,080	1,200	2,390	2,870	1,500	959	4,130
MIN	108	721	373	445	308	315	535	475	1,030	572	282	232
CFSM	6.90	14.6	8.72	8.89	5.16	5.07	7.07	10.8	16.1	9.08	4.41	5.52
IN.	7.95	16.3	10.1	10.3	5.56	5.84	7.88	12.5	18.0	10.5	5.09	6.16
AC-FT	43,700	89,520	55,250	56,310	30,560	32,080	43,310	68,550	98,640	57,480	27,950	33,850

CAL YR 1963: TOTAL 237,297 MEAN 650 MAX 6,580 MIN 90 CFSM 6.31 IN 85.68 AC-FT 470,700
WAT YR 1964: TOTAL 321,249 MEAN 878 MAX 6,580 MIN 108 CFSM 8.52 IN 115.99 AC-FT 637,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,810	709	4,420	300	1,180	770	520	805	812	565	188	125
2	2,730	655	2,330	420	952	640	450	676	1,040	575	165	119
3	1,240	790	1,490	330	714	596	400	664	1,120	575	174	116
4	917	3,350	1,060	290	2,060	612	410	784	1,130	535	165	110
5	715	1,120	840	300	3,310	607	440	658	1,160	490	157	104
6	594	770	688	310	1,790	607	400	612	1,090	485	144	99
7	490	624	634	290	1,120	629	367	607	996	495	141	94
8	650	525	1,120	270	1,200	640	357	634	1,050	355	141	92
9	673	475	966	260	882	676	400	770	980	322	144	91
10	562	445	917	250	714	826	455	931	903	289	144	90
11	480	430	682	245	629	959	405	980	1,100	278	141	89
12	427	405	634	240	575	840	425	1,140	833	258	272	88
13	418	367	607	300	959	714	535	1,010	618	278	796	96
14	679	331	550	500	749	652	545	910	565	322	310	460
15	1,070	318	480	750	652	624	791	1,180	580	326	201	550
16	854	305	380	1,100	1,140	575	1,010	2,520	585	310	171	344
17	739	305	410	950	1,530	520	882	1,310	812	301	157	210
18	622	293	440	850	1,220	460	688	945	714	266	149	168
19	556	281	410	1,050	1,490	425	961	924	555	226	146	149
20	505	266	360	1,300	1,280	395	1,750	1,490	585	244	171	134
21	445	251	340	1,200	559	415	1,780	1,140	555	248	157	123
22	414	248	360	900	784	445	1,230	1,040	520	213	141	124
23	382	809	340	700	652	376	996	996	555	204	149	117
24	368	2,580	320	760	565	339	1,220	931	525	234	162	112
25	360	1,040	300	650	550	331	1,100	952	485	248	160	110
26	335	903	470	700	1,170	310	1,260	1,080	425	240	238	110
27	315	658	430	1,580	1,610	293	1,520	1,330	367	237	233	105
28	300	545	370	2,570	1,040	297	1,520	1,380	362	213	204	101
29	296	744	310	3,030	------	415	1,140	1,200	420	201	200	99
30	396	4,040	290	3,760	------	362	966	1,020	500	182	158	99
31	378	------	280	2,140	------	353	------	875	------	179	137	------
TOTAL	20,720	24,592	23,228	28,295	31,696	16,703	24,933	31,494	21,942	9,934	6,035	4,454
MEAN	668	820	749	913	1,132	539	831	1,016	731	320	195	148
MAX	2,730	4,040	4,420	3,760	3,310	959	1,780	2,520	1,160	575	796	550
MIN	296	248	280	240	550	293	357	607	362	179	137	88
CFSM	6.49	7.96	7.27	8.86	11.0	5.23	8.07	9.86	7.10	3.11	1.89	1.44
IN.	7.48	8.88	8.39	10.2	11.4	6.03	9.00	11.4	7.92	3.59	2.18	1.61
AC-FT	41,100	48,780	46,070	56,120	62,870	33,130	49,450	62,470	43,520	19,700	11,970	8,830

CAL YR 1964: TOTAL 294,773 MEAN 805 MAX 4,420 MIN 232 CFSM 7.82 IN 106.43 AC-FT 584,700
WAT YR 1965: TOTAL 244,027 MEAN 669 MAX 4,420 MIN 88 CFSM 6.49 IN 88.11 AC-FT 484,000

Note.--No gage-height record Dec. 16 to Jan. 26.

12-2095. Skookum Creek near Wickersham, Wash.

Location.--Lat 48°40'20", long 122°08'25", in NE¼NE¼ sec.27, T.37 N., R.5 E., on left bank 100 ft upstream from private road crossing, 500 ft upstream from mouth, and 3½ miles northeast of Wickersham.

Drainage area.--23.1 sq mi.

Records available.--July 1948 to September 1965.

Gage.--Digital water-stage recorder. Altitude of gage is 400 ft (from river-profile map). Prior to May 8, 1953, graphic water-stage recorder at site 100 ft upstream at same datum. May 8, 1953, to Aug. 23, 1965, graphic water-stage recorder at same site and datum.

Average discharge.--17 years, 134 cfs (97,010 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (850 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 23, 1960	1430	1,000	5.21	Nov. 19, 1962	1800	* 1,150	5.50	Jan. 1, 1964	1030	952	5.04
Nov. 17, 1960	1530	1,190	5.58	Dec. 30, 1962a	-	-	-	Sept.30, 1964	-	-	-
Jan. 15, 1961	1430	* 1,260	5.73	Jan. 2, 1963a	-	-	-				
Feb. 6, 1961	1100	904	4.96	Jan. 4, 1963a	-	976	5.14	Nov. 4, 1964	0130	* 1,100	5.40
Feb. 21, 1961	0830	1,010	5.22					Nov. 24, 1964	0430	860	4.85
				Oct. 22, 1963	0030	1,050	5.30	Jan. 28, 1965	2400	888	4.91
Jan. 7, 1962	1830	* 912	4.98	Nov. 26, 1963	1130	* 1,080	5.36				

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Oct. 5, 6, 1960, Sept.26, 27, 1961	25	a 1.87	1963	Sept.30, 1963	27	1.95
				1964	Oct. 3, 1963	25	1.93
1962	Oct. 5, 1961	31	1.94	1965	Sept.28-30, 1965	22	1.83

a Occurred Sept. 27, 27, 1961.

1948-65: Maximum discharge, 3,050 cfs Nov. 27 or Dec. 1, 1949 (gage height, 9.0 ft, from floodmark), from rating curve extended above 400 cfs; minimum, 17 cfs Feb. 9, 10, 1949, Sept. 23, 24, 1951; minimum gage height, 1.70 ft Oct. 19, 20, 1952.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station.

Revisions (water years).--WSP 1182: 1949. WSP 1286: 1950(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	29	201	192	66	262	320	289	260	210	67	44	236
2	28	150	135	58	415	183	315	300	228	70	43	114
3	28	120	130	56	222	147	524	210	213	72	43	70
4	27	102	106	94	189	120	252	170	190	77	43	72
5	25	91	89	300	371	108	178	150	172	100	44	80
6	57	84	80	240	752	100	141	135	212	83	42	59
7	479	76	73	189	427	91	125	120	228	76	40	51
8	213	70	73	258	282	102	141	110	150	68	38	45
9	115	65	80	285	261	106	150	246	143	70	38	41
10	85	168	73	530	228	97	129	207	127	72	37	39
11	78	281	85	550	306	108	131	162	131	79	36	36
12	91	147	444	408	246	110	158	131	122	87	36	35
13	66	115	330	267	186	122	139	122	122	88	35	33
14	68	159	248	371	178	326	115	125	133	83	35	32
15	62	141	150	1,060	277	438	109	131	155	76	36	31
16	56	333	118	531	192	270	129	150	162	74	62	31
17	51	529	108	300	192	195	158	188	170	64	54	30
18	46	387	366	216	141	175	122	216	185	59	40	29
19	43	392	428	171	300	190	109	240	145	58	37	29
20	41	344	234	150	586	291	100	237	120	62	36	32
21	71	222	171	144	835	195	98	180	106	64	35	29
22	144	171	153	125	430	175	97	158	100	62	34	28
23	432	177	150	106	282	252	97	201	103	60	33	27
24	478	345	141	95	288	204	96	143	103	57	33	26
25	268	306	128	84	228	170	93	150	106	53	32	28
26	483	216	106	75	177	158	90	195	100	53	31	25
27	378	156	93	68	165	131	93	252	84	53	30	25
28	309	128	84	64	153	120	100	158	75	52	29	138
29	204	110	75	91	------	119	270	160	71	49	28	78
30	165	112	70	335	------	125	260	162	67	45	29	52
31	203	------	68	237	------	192	------	162	------	44	151	------
TOTAL	4,823	5,898	4,781	7,524	8,571	5,440	4,808	5,531	4,233	2,077	1,284	1,561
MEAN	156	197	154	243	306	175	160	178	141	67.0	41.4	52.7
MAX	483	529	444	1,060	835	438	524	300	228	100	151	236
MIN	25	65	68	56	141	91	90	110	67	44	28	25
CFSM	6.74	8.51	6.68	10.5	13.3	7.60	6.94	7.72	6.11	2.90	1.79	2.28
IN.	7.76	9.50	7.70	12.1	13.8	8.76	7.74	8.90	6.81	3.34	2.07	2.55
AC-FT	9,570	11,700	9,480	14,920	17,000	10,790	9,540	10,970	8,400	4,120	2,550	3,140

CAL YR 1960: TOTAL 46,660 MEAN 127 MAX 536 MIN 25 CFSM 5.52 IN 75.12 AC-FT 92,550
WAT YR 1961: TOTAL 56,551 MEAN 155 MAX 1,060 MIN 25 CFSM 6.71 IN 91.04 AC-FT 112,200

12-2095. Skookum Creek near Wickersham, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	45	158	340	219	175	43	116	213	81	79	52	50
2	38	102	188	320	327	36	110	170	310	71	47	48
3	34	91	139	600	376	39	90	276	190	63	60	45
4	33	80	256	322	268	40	117	156	143	56	198	43
5	68	74	168	240	163	63	116	119	125	79	352	40
6	71	71	122	225	133	69	371	101	112	80	168	39
7	88	81	109	626	150	65	295	89	114	76	148	37
8	68	97	96	560	156	67	159	97	137	79	161	36
9	187	241	84	291	156	56	123	116	121	73	108	36
10	138	542	72	203	135	50	103	114	101	74	87	107
11	93	265	71	161	116	47	92	100	93	73	76	108
12	286	158	68	139	101	44	97	87	107	69	121	65
13	212	131	65	119	97	44	145	84	114	62	112	98
14	108	125	63	110	123	46	208	80	123	58	81	133
15	83	104	62	98	98	46	212	90	129	53	71	67
16	87	93	63	90	84	49	135	90	133	53	74	65
17	75	86	74	80	77	56	133	92	116	86	93	56
18	63	83	62	75	73	59	168	83	101	76	121	50
19	60	77	114	70	69	60	175	73	98	59	108	47
20	54	68	189	65	66	73	139	68	107	54	135	46
21	52	71	199	60	62	66	116	67	103	57	135	45
22	51	86	175	55	62	65	114	74	103	58	92	43
23	105	72	336	50	56	69	129	123	108	65	76	41
24	80	65	332	60	52	81	190	152	108	66	67	40
25	90	58	175	100	47	87	156	125	107	63	61	38
26	314	57	131	170	44	83	123	131	105	60	50	37
27	180	139	115	225	44	86	217	133	98	59	76	40
28	115	288	398	143	44	73	170	139	81	61	64	337
29	94	231	568	131	------	72	139	116	93	59	67	197
30	87	308	360	145	------	77	135	93	89	54	59	105
31	96	------	234	152	------	97	------	83	------	54	53	------
TOTAL	3,155	4,102	5,428	5,904	3,354	1,908	4,593	3,534	3,550	2,029	3,233	2,159
MEAN	102	137	175	190	120	61.5	153	114	118	65.5	104	72.0
MAX	314	542	568	626	376	97	371	276	310	86	352	337
MIN	33	57	62	50	44	36	90	67	81	53	47	36
CFSM	4.41	5.92	7.58	8.24	5.19	2.66	6.63	4.94	5.12	2.83	4.51	3.12
IN.	5.08	6.60	8.74	9.51	5.40	3.07	7.39	5.69	5.72	3.27	5.20	3.48
AC-FT	6,260	8,140	10,770	11,710	6,650	3,780	9,110	7,010	7,040	4,020	6,410	4,280

CAL YR 1961: TOTAL 53,734 MEAN 147 MAX 1,060 MIN 25 CFSM 6.37 IN 86.51 AC-FT 106,600
WAT YR 1962: TOTAL 42,949 MEAN 118 MAX 626 MIN 33 CFSM 5.09 IN 69.15 AC-FT 85,190

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	79	51	137	440	60	150	80	127	84	58	44	35
2	69	48	163	500	130	119	72	150	88	60	42	49
3	151	46	127	470	250	105	76	125	77	57	42	40
4	110	105	129	300	420	92	180	121	81	55	42	36
5	81	214	324	200	360	84	238	250	79	52	41	33
6	81	175	288	130	400	79	258	170	76	49	40	32
7	140	132	293	121	227	74	159	135	78	48	39	31
8	165	170	306	121	159	73	133	114	76	165	37	31
9	267	243	227	108	131	72	117	105	160	140	36	31
10	173	205	175	92	114	68	107	99	110	120	36	31
11	172	200	175	85	105	68	101	95	110	105	38	30
12	175	210	155	80	97	62	105	90	115	89	47	31
13	203	224	230	80	93	59	116	86	92	73	49	98
14	137	182	430	80	90	58	181	90	96	72	41	62
15	116	141	350	70	84	53	182	98	100	104	36	47
16	98	117	250	65	84	51	119	100	100	87	33	43
17	87	112	200	60	86	49	101	120	94	72	31	43
18	110	101	160	56	92	48	97	140	85	65	30	38
19	93	590	135	52	153	66	101	155	78	59	62	36
20	112	458	120	50	112	93	103	175	72	58	54	33
21	114	235	210	48	89	107	101	155	62	58	40	33
22	112	145	160	45	77	100	103	145	57	222	36	33
23	93	137	120	43	72	79	105	125	55	116	36	43
24	83	156	100	41	68	69	93	105	70	84	69	35
25	76	400	90	40	127	84	89	94	88	71	52	31
26	73	365	85	39	441	83	90	90	70	63	43	29
27	68	233	85	38	210	108	80	92	68	59	38	28
28	63	170	110	37	161	175	76	98	70	56	36	28
29	60	165	250	35	------	110	144	105	66	52	35	28
30	57	159	600	35	------	90	139	105	61	49	32	27
31	54	------	450	50	------	86	------	96	------	47	32	------
TOTAL	3,472	5,889	6,634	3,611	4,492	2,614	3,646	3,755	2,518	2,465	1,269	1,125
MEAN	112	196	214	116	160	84.3	122	121	83.9	79.5	40.9	37.5
MAX	267	590	600	500	441	175	258	250	160	222	69	98
MIN	54	46	85	35	60	48	72	86	55	47	30	27
CFSM	4.85	8.50	9.26	5.04	6.94	3.65	5.26	5.24	3.63	3.44	1.77	1.62
IN.	5.59	9.48	10.7	5.81	7.23	4.21	5.87	6.05	4.05	3.97	2.04	1.81
AC-FT	6,890	11,680	13,160	7,160	8,910	5,180	7,230	7,450	4,990	4,890	2,520	2,230

CAL YR 1962: TOTAL 46,259 MEAN 127 MAX 626 MIN 36 CFSM 5.49 IN 74.47 AC-FT 91,750
WAT YR 1963: TOTAL 41,490 MEAN 114 MAX 600 MIN 27 CFSM 4.92 IN 66.80 AC-FT 82,290

Note.--No gage-height record Dec. 10 to Jan. 6, June 6 to July 11.

12-2095. Skookum Creek near Wickersham, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	26	199	131	628	182	77	254	103	436	190	100	87
2	26	256	121	300	139	67	150	95	372	173	100	84
3	26	156	116	219	127	65	119	90	294	159	101	73
4	60	184	133	190	215	92	123	98	520	154	133	67
5	36	203	170	163	150	116	129	98	448	156	101	62
6	36	161	152	156	121	95	125	100	404	156	92	59
7	31	222	123	131	108	84	135	114	318	203	93	113
8	35	223	121	119	101	79	150	121	297	252	84	105
9	33	205	107	135	98	74	159	218	344	205	90	77
10	30	216	93	121	117	73	210	190	344	168	81	66
11	29	159	87	100	108	98	165	148	279	182	79	59
12	29	398	81	95	95	89	135	187	230	197	77	54
13	280	480	77	161	86	76	121	177	219	177	89	52
14	93	500	76	133	81	140	170	136	241	215	69	50
15	60	348	127	131	87	198	197	141	244	264	60	62
16	48	276	163	235	86	125	139	175	282	195	56	112
17	44	351	168	161	83	203	119	233	235	170	51	324
18	42	233	200	135	119	168	108	273	358	152	86	123
19	39	205	327	127	121	118	107	330	267	125	69	160
20	52	159	416	116	96	100	116	337	203	127	60	215
21	677	135	224	103	90	89	127	291	173	131	57	160
22	531	156	213	97	87	83	152	238	173	148	58	185
23	247	313	424	87	86	76	125	192	224	114	59	130
24	442	258	303	108	81	71	125	180	200	107	57	110
25	300	384	300	152	76	71	125	159	177	108	57	90
26	233	802	190	119	73	67	116	192	170	107	74	80
27	161	409	165	183	69	65	112	291	159	103	90	70
28	219	244	152	156	65	63	112	321	276	108	114	65
29	197	180	127	264	68	84	123	344	185	105	147	220
30	141	152	160	175	------	133	108	412	187	105	177	700
31	121	------	316	187	------	190	------	444	------	116	112	------
TOTAL	4,324	8,172	5,563	5,187	3,017	3,129	4,156	6,431	8,259	4,872	2,675	3,814
MEAN	139	272	179	167	104	101	139	207	275	157	86.3	127
MAX	677	802	424	628	215	203	254	444	520	264	177	700
MIN	26	135	76	87	65	63	107	90	159	103	51	50
CFSM	6.04	11.8	7.77	7.24	4.50	4.37	6.00	8.98	11.9	6.80	3.74	5.50
IN.	6.96	13.2	8.96	8.35	4.86	5.04	6.69	10.4	13.3	7.84	4.31	6.14
AC-FT	8,580	16,210	11,030	10,290	5,980	6,210	8,240	12,760	16,380	9,660	5,310	7,560

CAL YR 1963: TOTAL 43,554 MEAN 119 MAX 802 MIN 26 CFSM 5.17 IN 70.12 AC-FT 86,390
WAT YR 1964: TOTAL 59,599 MEAN 163 MAX 802 MIN 26 CFSM 7.05 IN 95.95 AC-FT 118,200

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	350	185	636	51	250	125	105	116	123	86	46	32
2	480	121	456	73	180	110	76	100	156	87	46	31
3	240	231	300	56	156	107	65	98	163	90	45	30
4	170	634	203	50	370	108	66	107	163	87	43	29
5	130	230	154	52	580	105	71	89	148	81	39	26
6	105	145	129	54	337	107	63	84	152	80	38	27
7	95	121	123	48	221	114	59	87	145	81	36	26
8	125	103	203	46	221	117	59	92	152	69	37	25
9	130	93	168	44	163	133	71	117	141	60	37	25
10	105	87	148	42	137	156	76	148	133	54	37	25
11	90	81	112	41	119	163	69	159	187	53	38	25
12	82	73	112	40	119	139	73	177	129	50	101	24
13	80	68	103	50	200	117	76	152	101	53	187	26
14	160	61	93	107	137	107	93	129	90	58	69	88
15	210	59	79	156	127	101	145	185	86	61	53	117
16	143	59	65	235	253	97	177	375	93	57	46	60
17	125	59	70	213	365	81	129	192	119	56	42	41
18	105	56	75	177	276	73	103	156	107	52	40	35
19	100	53	65	235	340	68	170	161	92	48	41	31
20	87	48	60	288	247	65	270	276	98	50	46	29
21	74	47	59	264	180	72	270	187	93	48	40	29
22	71	46	62	165	143	73	173	168	86	45	36	28
23	65	324	59	137	119	61	145	148	93	44	41	26
24	69	500	54	152	105	56	203	135	84	46	41	25
25	63	200	52	116	105	53	168	139	73	49	40	24
26	61	163	81	135	219	51	208	161	67	53	52	24
27	58	119	73	227	330	50	258	208	62	53	44	24
28	54	103	59	506	170	50	247	208	61	52	47	23
29	52	198	53	564	------	72	163	168	65	47	43	22
30	59	576	51	626	------	60	143	150	74	44	37	23
31	56	------	49	390	------	61	------	125	------	43	34	------
TOTAL	3,794	4,843	4,006	5,340	6,169	2,852	3,994	4,797	3,356	1,837	1,522	1,002
MEAN	122	161	129	172	220	92.0	133	155	112	59.3	49.1	33.4
MAX	480	634	636	626	580	163	270	375	187	90	187	117
MIN	52	46	49	40	105	50	59	84	61	43	34	22
CFSM	5.30	6.99	5.59	7.46	9.54	3.98	5.76	6.70	4.84	2.57	2.13	1.45
IN.	6.11	7.80	6.45	8.60	9.93	4.59	6.43	7.72	5.40	2.96	2.45	1.61
AC-FT	7,530	9,610	7,950	10,590	12,240	5,660	7,920	9,510	6,660	3,640	3,020	1,990

CAL YR 1964: TOTAL 54,183 MEAN 148 MAX 700 MIN 46 CFSM 6.41 IN 87.23 AC-FT 107,500
WAT YR 1965: TOTAL 43,512 MEAN 119 MAX 636 MIN 22 CFSM 5.16 IN 70.05 AC-FT 86,300

12-2105. Nooksack River at Deming, Wash.

Location.--Lat 48°48'40", long 122°12'15", in lot 12, NE¼SE¼ sec.6, T.38 N., R.5 E., on left bank 800 ft downstream from South Fork and 1 mile southeast of Deming.

Drainage area.--584 sq mi (revised), includes 5 sq mi in Canada.

Records available.--September 1910 to March 1911 (gage heights only), July 1935 to September 1957, October 1957 to September 1964 (discharges above 3,500 cfs only), October 1964 to September 1965. Published as "near Deming" 1910-11.

Gage.--Water-stage recorder. Datum of gage is 203.6 ft above mean sea level, datum of 1929. Prior to Dec. 5, 1910, staff gage at site 1⅛ miles downstream at different datum. Dec. 5, 1910, to Mar. 31, 1911, staff gage at site 5 miles downstream at different datum. July 20 to Sept. 19, 1935, staff gage at present site and datum.

Average discharge.--23 years (1935-57, 1964-65), 3,243 cfs (2,348,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (13,000 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 24, 1960	0600	17,600	10.95	Jan. 3, 1962	0530	13,800	10.58	Nov. 26, 1963	1530	22,900	12.67
Nov. 18, 1960a	-	15,100	10.31	Jan. 8, 1962	0130	* 18,200	11.73	Jan. 1, 1964	1400	19,300	11.86
Jan. 11, 1961a	-	-	-					Sept.30, 1964	1230	15,300	11.10
Jan. 15, 1961	-	* 32,900	b 14.43	Nov. 20, 1962	0030	* 33,400	14.80				
Feb. 6, 1961	1900	19,700	11.70	Jan. 3, 1963	0230	16,500	11.30	Nov. 4, 1964	0900	13,700	10.85
Feb. 21, 1961	1230	26,800	13.25	Feb. 4, 1963	-	18,900	11.9	Dec. 1, 1964	1230	18,300	11.55
								Jan. 29, 1965	0230	18,900	11.54
Dec. 29, 1961	2030	13,300	10.44	Oct. 22, 1963	0230	* 24,500	13.00	Jan. 30, 1965	1800	* 19,300	11.81
								Feb. 5, 1965	1900	16,600	10.70

a About.
b From high watermark in well.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	-	-	-	1964	-	-	-
1962	-	-	-	1965	Sept. 30, 1965	766	3.31
1963	-	-	-				

1935-65: Maximum discharge, 43,200 cfs Feb. 10, 1951 (gage height, 15.69 ft), from rating curve extended above 25,000 cfs.

1935-57, 1964-65: Minimum discharge recorded, 502 cfs Nov. 29, 1952 (gage height, 3.72 ft).

Peak of Mar. 15, 1908, reportedly reached a stage of 20 ft. Peak of Feb. 27, 1932, reached a stage of 16.8 ft, from floodmarks (discharge, 49,300 cfs). Peak in November 1909 reached a stage about equal to that of the 1932 peak.

Remarks.--Records good. Slight regulation by powerplant at Excelsior. At times since February 1962, city of Bellingham diverts about 95 cfs from the Middle Fork for municipal use. Records of chemical analyses for the water years 1961-65 are published in reports of the Geological Survey (prior to Oct. 1, 1963, published as Nooksack River at Lawrence).

Revisions (water years).--WSP 1286: 1951. WSP 1736: 1937(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	5,190	-	-	5,170	6,660	4,550	4,500	5,200	-		4,740
2	-	4,300	-	-	8,390	4,740	6,180	4,870	5,800	-		4,430
3	-	3,760	-	-	5,520	3,720	8,780	4,280	6,950	-		-
4	-	-	-	-	4,470	-	5,340	3,810	6,890	-		-
5	-	-	-	3,860	8,300	-	4,210	3,620	6,340	-		-
6	-	-	-	5,320	15,800	-	3,640	-	6,660	-		-
7	5,560	-	-	4,100	11,700	-	-	-	7,190	-		-
8	4,070	-	-	4,300	7,400	-	3,500	-	5,240	-		-
9	-	-	-	4,900	6,390	-	-	3,640	4,910	-		-
10	-	-	-	7,600	5,890	-	-	3,840	4,450	-		-
11	-	6,790	-	10,400	5,840	-	-	3,650	4,540	-		-
12	-	4,020	5,400	8,000	5,720	-	3,670	-	4,160	3,560		-
13	-	-	7,500	5,320	4,700	-	3,500	-	4,100	3,730		-
14	-	3,580	6,600	4,910	4,140	4,500	-	-	4,410	3,670		-
15	-	3,700	4,100	23,200	5,470	8,000	-	-	5,430	-		-
16	-	6,300	3,600	16,900	4,500	6,500	-	-	6,040	-		-
17	-	7,300	-	9,740	4,160	5,000	-	4,000	6,550	-		-
18	-	8,490	3,500	7,190	3,650	3,730	-	4,500	6,950	-		-
19	-	6,030	8,000	5,750	5,820	3,560	-	5,500	6,010	-		-
20	-	6,790	6,000	4,990	11,300	5,300	-	6,000	4,840	-		-
21	-	5,130	3,870	4,630	22,800	4,410	-	5,400	4,070	-		-
22	4,480	4,350	3,580	4,190	12,300	3,640	-	4,600	3,680	-		-
23	8,280	4,180	-	3,700	7,670	3,970	-	4,900	3,760	-		-
24	13,200	4,530	-	3,330	6,890	3,860	-	4,500	3,810	-		-
25	6,690	6,030	-	-	5,280	-	-	3,800	3,860	-		-
26	8,640	4,500	-	-	4,680	-	-	4,800	3,800	-		-
27	7,550	3,900	-	-	4,140	-	-	5,600	-	-		-
28	7,200	-	-	-	3,720	-	-	4,500	-	-		-
29	5,110	-	-	-	------	-	4,130	4,090	-	-		-
30	4,260	-	-	5,470	------	-	4,910	4,240	-	-		-
31	4,720	------	-	5,300	------	-	------	4,330	------	-		------
TOTAL	-	-	-	-	201,810	-	-	-	-	-		-
MEAN	-	-	-	-	7,208	-	-	-	-	-		-
MAX	-	-	-	-	22,800	-	-	-	-	-		-
MIN	-	-	-	-	3,650	-	-	-	-	-		-
CFSM	-	-	-	-	12.3	-	-	-	-	-		-
IN	-	-	-	-	12.85	-	-	-	-	-		-
AC-FT	-	-	-	-	400,300	-	-	-	-	-		-

12-2105. Nooksack River at Deming, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	6,020	5,420	3,530		-	-	-		-	
2	-	-	4,380	6,080	6,280		-	-	4,970		-	
3	-	-	-	12,500	8,680		-	4,240	4,560		-	
4	-	-	4,420	8,660	7,660		-	3,510	-		-	
5	-	-	4,280	6,330	5,290		-	-	-		5,200	
6	-	-	-	5,800	4,080		5,740	-	-		3,780	
7	-	-	-	9,780	3,800		7,160	-	-		-	
8	-	-	-	14,500	3,720		4,040	-	3,660		3,510	
9	-	-	-	8,660	3,640		-	-	3,530		-	
10	-	9,590	-	6,570	-		-	-	-		-	
11	-	7,040	-	5,380	-		-	-	-		-	
12	4,130	4,940	-	4,540	-		-	-	-		-	
13	7,500	4,020	-	3,980	-		-	-	-		-	
14	4,000	3,860	-	3,640	-		-	-	-		-	
15	-	-	-	-	-		4,120	-	3,960		-	
16	-	-	-	-	-		-	-	4,340		-	
17	-	-	-	-	-		-	-	3,920		-	
18	-	-	-	-	-		3,570	-	-		-	
19	-	-	-	-	-		-	-	-		-	
20	-	-	-	-	-		-	-	-		-	
21	-	-	4,610	-	-		-	-	-		3,550	
22	-	-	-	-	-		-	-	-		-	
23	-	-	5,400	-	-		-	-	3,510		-	
24	-	-	7,220	-	-		-	-	3,960		-	
25	-	-	4,980	-	-		-	-	4,040		-	
26	5,360	-	3,900	-	-		-	-	3,940		-	
27	3,940	-	-	-	-		-	3,800	-		-	
28	-	4,910	5,800	-	-		-	4,300	-		-	
29	-	5,130	10,200	-	------		-	3,780	-		-	3,840
30	-	4,650	9,240	-	------		-	-	-		-	
31	-	------	6,190	-	------		------	-	------		-	------

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	3,920	7,690	-	3,860	-	-		-		
2	-	-	3,940	9,420	-		-	-		-		
3	-	-	3,660	11,700	8,500		-	-		-		
4	-	-	-	6,720	11,000		-	-		-		
5	-	4,100	4,740	5,220	10,000		4,420	-		-		
6	-	-	7,090	4,420	8,000		5,090	-		-		
7	-	-	5,540	3,880	6,000		3,800	-		-		
8	-	-	6,780	3,610	5,000		-	-		-		
9	-	-	5,420	-	4,000		-	-		3,550		
10	-	3,550	4,610	-	-		-	-		-		
11	-	-	4,480	-	-		-	-		-		
12	-	-	4,140	-	-		-	-	3,840	-		
13	3,570	-	4,460	-	-		-	-		-		
14	-	-	7,590	-	-		-	-		-		
15	-	-	9,190	-	-		3,920	-		-		
16	-	-	7,170	-	-		-	-		-		
17	-	-	5,540	-	-		-	-		-		
18	-	-	4,540	-	-		-	-		-		
19	-	11,200	3,960	-	-		-	3,570		-		
20	-	18,900	3,680	-	-		-	4,300		-		
21	-	9,300	4,880	-	-		-	4,580		-		
22	3,530	6,930	4,140	-	-		-	4,300		4,180		
23	-	5,640	-	-	-		-	-		-		
24	-	5,380	-	-	-		-	-		-		
25	-	8,000	-	-	-		-	-		-		
26	-	9,390	-	-	8,540		-	-		-		
27	-	6,780	-	-	6,040		-	-		-		
28	-	5,310	-	-	4,380		-	-		-		
29	-	4,500	4,860	-	------		-	-		-		
30	-	4,460	10,500	-	------		-	-		-		
31	-	------	9,620	-	------		------	-	------	-		------

12-2105. Nooksack River at Deming, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	-	-	3,940	12,000	4,400		4,200	-	9,050	5,290	-	-
2	-	4,520	3,510	8,080	3,590		-	-	8,680	5,420	-	-
3	-	-	-	5,730	-		-	-	7,060	4,980	-	-
4	-	-	-	4,780	3,640		-	-	8,850	4,800	4,850	-
5	-	4,060	4,610	4,160	3,610		-	-	11,500	4,890	3,740	-
6	-	-	4,500	3,920	-		-	-	10,000	4,740	-	-
7	-	3,720	3,640	-	-		-	-	8,290	5,490	-	-
8	-	4,580	-	-	-		-	-	7,140	7,350	-	-
9	-	3,960	-	-	-		-	-	7,220	7,450	-	-
10	-	4,020	-	-	-		-	3,740	8,240	5,780	-	-
11	-	-	-	-	-		-	-	7,740	5,760	-	-
12	-	5,630	-	-	-		-	-	6,450	6,500	-	-
13	4,350	9,130	-	-	-		-	-	5,900	6,520	-	-
14	3,660	10,000	-	-	-		-	-	5,900	6,450	-	-
15	-	7,240	-	-	-	3,860	4,260	-	6,070	7,450	-	-
16	-	5,520	3,820	5,050	-		-	-	6,850	6,520	-	-
17	-	6,880	3,570	4,160	-		-	3,660	6,020	5,470	-	5,710
18	-	5,050	3,820	3,630	-		-	4,060	6,480	5,050	-	-
19	-	4,740	5,270	-	-		-	5,000	6,360	4,240	-	-
20	-	3,720	6,980	-	-		-	5,610	5,470	4,200	-	4,580
21	8,820	-	5,070	-	-		-	5,710	4,850	4,400	-	-
22	14,600	-	4,520	-	-		-	5,110	4,610	4,830	-	3,660
23	6,720	4,720	9,220	-	-		-	4,220	5,420	3,960	-	-
24	7,400	5,160	7,790	-	-		-	3,960	5,660	3,840	-	-
25	6,700	5,950	6,330	-	-		-	-	5,200	4,020	-	-
26	5,290	16,300	4,830	-	-		-	-	5,050	4,040	-	-
27	4,120	12,000	4,180	-	-		-	4,360	4,630	3,940	-	-
28	4,500	7,010	3,720	3,980	-		-	5,470	5,610	4,340	-	-
29	4,280	5,400	-	4,610	-		-	6,000	4,740	4,520	-	-
30	-	4,540	-	4,520	------		-	7,430	4,830	4,000	3,980	9,920
31	-	------	6,000	3,820	------		------	8,570	------	4,040	-	------
TOTAL	-	-	-	-	-		-	-	199,870	160,280	-	-
MEAN	-	-	-	-	-		-	-	6,662	5,170	-	-
MAX	-	-	-	-	-		-	-	11,500	7,450	-	-
MIN	-	-	-	-	-		-	-	4,610	3,840	-	-
CFSM	-	-	-	-	-		-	-	11.4	8.85	-	-
IN	-	-	-	-	-		-	-	12.73	10.21	-	-
AC-FT	-	-	-	-	-		-	-	396,400	317,900	-	-

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	7,060	3,160	15,600	1,400	7,640	3,830	2,050	3,560	3,360	3,400	2,520	1,170
2	8,740	2,720	12,300	1,610	5,770	3,340	1,920	2,960	4,100	3,800	2,440	1,120
3	5,850	2,530	8,600	1,720	4,760	3,060	1,730	2,660	4,760	3,950	2,160	1,020
4	4,340	10,200	6,400	1,540	6,910	3,010	1,690	2,880	4,780	3,580	1,550	925
5	3,570	5,500	4,980	1,430	14,900	2,940	1,750	2,540	5,000	3,820	1,760	887
6	3,140	3,780	4,180	1,420	10,800	2,890	1,690	2,250	4,920	3,750	1,740	866
7	2,920	3,070	3,680	1,400	7,060	2,930	1,600	2,190	4,590	4,080	1,820	866
8	3,360	2,580	4,720	1,350	7,090	2,940	1,560	2,210	4,620	3,430	1,580	894
9	3,440	2,340	4,530	1,340	5,630	3,100	1,640	2,520	4,900	2,540	1,970	908
10	2,880	2,160	4,240	1,280	4,610	3,610	1,820	3,250	4,570	2,200	2,070	915
11	2,550	2,060	3,420	1,240	3,990	3,870	1,730	3,500	5,430	2,120	1,980	880
12	2,460	1,950	3,130	1,210	3,660	3,710	1,720	4,260	4,640	1,980	2,490	868
13	2,480	1,810	2,900	1,250	5,410	3,240	2,070	4,200	3,450	2,300	5,380	862
14	3,320	1,680	2,610	1,800	4,490	2,970	2,010	3,750	2,950	2,690	2,790	1,640
15	4,120	1,610	2,310	2,700	4,010	2,780	2,100	3,870	2,960	2,900	2,100	2,590
16	3,550	1,560	1,700	4,140	6,330	2,500	3,660	8,940	2,970	2,800	1,880	1,770
17	3,040	1,520	1,800	4,420	8,580	2,220	3,310	5,490	4,200	2,740	1,840	1,220
18	2,640	1,500	1,890	4,020	6,790	2,020	2,700	4,260	4,400	2,390	2,020	904
19	2,490	1,440	1,840	4,540	7,390	1,910	2,910	3,960	3,470	2,090	2,110	880
20	2,380	1,400	1,750	5,680	6,580	1,820	5,790	5,520	3,500	2,100	2,070	874
21	2,180	1,390	1,690	5,950	5,070	1,880	6,430	4,550	3,390	2,070	1,880	894
22	2,010	1,360	1,680	4,520	4,320	1,970	4,880	4,180	3,160	1,670	1,770	936
23	1,870	2,220	1,660	3,640	3,670	1,730	4,030	4,110	3,280	1,910	1,850	950
24	1,900	7,470	1,550	3,470	3,260	1,580	4,440	3,710	3,300	2,280	1,690	957
25	1,800	4,240	1,470	2,920	3,030	1,540	4,110	3,830	3,030	2,630	1,500	922
26	1,690	3,760	1,550	2,970	4,460	1,490	4,480	4,210	2,620	2,880	1,600	868
27	1,600	3,070	1,830	6,120	7,010	1,440	5,720	5,300	2,290	2,780	1,650	856
28	1,540	2,610	1,700	9,120	4,980	1,430	6,610	5,930	2,060	2,550	1,410	838
29	1,530	2,930	1,580	14,200	------	1,580	5,000	5,610	2,090	2,290	1,300	808
30	1,760	11,400	1,490	13,500	------	1,540	4,200	4,760	2,740	2,120	1,140	784
31	1,760	------	1,450	10,400	------	1,510	------	3,900	------	2,220	1,100	------
TOTAL	93,970	95,020	110,230	122,300	168,200	76,380	95,350	124,860	111,570	84,660	62,040	30,940
MEAN	3,031	3,167	3,556	3,945	6,007	2,464	3,178	4,028	3,719	2,731	2,001	1,031
MAX	8,740	11,400	15,600	14,200	14,900	3,870	6,610	8,940	5,430	4,080	5,380	2,590
MIN	1,530	1,360	1,450	1,210	3,030	1,430	1,560	2,190	2,060	1,870	1,100	784
CFSM	5.19	5.42	6.09	6.76	10.3	4.22	5.44	6.90	6.37	4.68	3.43	1.77
IN	5.98	6.05	7.02	7.79	10.71	4.86	6.07	7.95	7.10	5.39	3.95	1.97
AC-FT	186,400	188,500	218,600	242,600	333,600	151,500	189,100	247,700	221,300	167,900	123,100	61,370

CAL YR 1964: TOTAL MEAN MAX MIN CFSM IN AC-FT
WAT YR 1965: TOTAL 1,175,520 MEAN 3,221 MAX 15,600 MIN 784 CFSM 5.52 IN 74.84 AC-FT 2,332,000

12-2115. Nooksack River near Lynden, Wash.

Location.--Lat 48°55'10", long 122°29'10", in NE¼NE¼ sec.36, T.40 N., R.2 E., on right bank 150 ft downstream from bridge on U.S. Highway 99 Alternate, 1½ miles upstream from Fishtrap Creek, 2 miles southwest of Lynden, and 12 miles upstream from mouth.

Drainage area.--648 sq mi (revised), of which 5.0 sq mi is in Canada.

Records available.--October 1944 to September 1965. Monthly discharge only for some periods, published in WSP 1316.

Gage.--Water-stage recorder. Datum of gage is 24.4 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Average discharge.--21 years, 3,699 cfs (2,678,000 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (16,000 cfs, revised), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Oct. 24, 1960	1130	17,600	15.81	Nov. 20, 1962	1030	* 40,600	21.06	Sept.30, 1964	1800	18,200	16.08
Jan. 16, 1961	0430	* 42,600	21.37	Jan. 3, 1963	0730	18,000	15.90				
Feb. 6, 1961	2230	22,000	17.58	Feb. 4, 1963a	-	22,000	17.51	Nov. 4, 1964	1430	16,500	15.26
Feb. 21, 1961	2030	33,800	20.16					Dec. 1, 1964	1730	19,000	16.38
				Oct. 22, 1963	0900	27,600	19.05	Jan. 29, 1965	0800	19,800	16.71
Jan. 3, 1962	2000	16,000	15.18	Nov. 27, 1963	0030	* 29,700	19.46	Jan. 31, 1965	0030	* 20,800	17.10
Jan. 8, 1962	0730	* 22,100	17.59	Jan. 1, 1964	2100	22,200	17.62	Feb. 5, 1965	2400	16,800	15.38

a About.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.27, 1961	880	5.25	1964	Oct. 7, 1963	1,100	5.29
1962	Oct. 5, 1961	1,010	5.47	1965	Sept.30, 1965	a 790	-
1963	Sept.27, 1963	1,170	5.65				

a Minimum daily.

1944-65: Maximum discharge, 46,200 cfs Feb. 10, 1951 (gage height, 21.76 ft); minimum, 595 cfs Nov. 30, 1952 (gage height, 5.01 ft).

Remarks.--Records excellent. Slight regulation by powerplant at Excelsior. At times since February 1962, the city of Bellingham diverts about 95 cfs from Middle Fork Nooksack River.

Revisions (water years).--WSP 1286: 1945(P), 1947-48(P), 1950-51(P), 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,200	5,250	3,190	1,930	4,630	7,000	4,550	4,980	5,750	2,390	2,000	3,970
2	1,150	4,120	3,190	1,930	7,390	5,530	7,240	5,490	7,150	2,420	2,000	5,960
3	1,100	3,410	2,850	1,740	5,450	4,420	9,460	4,780	7,650	2,540	2,070	2,430
4	1,040	2,860	2,760	1,740	4,320	3,820	6,910	4,100	7,330	2,800	2,120	2,500
5	1,020	2,540	2,400	3,920	7,080	3,430	4,950	3,680	6,660	3,240	2,280	2,430
6	1,100	2,340	2,190	6,160	15,200	3,220	4,100	3,460	6,640	3,600	2,090	2,080
7	4,480	2,140	2,040	4,360	14,400	3,010	3,580	3,120	7,610	3,210	1,870	1,650
8	4,360	1,960	1,980	4,480	8,240	2,880	3,610	2,970	5,560	2,770	1,780	1,430
9	2,550	1,820	1,930	4,760	6,400	3,180	3,760	3,880	4,770	2,710	1,720	1,330
10	1,940	2,000	1,880	5,930	5,960	2,970	3,430	4,220	4,450	2,890	1,690	1,270
11	1,670	5,780	1,850	12,400	5,530	2,940	3,200	3,960	4,330	3,140	1,700	1,230
12	1,740	4,000	5,990	9,620	5,880	3,020	3,790	3,420	4,030	3,780	1,790	1,170
13	1,620	3,060	7,700	6,230	4,800	3,090	3,800	3,150	3,890	4,120	1,830	1,170
14	1,590	3,050	7,060	5,880	4,330	4,390	3,300	3,120	4,040	4,110	1,900	1,140
15	1,630	2,970	4,430	21,400	5,120	7,990	2,990	3,090	5,140	3,720	2,020	1,080
16	1,740	4,930	3,540	28,200	4,670	6,970	2,880	3,580	6,180	3,360	2,170	1,080
17	1,580	6,260	3,120	10,500	4,490	5,260	3,470	4,300	6,880	2,800	2,340	1,080
18	1,440	9,920	3,690	7,310	4,060	4,290	3,320	4,910	7,340	2,580	1,930	1,080
19	1,350	6,620	8,510	5,530	4,980	4,030	3,050	5,800	6,970	2,590	1,920	1,100
20	1,250	7,420	5,510	4,660	11,300	5,660	2,800	6,610	5,370	2,750	1,950	1,070
21	1,380	5,220	4,130	4,240	25,700	5,590	2,640	6,390	4,260	3,050	1,920	1,040
22	3,740	4,120	3,550	3,950	18,100	4,330	2,550	5,010	3,710	2,920	1,770	986
23	5,710	3,820	3,300	3,580	9,320	4,520	2,520	5,420	3,820	2,820	1,740	934
24	14,800	4,630	3,210	3,240	7,880	4,760	2,460	4,940	3,940	2,440	1,720	910
25	7,000	6,740	3,160	2,990	6,660	4,030	2,430	4,110	4,130	2,210	1,510	964
26	7,720	5,160	2,830	2,750	5,340	3,720	2,340	5,070	4,210	2,210	1,390	946
27	7,870	4,020	2,570	2,550	4,730	3,410	2,310	6,250	3,370	2,310	1,280	886
28	7,790	3,370	2,330	2,380	4,260	3,110	2,390	5,060	2,900	2,170	1,260	2,160
29	5,160	2,960	2,170	2,420	------	2,990	3,730	4,520	2,630	2,000	1,320	2,540
30	3,900	2,710	2,060	4,110	------	2,970	5,570	4,900	2,560	1,890	1,360	1,490
31	3,700	------	2,010	5,130	------	3,430	------	4,840	------	1,900	3,200	------
TOTAL	104,320	125,200	107,130	185,920	216,260	129,960	113,130	139,130	153,270	87,440	57,640	49,168
MEAN	3,365	4,173	3,456	5,997	7,724	4,192	3,771	4,488	5,109	2,821	1,859	1,639
MAX	14,800	9,920	8,510	28,200	25,700	7,990	9,460	6,610	7,650	4,120	3,200	5,960
MIN	1,020	1,820	1,850	1,740	4,060	2,880	2,310	2,970	2,560	1,890	1,260	886
CFSM	5.19	6.44	5.33	9.26	11.9	6.47	5.82	6.93	7.88	4.35	2.87	2.53
IN.	5.99	7.19	6.15	10.7	12.4	7.46	6.49	7.98	8.80	5.02	3.31	2.82
AC-FT	206,900	248,300	212,500	368,800	428,900	257,800	224,400	276,000	304,000	173,400	114,300	97,520

CAL YR 1960: TOTAL 1,266,560 MEAN 3,461 MAX 14,800 MIN 1,020 CFSM 5.34 IN 72.69 AC-FT 2,512,000
WAT YR 1961: TOTAL 1,468,568 MEAN 4,023 MAX 28,200 MIN 886 CFSM 6.21 IN 84.28 AC-FT 2,913,000

12-2115. Nooksack River near Lynden, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,310	2,920	5,850	5,370	3,210	1,360	2,270	3,580	2,890	3,240	2,530	1,680
2	1,170	2,710	4,330	5,120	5,330	1,380	2,330	4,110	4,620	2,730	2,280	1,630
3	1,080	2,300	3,460	13,400	8,710	1,350	2,110	4,450	5,590	2,370	2,230	1,510
4	1,050	2,080	3,440	11,000	9,200	1,290	2,140	4,320	3,990	2,310	3,460	1,400
5	1,050	1,860	4,480	6,880	5,800	1,350	2,510	3,270	3,310	2,640	6,010	1,410
6	2,890	1,730	3,110	6,000	4,420	1,520	4,240	2,840	3,120	2,740	4,500	1,400
7	2,250	1,690	2,640	8,570	3,890	1,540	9,640	2,550	3,070	2,530	3,900	1,370
8	1,730	1,770	2,320	18,600	3,980	1,650	4,740	2,410	3,980	2,870	4,040	1,240
9	1,760	2,280	2,040	10,300	3,850	1,700	3,540	2,790	4,070	3,190	3,420	1,170
10	5,090	11,200	1,820	6,970	3,640	1,550	2,940	3,010	3,550	3,110	2,580	1,470
11	2,650	7,720	1,690	5,400	3,300	1,480	2,550	2,880	3,100	3,010	2,290	3,050
12	3,320	4,630	1,630	4,520	2,970	1,400	2,350	2,680	3,220	2,900	2,280	2,310
13	9,700	3,520	1,590	3,860	2,670	1,360	2,570	2,560	3,210	2,650	3,280	2,160
14	4,340	3,280	1,520	3,500	2,940	1,350	3,220	2,500	3,790	2,420	2,380	4,040
15	3,240	2,820	1,490	3,190	2,840	1,360	4,340	2,540	4,360	2,190	2,130	3,420
16	2,930	2,460	1,570	2,900	2,540	1,400	3,530	2,550	4,950	2,060	2,230	2,300
17	2,600	2,210	1,780	2,730	2,340	1,510	3,010	2,640	4,660	2,330	2,660	1,960
18	2,060	2,100	1,720	2,600	2,210	1,550	3,240	2,650	3,980	2,500	3,300	1,860
19	1,830	2,010	1,870	2,400	2,090	1,690	3,800	2,430	3,780	1,930	3,410	1,770
20	1,640	1,850	3,610	2,250	1,950	1,960	3,650	2,300	3,830	1,880	3,070	1,730
21	1,490	1,750	4,770	2,150	1,830	2,170	3,120	2,260	3,860	2,090	4,300	1,760
22	1,400	2,060	3,730	2,100	1,800	1,920	2,930	2,440	3,820	2,400	2,560	1,700
23	1,900	1,920	5,240	2,100	1,690	1,870	2,990	3,010	3,990	2,870	2,360	1,540
24	2,270	1,750	8,280	2,120	1,550	2,000	3,550	3,760	4,450	3,080	2,130	1,530
25	1,900	1,580	5,690	2,250	1,490	2,520	4,020	3,640	4,570	3,090	2,060	1,510
26	5,350	1,520	4,150	3,080	1,390	2,500	3,190	3,890	4,560	2,900	2,230	1,520
27	4,590	1,590	3,300	5,300	1,390	2,670	3,260	4,250	3,930	2,980	2,350	1,480
28	3,550	3,600	4,950	4,020	1,390	2,280	4,040	4,730	3,180	3,070	2,060	2,730
29	2,700	4,880	11,100	3,340	------	2,060	3,320	4,520	3,320	2,770	1,920	4,910
30	2,260	4,000	11,700	3,140	------	1,990	3,100	3,600	3,780	2,620	1,750	3,270
31	2,120	------	6,740	3,210	------	2,090	------	3,100	------	2,620	1,690	------
TOTAL	83,220	87,790	121,610	158,370	90,410	53,810	102,240	98,260	116,530	82,150	87,610	60,830
MEAN	2,685	2,926	3,923	5,109	3,229	1,736	3,408	3,170	3,884	2,650	2,833	2,028
MAX	9,700	11,200	11,700	18,600	9,200	2,670	9,640	4,730	5,590	3,240	6,010	4,910
MIN	1,050	1,520	1,490	2,100	1,390	1,290	2,110	2,260	2,890	1,880	1,690	1,170
CFSM	4.14	4.52	6.05	7.88	4.98	2.68	5.26	4.89	5.99	4.09	4.37	3.13
IN.	4.78	5.04	6.98	9.09	5.19	3.09	5.87	5.64	6.69	4.71	5.04	3.49
AC-FT	165,100	174,100	241,200	314,100	179,300	106,700	202,800	194,900	231,100	162,900	174,200	120,700

CAL YR 1961: TOTAL 1,424,538 MEAN 3,903 MAX 28,200 MIN 886 CFSM 6.02 IN 81.76 AC-FT 2,826,000
WAT YR 1962: TOTAL 1,143,030 MEAN 3,132 MAX 18,600 MIN 1,050 CFSM 4.83 IN 65.60 AC-FT 2,267,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	2,370	1,540	3,800	8,410	1,800	4,380	2,130	2,990	3,040	1,950	1,700	1,690
2	2,120	1,540	3,700	11,000	2,000	3,770	1,980	3,170	2,830	2,210	1,710	1,880
3	2,740	1,510	3,620	13,800	8,000	3,240	1,910	3,060	2,800	2,310	1,760	1,690
4	2,930	1,750	2,800	8,170	13,000	2,930	3,290	2,620	2,490	2,420	1,920	1,680
5	2,120	4,640	3,880	5,910	12,000	2,670	4,950	3,290	2,670	2,300	1,950	1,710
6	1,880	4,340	7,390	4,740	10,000	2,480	6,110	3,950	2,540	2,170	1,960	1,540
7	1,820	3,210	5,310	4,060	7,000	2,320	4,660	3,310	2,530	2,100	1,910	1,460
8	2,760	3,700	7,180	3,740	6,000	2,190	3,830	2,870	2,520	2,920	1,890	1,550
9	3,580	3,610	5,730	3,490	5,000	2,100	3,280	2,550	3,330	3,980	1,930	1,610
10	3,890	4,570	4,760	2,880	4,000	2,030	2,870	2,400	3,370	3,720	1,910	1,690
11	2,830	3,960	4,480	2,500	3,500	1,990	2,620	2,240	3,310	3,460	2,010	1,570
12	3,300	4,070	4,220	2,350	3,000	1,940	2,510	2,160	4,200	3,400	2,460	1,540
13	3,960	4,110	4,760	2,250	2,780	1,840	2,560	2,080	3,680	2,840	3,200	2,400
14	3,670	3,660	7,510	2,200	2,630	1,760	2,840	2,050	3,300	2,820	2,590	3,580
15	2,740	3,140	10,600	2,100	2,440	1,700	4,330	2,300	3,490	3,060	2,030	2,110
16	2,350	2,740	8,680	2,050	2,420	1,630	3,520	2,450	3,900	3,120	1,800	1,630
17	2,060	2,570	6,420	2,000	2,390	1,590	2,970	2,420	3,790	2,720	1,680	1,550
18	2,110	2,450	5,130	1,930	2,440	1,540	2,700	2,930	3,730	2,540	1,650	1,420
19	2,410	5,880	4,370	1,840	2,740	1,740	2,590	3,740	3,480	2,340	1,990	1,310
20	2,220	29,600	3,850	1,820	3,770	2,300	2,490	4,660	3,050	2,310	2,150	1,250
21	3,320	10,200	4,920	1,780	2,800	2,350	2,420	5,130	2,740	2,210	1,740	1,220
22	4,260	6,520	4,940	1,750	2,460	2,410	2,330	4,980	2,420	4,190	1,580	1,280
23	3,220	4,870	3,850	1,730	2,240	2,120	2,420	4,100	2,190	4,640	1,460	1,590
24	2,630	3,950	3,300	1,700	2,100	1,920	2,280	3,430	2,300	2,970	1,770	1,460
25	2,260	6,470	2,990	1,680	2,090	1,850	2,120	3,050	2,740	2,500	1,830	1,260
26	2,100	10,900	2,740	1,660	8,980	2,030	2,100	2,850	2,410	2,260	1,670	1,240
27	2,020	7,040	2,670	1,640	8,510	2,220	2,010	2,730	2,230	2,230	1,510	1,260
28	1,850	5,260	3,270	1,600	5,240	3,270	1,920	2,820	2,180	2,220	1,460	1,490
29	1,820	4,320	5,120	1,550	------	3,090	2,150	3,210	2,090	2,080	1,540	1,570
30	1,770	4,220	12,100	1,500	------	2,590	3,010	3,500	1,970	1,920	1,590	1,360
31	1,650	------	11,900	1,600	------	2,310	------	3,380	------	1,820	1,630	------
TOTAL	80,760	156,340	165,990	105,430	131,330	72,300	86,900	96,420	87,320	83,730	57,980	48,590
MEAN	2,605	5,211	5,355	3,401	4,690	2,332	2,897	3,110	2,911	2,701	1,870	1,620
MAX	4,260	29,600	12,100	13,800	13,000	4,380	6,110	5,130	4,200	4,640	3,200	3,580
MIN	1,650	1,510	2,670	1,500	1,800	1,540	1,910	2,050	1,970	1,820	1,460	1,220
CFSM	4.02	8.04	8.26	5.25	7.24	3.60	4.47	4.80	4.49	4.17	2.89	2.50
IN.	4.63	8.97	9.53	6.05	7.54	4.15	4.99	5.53	5.01	4.81	3.33	2.79
AC-FT	160,200	310,100	329,200	209,100	260,500	143,400	172,400	191,200	173,200	166,100	115,000	96,380

CAL YR 1962: TOTAL 1,253,500 MEAN 3,434 MAX 29,600 MIN 1,170 CFSM 5.30 IN 71.94 AC-FT 2,486,000
WAT YR 1963: TOTAL 1,173,090 MEAN 3,214 MAX 29,600 MIN 1,220 CFSM 4.96 IN 67.33 AC-FT 2,327,000

12-2115. Nooksack River near Lynden, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	1,230	2,920	4,170	12,500	5,340	2,320	4,340	2,440	10,100	5,750	3,610	2,560
2	1,160	4,800	3,700	12,000	4,440	2,120	3,990	2,230	9,600	6,150	3,480	2,220
3	1,150	3,810	3,410	6,990	3,660	1,970	3,090	2,120	7,710	5,540	3,360	2,180
4	1,330	3,460	3,350	5,520	3,740	2,180	2,880	2,250	8,260	5,320	4,620	2,000
5	1,250	4,550	4,750	4,550	4,570	4,200	3,120	2,290	11,700	5,420	4,400	1,900
6	1,200	3,910	5,150	4,310	3,490	3,540	2,950	2,190	10,200	5,210	3,550	1,810
7	1,130	3,690	4,130	3,810	2,980	2,820	2,980	2,310	8,660	5,830	3,520	1,810
8	1,170	5,340	3,770	3,360	2,700	2,480	3,210	2,460	7,450	7,850	3,400	2,540
9	1,300	4,510	3,520	3,460	2,610	2,460	3,280	3,180	7,530	8,070	3,250	1,920
10	1,320	4,340	3,040	3,360	2,600	2,340	3,730	4,720	9,070	5,880	3,400	1,670
11	1,320	3,980	2,740	3,170	2,980	2,500	4,250	3,610	8,770	5,700	3,040	1,660
12	1,250	4,730	2,560	2,870	2,550	2,720	3,510	3,490	7,140	6,920	3,210	1,540
13	3,960	10,400	2,400	2,980	2,370	2,350	3,220	4,040	6,470	7,250	3,240	1,520
14	4,930	12,500	2,270	3,690	2,180	2,390	3,300	3,310	6,360	6,870	2,990	1,490
15	3,190	9,250	2,950	3,430	2,250	4,940	5,420	3,010	6,500	8,350	2,550	1,490
16	2,220	6,770	4,310	5,720	2,230	3,770	4,250	3,170	7,370	7,540	2,380	2,010
17	1,810	8,340	3,880	5,180	2,350	4,090	3,510	4,080	6,870	5,880	2,320	5,930
18	1,650	6,520	4,120	4,250	2,460	4,610	3,030	4,650	7,010	5,600	2,520	4,010
19	1,440	6,050	5,620	3,940	3,230	3,460	2,790	5,800	7,280	4,550	2,750	2,800
20	1,340	4,850	8,320	3,530	2,720	2,930	2,790	6,360	5,850	4,300	2,230	5,120
21	6,130	4,030	7,010	3,130	2,450	2,580	2,720	7,040	5,150	4,540	2,170	3,770
22	18,700	3,840	5,220	2,800	2,310	2,340	3,950	6,410	4,730	5,180	2,310	3,940
23	7,920	5,420	9,650	2,590	2,170	2,140	3,510	5,280	5,680	4,400	2,440	3,340
24	7,490	7,160	11,000	2,520	2,100	2,020	3,100	4,800	6,440	4,030	2,330	2,990
25	7,840	6,750	8,440	3,590	2,000	1,990	3,070	4,050	5,850	4,210	2,280	2,810
26	6,020	17,000	6,290	3,550	1,930	1,980	2,340	3,900	5,630	4,260	2,500	2,340
27	4,650	18,400	5,160	3,270	1,880	1,890	2,800	4,790	5,140	4,160	2,570	2,020
28	4,760	8,950	4,540	4,720	1,850	1,810	2,640	6,250	6,090	4,380	3,280	1,840
29	4,780	6,340	3,950	5,080	1,850	1,870	2,670	6,800	5,330	4,830	2,860	1,840
30	3,910	4,990	3,600	5,850	------	2,320	2,580	8,010	5,160	4,340	4,330	10,500
31	3,280	------	6,430	4,550	------	3,300	------	9,240	------	4,290	3,330	------
TOTAL	110,830	197,600	149,510	140,270	79,990	84,430	100,220	134,340	215,100	172,600	94,660	83,570
MEAN	3,575	6,587	4,823	4,525	2,758	2,724	3,341	4,334	7,170	5,568	3,054	2,786
MAX	18,700	18,400	11,000	12,500	5,340	4,940	5,420	9,240	11,700	8,350	4,620	10,500
MIN	1,130	2,920	2,270	2,520	1,850	1,810	2,580	2,120	4,730	4,030	2,170	1,490
CFSM	5.52	10.2	7.44	6.98	4.26	4.20	5.16	6.69	11.1	8.59	4.71	4.30
IN.	6.36	11.3	8.58	8.05	4.59	4.85	5.75	7.71	12.3	9.91	5.43	4.80
AC-FT	219,800	391,900	296,500	278,200	158,700	167,500	198,800	266,500	426,600	342,300	187,600	165,800

CAL YR 1963: TOTAL 1,227,940 MEAN 3,364 MAX 18,700 MIN 1,130 CFSM 5.19 IN 70.47 AC-FT 2,436,000
WAT YR 1964: TOTAL 1,563,120 MEAN 4,271 MAX 18,700 MIN 1,130 CFSM 6.59 IN 89.71 AC-FT 3,100,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8,120	3,100	16,200	1,600	7,740	4,400	2,110	3,810	3,880	3,450	2,520	1,240
2	9,270	3,220	14,100	2,130	5,700	3,790	2,220	3,250	4,290	4,050	2,610	1,220
3	6,920	2,540	8,960	2,110	4,730	3,480	1,930	2,880	5,100	4,160	2,310	1,130
4	4,520	11,200	6,330	1,810	5,460	3,370	1,870	3,090	5,240	4,180	2,080	1,060
5	3,570	7,160	4,930	1,710	14,700	3,300	1,890	2,810	5,480	4,140	1,860	1,000
6	3,070	4,400	4,100	1,770	12,400	3,220	1,870	2,540	5,580	3,920	1,610	970
7	2,820	3,520	3,630	1,660	7,440	3,230	1,780	2,440	5,240	4,250	1,830	970
8	3,100	2,970	4,000	1,620	6,980	3,270	1,730	2,400	5,040	3,910	2,030	1,020
9	3,540	2,640	4,570	1,610	5,910	3,330	1,760	2,610	5,510	2,890	1,980	1,020
10	2,950	2,420	4,100	1,560	4,860	3,770	1,930	3,310	5,080	2,360	2,120	1,020
11	2,500	2,280	3,540	1,510	4,200	4,090	1,880	3,580	5,560	2,230	2,040	960
12	2,360	2,160	3,130	1,510	3,780	4,010	1,840	4,250	5,680	2,040	2,380	920
13	2,300	2,010	2,990	1,520	5,260	3,590	2,090	4,430	4,080	2,220	5,400	930
14	2,940	1,820	2,710	2,000	4,870	3,310	2,220	3,950	3,480	2,600	3,210	1,200
15	4,480	1,730	2,460	2,910	4,170	3,100	2,570	3,730	3,340	2,830	2,230	2,660
16	3,870	1,660	2,000	4,070	5,720	2,800	3,510	8,180	3,230	2,830	2,000	2,230
17	3,250	1,640	2,050	4,580	9,160	2,490	3,430	6,010	4,100	2,770	1,870	1,460
18	2,790	1,580	2,100	4,200	7,330	2,290	2,830	4,650	4,850	2,480	2,020	1,150
19	2,510	1,490	2,000	4,430	7,130	2,160	2,760	4,200	3,960	2,120	2,190	950
20	2,440	1,440	1,900	5,640	7,300	2,080	5,280	5,580	3,700	2,040	2,140	920
21	2,190	1,410	1,800	6,280	5,520	2,050	6,050	5,220	3,690	2,090	2,020	900
22	2,020	1,380	1,800	5,180	4,870	2,290	5,140	4,610	3,480	1,880	1,890	940
23	1,890	1,530	1,700	4,080	4,140	1,990	4,130	4,480	3,410	1,880	1,930	980
24	1,850	7,750	1,700	3,860	3,680	1,830	4,300	4,140	3,660	2,080	1,840	980
25	1,810	4,640	1,600	3,390	3,420	1,790	4,130	4,180	3,360	2,470	1,620	950
26	1,670	3,910	1,800	3,290	4,180	1,730	4,220	4,410	2,980	2,780	1,660	920
27	1,560	3,270	2,000	6,080	7,180	1,680	5,200	5,390	2,630	2,880	1,800	880
28	1,490	2,710	1,800	8,680	5,750	1,660	6,210	6,330	2,350	2,680	1,530	840
29	1,480	2,480	1,700	16,300	------	1,740	5,280	6,180	2,350	2,450	1,440	820
30	1,610	10,700	1,600	14,000	------	1,770	4,360	5,340	2,800	2,210	1,280	790
31	1,810	------	1,550	14,000	------	1,710	------	4,610	------	2,230	1,200	------
TOTAL	96,700	100,760	114,850	135,090	173,580	85,320	96,520	132,590	123,130	87,100	64,840	33,030
MEAN	3,119	3,359	3,705	4,358	6,199	2,752	3,217	4,277	4,104	2,810	2,092	1,101
MAX	9,270	11,200	16,200	16,300	14,700	4,400	6,210	8,180	5,680	4,250	5,400	2,660
MIN	1,480	1,380	1,550	1,510	3,420	1,660	1,730	2,400	2,350	1,880	1,200	790
CFSM	4.81	5.18	5.72	6.72	9.57	4.25	4.97	6.60	6.33	4.34	3.23	1.70
IN.	5.55	5.78	6.59	7.75	9.96	4.90	5.54	7.61	7.07	5.00	3.72	1.90
AC-FT	191,800	199,900	227,800	267,900	344,300	169,200	191,400	263,000	244,200	172,800	128,600	65,510

CAL YR 1964: TOTAL 1,417,490 MEAN 3,873 MAX 16,200 MIN 1,380 CFSM 5.98 IN 81.35 AC-FT 2,812,000
WAT YR 1965: TOTAL 1,243,510 MEAN 3,407 MAX 16,300 MIN 790 CFSM 5.26 IN 71.37 AC-FT 2,466,000

12-2120. Fishtrap Creek at Lynden, Wash.

Location.--Lat 48°57'50", long 122°26'00", on north line sec.16, T.40 N., R.3 E., on right bank on downstream side of bridge on State Highway 546, 1 mile north of Lynden.

Drainage area (revised).--22.3 sq mi, of which 17.4 sq mi is in Canada.

Records available.--July 1948 to September 1965.

Gage.--Water-stage recorder. Altitude of gage is 110 ft (from topographic map).

Average discharge.--17 years, 37.6 cfs (27,220 acre-ft per year).

Extremes.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (220 cfs), water years 1961-65

Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height	Date	Time	Discharge	Gage height
Jan. 11, 1961	0500	345	5.49	Dec. 30, 1962	1330	* 341	5.50	Jan. 1, 1964	1130	420	5.85
Jan. 16, 1961	0200	313	5.30	Feb. 26, 1963	0400	224	4.70	Jan. 15, 1964	2300	283	5.13
Feb. 6, 1961	1730	278	5.07					Mar. 5, 1964	0730	346	5.48
Feb. 21, 1961	1200	* 469	6.09	Nov. 19, 1963	0430	222	4.75				
				Nov. 23, 1963	1900	229	4.80	Dec. 1, 1964	1530	385	5.69
(a)	-	-	-	Nov. 26, 1963	1530	443	5.96	Jan. 28, 1965	2130	488	6.22
(b)	-	-	-	Dec. 15, 1963	2130	231	4.81	Feb. 5, 1965	0500	* 536	6.46
(c)	-	* 258	4.96	Dec. 20, 1963	1100	350	5.50	Feb. 16, 1965	2230	416	5.86
				Dec. 23, 1963	1900	* 497	6.21	Feb. 27, 1965	0800	255	4.88

a About Dec. 24, 29, 1961.
b About Jan. 3, 1962.
c About Jan. 7 or 8, 1962.

Annual minimum discharge, water years 1961-65

Water year	Date	Discharge	Gage height	Water year	Date	Discharge	Gage height
1961	Sept.16, 1961	6.6	1.33	1964	Oct. 1, 2, 3, 1963	5.1	1.35
1962	Oct. 5, 1961	7.0	1.35	1965	Aug. 2, 3, Sept.30	6.5	a 1.63
1963	Sept.29, 1963	4.9	1.34				

a Occurred Sept. 30, 1965.

1948-65: Maximum discharge, 550 cfs Feb. 11, 1951 (gage height, 6.59 ft); minimum, 0.4 cfs Sept. 10, 1949 (gage height, 1.00 ft).

Remarks.--Records good except those for periods of no gage-height record, which are poor. Small diversions for irrigation and domestic use above station. Regulation from unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	10	37	46	44	69	143	82	38	21	12	8.6	11
2	9.7	40	41	42	93	104	110	48	20	12	8.3	11
3	10	37	40	37	72	89	94	60	19	12	8.0	10
4	10	31	40	46	65	80	74	84	19	11	7.8	9.7
5	10	28	36	96	139	74	65	73	19	12	7.8	9.7
6	15	25	33	123	240	77	59	58	20	13	8.0	9.4
7	20	24	31	80	177	74	54	48	23	13	7.6	9.4
8	30	23	29	65	110	75	56	46	20	12	7.3	9.1
9	25	22	28	91	97	95	52	66	21	12	7.3	8.8
10	20	34	27	140	89	86	49	58	21	12	7.3	8.6
11	17	73	31	254	91	89	48	48	20	11	7.3	8.3
12	19	56	144	144	89	111	57	44	19	11	7.6	8.0
13	17	41	138	98	80	113	54	42	19	10	8.0	7.8
14	16	46	111	97	75	114	47	46	17	10	7.8	7.6
15	15	43	73	218	110	147	45	42	16	10	7.8	7.6
16	14	67	56	218	98	144	44	37	16	10	8.6	7.0
17	14	71	50	118	160	105	44	34	15	9.7	10	7.0
18	13	83	70	86	128	86	42	31	15	9.4	9.7	7.0
19	13	70	126	73	218	77	42	30	15	9.1	9.1	7.0
20	13	64	83	65	332	82	40	28	14	8.6	8.6	6.8
21	15	58	62	60	429	83	38	26	14	8.3	8.6	6.8
22	30	46	53	54	284	73	37	26	14	8.0	8.0	6.8
23	80	50	46	50	178	114	34	27	14	8.8	8.3	6.8
24	150	83	50	48	138	168	33	26	13	8.8	8.0	7.0
25	60	123	60	45	111	105	32	24	13	8.6	8.0	7.0
26	80	110	50	41	95	90	32	24	13	8.8	8.0	7.0
27	90	74	43	38	111	91	31	27	12	9.1	8.3	7.6
28	90	58	39	36	102	72	31	25	12	9.1	8.0	8.6
29	60	50	36	38	------	64	37	23	12	8.8	7.8	9.4
30	45	46	36	58	------	60	40	23	12	8.6	8.0	6.6
31	40	------	42	79	------	60	------	22	------	9.4	10	------
TOTAL	1,070.7	1,615	1,750	2,681	3,980	2,945	1,503	1,234	503	318.6	254.0	246.9
MEAN	34.5	53.8	56.5	86.5	142	95.0	50.1	39.8	16.8	10.3	8.19	8.23
MAX	150	123	144	254	429	168	110	84	23	13	10	11
MIN	9.7	22	27	36	65	60	31	22	12	8.0	7.3	6.6
AC-FT	2,120	3,200	3,470	5,320	7,890	5,840	2,980	2,450	999	632	504	490

CAL YR 1960: TOTAL 14,529.2 MEAN 39.7 MAX 197 MIN 4.2 AC-FT 28,820
WAT YR 1961: TOTAL 18,101.7 MEAN 49.6 MAX 429 MIN 6.8 AC-FT 35,900

12-2120. Fishtrap Creek at Lynden, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	8.6	19	48	110	51	29	33	44	20	14	7.6	9.4
2	8.3	17	36	100	52	28	32	43	26	14	8.0	9.1
3	8.3	19	30	170	112	29	31	72	27	13	8.8	9.1
4	7.8	17	37	190	78	37	33	56	27	14	13	9.1
5	9.1	16	54	140	60	33	32	41	24	14	14	8.8
6	12	15	40	130	54	36	85	35	23	14	12	8.8
7	11	15	30	200	52	38	82	31	21	13	12	8.3
8	8.8	14	25	210	52	50	54	29	21	13	25	8.6
9	12	36	21	170	62	51	44	40	20	12	15	8.6
10	15	144	18	130	61	44	40	58	19	12	12	12
11	11	66	16	110	54	40	36	43	18	12	12	17
12	29	42	15	90	48	38	34	39	18	11	12	12
13	30	32	15	80	46	36	33	35	18	11	12	12
14	16	28	16	70	87	34	32	34	18	11	10	25
15	13	24	23	68	68	33	37	50	17	11	10	17
16	12	21	30	70	56	31	32	41	17	10	10	13
17	12	19	70	72	50	29	29	34	16	11	10	11
18	12	19	66	60	47	29	28	30	17	11	12	10
19	11	19	90	50	44	30	26	27	16	11	16	10
20	11	17	130	44	40	54	26	25	16	11	13	9.4
21	11	15	150	38	38	55	28	23	16	11	12	9.4
22	11	24	110	36	37	59	26	24	15	10	11	9.1
23	29	21	140	35	34	54	25	27	15	9.7	10	8.8
24	16	22	180	40	32	50	25	30	14	9.4	10	9.1
25	13	17	150	83	31	52	25	27	14	9.1	9.7	8.5
26	21	15	130	131	30	80	25	25	16	8.8	14	8.3
27	40	16	100	154	29	62	55	23	15	8.6	13	9.1
28	38	26	150	88	29	48	46	26	15	8.3	12	22
29	23	32	200	68	------	42	34	23	14	8.3	11	23
30	19	30	180	60	------	38	32	21	14	8.3	10	14
31	17	------	140	54	------	35	------	20	------	7.6	10	------
TOTAL	499.9	821	2,440	3,051	1,434	1,304	1,100	1,076	553	345.6	372.6	353.1
MEAN	16.1	27.4	78.7	98.4	51.2	42.1	36.7	34.7	18.4	11.1	12.0	11.8
MAX	40	144	200	210	112	80	85	72	27	14	25	25
MIN	7.8	14	15	35	29	28	25	20	14	7.6	7.6	8.3
AC-FT	992	1,630	4,840	6,050	2,840	2,590	2,180	2,130	1,100	685	739	700

CAL YR 1961: TOTAL 17,426.8 MEAN 47.7 MAX 420 MIN 6.8 AC-FT 34,570
WAT YR 1962: TOTAL 13,350.2 MEAN 36.6 MAX 210 MIN 7.6 AC-FT 26,480

Note.--No gage-height record Dec. 3 to Jan. 22. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	12	12	46	123	21	61	47	28	14	10	7.5	5.7
2	12	12	43	127	28	52	39	56	15	10	7.0	6.0
3	11	12	42	128	100	44	38	46	15	10	7.0	6.8
4	11	23	40	84	90	40	88	36	15	10	7.0	6.1
5	11	38	50	70	80	37	75	50	15	9.3	7.0	5.9
6	12	29	48	61	60	35	98	42	14	9.0	6.5	5.5
7	16	23	44	55	50	33	72	35	14	9.8	6.5	5.7
8	30	34	46	52	45	31	61	31	14	11	6.5	5.7
9	30	36	38	48	40	30	53	29	15	10	6.5	5.5
10	27	38	34	40	36	29	45	27	14	9.6	6.5	5.5
11	23	46	31	36	34	29	40	25	14	10	6.0	5.5
12	25	46	29	34	33	31	38	24	14	10	6.5	5.5
13	28	42	32	33	33	29	39	23	13	9.8	7.0	9.3
14	24	44	64	33	33	32	39	22	13	9.5	6.5	6.8
15	20	46	109	35	32	30	54	24	13	10	6.0	7.3
16	18	40	79	34	33	28	48	23	12	9.5	5.5	7.1
17	17	37	80	34	31	26	42	21	12	9.0	5.5	7.3
18	17	32	62	33	33	26	44	20	12	9.0	5.5	6.6
19	19	84	62	31	44	45	44	19	12	9.0	6.0	6.3
20	17	117	54	29	43	57	40	19	12	10	5.5	6.3
21	17	69	64	29	37	42	36	18	12	15	5.7	5.9
22	16	52	54	28	33	35	32	18	12	13	5.5	6.1
23	16	38	44	27	31	32	31	17	11	10	5.9	6.1
24	15	36	38	27	30	30	29	17	11	9.0	6.3	5.9
25	14	95	34	26	53	31	28	17	12	8.0	6.1	5.7
26	15	91	31	25	160	30	27	16	11	8.0	5.9	5.5
27	15	56	39	24	74	33	25	16	11	8.0	5.7	5.3
28	15	46	68	23	69	50	25	15	12	8.0	5.7	5.3
29	14	41	191	21	------	68	32	15	11	7.5	5.5	5.3
30	13	52	305	21	------	56	33	15	11	7.5	5.5	5.3
31	13	------	154	22	------	49	------	14	------	7.5	5.7	------
TOTAL	549	1,368	2,055	1,393	1,386	1,181	1,342	781	390	298.5	191.5	185.6
MEAN	17.7	45.6	66.3	44.9	49.5	38.1	44.7	25.2	13.0	9.63	6.18	6.19
MAX	30	117	305	128	160	68	98	56	15	15	7.5	9.3
MIN	11	12	29	21	21	26	25	14	11	7.5	5.5	5.3
AC-FT	1,090	2,710	4,080	2,760	2,750	2,340	2,660	1,550	774	592	380	368

CAL YR 1962: TOTAL 13,561.8 MEAN 37.2 MAX 305 MIN 7.6 AC-FT 26,900
WAT YR 1963: TOTAL 11,121.1 MEAN 30.5 MAX 305 MIN 5.3 AC-FT 22,060

Note.--No gage-height record July 14 to Aug. 19. Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2120. Fishtrap Creek at Lynden, Wash.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	5.1	18	54	330	118	56	85	31	20	16	15	12
2	5.3	21	49	171	82	50	54	31	21	16	15	12
3	5.7	19	45	110	70	52	48	29	20	16	15	12
4	6.8	30	49	91	71	91	46	28	21	16	30	11
5	6.3	32	74	80	60	253	43	29	23	16	21	11
6	5.9	32	126	109	58	87	40	27	24	16	18	11
7	5.7	42	73	78	55	85	38	26	27	16	16	11
8	6.3	62	68	69	53	78	36	26	24	16	15	13
9	6.8	41	60	76	60	76	36	30	22	21	16	11
10	5.9	34	49	67	61	72	36	29	20	17	15	11
11	5.7	30	44	61	61	67	38	27	19	16	14	11
12	6.3	40	41	57	56	59	40	31	20	15	14	10
13	8.3	88	39	138	58	54	38	35	19	14	14	10
14	10	109	39	124	57	103	57	29	20	16	14	10
15	9.8	66	143	156	111	80	58	26	20	20	13	11
16	8.0	49	157	180	87	67	58	26	20	27	13	14
17	7.3	96	85	104	71	99	49	25	22	22	13	42
18	6.8	70	76	90	87	74	43	24	27	20	17	23
19	6.6	188	107	106	70	61	40	23	31	18	16	22
20	7.1	78	275	135	62	63	37	23	25	17	14	36
21	15	54	135	89	56	59	40	28	22	21	14	25
22	32	63	125	75	53	53	56	33	20	23	13	34
23	15	152	363	65	51	48	44	29	19	23	13	27
24	15	139	323	78	49	44	39	39	18	20	12	22
25	21	118	138	121	45	47	36	30	18	17	12	20
26	25	338	97	82	42	47	35	26	18	16	12	18
27	19	270	95	76	40	43	37	25	17	15	13	16
28	38	109	89	79	41	41	36	23	18	14	13	16
29	32	73	74	144	43	39	33	22	18	14	13	17
30	25	61	70	124	------	38	32	22	17	13	13	81
31	21	------	96	98	------	43	------	20	------	17	13	------
TOTAL	393.7	2,522	3,258	3,363	1,828	2,129	1,308	852	630	544	459	580
MEAN	12.7	84.1	105	108	63.0	68.7	43.6	27.5	21.0	17.5	14.8	19.3
MAX	38	338	363	330	118	253	85	39	31	27	30	81
MIN	5.1	18	39	57	40	38	32	20	17	13	12	10
AC-FT	781	5,000	6,460	6,670	3,630	4,220	2,590	1,690	1,250	1,080	910	1,150

CAL YR 1963: TOTAL 13,322.3 MEAN 36.5 MAX 363 MIN 5.1 AC-FT 26,420
WAT YR 1964: TOTAL 17,866.7 MEAN 48.8 MAX 363 MIN 5.1 AC-FT 35,440

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	46	19	315	26	142	95	56	34	21	10	7.1	7.4
2	63	19	170	50	110	84	46	32	20	9.6	6.8	7.2
3	44	26	134	54	94	77	40	31	19	9.6	6.8	7.4
4	30	142	90	42	289	70	38	35	19	10	7.6	7.4
5	25	57	66	38	504	66	36	44	18	9.4	7.7	7.2
6	22	39	56	36	295	63	35	38	17	9.6	7.2	7.1
7	20	38	50	33	189	60	34	31	17	9.6	7.2	7.1
8	24	33	48	34	203	57	32	29	16	9.6	7.4	7.0
9	27	30	45	40	148	55	34	27	16	9.4	7.1	7.0
10	23	30	58	37	117	53	34	26	16	9.4	7.0	7.0
11	20	35	46	34	102	51	30	25	17	9.2	7.0	7.0
12	19	35	42	30	99	49	30	24	17	9.0	10	7.0
13	19	30	41	34	167	49	33	23	16	8.8	13	7.2
14	20	28	38	60	115	46	31	22	16	8.5	9.6	8.5
15	22	27	34	62	105	44	28	30	15	8.4	8.7	9.6
16	22	26	29	51	275	42	29	52	15	8.4	8.2	9.1
17	21	24	29	43	318	40	29	34	14	7.8	8.0	7.7
18	19	22	32	39	174	39	28	29	14	8.5	7.8	7.6
19	18	22	30	38	162	38	34	27	14	8.0	7.6	7.6
20	17	21	28	60	129	38	48	64	13	8.2	8.2	7.4
21	16	21	26	145	116	42	55	44	13	8.4	8.0	7.4
22	16	20	27	117	118	47	48	34	13	8.4	7.7	7.2
23	15	22	26	87	99	40	40	30	12	8.2	7.7	7.1
24	15	92	25	71	87	37	53	27	12	8.0	8.0	7.0
25	14	52	23	59	82	37	46	26	12	8.4	7.8	6.8
26	14	67	23	103	159	36	40	25	12	7.8	9.3	6.8
27	14	48	30	309	223	34	35	24	12	8.0	9.1	6.8
28	13	38	26	364	124	36	32	22	11	7.6	8.2	6.8
29	13	39	24	325	------	51	30	22	11	7.4	7.8	6.6
30	13	206	23	411	------	46	32	22	11	7.2	7.7	6.6
31	14	------	22	252	------	40	------	22	------	7.0	7.4	------
TOTAL	678	1,308	1,656	3,084	4,745	1,562	1,116	955	449	267.4	248.7	219.6
MEAN	21.9	43.6	53.4	99.5	169	50.4	37.2	30.8	15.0	8.63	8.02	7.32
MAX	63	206	315	411	504	95	56	64	21	10	13	9.6
MIN	13	19	22	26	82	34	28	22	11	7.0	6.8	6.6
AC-FT	1,340	2,590	3,280	6,120	9,410	3,100	2,210	1,890	891	530	493	436

CAL YR 1964: TOTAL 15,335 MEAN 41.9 MAX 330 MIN 10 AC-FT 30,420
WAT YR 1965: TOTAL 16,288.7 MEAN 44.6 MAX 504 MIN 6.6 AC-FT 32,310

12-2142. Chilliwack River near Vedder Crossing, British Columbia

Location.--Lat 49°05'02", long 121°27'24", at outlet of Chilliwack Lake, 30 miles upstream from Vedder Crossing.

Drainage area.--131 sq mi.

Records available.--October 1960 to September 1965 in reports of Geological Survey. May 1923 to June 1951 and May 1957 to September 1960 in reports of Department of Northern Affairs and National Resources, Canada.

Gage.--Water-stage recorder.

Average discharge.--33 years (1923-47, 1948-50, 1958-65), 653 cfs (472,800 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 7, 1961	3,030	8.76	Sept.27, 1961	a 187	-
1962	June 26, 1962	1,760	6.53	Oct. 3, 1961	a 184	-
1963	Feb. 7, 1963	2,040	6.90	Feb. 2, 1963	226	1.73
1964	June 11, 1964	2,620	8.07	Mar. 29, 30, 1964	a 224	-
1965	June 12, 1965	1,910	6.81	Jan. 13, 1965	216	1.66

a Minimum daily.

1923-51, 1957-65: Maximum discharge, 3,550 cfs May 24, 1951 (gage height, 10.19 ft); minimum daily, 104 cfs Oct. 21, 1923, February and March 1929, December 1936, February 1937.

Remarks.--Records good.

Cooperation.--Records furnished by Department of Energy, Mines and Resources, Canada (formerly Department of Northern Affairs and National Resources, Canada).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	322	876	489	423	554	617	409	584	2,090	1,140	506	356
2	275	858	470	409	602	599	437	671	2,400	1,060	489	401
3	232	810	452	403	632	570	501	713	2,720	1,020	482	395
4	221	750	443	403	629	537	547	723	2,910	1,010	470	385
5	220	694	433	413	632	506	570	707	2,950	1,060	467	378
6	320	650	421	439	757	479	577	671	3,000	1,140	465	361
7	390	605	415	450	959	458	584	638	3,000	1,140	445	334
8	381	574	409	465	991	437	582	608	2,770	1,090	425	310
9	362	544	405	482	967	417	580	587	2,500	1,030	407	290
10	311	525	403	518	963	405	567	599	2,240	1,010	389	275
11	273	537	399	611	935	395	554	614	2,040	1,030	378	272
12	270	537	425	674	895	389	544	614	1,880	1,080	367	269
13	269	515	562	687	844	381	537	614	1,770	1,150	360	262
14	269	503	653	703	796	376	520	611	1,730	1,200	354	251
15	271	489	677	1,180	754	378	496	611	1,870	1,200	354	240
16	277	491	674	1,740	707	405	482	644	2,110	1,160	367	233
17	270	527	653	1,740	662	423	489	736	2,440	1,080	381	224
18	245	644	644	1,570	614	425	494	869	2,700	975	378	219
19	230	694	677	1,400	584	427	487	1,110	2,780	915	369	214
20	230	730	671	1,230	564	435	477	1,380	2,610	880	365	208
21	260	723	650	1,110	684	439	465	1,630	2,310	872	356	202
22	300	690	620	1,000	824	437	450	1,700	2,030	862	351	198
23	411	668	593	903	830	433	441	1,770	1,840	844	342	195
24	806	656	577	824	827	433	435	1,820	1,770	799	331	192
25	975	671	560	754	788	429	433	1,730	1,740	743	320	191
26	1,010	647	537	680	730	427	429	1,810	1,720	690	308	169
27	1,050	608	515	626	671	421	425	2,010	1,600	656	302	187
28	1,020	570	491	577	626	419	423	2,000	1,460	626	300	207
29	967	540	465	547	------	415	443	1,900	1,340	590	296	208
30	891	511	445	540	------	411	511	1,880	1,240	554	290	195
31	841	------	433	544	------	407	------	1,940	------	527	306	------
TOTAL	14,169	18,837	16,261	24,045	21,021	13,730	14,889	34,514	65,560	29,133	11,720	7,641
MEAN	457	628	525	776	751	443	496	1,113	2,185	940	378	261
MAX	1,050	876	677	1,740	991	617	584	2,010	3,000	1,200	506	401
MIN	220	489	399	403	554	376	409	584	1,240	527	290	187
AC-FT	28,100	37,360	32,250	47,690	41,690	27,230	29,530	68,460	130,000	57,780	23,250	15,550

CAL YR 1960: TOTAL 218,084 MEAN 596 MAX 1,970 MIN 200 AC-FT 432,600
WAT YR 1961: TOTAL 271,720 MEAN 744 MAX 3,000 MIN 187 AC-FT 538,900

12-2142. Chilliwack River near Vedder Crossing, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	190	369	405	564	395	335	332	580	1,120	1,430	919	417
2	186	367	420	582	421	330	346	564	1,130	1,350	883	405
3	184	365	412	855	632	323	358	552	1,230	1,230	855	395
4	193	365	405	1,090	927	318	370	547	1,210	1,130	927	383
5	225	365	403	1,100	995	312	384	527	1,130	1,070	967	376
6	270	362	392	1,040	967	306	400	511	1,040	1,040	931	368
7	305	362	387	1,060	915	300	418	489	979	1,010	899	360
8	335	362	376	1,330	858	295	436	470	1,020	1,000	866	354
9	380	366	368	1,440	810	290	448	458	1,120	1,040	830	348
10	425	383	362	1,370	754	285	450	456	1,150	1,070	771	340
11	465	472	352	1,250	700	282	450	458	1,140	1,100	717	338
12	500	496	348	1,130	650	278	450	467	1,120	1,100	674	340
13	523	494	340	1,000	602	274	450	472	1,120	1,060	668	356
14	602	489	334	903	567	273	450	475	1,160	1,040	635	397
15	620	477	328	820	535	271	450	479	1,270	987	593	429
16	617	461	322	736	508	270	450	479	1,440	927	574	427
17	608	439	318	677	479	270	465	482	1,560	911	564	417
18	570	419	315	611	456	269	489	506	1,570	883	562	407
19	535	407	312	550	435	270	537	515	1,560	824	562	395
20	501	399	314	508	415	272	582	523	1,540	771	562	383
21	465	389	322	472	404	273	599	532	1,520	750	599	374
22	433	379	330	443	395	274	602	552	1,520	760	602	365
23	413	376	340	421	385	276	605	590	1,520	816	580	356
24	399	374	350	405	375	278	647	659	1,570	883	550	347
25	393	370	368	385	365	280	694	743	1,660	943	527	338
26	393	368	380	364	358	284	697	895	1,750	967	513	329
27	399	368	395	370	352	290	694	1,080	1,680	995	499	320
28	397	370	418	394	344	296	687	1,220	1,540	1,020	484	334
29	393	372	443	393	------	305	656	1,290	1,450	1,010	467	381
30	379	385	532	384	------	312	617	1,270	1,450	979	447	417
31	372	------	562	380	------	322	------	1,200	------	947	431	------
TOTAL	12,670	11,970	11,653	23,027	15,999	9,013	15,213	20,041	40,269	31,063	20,658	11,198
MEAN	409	399	376	743	571	291	507	646	1,342	1,002	666	373
MAX	620	496	562	1,440	995	335	697	1,290	1,750	1,430	967	429
MIN	184	362	312	364	344	269	332	456	979	750	431	320
AC-FT	25,130	23,740	23,110	45,670	31,730	17,880	30,170	39,750	79,870	61,610	40,970	22,210

CAL YR 1961: TOTAL 258,746 MEAN 709 MAX 3,000 MIN 184 AC-FT 513,200
WAT YR 1962: TOTAL 222,774 MEAN 610 MAX 1,750 MIN 184 AC-FT 441,900

Note.--No gage-height record Nov. 20 to Dec. 28, Feb. 21 to Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	435	417	895	717	234	674	337	381	1,340	837	638	395
2	437	403	827	778	228	656	329	390	1,320	837	613	401
3	450	387	760	876	266	630	324	390	1,290	862	594	394
4	456	378	690	907	512	599	324	385	1,200	901	582	385
5	445	413	641	869	1,290	568	327	390	1,170	922	577	377
6	431	431	680	813	1,680	538	339	395	1,120	915	577	370
7	415	429	707	757	1,890	533	345	398	1,090	904	574	366
8	413	435	757	700	1,840	490	349	392	1,060	908	571	360
9	419	439	806	653	1,680	468	347	387	1,050	926	566	357
10	433	443	830	509	1,500	448	345	382	1,060	937	560	360
11	431	443	780	550	1,340	434	343	382	1,080	952	566	360
12	427	445	750	511	1,200	421	341	381	1,230	963	571	355
13	443	447	780	477	1,070	401	341	384	1,330	940	591	396
14	461	439	866	450	959	390	349	390	1,360	930	590	507
15	456	427	1,210	427	865	379	381	400	1,390	940	582	533
16	445	413	1,590	407	788	366	403	420	1,480	930	555	525
17	429	399	1,620	391	730	351	405	470	1,580	908	528	507
18	423	383	1,500	369	677	339	407	600	1,620	886	500	482
19	429	452	1,370	354	641	333	405	840	1,620	862	525	457
20	435	1,190	1,230	339	630	329	401	1,050	1,560	837	528	429
21	499	1,390	1,150	324	605	329	394	1,380	1,480	806	515	407
22	582	1,330	1,080	313	568	331	388	1,500	1,380	837	497	403
23	608	1,210	995	304	538	335	388	1,470	1,260	851	487	412
24	599	1,100	872	296	510	333	383	1,420	1,180	862	475	410
25	574	1,110	788	287	490	331	374	1,360	1,140	834	473	396
26	547	1,320	717	276	560	329	366	1,330	1,080	795	466	379
27	523	1,310	665	268	656	329	362	1,320	1,010	765	450	364
28	494	1,210	641	258	674	337	357	1,330	937	746	434	355
29	470	1,090	614	248	------	343	357	1,340	904	723	423	360
30	452	995	635	239	------	347	368	1,350	865	692	414	349
31	433	------	694	236	------	343	------	1,350	------	668	401	------
TOTAL	14,494	21,278	28,140	14,993	24,621	13,034	10,879	24,357	37,186	26,676	16,429	12,155
MEAN	468	709	908	484	879	420	363	786	1,240	861	530	405
MAX	608	1,390	1,620	907	1,890	674	407	1,500	1,620	963	638	533
MIN	413	378	614	236	228	329	324	381	865	668	401	349
AC-FT	28,750	42,200	55,810	29,740	48,840	25,850	21,580	48,310	73,760	52,910	32,590	24,110

CAL YR 1962: TOTAL 250,393 MEAN 686 MAX 1,750 MIN 269 AC-FT 496,600
WAT YR 1963: TOTAL 244,242 MEAN 669 MAX 1,890 MIN 228 AC-FT 484,400

12-2142. Chilliwack River near Vedder Crossing, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	336	816	1,020	983	437	263	257	352	2,210	1,480	1,280	659
2	345	802	940	1,180	427	263	274	349	2,460	1,550	1,190	638
3	316	760	850	1,130	413	258	284	345	2,480	1,670	1,120	617
4	315	720	780	1,080	407	258	292	342	2,380	1,720	1,140	593
5	306	694	870	991	411	266	298	343	2,440	1,760	1,150	570
6	302	647	780	911	405	262	299	342	2,490	1,780	1,100	544
7	293	620	710	827	397	256	304	340	2,450	1,830	1,050	523
8	286	596	662	750	387	251	311	345	2,340	2,080	1,030	508
9	288	582	640	697	383	251	322	367	2,350	2,270	1,010	469
10	286	572	590	647	374	248	338	407	2,480	2,230	999	465
11	281	550	554	599	370	256	358	431	2,600	2,070	967	441
12	278	537	530	562	360	257	369	452	2,560	2,150	947	423
13	315	593	501	532	351	251	374	473	2,410	2,300	939	403
14	403	778	477	508	340	246	376	496	2,300	2,350	915	385
15	437	967	465	482	333	254	393	501	2,220	2,400	866	376
16	435	1,000	450	494	324	252	393	513	2,280	2,370	816	379
17	427	1,010	437	523	322	260	385	552	2,310	2,180	774	427
18	417	975	421	523	316	263	374	614	2,200	2,030	757	450
19	403	923	413	515	311	262	365	726	2,070	1,850	750	452
20	387	848	419	501	304	260	358	911	1,890	1,720	717	494
21	494	771	415	477	298	256	356	1,060	1,730	1,630	687	506
22	1,510	717	413	454	292	251	363	1,120	1,600	1,570	674	511
23	1,770	684	494	435	286	245	365	1,090	1,590	1,480	663	508
24	1,710	659	743	421	281	242	358	1,040	1,710	1,400	656	506
25	1,650	635	887	423	275	238	356	967	1,750	1,360	644	513
26	1,510	810	907	411	269	238	356	903	1,730	1,350	653	503
27	1,340	1,230	876	401	264	233	358	895	1,710	1,330	659	469
28	1,200	1,310	827	401	262	227	354	1,000	1,650	1,350	659	467
29	1,100	1,230	764	411	260	224	354	1,220	1,530	1,400	650	454
30	1,000	1,120	713	425	------	224	352	1,510	1,450	1,390	674	562
31	899	------	778	429	------	234	------	1,850	------	1,350	671	------
TOTAL	21,039	24,156	20,326	19,123	9,859	7,749	10,296	21,862	63,370	55,400	26,812	14,855
MEAN	679	805	656	617	340	250	343	705	2,112	1,787	865	495
MAX	1,770	1,310	1,020	1,180	437	266	393	1,850	2,600	2,400	1,280	659
MIN	278	537	413	401	260	224	257	340	1,450	1,330	644	376
AC-FT	41,730	47,910	40,320	37,930	19,560	15,370	20,420	43,360	125,700	109,900	53,180	29,460

CAL YR 1963: TOTAL 245,851 MEAN 674 MAX 1,890 MIN 229 AC-FT 487,600
WAT YR 1964: TOTAL 294,847 MEAN 806 MAX 2,600 MIN 224 AC-FT 584,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	720	369	554	269	653	465	296	1,120	1,450	1,040	830	399
2	824	385	687	275	647	450	293	1,060	1,410	1,150	844	381
3	899	393	726	275	620	435	287	975	1,460	1,260	824	365
4	866	465	717	269	623	423	284	903	1,530	1,350	792	352
5	813	525	677	260	703	413	281	838	1,600	1,420	750	336
6	760	527	638	257	778	407	281	764	1,700	1,440	710	320
7	720	518	599	251	774	403	278	710	1,700	1,500	671	308
8	700	501	577	245	774	399	274	662	1,670	1,520	650	298
9	707	479	572	240	736	401	275	644	1,710	1,420	644	290
10	694	461	560	233	680	409	278	659	1,760	1,290	650	284
11	662	441	537	227	632	423	280	684	1,840	1,180	638	278
12	629	421	513	221	582	439	278	757	1,880	1,070	638	272
13	593	403	494	219	562	450	282	858	1,750	999	684	266
14	587	385	470	217	530	454	287	931	1,560	979	703	272
15	608	369	445	220	503	454	296	979	1,450	991	671	304
16	590	356	417	232	484	454	316	1,160	1,380	1,000	638	324
17	574	343	393	254	470	443	336	1,260	1,410	999	605	322
18	547	333	379	280	461	433	351	1,210	1,500	987	587	313
19	520	320	365	304	467	423	365	1,140	1,510	935	577	306
20	503	310	356	345	487	409	413	1,120	1,470	876	580	256
21	482	300	349	387	494	403	515	1,080	1,430	824	574	268
22	461	292	352	413	494	397	608	1,050	1,380	774	560	262
23	439	290	351	431	482	381	650	1,040	1,330	740	552	275
24	423	333	336	437	465	367	677	1,040	1,340	720	542	272
25	409	354	324	435	452	356	694	1,040	1,330	726	525	266
26	393	360	316	433	445	343	730	1,080	1,290	774	506	260
27	376	356	311	450	470	333	813	1,230	1,210	824	496	252
28	363	351	300	456	477	324	937	1,430	1,110	852	484	244
29	352	349	292	484	------	313	1,130	1,620	1,030	858	465	238
30	347	393	282	537	------	304	1,160	1,670	995	844	441	232
31	347	------	274	632	------	296	------	1,580	------	827	419	------
TOTAL	17,908	11,688	14,163	10,188	15,945	12,404	13,945	32,294	44,185	32,169	19,250	8,895
MEAN	578	390	457	329	569	400	465	1,042	1,473	1,038	621	297
MAX	899	527	726	632	778	465	1,160	1,670	1,880	1,520	844	399
MIN	347	290	274	217	445	296	274	644	995	720	419	232
AC-FT	35,520	23,180	28,090	20,210	31,630	24,600	27,660	64,050	87,640	63,810	38,180	17,640

CAL YR 1964: TOTAL 273,085 MEAN 746 MAX 2,600 MIN 224 AC-FT 541,700
WAT YR 1965: TOTAL 233,034 MEAN 638 MAX 1,880 MIN 217 AC-FT 462,200

12-2143. Sleese Creek near Vedder Crossing, British Columbia

Location.--Lat 49°04'21", long 121°41'58", approximately 200 ft upstream from unnamed creek, three-quarters of a mile upstream from mouth, and 13½ miles east of Vedder Crossing.

Drainage area.--62.7 sq mi.

Records available.--October 1960 to November 1962, August 1963 to March 1964, and May 1964 to September 1965 in reports of Geological Survey. March 1957 to September 1960 in reports of Department of Northern Affairs and National Resources, Canada.

Gage.--Water-stage recorder. Prior to Aug. 1, 1963, at site 0.7 mile downstream.

Extremes.--Maximum and minimum discharges October 1960 to November 1962, August 1963 to March 1964, May 1964 to September 1965 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	June 17, 1961	1,350	4.98	Oct. 5, 1960	19.8	2.24
1962	Feb. 3, 1962	2,410	5.83	Mar. 26, 1962	86	2.36
1963	Nov. 19, 20, 1962	a 1,780	5.35	Sept.30, 1963	b 102	2.63
1964	Oct. 21, 1963	3,860	7.81	Oct. 7, 1963	79.0	2.49
1965	May 28, 1965	1,290	5.45	Sept.30, 1965	75.5	2.45

a Maximum daily.
b Minimum daily.

1957-65: Maximum discharge, 3,860 cfs Oct. 21, 1963; minimum, 19.8 cfs Oct. 5, 1960 (gage height, 2.24 ft).

Remarks.--Records good.

Cooperation.--Records furnished by Department of Energy, Mines and Resources, Canada (formerly Department of Northern Affairs and National Resources, Canada).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	36	375	168	71	82	135	120	282	983	372	253	384
2	33	300	146	61	198	112	185	273	1,170	390	253	310
3	27	240	134	56	116	98	336	167	1,230	428	262	238
4	23	211	115	78	87	86	205	111	1,190	490	262	241
5	22	192	97	192	287	77	164	84	1,130	578	265	256
6	36	180	83	220	954	70	120	68	1,210	515	226	187
7	355	162	78	183	674	65	90	59	1,070	477	208	159
8	192	146	78	227	378	61	79	56	769	409	202	139
9	124	130	85	220	293	58	75	66	721	428	193	134
10	97	155	78	280	250	55	69	80	596	474	184	126
11	83	295	80	370	195	52	70	76	596	550	190	114
12	80	211	150	468	158	50	72	68	571	596	196	107
13	68	177	425	335	123	50	68	71	585	599	196	105
14	66	158	380	339	105	54	59	73	694	567	208	101
15	94	143	304	800	128	62	55	100	978	518	208	103
16	100	245	245	1,240	100	67	58	233	1,140	452	235	107
17	75	311	208	584	85	64	103	409	1,210	378	208	103
18	68	351	245	360	74	61	79	538	1,250	372	184	103
19	61	365	339	214	74	62	68	743	1,020	387	187	96
20	52	332	258	158	430	65	60	851	801	415	193	103
21	158	261	217	150	1,050	65	57	769	608	421	182	92
22	270	224	199	138	632	61	57	607	581	400	167	84
23	871	202	196	116	342	59	58	717	623	369	167	80
24	1,050	239	192	94	233	59	60	530	653	319	156	84
25	530	251	168	77	158	59	62	516	680	301	139	103
26	577	202	146	67	118	60	60	769	623	310	129	80
27	517	171	127	59	98	58	61	743	499	301	124	82
28	450	146	109	54	82	56	65	538	446	280	124	217
29	332	130	97	52	------	56	152	553	440	247	129	161
30	286	121	85	80	------	57	260	682	400	232	126	129
31	339	------	78	88	------	59	------	734	------	244	356	------
TOTAL	7,074	6,626	5,310	7,431	7,504	2,053	3,027	11,566	24,467	12,819	6,112	4,328
MEAN	228	221	171	240	268	66.2	101	373	816	414	197	144
MAX	1,050	375	425	1,240	1,050	135	336	851	1,250	599	356	384
MIN	22	121	78	52	74	50	55	56	400	232	124	80
AC-FT	14,030	13,140	10,530	14,740	14,880	4,070	6,000	22,940	48,530	25,430	12,120	8,580

CAL YR 1960: TOTAL 113,327 MEAN 310 MAX 1,660 MIN 22 AC-FT 224,800
WAT YR 1961: TOTAL 98,317 MEAN 269 MAX 1,250 MIN 22 AC-FT 195,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2143. Sleese Creek near Vedder Crossing, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	122	292	350	434	335	126	167	292	468	560	403	226
2	112	247	301	550	1,200	124	173	292	942	456	362	211
3	114	226	268	1,410	2,090	122	182	322	761	409	390	190
4	105	202	280	836	1,330	119	214	286	521	403	578	184
5	292	187	271	585	694	116	214	262	456	443	499	184
6	338	182	238	493	512	116	498	244	421	452	415	184
7	250	179	220	942	452	114	534	232	499	452	394	170
8	205	190	202	1,390	409	112	356	241	819	567	397	153
9	415	298	184	836	375	107	295	265	777	603	350	161
10	440	819	164	581	347	103	256	286	585	581	319	268
11	316	571	161	483	316	101	229	304	531	557	304	328
12	562	415	156	415	295	99	229	301	557	531	387	235
13	916	366	150	359	277	96	283	301	599	490	375	292
14	521	369	145	325	268	96	390	298	793	428	307	394
15	406	310	136	289	247	99	528	292	1,150	394	301	289
16	387	283	132	271	232	99	403	304	1,250	394	328	244
17	319	259	132	244	220	103	372	338	1,030	452	325	229
18	271	241	124	217	211	103	428	369	810	381	381	223
19	247	226	134	194	202	101	515	335	819	338	356	214
20	217	202	187	180	184	105	456	341	845	347	421	214
21	196	196	235	171	179	101	394	359	836	421	434	211
22	184	196	193	162	176	96	375	400	854	521	335	193
23	196	179	280	159	156	99	409	443	996	581	301	182
24	182	164	446	167	145	110	502	512	1,170	585	292	179
25	199	150	344	193	142	110	452	596	1,250	550	280	176
26	421	145	286	205	139	107	378	871	1,020	531	295	173
27	316	190	253	256	136	119	381	1,040	589	550	268	176
28	271	301	322	232	134	110	341	1,030	531	518	262	307
29	238	295	589	220	------	112	304	785	687	452	241	322
30	220	316	589	238	------	124	283	550	721	434	232	274
31	229	------	459	262	------	142	------	496	------	434	229	------
TOTAL	9,207	8,196	7,931	13,299	11,403	3,391	10,541	12,987	23,287	14,815	10,761	6,786
MEAN	297	273	256	429	407	109	351	419	776	478	347	226
MAX	916	819	589	1,410	2,090	142	534	1,040	1,250	603	578	394
MIN	105	145	124	159	134	96	167	232	421	338	229	153
AC-FT	18,260	16,260	15,730	26,380	22,620	6,730	20,910	25,760	46,190	29,390	21,340	13,460

CAL YR 1961: TOTAL 104,641 MEAN 287 MAX 1,250 MIN 50 AC-FT 207,600
WAT YR 1962: TOTAL 132,604 MEAN 363 MAX 2,090 MIN 96 AC-FT 263,000

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO NOVEMBER 1962, AUGUST TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	247	202									282	167
2	232	202									278	170
3	283	187									275	150
4	241	265	† 249								271	152
5	211	344									270	148
6	199	286									268	138
7	205	262									252	138
8	241	322									252	145
9	304	298									252	155
10	292	286									246	152
11	265	277									265	148
12	310	277									282	157
13	456	274									277	343
14	350	253									230	405
15	295	232									200	238
16	262	214									182	215
17	244	208									174	190
18	310	193									172	164
19	304	1,780									312	143
20	431	1,780									225	143
21	603	1,600									190	138
22	537	1,350									192	167
23	397	1,130									197	170
24	335	1,020									200	131
25	301	900									187	125
26	289	780									174	116
27	259	690									162	134
28	244	610									162	145
29	241	540			------						164	129
30	229	490			------						167	108
31	211	------			------		------		------		172	------
TOTAL	9,328	17,252									6,932	5,024
MEAN	301	575									224	167
MAX	603	1,780									312	405
MIN	199	187									162	108
AC-FT	18,500	34,220									13,750	9,960

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† Result of discharge measurement.

12-2143. Sleese Creek near Vedder Crossing, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	100	330	375	1,060	262	125		162	1,620	840	468	306
2	93	395	340	714	230	116		148	1,460	942	404	321
3	90	330	321	559	217	112		142	1,160	888	436	294
4	116	336	352	462	300	125		170	1,220	858	615	270
5	91	315	440	395	300	125		162	1,400	918	507	255
6	94	294	395	355	252	116		155	1,320	840	448	240
7	80	297	333	306	230	106		168	1,110	1,120	476	249
8	108	318	306	282	212	108		225	1,090	1,480	460	243
9	110	297	274	271	202	104		334	1,430	1,150	476	200
10	108	297	249	243	202	102		379	1,520	864	440	178
11	104	271	235	225	187	112		312	1,410	988	432	160
12	96	454	225	212	174	-		327	1,110	1,360	456	150
13	352	710	212	212	167	-		344	988	1,360	464	145
14	309	1,080	200	200	157	-		294	1,000	1,230	390	140
15	222	732	210	192	155	-		291	1,040	1,290	330	178
16	180	559	194	352	148	-		337	1,270	930	312	306
17	157	519	200	282	143	-		502	1,020	816	309	534
18	148	436	202	252	152	-		580	930	786	358	324
19	120	378	249	228	155	-		786	858	650	344	330
20	127	315	297	212	145	-		858	708	650	294	534
21	1,110	291	265	200	145	-		720	650	661	303	368
22	1,380	277	312	184	145	-		543	625	645	340	351
23	728	321	1,050	174	145	-		436	900	570	358	315
24	795	315	980	177	138	-		382	1,000	595	318	303
25	660	495	710	204	134	-		330	870	640	315	315
26	503	1,600	535	184	127	-		365	828	655	379	255
27	415	1,010	440	215	127	-		570	774	655	376	216
28	429	665	375	222	127	-		900	676	774	400	192
29	395	531	327	288	125	-		1,120	570	774	365	246
30	340	433	352	280	------	-	162	1,430	650	630	440	960
31	303	------	688	265	------	-	------	1,560	------	575	344	------
TOTAL	9,863	14,601	11,643	9,407	5,203	-	-	15,032	31,207	27,154	12,357	8,878
MEAN	318	487	376	303	179	-	-	485	1,040	876	399	296
MAX	1,380	1,600	1,050	1,060	300	-	-	1,560	1,620	1,480	615	960
MIN	80	271	194	174	125	-	-	142	570	570	294	140
AC-FT	19,560	28,960	23,090	18,660	10,320	-	-	29,820	61,900	53,860	24,510	17,610

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	645	351	954	101	468	239	129	476	552	698	391	120
2	930	265	725	96	365	220	129	387	703	786	376	116
3	615	239	543	100	312	213	122	329	900	828	333	111
4	452	810	432	97	444	218	120	301	930	816	284	104
5	380	460	354	95	747	222	129	262	1,000	764	249	102
6	343	343	312	93	595	224	128	236	975	769	239	95
7	322	294	281	92	436	231	122	227	876	852	241	95
8	372	249	304	89	391	241	118	241	888	650	259	96
9	347	227	312	88	329	254	120	308	1,000	444	257	97
10	308	207	278	87	281	308	130	417	960	365	259	98
11	259	190	241	84	246	336	129	464	1,060	343	246	95
12	239	173	218	80	224	333	134	620	900	322	265	92
13	246	162	207	80	252	304	157	645	635	387	516	92
14	333	150	192	108	227	281	162	585	525	489	301	157
15	361	146	181	175	205	262	215	561	530	525	241	372
16	291	141	178	304	207	246	291	988	566	512	227	190
17	252	141	170	376	265	215	265	645	834	494	224	140
18	229	137	165	351	318	194	236	530	894	425	236	120
19	227	130	158	398	432	181	239	484	670	336	246	110
20	222	126	152	489	432	173	464	530	645	312	246	105
21	209	122	148	460	347	166	714	507	605	291	213	105
22	194	117	143	372	294	159	530	516	575	272	200	104
23	184	143	136	308	252	146	429	580	600	284	209	104
24	186	361	132	265	227	134	417	538	640	354	190	103
25	181	222	125	229	213	132	421	575	590	436	173	102
26	168	194	122	218	241	126	498	708	507	468	169	93
27	155	171	118	265	343	122	703	981	413	448	160	87
28	146	159	115	294	284	117	974	1,170	347	398	150	82
29	146	177	110	484	------	116	725	1,100	369	365	140	78
30	181	792	107	786	------	111	590	822	502	326	123	75
31	179	------	104	686	------	110	------	630	------	343	118	------
TOTAL	9,302	7,399	7,717	7,754	9,377	6,334	9,540	17,363	21,211	15,102	7,481	3,444
MEAN	300	247	249	250	335	204	318	560	707	487	241	115
MAX	930	810	954	786	747	336	974	1,170	1,060	852	516	372
MIN	146	117	104	80	205	110	118	227	347	272	118	75
AC-FT	18,450	14,680	15,310	15,380	18,600	12,560	18,920	34,440	42,070	29,950	14,840	6,830

CAL YR 1964: TOTAL 131,688 MEAN 360 MAX 2,090 MIN 96 AC-FT 261,200
WAT YR 1965: TOTAL 122,024 MEAN 334 MAX 1,170 MIN 75 AC-FT 242,000

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2151. Sumas River near Huntingdon, British Columbia

Location.--Lat 49°00'09", long 122°13'50", on highway bridge at international boundary, 1½ miles east of Huntingdon.

Drainage area.--57.6 sq mi.

Records available.--October 1960 to September 1965 in reports of Geological Survey. October 1935 to June 1949 (fragmentary gage heights only), October 1950 to September 1952 (gage heights only), and October 1952 to September 1960 in reports of Department of Northern Affairs and National Resources, Canada.

Gage.--Water-stage recorder.

Average discharge.--13 years (1952-65), 107 cfs (77,460 acre-ft per year).

Extremes.--Maximum and minimum discharges for the water years 1961-65 are contained in the following table:

Water year	Maximum			Minimum		
	Date	Discharge (cfs)	Gage height (feet)	Date	Discharge (cfs)	Gage height (feet)
1961	Feb. 21, 1961	814	9.18	Sept. 27, 1961	9.6	1.84
1962	Jan. 3, 1962	442	6.74	Oct. 5, 1961	11.7	1.96
1963	Dec. 31, 1962	645	8.10	Oct. 3, 5, 1962	15.5	2.25
1964	Dec. 24, 1963	806	8.37	Oct. 3, 1963	31.5	1.75
1965	Feb. 6, 1965	1,130	10.46	Aug. 2, 1965	18.5	1.74

1952-65: Maximum discharge, 1,130 cfs Feb. 6, 1965 (gage height, 10.46 ft); minimum, 1.1 cfs Aug. 28, 1958 (gage height, 1.72 ft).

Remarks.--Records fair.

Cooperation.--Records furnished by Department of Energy, Mines and Resources, Canada (formerly Department of Northern Affairs and National Resources, Canada).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	13	80	77	67	102	256	124	58	29	18	14	15
2	13	81	72	68	130	255	217	62	27	18	13	16
3	13	91	68	61	132	207	236	79	26	18	13	18
4	12	84	66	63	113	179	196	137	26	17	13	16
5	12	76	61	149	180	162	146	164	26	16	12	15
6	13	72	52	304	397	152	120	123	25	19	12	15
7	14	66	47	280	572	150	102	96	33	19	14	14
8	16	62	44	178	394	136	97	79	32	18	13	13
9	17	58	42	135	264	157	103	87	27	18	12	13
10	16	68	40	162	220	165	92	90	27	18	11	13
11	16	149	41	314	189	146	84	82	27	17	11	13
12	16	209	158	337	210	147	93	77	27	16	10	13
13	16	141	268	242	208	162	111	71	25	15	11	12
14	16	122	237	191	176	184	95	76	24	15	12	12
15	17	134	182	241	177	273	82	70	23	14	11	12
16	17	155	115	436	187	301	79	62	22	15	11	11
17	16	198	91	353	244	292	76	54	21	16	15	12
18	16	186	110	230	341	217	70	50	21	16	15	12
19	16	180	268	172	308	177	69	45	20	15	13	12
20	16	166	300	137	540	188	67	44	20	15	13	12
21	18	171	225	115	750	302	63	44	19	15	13	12
22	27	161	168	102	600	220	57	42	19	15	12	11
23	45	137	125	91	495	185	53	42	19	15	11	11
24	56	176	100	78	385	253	51	41	18	15	10	10
25	62	331	108	77	320	243	49	38	20	15	11	9.9
26	78	350	102	66	278	187	48	35	15	14	11	9.9
27	121	226	85	59	246	150	46	38	16	13	11	9.8
28	167	146	72	55	244	128	45	38	17	14	12	11
29	146	106	64	55	------	114	51	33	18	14	11	15
30	106	85	59	68	------	102	55	31	18	15	10	17
31	87	------	61	121	------	101	------	30	------	15	12	------
TOTAL	1,214	4,267	3,508	5,007	8,402	5,891	2,777	2,018	687	493	373	385.6
MEAN	39.2	142	113	162	300	190	92.6	65.1	22.9	15.9	12.0	12.9
MAX	167	350	300	436	750	302	236	164	33	19	15	18
MIN	12	58	40	55	102	101	45	30	15	13	10	9.8
AC-FT	2,410	8,460	6,960	9,930	16,670	11,680	5,510	4,000	1,360	978	740	765

CAL YR 1960: TOTAL 29,203.2 MEAN 77.9 MAX 591 MIN 11.9 AC-FT 57,910
WAT YR 1961: TOTAL 35,022.6 MEAN 96.0 MAX 750 MIN 9.8 AC-FT 69,470

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2151. Sumas River near Huntingdon, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	16	21	48	157	70	37	56	40	27	19	15	16
2	14	20	58	167	85	34	56	56	29	19	15	16
3	13	20	55	393	140	36	53	75	35	19	15	15
4	12	19	52	345	290	37	50	103	35	18	20	14
5	12	19	56	229	135	34	50	81	31	19	29	14
6	14	18	49	194	113	45	76	54	29	20	32	14
7	16	18	39	220	102	62	222	40	27	21	27	13
8	16	17	34	258	94	69	170	38	26	21	29	13
9	15	19	31	261	90	105	90	40	26	20	29	13
10	16	74	28	185	84	91	54	43	25	19	25	14
11	19	137	25	137	83	79	45	38	24	19	21	18
12	22	77	25	116	82	67	40	36	24	18	20	18
13	50	47	25	102	82	59	42	33	24	18	20	16
14	58	37	25	98	101	55	45	32	24	18	20	23
15	24	31	23	88	135	51	50	37	24	18	19	34
16	19	26	25	77	101	48	52	44	23	18	17	26
17	18	24	52	71	83	46	49	37	22	18	18	20
18	17	22	83	69	76	46	45	30	22	18	20	18
19	16	23	103	67	75	47	43	28	21	17	29	16
20	16	23	252	80	67	65	37	27	21	18	30	15
21	15	23	310	87	58	119	34	26	22	18	24	15
22	15	25	274	97	53	97	35	25	21	18	23	15
23	17	35	271	102	51	78	40	27	20	18	20	15
24	21	31	313	106	44	71	50	34	20	17	19	14
25	20	26	261	113	43	71	60	37	20	16	18	14
26	21	24	175	155	42	97	61	36	22	16	18	13
27	47	22	129	207	40	136	59	33	22	15	19	13
28	56	26	174	185	39	118	55	32	21	16	19	17
29	43	44	380	157	------	83	50	35	20	16	18	21
30	27	49	349	114	------	66	42	30	19	17	17	22
31	22	------	231	80	------	57	------	27	------	15	16	------
TOTAL	707	997	3,955	4,717	2,458	2,106	1,811	1,254	726	557	661	505
MEAN	22.8	33.2	128	152	87.8	67.9	60.4	40.5	24.2	18.0	21.3	16.8
MAX	58	137	380	393	290	136	222	103	35	21	32	34
MIN	12	17	23	67	39	34	34	25	19	15	15	13
AC-FT	1,400	1,980	7,840	9,360	4,880	4,180	3,590	2,490	1,440	1,100	1,310	1,000

CAL YR 1961: TOTAL 31,692.6 MEAN 86.8 MAX 750 MIN 9.8 AC-FT 62,860
WAT YR 1962: TOTAL 20,454 MEAN 56.0 MAX 393 MIN 12 AC-FT 40,570

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	18	17	97	353	38	146	50	29	16	23	27	22
2	16	16	91	294	52	117	45	39	16	22	25	24
3	16	17	84	346	76	90	41	55	18	22	25	25
4	16	21	92	285	197	71	122	48	17	22	23	25
5	16	58	79	200	157	60	228	49	18	22	24	24
6	16	75	106	154	126	52	282	60	18	22	22	23
7	19	50	107	124	104	47	267	49	17	22	22	23
8	25	39	99	106	86	42	172	39	16	22	21	23
9	27	55	91	96	78	38	127	33	17	23	21	23
10	35	84	74	87	64	36	94	28	19	25	20	23
11	31	100	62	79	52	34	76	26	18	27	20	23
12	24	110	55	72	44	31	65	25	18	30	21	23
13	26	88	57	68	39	29	69	25	18	32	21	25
14	27	71	88	61	35	29	67	24	18	31	21	27
15	25	58	171	54	35	30	85	25	17	31	21	30
16	23	52	158	51	34	27	113	26	18	32	20	28
17	22	51	119	47	35	26	94	23	18	30	20	30
18	21	55	107	43	35	25	76	22	17	29	20	31
19	23	66	97	39	43	28	73	21	18	28	21	28
20	24	157	96	34	61	67	67	20	18	27	20	30
21	23	172	92	31	52	61	56	20	18	29	20	29
22	22	92	71	29	42	45	49	19	18	35	20	29
23	21	65	50	29	40	38	43	19	19	36	19	30
24	20	57	38	27	38	33	39	19	20	34	21	30
25	19	88	28	27	42	30	36	19	19	31	22	30
26	19	172	24	27	210	31	33	18	20	28	22	30
27	19	158	24	25	260	33	30	18	20	27	22	30
28	19	103	48	24	162	57	27	17	21	27	22	29
29	18	82	180	24	------	84	26	17	22	27	22	30
30	17	79	507	26	------	72	30	17	22	27	21	30
31	17	------	600	32	------	57	------	17	------	28	21	------
TOTAL	664	2,308	3,582	2,894	2,237	1,566	2,582	866	549	851	667	807
MEAN	21.4	76.9	116	93.4	79.9	50.5	86.1	27.9	18.3	27.5	21.5	26.9
MAX	35	172	600	353	260	146	282	60	22	36	27	31
MIN	16	16	24	24	34	25	26	17	16	22	19	22
AC-FT	1,320	4,580	7,100	5,740	4,440	3,110	5,120	1,720	1,090	1,690	1,320	1,600

CAL YR 1962: TOTAL 21,349 MEAN 58.5 MAX 600 MIN 13 AC-FT 42,350
WAT YR 1963: TOTAL 19,573 MEAN 53.6 MAX 600 MIN 16 AC-FT 38,820

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

12-2151. Sumas River near Huntingdon, British Columbia--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	32	64	184	428	366	125	308	95	65	61	207	93
2	32	58	157	520	353	130	314	93	68	60	184	90
3	32	56	142	373	287	120	200	90	67	61	182	87
4	33	54	136	303	251	140	170	85	68	61	170	83
5	35	81	202	264	246	436	184	86	78	61	227	80
6	37	117	313	273	217	504	171	83	87	61	216	78
7	37	120	362	276	193	315	151	78	117	61	162	81
8	37	153	270	229	177	245	137	75	97	62	139	107
9	38	168	251	221	177	213	126	78	85	77	132	97
10	37	122	210	227	183	189	125	95	78	86	130	82
11	35	97	168	211	192	177	130	85	74	73	120	75
12	34	95	146	207	177	168	126	80	71	69	113	72
13	36	203	133	198	167	156	122	97	71	67	109	70
14	42	357	124	267	157	168	138	90	71	69	108	68
15	44	281	200	295	175	217	217	77	71	82	105	68
16	39	178	452	435	194	217	243	73	69	113	103	75
17	37	184	440	415	175	233	210	70	73	142	101	128
18	35	241	327	312	174	274	171	67	82	106	137	180
19	35	275	352	276	180	222	146	67	91	91	200	140
20	34	305	532	263	165	184	130	65	85	85	150	168
21	37	209	736	233	150	170	122	78	77	91	121	178
22	49	183	494	215	139	154	183	107	71	125	110	151
23	73	225	614	194	131	135	206	129	67	172	105	141
24	59	341	772	185	129	122	160	134	65	135	101	118
25	58	347	554	291	118	119	134	132	63	109	97	103
26	70	330	396	312	114	125	122	103	62	99	97	92
27	72	300	344	256	110	117	113	89	62	93	95	83
28	77	270	315	279	108	110	113	79	65	91	97	78
29	110	250	280	389	108	105	105	75	65	89	97	77
30	117	215	245	485	------	103	101	71	62	95	94	130
31	87	------	257	421	------	121	------	69	------	155	95	------
TOTAL	1,530	5,879	10,108	9,253	5,313	5,814	4,878	2,695	2,227	2,802	4,104	3,073
MEAN	49.4	196	326	298	183	188	163	86.9	74.2	90.4	132	102
MAX	117	357	772	520	366	504	314	134	117	172	227	180
MIN	32	54	124	185	108	103	101	65	62	60	94	68
AC-FT	3,030	11,660	20,050	18,350	10,540	11,530	9,680	5,350	4,420	5,560	8,140	6,100

CAL YR 1963: TOTAL 30,536 MEAN 83.7 MAX 772 MIN 16 AC-FT 60,570
WAT YR 1964: TOTAL 57,676 MEAN 158 MAX 772 MIN 32 AC-FT 114,400

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
1	229	66	687	94	578	335	117	95	59	40	23	35
2	207	260	784	93	432	277	141	97	56	40	20	35
3	182	360	640	92	347	249	121	89	54	39	24	35
4	152	380	495	91	407	226	110	90	53	40	29	35
5	118	449	370	91	876	209	105	89	52	41	32	34
6	100	295	288	90	1,060	195	104	84	50	38	33	34
7	89	211	240	90	700	185	100	77	50	37	31	33
8	87	180	208	89	622	176	97	73	49	38	32	33
9	107	153	188	90	588	170	97	70	49	37	33	34
10	105	138	204	92	443	165	104	67	48	38	31	34
11	93	147	204	100	362	161	102	64	51	39	29	34
12	86	184	177	140	319	151	96	63	58	41	35	33
13	80	180	165	175	407	142	101	61	53	36	71	34
14	84	149	152	223	464	134	112	59	51	35	63	38
15	135	125	142	268	364	129	102	61	49	32	43	44
16	155	111	135	288	438	124	96	109	48	31	39	41
17	129	105	130	294	810	115	102	109	47	31	35	38
18	108	99	128	259	662	109	102	93	47	33	34	37
19	95	94	124	289	500	109	102	81	46	35	33	36
20	87	89	120	318	492	107	147	129	47	33	34	36
21	80	85	118	405	389	109	150	207	47	34	36	36
22	76	81	117	512	400	134	132	143	44	34	35	36
23	70	81	114	383	349	125	112	103	44	32	35	36
24	69	142	110	301	295	109	120	88	44	31	35	36
25	68	170	108	275	267	105	136	79	44	31	36	36
26	65	200	104	267	281	102	115	74	43	34	40	36
27	64	219	102	456	484	100	103	69	44	30	42	35
28	62	175	100	804	457	98	97	65	46	30	39	35
29	62	157	97	937	------	105	90	62	43	28	38	35
30	61	289	97	850	------	108	87	61	42	27	37	36
31	62	------	96	840	------	103	------	61	------	26	36	------
TOTAL	3,167	5,374	6,744	9,296	13,793	4,666	3,300	2,672	1,458	1,071	1,113	1,070
MEAN	102	179	218	300	493	151	110	86.2	48.6	34.5	35.9	35.7
MAX	229	449	784	937	1,060	335	150	207	59	41	71	44
MIN	61	66	96	89	267	98	87	59	42	26	20	33
AC-FT	6,280	10,660	13,380	18,440	27,360	9,250	6,550	5,300	2,890	2,120	2,210	2,120

CAL YR 1964: TOTAL 55,444 MEAN 151 MAX 784 MIN 60 AC-FT 110,000
WAT YR 1965: TOTAL 53,724 MEAN 147 MAX 1,060 MIN 20 AC-FT 106,600

Note.--Figures of daily discharge between 10 and 20 cfs given in this table may differ slightly from those shown in other reports; the differences can be attributed to rounding.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected.

Records collected at partial-record stations are generally presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations; however, no records at low-flow partial-record stations are available for the water years 1961-65.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water years 1961-65

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Naselle River basin					
12-0106	Lane Creek near Naselle, Wash.	SW¼SW¼ sec.3, T.10 N., R.9 W., at U.S. Highway 830, 1.5 miles northeast of Naselle.	2.15	1950-65	2-21-61 12-24-61 11-20-62 1-25-64 1-28-65	14.74 13.81 15.54 14.89 14.78	188 128 249 200 192
		South Nemah River basin					
12-0108	South Nemah River near Naselle, Wash.	NE¼NW¼ sec.13, T.11 N., R.10 W., at U.S. Highway 101, 6 miles northwest of Naselle.	1.99	1962-65	(a) 11-20-62 1-25-64 11-24-64	6.61 8.20 7.61 8.04	193 205 256 286
		North Nemah River basin					
12-0111	North Nemah River tributary near South Bend, Wash.	NW¼ sec.24, T.12 N., R.10 W., at Nemah road 1¼ miles east of U.S. Highway 101 and 10¾ miles south of South Bend.	0.46	1949-65	2-21-61 (a) 11-19-62 1-25-64 1- 2-65	10.35 3.89 13.85 6.53 6.42	58 32 101 38 47
		Willapa River basin					
12-0122	Green Creek near Lebam, Wash.	NE¼ sec.30, T.13 N., R.7 W., at county road 2.5 miles northwest of Lebam.	1.79	1950-65	11-20-59 11-20-60 (c) 11-19-62 1-25-64 11-30-64	17.51 17.70 16.59 18.22 17.27 16.98	b 126 233 110 143 119 98
		North River basin					
12-0167	Joe Creek near Cosmopolis, Wash.	SE¼ sec.30, T.16 N., R.8 W., at U.S. Highway 101, 8½ miles southeast of Cosmopolis.	2.05	1949-65	2-21-61 (c) 11-19-62 1-25-64 12- 1-64	6.61 6.71 7.18 5.94 6.05	168 100 218 114 120
		Chehalis River basin					
12-0196	Water Mill Creek near Pe Ell, Wash.	SE¼ sec.33, T.13 N., R.5 W., at State Highway 6, 1 mile southwest of Pe Ell.	1.98	1950-65	2-21-61 (c) 11-19-62 1-25-64 1-27-65	19.42 17.71 21.82 19.02 19.52	106 50 147 93 77
12-0205	Elk Creek near Doty, Wash.	NE¼ sec.8, T.13 N., R.5 W., half a mile upstream from Nine Creek, 1 mile upstream from Deer Creek, and 2½ miles west of Doty.	46.7	1945-50‡, 1952-65	2-21-61 (c) 11-20-62 1-25-64 1-27-65	7.47 5.04 9.60 8.14 7.37	2,010 778 3,400 2,410 1,950
12-0263	Skookumchuck River tributary near Bucoda, Wash.	SE¼ sec.11, T.15 N., R.2 W., at State Highway 507, 1½ miles west of Bucoda.	.58	1960-65	11- -60 12-20-61 11-19-62 1-25-64 1-26-65	5.77 4.25 5.46 4.93 5.15	39 11 53 39 45
12-0347	West Fork Satsop River tributary near Matlock, Wash.	NE¼ sec.17, T.21 N., R.7 W., at Simpson logging road 3 miles south of Camp Grisdale, 10½ miles northwest of Matlock, and 24 miles north of Montesano.	.33	1958-65	2-21-61 12-23-61 11-19-62 11-26-63 11-30-64	7.63 5.80 7.38 6.36 6.41	65 14 58 27 28
		Humptulips River basin					
12-0390.5	Big Creek near Hoquiam, Wash.	SE¼ sec.11, T.19 N., R.10 W., at Larson Road, 300 ft east of U.S. Highway 101 and 11.4 miles north of Hoquiam.	0.56	1949-65	2-21-61 12-23-61 11-19-62 11-26-63 11-30-64	10.77 8.50 9.82 8.56 8.90	77 34 63 36 41

Annual maximum discharge at crest-stage partial-record stations during water years 1961-65--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Humptulips River basin--Continued					
12-0391	Big Creek tributary near Hoquiam, Wash.	SE¼ sec.11, T.19 N., R.10 W., at U.S. Highway 101, 11.6 miles north of Hoquiam.	0.15	1949-65	2-21-61 12-23-61 11-19-62 11-26-63 11-30-64	5.64 4.61 5.33 4.64 4.84	21 9.3 17 9.6 12
		Quinault River basin					
12-0394	Higley Creek near Amanda Park, Wash.	SW¼ sec.13, T.23 N., R.10 W., at North Shore Road, 1.6 miles east of U.S. Highway 101 and 1½ miles north of Amanda Park.	0.77	1955-65	2-21-61 12-23-61 11-19-62 12-23-63 11-30-64	12.00 6.11 13.99 7.80 8.42	332 93 273 164 192
		Queets River basin					
12-0400	Clearwater River near Clearwater, Wash.	Lot 4, NW¼ sec.18, T.24 N., R.12 W., 1½ miles north of Clearwater and 3 miles upstream from mouth.	140	1932‡, 1935‡, 1938-49‡, 1950-65	1-15-61 12-23-61 11-19-62 12-23-63 11-30-64	19.42 11.89 18.02 13.95 15.44	31,100 11,500 27,200 16,600 20,300
12-0405	Queets River near Clearwater, Wash.	SW¼ sec.36, T.24 N., R.13 W., on Quinault Indian Reservation, 2 miles downstream from Clearwater River and 2¾ miles southwest of Clearwater.	445	1931-49‡, 1950-65	1-15-61 1- 3-62 11-19-62 10-21-63 11-30-64	23.38 15.87 22.85 18.76 19.30	90,800 32,900 85,600 47,400 55,600
		Quillayute River basin					
12-0416	Soleduck River tributary near Fairholm, Wash.	SE¼SW¼ sec.35, T.30 N., R.10 W., at National Park road, 2.6 miles southwest of Fairholm.	0.42	1956-65	1-15-61 1- 3-62 11-19-62 10-21-63 11-30-64	11.32 8.85 9.85 8.90 9.07	50 12 28 13 16
12-0427	May Creek near Forks, Wash.	SW¼ sec.35, T.28 N., R.13 W., at U.S. Highway 101, 5 miles south of Forks.	2.03	1950-65	2-21-61 1- 3-62 11-19-62 12-23-63 1- 4-65	30.21 19.25 32.82 24.42 23.86	694 238 759 499 478
12-0429	Grader Creek near Forks, Wash.	SW¼ sec.17, T.28 N., R.13 W., at U.S. Highway 101, 2 miles southwest of Forks.	1.67	1950-65	2-21-61 1- 3-62 11-19-62 11-26-63 1- 4-65	22.05 18.92 22.32 20.73 20.89	455 163 485 312 328
		Valley Creek basin					
12-0468	East Valley Creek at Port Angeles, Wash.	SW¼ sec.15, T.30 N., R.6 W., at county road 1 mile south of Port Angeles city limits.	0.69	1950-63	1-15-61 1962 11-25-62	d33.12 - d13.01	e 52 <6 20
		Lees Creek basin					
12-0471	Lees Creek at Port Angeles, Wash.	SE¼ sec.12, T.30 N., R.6 W., at U.S. Highway 101, 1 mile east of Port Angeles city limits.	4.77	1949-65	1-15-61 1- 3-62 11-25-62 1-16-64 1-30-65	19.52 9.85 11.11 10.29 10.78	338 43 81 56 70
		Dean Creek basin					
12-0494	Dean Creek at Blyn, Wash.	NW¼ sec.12, T.29 N., R.3 W., at old highway, 50 ft east of U.S. Highway 101 at west edge of Blyn.	2.96	1949-65	1961 4-27-62 11-25-62 3-21-64 1-30-65	7.55 6.87 8.56 7.61 8.28	20 8 46 17 30
		Quilcene River basin					
b 12-0524	Penny Creek near Quilcene, Wash.	SE¼ sec.22, T.27 N., R.2 W., at county road 200 ft upstream from mouth and 2 miles southwest of Quilcene.	6.78	1949-65	2-11-61 11-30-61 11-25-62 1964 1-30-65	18.95 17.92 18.65 17.37 19.09	150 93 133 71 39
		Dosewallips River basin					
12-0530	Dosewallips River near Brinnon, Wash.	SW¼ sec.24, T.26 N., R.3 W., half a mile west of Corringenda ranger station, 5½ miles northwest of Brinnon, and 7½ miles above mouth.	93.5	1931-50‡, 1951-65	1-15-61 1- 3-62 2- 4-63 10-21-63 11-30-64	8.05 5.58 8.23 7.24 6.10	7,520 2,790 7,980 5,610 3,570
12-0534	Dosewallips River tributary near Brinnon, Wash.	NW¼ sec.28, T.26 N., R.2 W., at Dosewallips River road, 2.9 miles west of U.S. Highway 101 and 3¼ miles northwest of Brinnon.	b .62	1951-65	1-15-61 11-30-61 11-25-62 11-23-63 1-30-65	6.23 6.51 6.78 6.14 5.61	26 32 40 23 11
		Unnamed tributary to Hood Canal					
12-0563	Annas Bay tributary near Potlatch, Wash.	SW¼ sec.35, T.22 N., R.4 W., at U.S. Highway 101, 2.5 miles south of Potlatch.	0.82	1950-65	1-15-61 12-22-61 11-19-62 1964 11-30-64	16.98 14.92 15.78 - 16.37	69 f 3 23 <19 45

Annual maximum discharge at crest-stage partial-record stations during water years 1961-65--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Skokomish River basin							
12-0612	Fir Creek tributary near Potlatch, Wash.	SW¼NE¼ sec.3, T.21 N., R.5 W., at private logging road 8 miles southwest of Potlatch.	0.76	1955-65	1-15-61 11-30-61 11-19-62 1- 1-64 11-30-64	20.61 17.80 19.17 17.71 18.65	208 87 145 83 121
Schneider Creek basin							
12-0786	Schneider Creek tributary near Shelton, Wash.	SE¼ sec.32, T.19 N., R.3 W., at old U.S. Highway 101, 8.5 miles south of Shelton.	1.12	1924-49g, 1950-65	2-21-61 12-23-61 11-19-62 1-25-64 11-30-64	18.77 17.76 19.03 19.11 19.00	57 30 65 68 64
McAllister Creek basin							
12-0813	Eaton Creek near Yelm, Wash.	S½ sec.7, T.17 N., R.1 E., at county road 6 miles northwest of Yelm.	b 2.28	1960-65	12-15-59 11-24-60 12-20-61 11-25-62 1- 1-64 12-23-64	5.15 4.88 - 5.13 5.44 5.23	b 42 32 13 28 40 32
Chambers Creek basin							
12-0904	North Fork Clover Creek near Parkland, Wash.	SE¼NW¼ sec.15 T.19 N., R.3 E., at entrance to Mayfair Estates, 1½ miles southeast of Parkland.	5.26	1960-65	12-16-59h 11-24-60 3- 5-62 11-25-62 1-25-64 12-22-64	h 14.78 12.93 11.16 12.84 12.48 13.05	h 153 174 76 161 143 152
12-0905	Clover Creek near Tillicum, Wash.	On west line of sec.12, T.19 N., R.2 E., 1½ miles upstream from mouth, 2½ miles northeast of Tillicum, and 7.9 miles southwest of Tacoma.	b 73.8	1950-54‡, 1960-65	2-16-60h 2-26-61 12-23-61 2- 3-63 1-31-64 2-26-65	h 3.79 4.51 2.88 4.17 4.37 3.99	h 163 275 72 217 246 185
Puyallup River basin							
12-0930	Kapowsin Creek near Kapowsin, Wash.	NE¼ sec.5, T.17 N., R.5 E., half a mile downstream from Kapowsin Lake and 1½ miles east of Kapowsin.	b 25.9	1928-32‡, 1942-57‡, 1958-65	11-24-60 1962 2- 3-63 1-25-64 1-29-65	4.93 3.6 3.88 5.24 5.65	501 210 266 577 681
12-0968	Dry Creek near Greenwater, Wash.	NW¼ sec.34, T.18 N., R.10 E. (unsurveyed), at forest service road 200 ft upstream from U.S. Highway 410, 10 miles north of Chinook Pass, and 12 miles southeast of Greenwater.	b 1.01	1957-65	6- -61 1- 7-62 2- 3-63 6- 2-64 1-29-65	4.36 4.66 4.59 4.41 7.76	11 15 14 12 67
12-0977	Cyclone Creek near Enumclaw, Wash.	SW¼ sec.34, T.20 N., R.8 E., at U.S. Highway 410, 10 miles east of Enumclaw.	2.35	1950-65	2-21-61 1- 7-62 11-20-62 1-25-64 1-29-65	22.50 22.90 22.82 22.59 41.4	101 124 119 105 >200
12-1022	Swan Creek near Tacoma, Wash.	Center W½ sec.26, T.20 N., R.3 E., at South 72nd Street, 1.8 miles east of Pacific Avenue and 4.8 miles southeast of Tacoma city center.	2.15	1951-65	11-24-60 3- 5-62 2- 3-63 1- 1-64 1-29-65	15.02 14.32 14.74 15.34 14.80	96 59 80 114 85
Hylebos Creek basin							
12-1028	South Fork Hylebos Creek near Puyallup, Wash.	SE¼ sec.33, T.21 N., R.4 E., at State Highway 161, 5 miles north of Puyallup.	b 0.27	1949-65	11-24-60 12-22-61 11-25-62 1-25-64 1-29-65	3.73 3.54 3.44 3.76 3.62	4.7 3.3 3.5 4.9 4.2
Joes Creek basin							
12-1032	Joes Creek at Tacoma, Wash.	NW¼ sec.14, T.21 N., R.3 E., at Dumas Road, 0.6 mile north of Tacoma city limits.	0.78	1958-65	2-24-61 12-22-61 2- 3-63 1-25-64 12-22-64	4.22 3.89 4.27 4.22 4.18	12 8.6 12 12 12
Duwamish River basin							
12-1072	Deep Creek at Cumberland, Wash.	SE¼ sec.21, T.21 N., R.7 E., at Northern Pacific RR crossing, 0.6 mile northeast of Cumberland.	b 2.17	1950-65	11-25-60 12-23-61 2- 3-63 1-25-64 1-29-65	9.10 8.26 8.45 9.99 11.35	70 55 63 97 128
12-1132	Mill Creek (formerly Dolloff Lake Outlet) near Auburn, Wash.	SW¼SW¼ sec.14, T.21 N., R.4 E., at private driveway off State Highway 18, 2 miles west of Auburn.	b 3.14	1949-65	11-24-60 1962 12-30-62 1-25-64 12-22-64	5.64 4.23 5.31 5.34 5.32	65 13 52 52 52

Annual maximum discharge at crest-stage partial-record stations during water years 1961-65--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
Duwamish River basin--Continued							
12-1133	Mill Creek tributary (formerly Hill Creek tributary) near Auburn, Wash.	NE¼SE¼ sec.2, T.21 N., R.4 E., at county road 2 miles northwest of Auburn.	b 0.30	1959-65	1-23-59	11.09	b 5.1
					11-20-59	11.26	b 6.4
					2-24-61	11.13	5.5
					1962	10.51	1.4
					11-25-62	11.19	5.9
					1-25-64	12.28	15
					4-19-65	11.48	8.5
Lake Washington basin							
12-1153	Green Point Creek near Cedar Falls, Wash.	SE¼ sec.17, T.22 N., R.9 E., at road crossing near mouth, 5 miles southeast of Cedar Falls.	b 0.89	1957-65	2-21-61	12.21	64
					12-24-61	11.85	56
					2- 3-63	15.04	112
					1- 1-64	10.54	27
					12- 1-64	11.56	47
12-1198	North Branch Mercer Creek near Bellevue, Wash.	NE¼ sec.27, T.25 N., R.5 E., at county road 0.2 mile north of Bellevue-Redmond highway and 2.5 miles northeast of Bellevue.	b 3.05	1949-65	2-24-61	9.22	42
					12-17-61	8.83	30
					2- 3-63	8.80	37
					1- 1-64	9.24	42
					2- 5-65	8.88	34
12-1233	Evans Creek tributary near Redmond, Wash.	NW¼ sec.16, T.25 N., R.6 E., at Redmond-Fall City highway, 3¾ miles southeast of Redmond.	2.46	1949-65	11-25-60	5.23	22
					1- 5-62	5.12	18
					2- 3-63	4.80	5.9
					1- 1-64	5.15	19
					1-29-65	5.27	23
Snohomish River basin							
12-1305	South Fork Skykomish River near Skykomish, Wash.	NW¼NE¼ sec.31, T.26 N., R.12 E., on left bank a quarter of a mile downstream from confluence of Tye and Foss Rivers and 2½ miles east of Skykomish.	135	1930-31‡, 1947-50‡, 1951-65	(i)	8.31	6,620
					4- 6-62	7.74	5,480
					11-19-62	10.98	13,400
					6- 1-64	7.02	4,220
					12- 1-64	7.22	4,540
12-1310	Beckler River near Skykomish, Wash.	SW¼ sec.18, T.26 N., R.12 E., on left bank a quarter of a mile downstream from Eagle Creek and 3 miles northeast of Skykomish.	96.5	1930-33‡, 1947-49‡, 1950-65	(i)	8.33	6,840
					1- 3-62	7.08	4,280
					11-19-62	9.29	9,290
					6- 1-64	6.62	3,510
					12- 1-64	7.33	4,750
12-1327	South Fork Skykomish River tributary at Baring, Wash.	NE¼ sec.2, T.26 N., R.10 E., at Great Northern RR crossing, 200 ft north of U.S. Highway 2 and a quarter of a mile east of Baring Post Office.	1.25	1951-65	2-21-61	14.64	107
					1- 3-62	14.66	104
					11-19-62	15.97	174
					1- 1-64	13.36	49
					1-29-65	14.69	103
12-1355	Olney Creek near Gold Bar, Wash.	SW¼ sec.6, T.28 N., R.9 E., on left bank 5½ miles north of Gold Bar.	b 8.31	1947-50‡, 1951, 1953-65	2-21-61	4.2	790
					1- 7-62	4.16	762
					11-19-62	4.29	853
					1- 1-64	4.05	690
					1-29-65	4.15	755
12-1433	South Fork Snoqualmie River tributary near North Bend, Wash.	NW¼NW¼ sec.13, T.22 N., R.10 E., at U.S. Highway 10, 600 ft west of Denny Creek Road and 15 miles southeast of North Bend.	.15	1951-65	2-21-61	13.62	21
					1- 3-62	13.56	17
					11-19-62	14.24	28
					1- 1-64	14.32	33
					1-29-65	13.89	25
12-1433.1	South Fork Snoqualmie River tributary No. 2 near North Bend, Wash.	NW¼NW¼ sec.13, T.22 N., R.10 E., at U.S. Highway 10, 900 ft west of Denny Creek Road and 15 miles southeast of North Bend.	.34	1962-65	1- 3-62	5.18	15
					11-19-62	5.27	16
					1- 1-64	6.11	31
					1-29-65	5.40	19
12-1450	Tokul Creek near Snoqualmie, Wash. (station discontinued).	SE¼NW¼ sec.19, T.24 N., R.8 E., 200 ft upstream from fish hatchery diversion dam, 600 ft downstream from highway bridge, and 1¾ miles northwest of Snoqualmie.	32.2	1909‡, 1912‡, 1914‡, 1930-31‡, 1959-61	11-16-60	3.99	832
12-1481	South Fork Tolt River tributary near Carnation, Wash.	NW¼ sec.36, T.26 N., R.8 E., at Weyerhauser Timber Co. road, 9 miles northeast of Clarkston and 12 miles southeast of Duvall.	b 2.19	1955-65	2- 8-55	15.69	b 114
					12-11-55	16.68	b 163
					2-26-57	15.34	b 97
					1-16-58	15.32	b 96
					1-24-59	17.53	b 195
					12-15-59	19.06	b 242
					2-21-61	15.00	82
					1- 3-62	15.69	114
					11-19-62	15.51	106
					1- 1-64	14.71	69
					1-29-65	18.25	218
12-1525	Pilchuck River near Granite Falls, Wash.	SE¼ sec.30, T.30 N., R.7 E., on right bank 200 ft upstream from county road bridge and 2 miles southeast of Granite Falls.	b 54.5	1944-57‡, 1958-65	2-21-61	8.35	5,860
					1- 7-62	8.21	5,590
					11-19-62	7.08	3,670
					1- 1-64	7.40	4,170
					1-29-65	9.15	7,510
12-1564	Munson Creek near Marysville, Wash.	NW¼ sec.26, T.30 N., R.5 E., at south edge of Cedarcrest Golf Course, 2 miles northeast of Marysville.	.97	1949-65	11-20-60	9.31	27
					1- 7-62	9.22	26
					1- 3-63	8.44	14
					1- 1-64	9.00	23
					1-29-65	9.86	34

Annual maximum discharge at crest-stage partial-record stations during water years 1961-65--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Stillaguamish River basin					
12-1640	Jim Creek near Arlington, Wash.	SE¼NW¼ sec.17, T.31 N., R.6 E., on right bank at abandoned bridge, 1¼ miles upstream from mouth and 3 miles southeast of Arlington.	b 46.2	1938-57‡, 1958-65	2-21-61	7.94	3,300
					1- 3-62	6.65	2,220
					11-19-62	6.97	2,480
					1- 1-64	6.92	2,440
					1-29-65	8.96	4,360
12-1695	Fish Creek near Arlington, Wash.	NW¼ sec.18, T.31 N., R.5 E., 300 ft upstream from former gaging station and 4½ miles west of Arlington.	b 7.52	1951-53‡, 1955-65	2-24-61	10.21	68
					12-17-61	10.39	72
					1- 3-63	9.01	42
					3-11-64	11.34	90
					1-29-65	12.31	154
		Skagit River basin					
12-1894	Sauk River tributary near Darrington, Wash.	SE¼ sec.18, T.33 N., R.10 E., at Darrington-Concrete road, 6.5 miles northeast of Darrington.	1.11	1951-65	2-21-61	78.30	157
					1- 3-62	75.04	95
					11-19-62	79.10	183
					11-26-63	75.88	114
					11-30-64	75.24	100
12-1972	Parker Creek (formerly Skagit River tributary) near Lyman, Wash.	SE¼ sec.25, T.35 N., R.5 E., at county road on south side of Skagit River, 3 miles southwest of Lyman.	1.82	1951-65	2-21-61	19.57	168
					1- 3-62	17.86	80
					11-19-62	18.05	102
					1- 1-64	18.99	136
					11-24-64	18.64	125
12-2007	Carpenter Creek tributary (formerly Skagit River tributary) near Mount Vernon, Wash.	SE¼ sec.4, T.32 N., R.4 E., at U.S. Highway 99, three-quarters of a mile south of Skagit County line and 9.5 miles south of Mount Vernon.	2.58	1949-65	3-15-61	7.47	32
					1- 3-62	6.72	16
					11-19-62	-	16
					12- 6-63	8.03	51
					1-29-65	8.18	56
		Samish River basin					
12-2008	Lake Creek near Bellingham, Wash.	SW¼NW¼ sec.23, T.37 N., R.3 E., at U.S. Highway 99, 6.5 miles southeast of Bellingham.	2.35	1949-63, 1965	1-15-61	12.07	178
					1- 7-62	10.00	44
					12-30-62	10.36	74
					1-28-65	19.78	248
		Nooksack River basin					
12-2044	Nooksack River tributary near Glacier, Wash.	SW¼ sec.32 (unsurveyed), T.40 N., R.8 E., at State Highway 542, 6.5 miles east of Glacier.	1.15	1956-60, 1962-65	11- 3-55	b 17.50	h 181
					10-17-56	b 16.47	h 121
					1-16-58	b 15.8	h 48
					12- 2-58b	16.87	h 140
					11-23-59	15.55	h 71
					1- 7-62	16.45	68
					11-19-62	17.08	97
					10-21-63	15.86	43
					11- 4-64	15.50	32
12-2127	Tenmile Creek tributary near Bellingham, Wash.	0.1 mile north of center sec.27, T.39 N., R.3 E., at Starry Road, 2.7 miles northwest of Noon and 7 miles northeast of Bellingham.	.74	1949-65	2-21-61	8.88	20
					1- 7-62	8.32	12
					12-30-62	9.08	24
					3- 5-64	8.72	18
					2- 5-65	9.60	33
12-2128	Tenmile Creek tributary No. 2 near Bellingham, Wash.	0.2 mile north of center sec.27, T.39 N., R.3 E., at Starry Road, 2.8 miles northwest of Noon and 7 miles northeast of Bellingham.	.24	1956-65j	2-21-61	6.86	23
					1- 7-62	6.06	11
					12-30-62	6.17	13
					3- 5-64	6.65	20
					2- 5-65	6.97	26

‡ Operated as a continuous-record gaging station.
a Oct. 23, 26, or Nov. 10, 1961.
b Revised.
c Nov. 22, Dec. 17 or 21, 1961.
d Backwater from debris.
e Discharge probably increased by failure of dam 0.8 mile upstream.
f Estimated.
g Maximum stages observed.
h Not previously published.
i Jan. 15 or Feb. 21, 1961.
j Peak discharge previously published in WSP 1566 for the water year 1955 was not the annual maximum.
Note.--See WSP 1716 p. 374 for datum change for some stations.

INDEX

Page
Aberdeen, Wash., Wynoochee River near............................ 87-89
Accuracy of field data and computed results......................... 6-7
Acre-foot, definition of.............. 2
Alder Creek near Hamilton, Wash.......621-623
Alder Reservoir at Alder, Wash..................213-215,217-222
Amanda Park, Wash., North Fork Quinault River near............. 96
Arlington, Wash., North Fork Stillaguamish River near........561-563
Auburn, Wash., Big Soos Creek near....346-348
  Green River near...................349-351

Baker Lake at upper Baker Dam, near Concrete, Wash..............611,615-617
Baker River at Concrete, Wash.........615-617
Bear Creek at Woodinville, Wash........ 435
Bear River near Naselle, Wash.......... 12-13
Beaver Creek near Snoqualmie, Wash..... 507
Bellevue, Wash., Coal Creek near......408-409
  Mercer Creek near..................410-412
Big Beaver Creek near Newhalem, Wash..........................570-571
Big Lake, Wash., East Fork Nookachamps Creek near.....................629-631
Big Soos Creek above hatchery, near Auburn, Wash...................346-348
Black Diamond, Wash., Icy Creek near..........................337-338
  Lake Sawyer near...................342-345
  Newaukum Creek near................339-341
Boise Creek, above reservoir, near Enumclaw, Wash..................286-287
  below millpond, near Enumclaw, Wash..........................288-289
  near Enumclaw, Wash................290-291
Boistfort, Wash., South Fork Chehalis River at........................ 48-51
Bothell, Wash., North Creek near......436-438
  Sammamish River at.................439-440
Boxley Creek near Cedar Falls, Wash...487-497
Bremerton, Wash., Chico Creek near....175-177
  Gold Creek near....................166-168
Brinnon, Wash., Duckabush River near..........................135-137
Brooklyn, Wash., North River near...... 39-41
Bryant, Wash., Pilchuck Creek near....564-566
Buckley, Wash., Mud Mountain Reservoir near..........................277-279
  White River near...................280-285
Burley Creek at Burley, Wash..........180-182
Burlington, Wash., Samish River near..637-639

Calligan Creek near Snoqualmie, Wash... 476
Canyon Creek near Cedar Falls, Wash...370-380
Carbon River near Fairfax, Wash.......262-264
Carnation, Wash., Griffin Creek near..513-515
  North Fork Tolt River near.........516-518
  Snoqualmie River near..............531-533
  South Fork Tolt River near.........523-525
  Stossel Creek near.................529-530
  Tolt River near....................526-528
Cascade River, at Marblemount, Wash..........................602-604
  South Fork, at South Cascade Glacier, near Marblemount, Wash..........596-598
    near Marblemount, Wash...........596-598
Cedar Falls, Wash., Boxley Creek near..........................487-497
  Canyon Creek near..................370-380
  Cedar River at.....................381-383
  Cedar River near...........361-363,364-366
  Rattlesnake Lake at................498-500
  Rex River near.....................367-369
Cedar River, at Cedar Falls, Wash.....381-383
  at Renton, Wash....................403-405
  below Bear Creek, near Cedar Falls, Wash..........................361-363
  near Cedar Falls, Wash.............364-366
  near Landsburg, Wash...............393-396
Cedar River, North Fork, near Lester, Wash..........................355-357
  South Fork, near Lester, Wash.......358-360
Cedarville, Wash., Rock Creek at....... 68-71
Centralia, Wash., Skookumchuck River near........................... 62-64
Cfs-day, definition of................ 2
Chambers Creek below Leach Creek, near Steilacoom, Wash...........252-254
Chambers Creek basin, crest-stage partial-record stations in....... 671
  gaging-station records in...........239-254
Chehalis, Wash., Newaukum River near... 58-61
Chehalis River, at Porter, Wash........ 72-75
  near Doty, Wash..................... 45-47
  near Grand Mound, Wash.............. 65-67
  South Fork, at Boistfort, Wash....... 48-51
Chehalis River basin, crest-stage partial-record stations in....... 669
  gaging-station records in............ 45-92
Cherry Creek near Duvall, Wash........534-536
Chico Creek near Bremerton, Wash......175-177
Chilliwack River near Vedder Crossing, British Columbia...............660-662
Clallam River near Clallam Bay, Wash... 115
Clear Lake, Wash., East Fork Nookachamps Creek near...............632-633
Clearwater Creek near Raymond, Wash................................ 36
Cloquallum River at Elma, Wash......... 76-79
Coal Creek near Bellevue, Wash........408-409
Concrete, Wash., Baker Lake near......................611,615-617
  Baker River at.....................615-617
  Lake Shannon at................614,615-617
  Skagit River near..................618-620
  Sulphur Creek near.................612-613
Contents, definition of............... 2
Control, definition of................ 2
Cooperation, record of................ 1
Cottage Lake Creek near Redmond, Wash..........................428-430
Cubic feet per second per square mile, definition of............. 2
Cubic foot per second, definition of... 2

Darrington, Wash., Sauk River near..........................605-607
  Squire Creek near..................558-560
Data, accuracy of..................... 6-7
  explanation of...................... 3-6
  other available..................... 7
Day Creek, below Day Lake, near Lyman, Wash..........................624-625
  near Hamilton, Wash................626-627
  near Lyman, Wash.................... 628
Dean Creek basin, crest-stage partial-record stations in.............. 670
Deer Meadow Creek near Hoodsport, Wash..........................149-151
Deming, Wash., Middle Fork Nooksack River near...................... 644
  Nooksack River at..................651-653
  Nooksack River near................. 643
Deschutes River, near Olympia, Wash..........................198-200
  near Rainier, Wash.................195-197
Deschutes River basin, gaging-station records in....................195-200
Dewatto Creek near Dewatto, Wash......169-171
Dewatto River near Dewatto, Wash......169-171
Diablo Reservoir near Newhalem, Wash......................582,587-589
Dickey River, East Fork, near La Push, Wash..................109-110
  near La Push, Wash.................111-112
Dickey River basin, gaging-station records in....................109-112
Dieringer, Wash., Lake Tapps diversion at...........................296-298
Discharge, definition of.............. 2
Dogfish Creek near Poulsbo, Wash......172-174

Page
Dosewallips River basin, crest-stage partial-record stations in....... 670
Doty, Wash., Chehalis River near....... 45-47
Drainage area, definition of.......... 2
Duckabush River near Brinnon, Wash..........................135-137
Dungeness River near Sequim, Wash.....128-131
Duvall, Wash., Cherry Creek near......534-536
Duwamish River basin, crest-stage partial-record stations in......671-672
  gaging-station records in...........303-354

East Twin River near Pysht, Wash......116-118
Eatonville, Wash., Ohop Creek near....226-228
  Ohop Lake near.....................223-225
Edgewick, Wash., South Fork Snoqualmie River at.......................484-486
Edmonds, Wash., Lake Ballinger near...445-447
Eldon, Wash., Hamma Hamma River near..........................138-140
  Jefferson Creek near................141-143
Electron, Wash., Puyallup River near..........................255-258
Elma, Wash., Cloquallum River at....... 76-79
  East Fork Satsop River near.......... 80-82
Elwha River at McDonald Bridge, near Port Angeles, Wash.............120-124
Elwha River basin, gaging-station records in.....................119-124
Enumclaw, Wash., Boise Creek near...........286-287,288-289,290-291
  South Prairie Creek near............265-266
Evans Creek above mouth, near Redmond, Wash..........................431-433

Fairfax, Wash., Carbon River near.....262-264
Fairholm, Wash., Soleduck River near..........................106-108
Fall City, Wash., Patterson Creek near..........................510-512
  Raging River near...................508-509
Fircrest, Wash., Leach Creek near.....246-248
Fishtrap Creek at Lynden, Wash........657-659
Flett Creek, at 74th Street, at Tacoma, Wash.................... 239
  at Tacoma, Wash....................243-245
  below Flett Springs, at Tacoma, Wash..........................240-242
Forest, Wash., North Fork Newaukum River near....................... 55-57
Fork Creek near Lebam, Wash........... 27-29
Forks, Wash., Hoh River near...................100-102,103-105
Fraser River basin, gaging-station records in.....................660-668
Friday Creek near Lester, Wash........306-309

Gaging station, definition of.......... 2
Garcia, Wash., South Fork Snoqualmie River near.....................481-483
Glacier, Wash., Nooksack River near..........................640-642
Gold Bar, Wash., Skykomish River near..........................456-458
  Wallace River at....................459-461
Gold Creek near Bremerton, Wash.......166-168
Goldsborough Creek near Shelton, Wash..........................189-191
Gorge Reservoir near Newhalem, Wash......................586,587-589
Grand Mound, Wash., Chehalis River near.......................... 65-67
Granite Falls, Wash., South Fork Stillaguamish River near........554-557
Green Canyon Creek near Lester, Wash..........................314-316
Green River, at purification plant, near Palmer, Wash...............335-336
  at Tukwila, Wash...................352-354
  below Howard A. Hanson Dam, Wash....327-331
  diversion from.....................299-302
  near Auburn, Wash..................349-351
  near Lester, Wash..................310-313
  near Palmer, Wash..................332-334
  North Fork, near Eagle Gorge, Wash..........................320-322
    near Lemolo, Wash................. 323
    near Palmer, Wash................320-322

Page
Greenwater, Wash., Greenwater River at............................274-276
  White River at.....................271-273
  White River near.................... 270
Greenwater River at Greenwater, Wash..........................274-276
Griffin Creek near Carnation, Wash..........................513-515

Hamilton, Wash., Alder Creek near.....612-623
  Day Creek near.....................626-627
Hamma Hamma River near Eldon, Wash....138-140
Hamma Hamma River basin, gaging-station records in.............138-143
Hancock Creek near Snoqualmie, Wash.... 477
Hoh River, at U.S. Highway 101, near Forks, Wash....................103-105
  near Forks, Wash...................100-102
Hoh River basin, gaging-station records in.....................100-105
Hoko River near Sekiu, Wash...........113-114
Hoodsport, Wash., Deer Meadow Creek near..........................149-151
  North Fork Skokomish River near...................144-146,147-148
  South Fork Skokomish River near.....155-156
Hope, British Columbia, Skagit River near..........................567-569
Howard A. Hanson Dam, Wash., Green River below....................327-331
Howard A. Hanson Reservoir near Palmer, Wash...........324-326,327-331,332-334
Huge Creek near Wauna, Wash...........183-185
Humptulips River near Humptulips, Wash........................... 93-95
Humptulips River basin, crest-stage partial-record stations in......669-670
Huntingdon, British Columbia, Sumas River near.....................666-668
Hydrologic bench-mark station, definition of................... 2
Hylebos Creek basin, crest-stage partial-record stations in....... 671

Icy Creek near Black Diamond, Wash....337-338
Index, Wash., Phelps Creek near........ 522
  South Fork Skykomish River near..........................453-455
  South Fork Tolt River near..........519-521
Issaquah, Wash., Issaquah Creek near...................415-417,418-419
  Pine Lake near.....................422-424
  Tibbetts Creek near................420-421
Issaquah Creek, near Issaquah, Wash..........................415-417
  near mouth, Issaquah, Wash..........418-419

Jefferson Creek near Eldon, Wash......141-143
Joes Creek basin, crest-stage partial-record stations in.............. 671
Juanita Creek near Kirkland, Wash.....413-414

Kamilche, Wash., Kennedy Creek near...192-194
Kapowsin, Wash., Tanwax Lake near.....231-232
Kenmore, Wash., Swamp Creek at........441-442
Kennedy Creek near Kamilche, Wash.....192-194
Kirkland, Wash., Juanita Creek near..........................413-414

La Grande, Wash., La Grande Reservoir at............................ 216
  Nisqually River at.................217-222
La Grande Reservoir at La Grande, Wash......................216,217-222
La Push, Wash., Dickey River near.....111-112
  East Fork Dickey River near.........109-110
Lake Ballinger near Edmonds, Wash.....445-447
Lake Cushman near Hoodsport, Wash.....147-148
Lake Forest Park, Wash., Lyon Creek at...........................443-444
  McAleer Creek at...................448-449
Lake Goodwin near Silvana, Wash.......548-550
Lake Mills at Glines Canyon, near Port Angeles, Wash..........119,120-124
Lake Sawyer near Black Diamond, Wash..........................342-345
Lake Shannon at Concrete, Wash....614,615-617
Lake Shoecraft near Tulalip, Wash.....551-553

Page
Lake Stevens, Wash., Little Pilchuck Creek near.....................539-541
Lake Tapps diversion at Dieringer, Wash.............................296-298
Lake Tapps near Sumner, Wash......295,299-302
Lake Washington basin, crest-stage partial-record stations in....... 672
  gaging-station records in...........355-452
Lakes and reservoirs;
  Alder Reservoir at Alder, Wash...................213-215,217-222
  Baker Lake at upper Baker Dam, near Concrete, Wash.........611,615-617
  Ballinger, Lake, near Edmonds, Wash.............................445-447
  Cushman, Lake, near Hoodsport, Wash.............................147-148
  Diablo Reservoir near Newhalem, Wash......................582,587-589
  Goodwin, Lake, near Silvana, Wash...548-550
  Gorge Reservoir near Newhalem, Wash......................586,587-589
  Howard A. Hanson Reservoir near Palmer, Wash....324-326,327-331,332-334
  La Grande Reservoir at La Grande, Wash......................216,217-222
  Mason Lake near Union, Wash.........186-188
  Mills, Lake, at Glines Canyon, near Port Angeles, Wash...........119,120-124
  Mud Mountain Reservoir near Buckley, Wash...................277-279,280-285
  Ohop Lake near Eatonville, Wash..........................223-225
  Pine Lake near Issaquah, Wash.......422-424
  Rattlesnake Lake at Cedar Falls, Wash..........................498-500
  Ross Reservoir near Newhalem, Wash...................574-576,587-589
  Sammamish Lake near Redmond, Wash..........................425-427
  Sawyer, Lake, near Sumner, Wash.....342-345
  Shannon, Lake, at Concrete, Wash......................614,615-617
  Shoecraft, Lake, near Tulalip, Wash..........................551-553
  Spada Lake near Startup, Wash...462,463-466
  Tanwax Lake near Kapowsin, Wash.....231-232
  Tapps, Lake, near Sumner, Wash......................295,299-302
Landsburg, Wash., Cedar River near....393-396
Leach Creek, near Fircrest, Wash......246-248
  near Steilacoom, Wash..............249-259
Lebam, Wash., Fork Creek near.......... 27-29
  Willapa River at..................... 24-26
Lees Creek basin, crest-stage partial-record stations in.............. 670
Lemolo, Wash., North Fork Green River near...................... 323
Lester, Wash., Friday Creek near......306-309
  Green Canyon Creek near............314-316
  Green River near...................310-313
  North Fork Cedar River near.........355-357
  Smay Creek near....................317-319
  Snow Creek near....................303-305
  South Fork Cedar River near.........358-360
Little Pilchuck Creek near Lake Stevens, Wash..................539-541
Lyman, Wash., Day Creek near......624-625,628
Lynden, Wash., Fishtrap Creek at......657-659
  Nooksack River near................654-656
Lyon Creek at Lake Forest Park, Wash.........................443-444

McAleer Creek at Lake Forest Park, Wash.........................448-449
McAllister Creek basin, crest-stage partial-record stations in....... 671
McAllister Springs near Olympia, Wash.........................204-206
McKenna, Wash., Nisqually River at....233-235
  Nisqually River near...............229-230
Map of the United States.............. 8
Maple Valley, Wash., Rock Creek near..........................399-402
Marblemount, Wash., Cascade River at............................602-604
  Salix Creek near...................599-601
  Skagit River near..................593-595
  South Fork Cascade River near.......596-598
Marysville, Wash., Quilceda Creek near..........................545-547
Mason Lake near Union, Wash...........186-188
May Creek, at mouth, near Renton, Wash........................... 407
  near Renton, Wash................... 406
Maynard, Wash., Snow Creek near.......132-134
Mercer Creek near Bellevue, Wash......410-412
Mineral Creek near Mineral, Wash......210-212
Monroe, Wash., Snohomish River near..........................537-538
  Woods Creek near...................467-469
Montesano, Wash., Wynoochee River near........................... 90-92
Mount Vernon, Wash., Skagit River near..........................634-636
Muck Creek at Roy, Wash...............236-238
Mud Mountain Reservoir near Buckley, Wash...................277-279,280-285

Naselle, Wash., Bear River near........ 12-13
  Naselle River near.................. 14-16
  Salmon Creek near................... 17-20
  South Fork Naselle River near........ 21
Naselle River, near Naselle, Wash...... 14-16
  South Fork, near Naselle, Wash....... 21
Naselle River basin, crest-stage partial-record stations in....... 669
  gaging-station records in............ 14-21
National, Wash., Nisqually River near..........................207-209
Newaukum Creek near Black Diamond, Wash..........................339-341
Newaukum River, near Chehalis, Wash........................... 58-61
  North Fork, near Forest, Wash........ 55-57
  South Fork, near Onalaska, Wash...... 52-54
Newhalem, Wash., Big Beaver Creek near..........................570-571
  Diablo Reservoir near.........582,587-589
  Gorge Reservoir near............586,587-589
  Newhalem Creek near................590-592
  Ross Reservoir near.........574-576,587-589
  Ruby Creek near....................572-573
  Skagit River at....................587-589
  Stetattle Creek near................583-585
  Thunder Creek near..........577-578,579-581
Newhalem Creek near Newhalem, Wash....590-592
Nisqually River, at McKenna, Wash.....233-235
  at La Grande, Wash..................217-222
  near McKenna, Wash..................229-230
  near National, Wash.................207-209
Nisqually River basin, gaging-station records in.....................207-238
Nookachamps Creek, East Fork, near Big Lake, Wash.....................629-631
  East Fork, near Clear Lake, Wash....632-633
Nooksack River, at Deming, Wash.......651-653
  below Cascade Creek, near Glacier, Wash..........................640-642
  Middle Fork, near Deming, Wash....... 644
  near Deming, Wash................... 643
  near Lynden, Wash...................654-656
  South Fork, near Wickersham, Wash...645-647
Nooksack River basin, crest-stage partial-record stations in....... 673
  gaging-station records in...........640-659
North Bend, Wash., North Fork Snoqualmie River near...........478-480
  South Fork Snoqualmie River near....501-503
North Creek near Bothell, Wash........436-438
North Nemah River near South Bend, Wash........................... 22
North Nemah River basin, crest-stage partial-record stations in....... 669
  gaging-station records in............ 22-23
North River, near Brooklyn, Wash....... 39-41
  near Raymond, Wash.................. 42-44
North River basin, crest-stage partial-record stations in....... 669
  gaging-station records in............ 39-44

Ohop Creek near Eatonville, Wash......226-228
Ohop Lake near Eatonville, Wash.......223-225
Olympia, Wash., Deschutes River near..198-200
  McAllister Springs near............204-206
  Woodland Creek near................201-203
Onalaska, Wash., South Fork Newaukum River near..................... 52-54

Page
Order, downstream, and station number.......................... 3
Orting, Wash., Puyallup River near....259-261

Palmer, Wash., Green River near...................332-334,335-336
  Howard A. Hanson Reservoir near..........................324-326
  North Fork Green River near.........320-322
Partial-record station, definition of............................. 2
Patterson Creek near Fall City, Wash..........................510-512
Phelps Creek near Index, Wash.......... 522
Pilchuck Creek near Bryant, Wash......564-566
Pine Lake near Issaquah, Wash.........422-424
Port Angeles, Wash., Elwha River near..........................120-124
  Lake Mills near.................119,120-124
  Siebert Creek near..................125-127
Porter, Wash., Chehalis River at....... 72-75
Potlatch, Wash., North Fork Skokomish River near.....................152-154
  Skokomish River near...............163-165
  South Fork Skokomish River near.....157-159
Poulsbo, Wash., Dogfish Creek near....172-174
Preface.............................. III
Publications on streamflow, by Geological Survey............... 7-11
  by State agencies................... 11
Purdy Creek at Purdy, Wash............178-179
Puyallup River, at Puyallup, Wash.....299-302
  near Electron, Wash.................255-258
  near Orting, Wash...................259-261
Puyallup River basin, crest-stage partial-record stations in....... 671
  gaging-station records in...........255-302
Pysht, Wash., East Twin River near....116-118

Queets River basin, crest-stage partial-record stations in....... 670
Quilceda Creek near Marysville, Wash..........................545-547
Quilcene River basin, crest-stage partial-record stations in....... 670
Quillayute River basin, crest-stage partial-record stations in....... 670
Quinault River, at Quinault Lake, Wash.......................... 97-99
  North Fork, near Amanda Park, Wash.......................... 96
Quinault River basin, crest-stage partial-record stations in....... 670
  gaging-station records in............ 96-99

Raging River near Fall City, Wash.....508-509
Rainier, Wash., Deschutes River near..195-197
Rattlesnake Lake at Cedar Falls, Wash..........................498-500
Ravensdale, Wash., Rock Creek near....397-398
Raymond, Wash., Clearwater Creek near.......................... 36
  North River near.................... 42-44
  Smith Creek near.................... 37-38
  South Fork, Willapa River near....... 33-35
Redmond, Wash., Cottage Lake Creek near..........................428-430
  Evans Creek near...................431-433
  Sammamish Lake near................425-427
Renton, Wash., Cedar River at.........403-405
  May Creek near.....................406,407
Rex River near Cedar Falls, Wash......367-369
Rock Creek (Chehalis River basin) at Cedarville, Wash................ 68-71
Rock Creek (Lake Washington basin), at State Highway 5A, near Ravensdale, Wash...............397-398
  near Maple Valley, Wash.............399-402
Ross Reservoir near Newhalem, Wash..................574-576,587-589
Roy, Wash., Muck Creek at.............236-238
Ruby Creek below Panther Creek, near Newhalem, Wash............572-573
Runoff in inches, definition of....... 2

Salix Creek at South Cascade Glacier, near Marblemount, Wash...........599-601
Salmon Creek near Naselle, Wash........ 17-20
Samish River near Burlington, Wash....637-639
Samish River basin, crest-stage partial-record stations in....... 673
Sammamish Lake near Redmond, Wash.....425-427
Sammamish River, at Bothell, Wash.....439-440
  near Woodinville, Wash.............. 434
Satsop River, East Fork, near Elma, Wash........................... 80-82
  near Satsop, Wash................... 83-85
Sauk River, above Whitechuck River, near Darrington, Wash...........605-607
  near Sauk, Wash....................608-610
Schneider Creek basin, crest-stage partial-record stations in....... 671
Seattle, Wash., Thornton Creek near...450-452
Sekiu, Wash., Hoko River near.........113-114
Selleck, Wash., Middle Fork Taylor Creek near.....................384-386
  North Fork Taylor Creek near........387-389
  Taylor Creek near..................390-392
Sequim, Wash., Dungeness River near..........................128-131
Shelton, Wash., Goldsborough Creek near..........................189-191
Siebert Creek near Port Angeles, Wash..........................125-127
Silvana, Wash., Lake Goodwin near.....548-550
Skagit River, above Alma Creek, near Marblemount, Wash...........593-595
  at international boundary, near Hope British Columbia...........567-569
  at Newhalem, Wash..................587-589
  near Concrete, Wash................618-620
  near Mount Vernon, Wash............634-636
Skagit River basin, crest-stage partial-record stations in....... 673
  gaging-station records in...........567-636
Skokomish River, near Potlatch, Wash..163-165
  North Fork, below Staircase Rapids, near Hoodsport, Wash............144-146
    near Hoodsport, Wash.............147-148
    near Potlatch, Wash..............152-154
  South Fork, near Hoodsport, Wash..........................155-156
    near Potlatch, Wash..............157-159
    near Union, Wash.................160-162
Skokomish River basin, crest-stage partial-record stations in....... 671
  gaging-station records in...........144-165
Skookum Creek near Wickersham, Wash...648-650
Skookumchuck River near Centralia, Wash............................ 62-64
Skykomish River, near Gold Bar, Wash..........................456-458
  South Fork, near Index, Wash........453-455
Sleese Creek near Vedder Crossing, British Columbia................663-665
Smay Creek near Lester, Wash..........317-319
Smith Creek near Raymond, Wash......... 37-38
Smith Creek basin, gaging-station records in...................... 36-38
Snohomish River, at Snohomish, Wash..........................542-544
  near Monroe, Wash..................537-538
Snohomish River basin, crest-stage partial-record stations in....... 672
  gaging-station records in...........453-547
Snoqualmie, Wash., Beaver Creek near.......................... 507
  Calligan Creek near.................. 476
  Hancock Creek near................... 477
  Snoqualmie River near...............504-506
Snoqualmie Falls, Wash., North Fork Snoqualmie River near...........473-475
Snoqualmie River, Middle Fork, near Tanner, Wash...................470-472
  near Carnation, Wash................531-533
  near Snoqualmie, Wash...............504-506
  North Fork, near North Bend, Wash..........................478-480
    near Snoqualmie Falls, Wash.......473-475
  South Fork, at Edgewick, Wash.......484-486
    above Alice Creek, near Garcia, Wash..........................481-483
    at North Bend, Wash..............501-503
Snow Creek (tributary to Pacific Ocean) near Maynard, Wash.............132-134
Snow Creek (tributary to Sunday Creek) near Lester, Wash...............303-305
Soleduck River near Fairholm, Wash....106-108

Page
South Bend, Wash., North Nemah River near........................ 22
  Williams Creek near.................. 23
South Nemah River basin, crest-stage partial-record stations in....... 669
South Prairie Creek, at South Prairie, Wash...........................267-269
  near Enumclaw, Wash.................265-266
Spada Lake near Startup, Wash.....462,463-466
Squire Creek near Darrington, Wash...........................558-560
Stage-discharge relation, definition of.............................. 2
Startup, Wash., Spada Lake near........ 462
  Sultan River near...................463-466
Steilacoom, Wash., Chambers Creek near...........................252-254
  Leach Creek near....................249-251
Stetattle Creek near Newhalem, Wash...583-585
Stillaguamish River, North Fork, near Arlington, Wash.................561-563
  South Fork, near Granite Falls, Wash...........................554-557
Stillaguamish River basin, crest-stage partial-record stations in....... 673
  gaging-station records in...........554-566
Stossel Creek near Carnation, Wash....529-530
Sulphur Creek near Concrete, Wash.....612-613
Sultan River near Startup, Wash.......463-466
Sumas River near Huntingdon, British Columbia.......................666-668
Sumner, Wash., Lake Tapps near......... 295
  White River near....................292-294
Swamp Creek at Kenmore, Wash..........441-442

Tacoma, Wash., Flett Creek at..................239,240-242,243-245
Tanner, Wash., Middle Fork Snoqualmie River near......................470-472
Tanwax Lake near Kapowsin, Wash.......231-232
Taylor Creek, Middle Fork, near Selleck, Wash...........................384-386
  near Selleck, Wash..................390-392
  North Fork,near Selleck, Wash.......387-389
Terms and abbreviations, definition of............................. 2-3
Thornton Creek near Seattle, Wash.....450-452
Thunder Creek, below McAllister Creek, near Newhalem, Wash............577-578

Page
Thunder Creek, near Newhalem, Wash....579-581
Tibbetts Creek near Issaquah, Wash....420-421
Tolt River, near Carnation, Wash......526-528
  North Fork, near Carnation, Wash....516-518
  South Fork, near Carnation, Wash....523-525
    near Index, Wash..................519-521
Tukwila, Wash., Green River at........352-354
Tulalip, Wash., Lake Shoecraft near...........................551-553
Tulalip Creek basin, gaging-station records in......................548-553

Union, Wash., Mason Lake near.........186-188
  South Fork Skokomish River near.....160-162

Valley Creek basin, crest-stage partial-record stations in....... 670
Vedder Crossing, British Columbia, Chilliwack River near...........660-662
  Sleese Creek near...................663-665

Wallace River at Gold Bar, Wash.......459-461
Wauna, Wash., Huge Creek near.........183-185
White River, at Greenwater, Wash......271-273
  near Buckley, Wash..................280-285
  near Greenwater, Wash................ 270
  near Sumner, Wash...................292-294
Wickersham, Wash., Skookum Creek near...........................648-650
  South Fork Nooksack River near......645-647
Willapa River, at Lebam, Wash.......... 24-26
  near Willapa, Wash................... 30-32
  South Fork, near Raymond, Wash....... 33-35
Willapa River basin, crest-stage partial-record stations in....... 669
  gaging-station records in............ 24-35
Williams Creek near South Bend, Wash... 23
Woodinville, Wash., Bear Creek at...... 435
  Sammamish River near................. 434
Woodland Creek near Olympia, Wash.....201-203
Woods Creek near Monroe, Wash.........467-469
Work, division of...................... 1
  scope of............................. 1
WSP, definition of..................... 3
Wynoochee River, above Black Creek, near Montesano, Wash............................ 90-92
  above Save Creek, near Aberdeen, Wash............................ 87-89

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