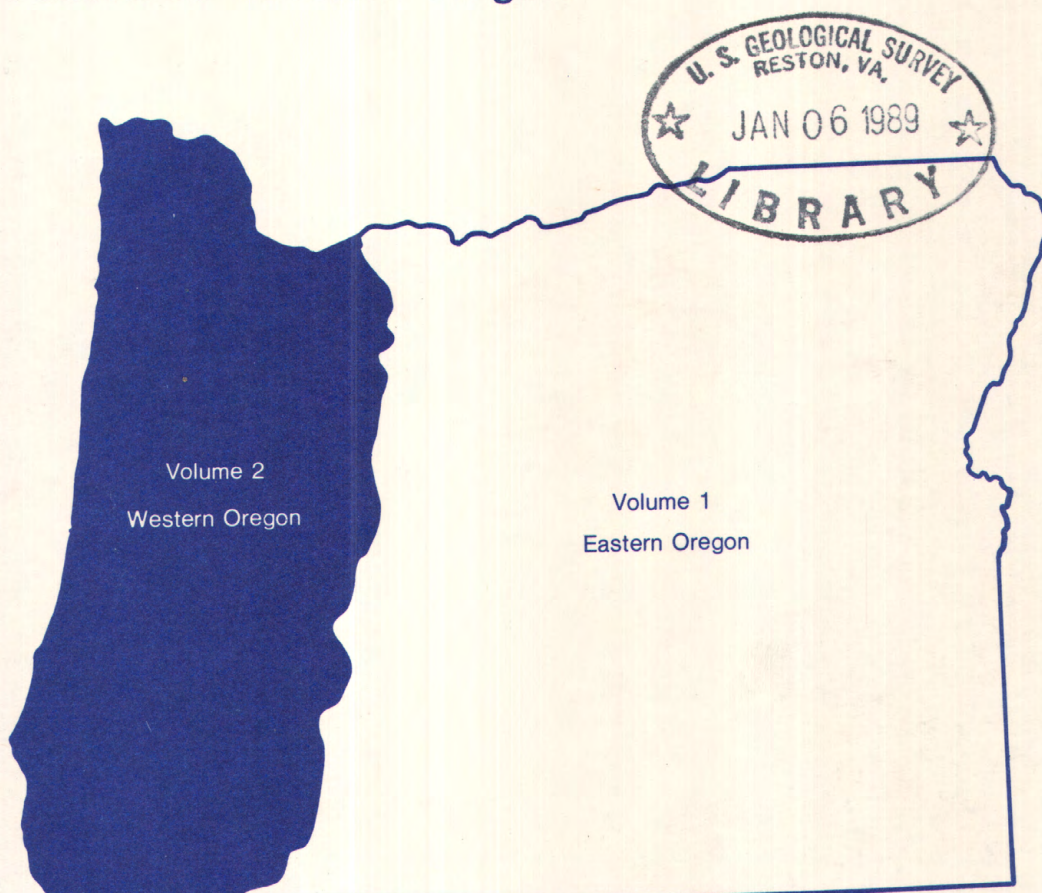


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Water Resources Data Oregon Water Year 1986

Volume 2. Western Oregon



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-86-2
Prepared in cooperation with the Oregon Water Resources
Department and with other agencies

CALENDAR FOR WATER YEAR 1986

1985

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Water Resources Data Oregon Water Year 1986

Volume 2. Western Oregon

by C.W. Alexander, R.L. Kraus, C.G. Kroll, R.L. Moffatt, and M.L. Smith



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-86-2
Prepared in cooperation with the Oregon Water Resources
Department and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

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PREFACE

This volume of the annual Oregon hydrologic data report is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Oregon are contained in two volumes as follows:

Volume 1: Eastern Oregon

Volume 2: Western Oregon

The report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who edited and assembled the reports. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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This report was prepared in cooperation with the State of Oregon and with other agencies under the general supervision of Marvin O. Fretwell, State Chief, Oregon Office, and T. John Conomos, Regional Hydrologist, Western Region.

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16. Abstract (Limit: 200 words) Water Resources Data for the 1986 water year for Oregon consist of records of stage, discharge, and water quality of streams; and stage, contents, and water quality of lakes and reservoirs. This report, in two volumes, contains discharge records for 269 gaging stations; stage only records for 10 gaging stations; stage and contents for 39 lakes and reservoirs; water quality for 78 stations, and water quality for 3 precipitation stations. Also included are 5 crest-stage, partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Oregon.			
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Letter after station name designates type of data: (d) discharge; (e) elevation; (g) gage height; (v) contents; (c) chemical, including periodic biological, microbiological, sediment, pesticide, and radio-chemical where applicable; (s) daily suspended sediment; (t) water temperature; and (k) specific conductance.

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WATER RESOURCES DATA FOR OREGON 1986

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with state agencies, obtains a large amount of data pertaining to the water resources of Oregon each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Oregon."

This report includes records on surface water in the State. Specifically, it contains: (1) Discharge records for 269 stream-gaging stations, stage only records for 10 gaging stations, 64 partial-record or miscellaneous streamflow stations, and 5 crest-stage, partial-record streamflow stations; (2) stage and content records for 39 lakes and reservoirs; and (3) water-quality records for 68 streamflow-gaging stations and 10 ungaged streamsites.

This series of annual reports for Oregon began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one or two volumes, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In 1981, the annual report was divided into two volumes: Volume 1 described the activities for Western Oregon, while Volume 2 described the activities for Eastern Oregon. Beginning with the 1985 water year, presentation of ground-water levels in this report was discontinued.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Oregon were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10, 11, 13, and 14." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." These Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all states. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report OR-86-1" and "U.S. Geological Survey Water-Data Report OR-86-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on back of title page or by telephone (503) 231-2009.

COOPERATION

The U.S. Geological Survey and organizations of the State of Oregon have had cooperative agreements for the systematic collection of surface-water records since 1905. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

Oregon Water Resources Department, William F. Young, Director.
Oregon Department of Fish and Wildlife, John R. Donaldson, Director.
Coos Bay-North Bend Water Board, P. Matson, General Manager.
Eugene Water and Electric Board, Jean Reader, General Manager.
Douglas County, John Youngquist, Coordinator.
City of McMinnville, A. H. Jones, General Manager.
City of Portland, Bureau of Water Works, Edward Tenny, Administrator.
The Confederated Tribes of the Umatilla Indian Reservation,
E. H. Patawa, Chairman, Board of Trustees.
The Confederated Tribes of the Warm Springs Indian Reservation,
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SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The hydrology of Oregon is influenced by five mountain ranges with the Cascade Range providing a natural division between western and eastern Oregon. These ranges divide the state into drainage basins and greatly affect the distribution of precipitation. Hydrologic patterns are generally uniform from drainage basin to drainage basin throughout western Oregon; whereas in eastern Oregon, hydrologic patterns vary widely between drainage basins.

Western Oregon, which composes about one-third of the total area of the state, has a climate characterized by moderate temperatures, wet winters, and dry summers. About 80 percent of the precipitation occurs between October and March. Annual precipitation ranges from about 20 inches per year in the lower elevations in the southern part of the area to about 200 inches per year in the Coast and Cascade

Ranges. In general, streamflow characteristics are similar, with most of the runoff and flooding on both large and small streams being caused by winter rains. Major floods have occurred when winter rains combine with melting snow.

Eastern Oregon has more complex hydrologic patterns than western Oregon. Precipitation is less than 10 inches per year in the semiarid regions, such as parts of the north-central area, the closed basin in south-central Oregon, and southeastern Oregon. The northeastern part of the state receives as much as 80 inches of precipitation per year, much of it occurring as snowfall. On large streams, flooding can result from winter rains and (or) seasonal snowmelt; in smaller drainage basins, flooding can result from winter rains, seasonal snowmelt, and convection storms.

Surface-water Conditions

Precipitation for the 1986 water year was average across the State, above-average amounts were recorded in the far southeastern section. The water year was marked by record monthly extremes. November 1985 was one of the coldest on record followed by December, which was one of the driest on record. In contrast, many reporting stations indicated February and September as two of the wettest months on record.

Precipitation for the three-month period ending December 31, 1985 was generally below average. Averages ranged from a high of 79 percent in the Hood-Lower Deschutes area to a low of 58 percent in the Klamath area.

Conditions moderated during the three-month period ending March 31. Precipitation averages were below average in the western part of the State, and above average in the eastern one-third and far southeastern portion of the State.

The three-month period, July to September, was a period of contrasts; July and August were hot and dry, followed by heavy rains in September. The September rains ended 58 consecutive days without rain at Corvallis and Salem, and 86 consecutive rainless days at Grants Pass and Medford.

Snowpack accumulation began in late September 1985 as a result of the wet and colder-than-normal weather. The months of November and December were unusually dry and cold; consequently, the snowpacks showed only minor increases. As of January 1, 1986, the mountain snowpack, as reported by the Soil Conservation Service, was near normal. Heavy rains during February melted much of the low-elevation snow in the western mountains and southern sub-basins. The snowpack continued to increase, but at a less-than-normal rate during March and April. By May 1, most of the low-elevation snow was gone, and high-elevation snow was below normal. At that time, Harney and Malheur Counties had the highest snowpack (98 percent and 83 percent, respectively). The Deschutes drainage was 73 percent of normal, followed by the Mount Hood area, Willamette River drainage, and John Day Basin at 50 percent of normal. The snowpack was essentially gone from the rest of the State by that date.

The preceding summary of conditions was compiled from monthly reports prepared by the National Weather Service and Soil Conservation Service.

Runoff during the 1986 water year was near average across Oregon. The exception was in southern Oregon where runoff was above average (Table 1).

Table 1.--Comparison of mean discharge for the 1986 water year with mean discharge for the period of record at long-term stations

Station number	Station name	Drainage area (mi ²)	Length of record (yrs)	Mean discharge 1986 water year (ft ³ /s)	Long-term mean discharge (ft ³ /s)	Percent of average	Maximum annual mean discharge period of record year	ft ³ /s
10396000	Donner und Blitzen River near Frenchglen	a200	56	161	128	126	1984	273
11502500	Williamson River below Sprague River, near Chiloquin	a3,000	69	1,407	1,064	132	1956	2,187
13181000	Owyhee River near Rome	a8,000	37	1,949	1,041	187	1984	3,400
13214000	Malheur River near Drewsey	a910	60	275	195	141	1984	474
13331500	Minam River at Minam	a240	22	460	478	96	1974	713
14048000	John Day River at McDonald Ferry	a7,580	81	2,647	2,108	126	1984	4,724
14137000	Sandy River near Marmot	262	75	1,294	1,367	95	1974	1,933
14178000	North Santiam River below Boulder Creek, near Detroit	216	60	1,037	1,010	103	1974	1,506
14301000	Nehalem River near Foss	667	47	2,152	2,709	79	1974	4,235
14321000	Umpqua River near Elkton	3,683	81	7,181	7,537	95	1984	10,030
14325000	South Fork Coquille River at Powers	169	67	817	795	103	1974	1,374

a Approximately.

Several storms of sufficient intensity to produce flooding occurred during the year. These were not major storms; therefore, flooding was limited to small areas. During February, heavy rains in the western mountains and southern sub-basins melted much of the low-elevation snowpack which resulted in the annual peak discharge at most nonregulated gaging stations. Several gages recorded new peak-of-record discharges during this period. Malheur Lake (station 10401800) set a new record elevation of 4,102.60 ft in late April. Flash flooding occurred in June in northeastern Oregon; however, no major damage was observed.

WATER RESOURCES DATA FOR OREGON 1986

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Peak discharges for representative gages are shown in Table 2.

Table 2.--Comparison of peak discharge for the 1986 water year with peak discharge for the period of record at long-term stations

Station number	Station name	Drainage area (mi ²)	Peak discharge 1986 water year Date	ft ³ /s	Exceedance probability	Peak discharge period of record Date	ft ³ /s
10396000	Donner und Blitzen River near Frenchglen	a200	Feb. 18	3,060	.07	Apr. 26, 1978	4,270
11502500	Williamson River below Sprague River, near Chiloquin	a3,000	Mar. 13	6,010	.13	Dec. 26, 1964	16,100
13181000	Owyhee River near Rome	a8,000	Feb. 19	*41,400	---	Feb. 19, 1986	41,400
13214000	Malheur River near Drewsey	a910	Feb. 24	4,030	.20	Dec. 23, 1964	12,000
13331500	Minam River at Minam	a240	May 31	4,240	.20	June 16, 1974	6,260
14048000	John Day River at McDonald Ferry	a7,580	Feb. 24	29,200	.05	Dec. 24, 1964	42,800
14137000	Sandy River near Marmot	262	Feb. 23	37,800	.03	Dec. 22, 1964	61,400
14178000	North Santiam River below Boulder Creek, near Detroit	216	Feb. 23	13,100	.13	Dec. 22, 1964	26,700
14301000	Nehalem River near Foss	667	Feb. 23	27,300	.50	Jan. 20, 1972	46,900
14321000	Umpqua River near Elkton	3,683	Feb. 23	146,000	.20	Dec. 23, 1964	265,000
14325000	South Fork Coquille River at Powers	169	Feb. 22	11,000	.80	Dec. 22, 1964	48,900

a Approximately.

* New peak of record.

NOTE.--Exceedance probability refers to the probability that an event will exceed a specific magnitude in a given time period. A flow of 200 ft³/s with an exceedance probability of 0.5 means that there is a 50 percent chance that the flow will exceed 200 ft³/s in any one year.

WATER RESOURCES DATA FOR OREGON 1986

No periods of record low flows were observed during the 1986 water year. The minimum streamflows for representative gages are shown in Table 3.

Table 3.--Comparison of minimum daily discharge for the 1986 water year with minimum discharge for the period of record at long-term stations

Station number	Station name	Drainage area (sq.mi.)	Minimum daily discharge		Minimum instantaneous discharge 1986 water year		Minimum instantaneous discharge Period of record	
			Date	ft ³ /s	Date	ft ³ /s	Date	ft ³ /s
10396000	Donner und Blitzen River near Frenchglen	a200	Dec. 11	27	--	--	Dec. 9, 1972	4.2
11502500	Williamson River below Sprague River, near Chiloquin	a3,000	Aug. 13	558	Aug. 13, 14	550	Oct. 14, 1920	320
13181000	Owyhee River near Rome	a8,000	Sept. 3	156	Dec. 14	121	several days	42
13214000	Malheur River near Drewsey	a910	Aug. 6-9	1.7	Aug. 5-9	1.7	many days	0
13331500	Minam River at Minam	a240	Nov. 24	37	Nov. 24, 25	26	Dec. 6, 1972, Jan. 10, 1973	10
14048000	John Day River at McDonald Ferry	a7,580	Aug. 25	125	Aug. 25, 26	122	many days	0
14137000	Sandy River near Marmot	262	Sept. 14	262	Sept. 14	258	Oct. 27, 28, 1952	195
14178000	North Santiam River below Boulder Creek, near Detroit	216	Sept. 13	399	Sept. 6, 12, 13	397	Sept. 13, 1909	250
14301000	Nehalem River near Foss	667	Aug. 28	67	Aug. 27-29, Sept. 8	67	Aug. 29, 1967	34
14321000	Umpqua River near Elkton	3,683	Sept. 9	928	Sept. 8-10	928	July 18, 1926	640
14325000	South Fork Coquille River at Powers	169	Sept. 5-7	14	Sept. 6	13	several days	12

a Approximately.

NOTE.--Non-exceedance probability refers to the probability that an event will not exceed a specific magnitude in a given time period. A flow of 12 ft³/s with a non-exceedance probability of 0.50 means there is a 50 percent chance that the flow will be less than 12 ft³/s in any one year.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of more than 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The several hundred sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objective of NASQAN is to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting. The design of the network is intended to provide data for (1) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (2) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (3) a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150 station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1986 water year that began October 1, 1985, and ended September 30, 1986. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The locations of the stations where the data were collected are shown in figures 1 and 2. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The two systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations where only miscellaneous measurements are made. Basin designation is based on the Hydrologic Unit Map for Oregon prepared in cooperation with the U.S. Water Resources Council (1974).

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream 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 with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, 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 series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 14105700, which appears just to the left of the station name, includes the two-digit Part number "14" plus the six-digit downstream-order number "105700." The Part number designates the major river basin; for example, part "14" refers to the Pacific slope basins in Oregon and lower Columbia River basin.

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relation between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey that are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. 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 the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the 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 computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations an acoustic velocity meter (AVM) is used instead of the slope method. The AVM measures both water-surface elevation and velocity from which discharge can be computed directly.

In computing records of lake or reservoir contents, it is necessary to have information available from surveys, curves, or tables that define the relation of stage to content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. Discharges over lake or reservoir spillways are computed from stage-discharge relations much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the validity of the recorded gage height is so questionable that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages are based on information developed by the Hydraulics and Hydrology Committee of the Pacific Northwest River Basins Commission.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means the instantaneous maximum discharge was revised; "(m)" the instantaneous minimum was revised; and "(P)" the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see "DEFINITION OF TERMS"), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, special methods of computation, conditions that affect natural flow at the station and, possibly, other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the

highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the Oregon office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually 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 there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the

appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual state data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under the "REMARKS" paragraph. "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record. Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; the nearest tenth between 1.0 and 10 ft³/s; whole numbers between 10 and 1,000 ft³/s; and 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff because of the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation, or 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, changes in contents of reservoirs, or 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 Records Available

Monthly records for several ungaged sites are given in a separate section following the gaged sites. The accuracy of records for ungaged sites is generally lower than that for gaged sites, depending on the precision of the computation method and the accuracy of data used in the computations. For most gaging stations, unpublished, detailed information, on file in the Oregon office, includes discharge measurements, gage-height records, and rating tables. Many gaging-station records in Oregon through 1982 have been analyzed to determine several statistical summaries: (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.

Other Federal and State agencies have collected discharge data at other sites in Oregon during the current water year. Although these records have not been published by the U.S. Geological Survey, the National Water Data Exchange, NAWDEX, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of these sites and will furnish information about them.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 2.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, it is important that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, treating the samples to prevent changes in quality pending analysis, and shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey Oregon office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see "DEFINITION OF TERMS") are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey office whose address is given on the back of the title page of this report.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Oregon office.

Sediment

Suspended-sediment concentrations are determined from samples collected by one of the standard sampling techniques discussed in TWRI, Book 3, Chapter C2, "Field methods for measurement of fluvial sediment." Samples are obtained using standard depth- or point-integrating samplers, or by means of an approved pumping sampler. Mean concentrations for the sampled cross section are in turn determined from these samples.

During periods of rapidly changing flow or rapidly changing suspended-sediment concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, periodic measurements of particle-size distributions for the suspended-sediment, bed-load, and bed-material samples are included for stations where samples were obtained to measure this parameter.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for identification of biological populations, samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters (mL) of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Base flow. See Base runoff.

Base runoff refers to sustained or fair weather runoff. In most streams, base runoff is composed largely of ground-water effluent. The term base flow is often used in the same sense as base runoff. However, the distinction is the same as that between streamflow and runoff. When the concept in the terms base flow and base runoff is that of the natural flow in a stream, base runoff is the logical term.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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

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.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) 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 or 0.02832 cubic meters per second.

Cubic foot per second-day [$(\text{ft}^3/\text{s})/\text{d}$] 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Cubic feet per second per square mile [$(\text{ft}^3/\text{s})/\text{mi}^2$] 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.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45-um membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at 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 stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of more than 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in national or regional water-quality planning and management. The several hundred sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data

Coordination in consultation with the Water Resources Council. The objective of NASQAN is to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting. The design of the network is intended to provide data for (1) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (2) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (3) a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time $[(\text{mg C/m}^2)/\text{time}]$ for periphyton and macrophytes and $[(\text{mg C/m}^3)/\text{time}]$ for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time $[(\text{mg O}_2/\text{m}^2)/\text{time}]$ for periphyton and macrophytes and $[(\text{mg O}_2/\text{m}^3)/\text{time}]$ for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed very close to the bed surface. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) \times discharge (ft³/s) \times 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

Seven-day 10-year low flow (7 Q10) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-um filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....	Animal
Phylum.....	Arthropoda
Class.....	Insecta
Order.....	Ephemeroptera
Family.....	Ephemeridae
Genus.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. WATER TEMPERATURE--INFLUENTIAL FACTORS, FIELD MEASUREMENT, AND DATA PRESENTATION, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. GUIDELINES FOR COLLECTION AND FIELD ANALYSIS OF GROUND-WATER SAMPLES FOR SELECTED UNSTABLE CONSTITUENTS, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. APPLICATION OF SURFACE GEOPHYSICS TO GROUND-WATER INVESTIGATIONS, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
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- 3-A5. MEASUREMENT OF PEAK DISCHARGE AT DAMS BY INDIRECT METHODS, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. GENERAL PROCEDURE FOR GAGING STREAMS, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
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- 3-A14. USE OF FLUMES IN MEASURING DISCHARGE, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. COMPUTATION OF WATER-SURFACE PROFILES IN OPEN CHANNELS, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
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- 3-B3. TYPE CURVES FOR SELECTED PROBLEMS OF FLOW TO WELLS IN CONFINED AQUIFERS, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
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- 4-B1. LOW-FLOW INVESTIGATIONS, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
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- 4-D1. COMPUTATION OF RATE AND VOLUME OF STREAM DEPLETION BY WELLS, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. METHODS FOR DETERMINATION OF INORGANIC SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS, by M. W. Skougstad and others, editors: USGS -TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. DETERMINATION OF MINOR ELEMENTS IN WATER BY EMISSION SPECTROSCOPY, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
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- 5-A5. METHODS FOR DETERMINATION OF RADIOACTIVE SUBSTANCES IN WATER AND FLUVIAL SEDIMENTS, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
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- 5-C1. LABORATORY THEORY AND METHODS FOR SEDIMENT ANALYSIS, by H. P. Guy: USGS TWRI Book 5, Chapter C1. 1969. 58 pages.
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- 8-A2. INSTALLATION AND SERVICE MANUAL FOR U.S. GEOLOGICAL SURVEY MANOMETERS, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. CALIBRATION AND MAINTENANCE OF VERTICAL-AXIS TYPE CURRENT METERS, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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SURFACE-WATER RECORDS

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REMARK CODES.--The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Estimated value
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)

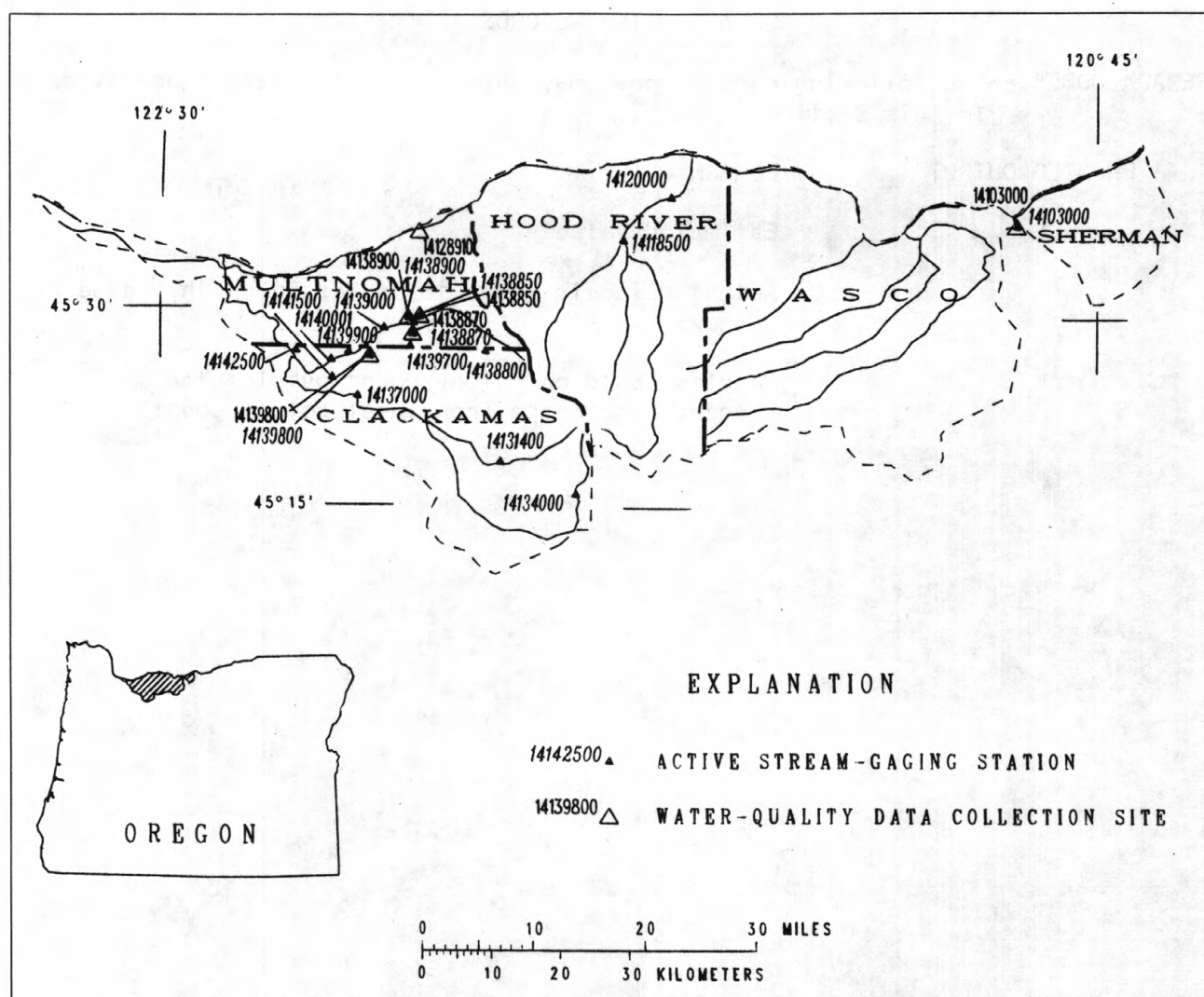


Figure 1.--Location of surface-water and water-quality stations in the Lower Deschutes River, Middle and Lower Columbia River, and Sandy River basins.

LOWER COLUMBIA RIVER BASIN

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14128860 COLUMBIA RIVER AT BONNEVILLE DAM, OR

LOCATION.--Lat 45°38'36", long 121°56'21", in sec.22, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on north shore of Bradford Island, 200 ft upstream from Bonneville Dam, at mile 146.1.

DRAINAGE AREA.--239,900 mi², approximately.

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 77.95 ft Jan. 21, 1986; minimum, 69.65 ft Oct. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 77.95 ft Jan. 21; minimum recorded, 71.11 ft Oct. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	75.99	74.20	75.07	75.88	73.77	74.60	75.95	74.12	74.72	75.28	73.57	74.41
2	75.67	73.82	74.95	76.32	74.06	75.24	74.64	71.68	73.45	75.49	73.92	74.79
3	76.06	73.82	74.85	76.13	74.10	74.85	74.89	71.35	72.97	75.78	72.87	74.23
4	75.90	74.52	75.27	75.57	73.69	74.51	75.88	73.82	74.65	75.73	74.51	75.10
5	75.34	74.08	74.50	75.61	74.18	74.86	75.46	72.93	74.40	75.41	73.29	74.05
6	74.69	72.16	73.09	75.11	72.77	73.99	76.26	73.71	75.05	74.98	72.79	73.65
7	73.45	71.11	71.94	76.02	73.09	74.62	76.04	74.11	75.37	75.24	74.05	74.54
8	74.67	72.40	73.54	75.51	72.98	74.21	75.79	73.90	75.01	75.40	73.16	74.34
9	74.84	72.71	74.15	75.56	73.55	74.42	75.64	73.09	74.49	75.56	73.81	74.43
10	75.55	72.94	74.44	75.57	72.85	73.91	75.59	72.64	73.72	75.92	74.41	75.11
11	75.50	73.70	74.56	74.34	72.46	73.36	74.69	72.12	73.37	75.56	73.89	74.84
12	75.92	74.06	74.98	74.29	72.76	73.59	75.64	71.80	73.68	75.60	74.16	75.10
13	75.80	74.30	74.88	75.77	71.69	73.34	75.94	73.46	74.70	75.53	74.32	74.94
14	75.09	73.78	74.63	76.04	72.47	73.73	75.29	73.69	74.49	77.77	73.37	74.82
15	75.48	73.41	74.53	75.76	72.22	74.35	74.67	71.98	73.19	75.82	73.59	75.02
16	75.73	73.62	74.72	75.67	74.02	74.88	75.74	72.45	73.77	77.77	74.18	75.40
17	76.15	74.19	75.16	75.29	74.77	75.01	75.65	72.65	73.95	76.34	75.57	76.09
18	76.04	74.87	75.65	75.24	74.35	74.86	75.09	72.38	73.77	76.58	75.42	75.91
19	75.64	73.71	74.57	75.72	74.92	75.32	74.97	72.68	73.95	76.10	74.74	75.52
20	74.59	73.25	74.01	75.58	74.20	75.13	75.02	71.92	73.82	75.93	74.12	75.14
21	74.83	73.25	74.22	76.21	75.14	75.51	75.54	73.45	74.68	77.95	72.98	74.23
22	75.52	73.14	74.41	75.96	73.51	74.66	75.10	72.57	73.77	76.37	73.08	74.48
23	75.22	74.20	74.82	75.72	73.80	74.69	74.85	71.76	73.53	76.05	73.01	74.27
24	75.32	74.02	74.77	75.85	73.97	75.01	75.63	72.97	74.34	76.46	75.40	75.83
25	75.91	74.25	75.21	75.39	72.62	74.12	75.54	74.68	75.19	76.44	74.75	75.73
26	75.57	74.67	75.09	75.60	72.18	73.85	75.23	72.46	73.59	74.80	72.96	73.79
27	75.43	73.66	74.47	75.20	72.11	73.96	75.67	72.87	74.24	73.14	71.95	72.47
28	75.46	73.87	74.59	75.47	72.19	73.98	75.79	73.81	74.72	74.65	71.61	72.75
29	75.29	73.72	74.60	75.53	74.24	75.01	75.26	73.18	74.18	75.14	72.75	73.90
30	76.32	73.57	74.87	75.94	74.24	74.92	74.88	73.22	74.10	74.78	72.06	72.87
31	75.93	74.86	75.40	---	---	---	75.00	73.27	74.29	75.30	71.69	73.19
MONTH	76.32	71.11	74.58	76.32	71.69	74.48	76.26	71.35	74.17	77.95	71.61	74.55

LOWER COLUMBIA RIVER BASIN

14128860 COLUMBIA RIVER AT BONNEVILLE DAM, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	76.35	74.56	75.11	---	---	---	75.22	73.59	74.54	76.06	74.14	74.95
2	75.99	74.70	75.17	---	---	---	75.52	74.15	74.82	76.17	74.34	75.24
3	75.15	72.77	73.92	---	---	---	75.85	74.01	74.98	75.90	74.73	75.26
4	75.57	71.39	73.02	---	---	---	75.44	73.59	74.67	75.78	74.23	74.70
5	76.26	75.29	75.84	75.95	74.25	75.14	75.83	74.17	74.93	75.43	74.19	74.80
6	76.45	75.43	75.94	75.08	74.16	74.56	75.78	73.88	74.90	75.07	73.97	74.58
7	76.43	75.62	75.97	75.34	74.13	74.87	75.69	73.75	74.97	75.48	74.24	75.04
8	76.48	75.39	75.87	76.39	73.54	75.04	75.92	73.30	74.93	75.80	74.14	74.90
9	75.51	74.26	74.90	76.15	74.74	75.17	75.81	73.26	75.04	74.89	73.23	74.18
10	---	---	---	75.34	74.16	74.79	76.58	74.42	75.25	74.62	72.99	73.94
11	---	---	---	75.94	73.94	75.05	75.06	74.32	74.74	75.62	74.27	74.81
12	---	---	---	75.18	74.10	74.62	75.83	73.89	74.95	75.55	73.34	74.39
13	---	---	---	76.02	73.36	74.54	75.98	73.72	74.84	75.84	73.17	74.02
14	---	---	---	74.99	72.69	74.48	75.43	74.00	74.68	76.00	74.28	75.33
15	---	---	---	75.19	73.87	74.38	75.79	73.79	75.10	75.57	73.96	74.84
16	---	---	---	75.46	74.19	74.78	75.62	74.06	74.73	75.51	74.33	74.96
17	---	---	---	75.88	73.55	74.98	76.33	74.26	75.36	75.72	74.23	75.17
18	---	---	---	75.64	73.55	74.70	75.59	74.16	74.94	75.28	74.58	74.97
19	---	---	---	75.29	73.98	74.52	75.28	74.13	74.69	75.60	73.49	74.62
20	---	---	---	75.18	73.88	74.36	75.56	74.56	74.96	75.11	72.86	73.98
21	---	---	---	75.31	73.83	74.59	75.93	73.39	74.79	73.38	71.48	72.69
22	---	---	---	75.44	73.58	74.56	75.86	73.88	75.05	74.11	72.28	73.42
23	---	---	---	75.48	73.94	74.66	76.15	73.39	74.81	75.17	73.19	74.09
24	---	---	---	75.86	73.69	74.67	75.74	74.00	75.00	74.54	72.92	73.87
25	---	---	---	75.20	73.75	74.27	75.75	74.59	75.26	75.14	72.85	74.36
26	---	---	---	75.02	73.71	74.38	75.74	74.30	74.98	74.74	73.58	74.14
27	---	---	---	75.25	73.50	74.54	76.34	74.40	75.22	76.01	73.30	74.46
28	---	---	---	75.18	74.22	74.63	76.07	74.71	75.28	75.74	74.41	75.06
29	---	---	---	75.15	74.11	74.74	76.38	73.90	75.06	76.22	74.21	75.38
30	---	---	---	74.98	72.85	74.19	75.49	74.24	74.85	75.42	73.20	74.51
31	---	---	---	75.18	73.69	74.43	---	---	---	73.88	71.25	72.63
MONTH	---	---	---	---	---	---	76.58	73.26	74.94	76.22	71.25	74.49
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	73.71	71.47	72.43	75.94	74.28	75.00						
2	73.73	72.18	72.96	75.51	74.13	74.88						
3	74.72	72.08	72.85	75.51	74.27	74.87						
4	74.33	71.55	73.48	75.52	74.64	75.04						
5	75.70	72.48	74.18	76.39	74.28	75.24						
6	74.53	72.76	73.71	76.28	75.09	75.46						
7	76.00	72.38	74.40	75.52	74.43	74.93						
8	75.47	73.65	74.74	75.56	73.88	74.77						
9	75.75	74.25	75.12	75.93	71.96	73.76						
10	76.08	74.27	75.02	76.22	74.31	75.42						
11	76.01	74.16	75.04	76.58	75.20	76.05						
12	75.36	74.40	75.01	76.33	74.40	75.46						
13	75.44	74.10	74.67	76.09	74.90	75.47						
14	75.70	74.44	75.03	---	---	---						
15	75.16	74.28	74.86	---	---	---						
16	75.53	74.60	75.06	---	---	---						
17	75.43	74.04	74.65	---	---	---						
18	75.48	74.39	74.88	---	---	---						
19	76.09	74.45	75.37	---	---	---						
20	75.93	73.92	75.00	---	---	---						
21	75.81	73.75	74.84	---	---	---						
22	75.94	74.52	75.03	---	---	---						
23	76.04	74.05	74.99	---	---	---						
24	76.41	73.72	75.20	---	---	---						
25	76.15	74.14	75.11	---	---	---						
26	76.07	73.44	75.07	---	---	---						
27	75.96	74.40	75.01	---	---	---						
28	75.61	74.40	74.90	---	---	---						
29	76.22	75.12	75.56	---	---	---						
30	76.22	74.26	75.22	---	---	---						
31	---	---	---	---	---	---						
MONTH	76.41	71.47	74.65	---	---	---						

LOWER COLUMBIA RIVER BASIN

41

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR

LOCATION.--Lat 45°38'20", long 121°57'16", in sec.21, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.4 mi downstream from Bonneville Dam left bank powerhouse, 0.5 mi upstream from Tanner Creek, and at mile 145.0.

DRAINAGE AREA.--239,900 mi², approximately.

PERIOD OF RECORD.--May 1981 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 30.40 ft June 11, 1981; minimum, 7.00 ft Oct. 4, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 29.04 ft June 4; minimum, 7.77 ft Sept. 29.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.55	11.22	12.03	15.27	14.00	14.73	16.14	14.21	15.17	12.24	11.22	11.71
2	13.25	12.36	12.96	13.80	12.26	12.66	18.09	15.39	16.54	12.36	11.59	12.01
3	12.70	11.44	11.94	12.58	11.26	11.83	18.48	14.39	16.88	12.52	11.88	12.26
4	12.85	12.19	12.61	12.22	11.02	11.39	17.27	13.56	14.86	12.80	11.47	11.89
5	13.01	10.12	11.50	13.72	11.23	12.84	16.85	15.56	16.09	12.08	10.83	11.58
6	11.20	9.52	10.03	14.01	13.34	13.79	15.81	14.77	15.29	12.36	11.45	11.89
7	14.43	10.53	12.61	15.95	13.79	15.01	16.29	14.89	15.38	13.52	11.66	12.81
8	12.97	11.32	12.49	16.20	14.41	15.80	17.27	15.58	16.18	13.41	12.72	13.03
9	12.71	11.06	12.14	15.81	14.13	15.12	18.70	17.06	17.56	13.98	12.16	12.82
10	13.04	12.61	12.87	16.41	15.33	15.93	18.34	17.59	17.93	13.90	12.98	13.57
11	13.07	12.04	12.53	17.34	15.20	16.33	18.84	17.15	18.05	13.56	11.94	12.54
12	12.77	11.76	12.32	17.87	15.93	16.88	18.88	17.12	17.75	12.83	11.33	11.96
13	12.69	9.54	10.54	17.06	14.07	15.92	19.17	17.79	18.83	13.64	12.66	13.16
14	11.80	9.28	10.77	17.23	14.63	15.83	19.06	15.92	17.04	14.28	12.24	12.74
15	12.38	10.80	11.64	18.57	14.99	16.42	15.98	13.41	14.18	14.47	13.24	13.70
16	12.67	11.66	12.10	15.53	11.07	12.07	18.02	13.74	16.54	14.04	12.86	13.44
17	12.85	12.10	12.40	11.56	10.58	10.90	18.13	15.53	17.04	14.13	11.97	12.95
18	13.71	12.39	13.04	14.27	10.88	13.20	17.24	14.71	15.88	16.41	11.40	14.21
19	14.36	11.33	12.32	15.64	12.50	13.25	15.09	13.94	14.34	15.68	13.48	14.75
20	11.72	10.37	10.90	17.69	15.73	16.84	15.29	13.66	14.25	15.87	15.49	15.69
21	12.14	11.13	11.60	18.11	16.04	17.47	15.44	13.93	14.90	15.55	14.02	14.78
22	12.15	11.49	11.83	17.15	14.75	15.79	15.50	13.03	14.23	14.70	13.62	13.92
23	13.36	11.85	12.64	18.05	14.61	16.02	14.15	11.05	12.40	15.72	13.43	14.95
24	13.22	12.54	12.86	18.44	14.96	16.96	11.67	10.11	10.75	17.06	12.70	15.29
25	14.09	12.36	13.30	18.84	16.61	17.90	12.86	11.84	12.37	16.08	14.37	15.18
26	14.05	12.24	13.27	16.39	14.74	15.20	12.83	10.93	11.90	16.08	13.31	14.40
27	13.15	11.88	12.71	15.70	13.58	14.77	13.23	10.62	12.03	14.54	13.43	13.84
28	12.71	11.25	12.07	15.68	12.53	13.35	13.91	12.25	12.86	14.14	12.20	13.11
29	13.29	11.39	12.46	17.05	13.39	15.47	13.01	11.39	12.19	13.35	12.63	13.07
30	13.03	11.58	12.16	16.34	14.24	14.71	13.29	11.76	12.39	14.75	13.51	14.38
31	15.39	12.94	14.17	---	---	---	12.83	11.78	12.24	14.07	12.91	13.65
MONTH	15.39	9.28	12.22	18.84	10.58	14.81	19.17	10.11	14.97	17.06	10.83	13.40

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	14.71	13.76	14.15	25.89	25.59	25.75	23.30	21.99	22.56	21.46	20.46	21.03
2	15.21	14.64	14.92	25.65	24.62	25.12	23.75	21.99	22.63	21.39	20.46	20.95
3	15.67	13.53	14.98	25.22	24.40	24.61	23.31	22.27	22.62	20.79	19.80	20.19
4	17.59	13.68	15.82	24.66	22.70	23.88	23.18	22.48	22.75	19.91	18.53	18.93
5	16.46	13.81	15.13	22.93	21.78	22.26	23.13	21.29	22.12	20.99	18.54	19.95
6	16.44	15.14	16.01	21.79	21.32	21.54	21.75	20.29	20.80	21.70	20.36	21.08
7	17.46	15.11	16.24	23.99	21.24	22.49	21.21	20.39	20.69	21.20	19.67	20.27
8	17.66	15.18	16.46	26.58	23.90	25.03	21.70	19.40	20.03	21.18	19.88	20.23
9	16.96	16.60	16.78	27.06	25.95	26.55	21.29	18.05	19.62	22.00	20.57	21.23
10	17.98	16.62	17.64	26.14	25.07	25.62	20.31	19.18	19.50	21.07	20.51	20.78
11	17.97	17.16	17.64	25.17	24.18	24.82	21.81	20.45	21.03	21.92	20.52	21.04
12	17.50	15.93	17.01	24.47	23.59	23.93	22.51	19.99	20.61	22.87	21.16	21.81
13	17.25	15.93	16.90	25.45	23.31	24.22	21.74	19.67	20.70	21.91	20.02	21.31
14	17.42	17.16	17.28	26.66	24.99	25.40	23.25	21.50	22.35	21.85	18.95	20.25
15	17.60	13.86	14.96	25.60	24.61	25.24	22.13	21.04	21.46	22.12	21.01	21.64
16	15.57	13.98	14.68	24.83	23.69	24.34	21.86	21.04	21.29	22.12	21.17	21.68
17	18.40	15.50	17.13	24.27	22.39	23.13	21.74	21.05	21.28	21.89	19.88	20.40
18	19.05	18.32	18.76	24.07	21.86	22.39	22.56	21.42	22.04	20.01	18.43	18.95
19	19.83	18.78	19.15	22.71	21.53	22.09	21.99	18.77	20.70	22.34	18.41	20.32
20	20.31	19.35	19.90	23.08	22.40	22.61	18.76	18.13	18.35	21.87	19.81	21.09
21	20.76	18.25	19.63	22.97	21.53	22.04	20.05	18.00	18.99	23.21	20.19	21.96
22	20.52	18.99	19.83	21.27	20.03	20.36	21.11	19.47	20.16	23.55	21.81	22.54
23	26.45	20.12	23.29	20.27	18.43	19.01	21.38	19.32	20.62	22.80	21.15	22.38
24	27.78	25.55	26.64	21.19	14.72	19.11	22.88	21.26	22.01	21.12	17.90	19.51
25	28.15	27.28	27.89	21.46	14.99	19.78	23.49	21.25	21.98	18.09	17.12	17.65
26	28.03	26.61	27.47	23.03	21.06	22.45	22.98	21.50	22.42	18.43	16.96	17.65
27	26.94	25.92	26.49	22.72	21.72	22.09	23.08	20.74	21.70	22.02	18.41	20.05
28	26.33	25.33	25.99	22.38	21.18	21.74	22.41	20.60	21.35	24.06	21.56	22.84
29	---	---	---	21.32	19.62	20.32	23.59	20.24	22.02	25.47	23.65	24.50
30	---	---	---	24.22	19.34	22.30	22.44	19.76	20.77	26.44	24.83	25.72
31	---	---	---	25.26	23.18	24.23	---	---	---	26.99	25.77	26.42
MONTH	28.15	13.53	18.88	27.06	14.72	23.05	23.75	18.00	21.17	26.99	16.96	21.11
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	26.99	25.26	26.41	13.80	12.23	12.93	16.23	12.46	13.56	9.42	7.97	8.95
2	27.48	26.45	26.90	13.72	12.99	13.46	14.13	13.68	13.92	10.25	8.98	9.63
3	27.50	26.04	26.86	13.87	10.52	12.85	14.13	13.58	13.82	13.04	9.95	11.68
4	29.04	26.69	27.03	10.76	10.01	10.36	13.97	11.98	13.49	15.49	11.72	13.65
5	27.65	25.50	26.37	10.52	9.66	10.05	12.24	10.38	11.39	13.81	12.07	13.02
6	26.12	25.18	25.61	10.41	9.66	9.97	12.62	11.88	12.22	13.13	11.38	12.10
7	26.36	24.74	25.32	10.54	9.74	10.08	12.79	12.12	12.41	13.33	12.65	12.98
8	25.73	24.21	24.84	13.20	9.70	11.19	12.69	10.34	11.90	13.37	11.55	12.60
9	24.97	23.09	24.01	13.97	10.57	12.42	12.86	11.66	12.34	13.00	11.07	12.08
10	23.58	21.82	22.51	13.92	10.33	12.38	13.75	12.53	13.12	12.30	10.76	11.43
11	22.44	21.59	21.90	16.73	13.20	15.47	13.85	12.67	13.10	11.46	10.05	10.68
12	22.95	20.54	21.49	16.92	14.00	15.70	14.16	12.79	13.60	10.85	10.13	10.42
13	20.88	19.71	20.22	16.85	13.84	15.23	14.35	13.82	14.12	11.24	10.10	10.42
14	19.79	18.46	19.23	16.87	13.88	15.76	14.48	12.07	13.42	10.90	10.12	10.48
15	19.45	18.43	18.89	17.44	14.07	15.61	13.21	11.83	12.52	11.32	10.28	10.66
16	19.97	19.16	19.43	18.15	16.52	17.12	12.33	11.36	11.82	13.08	10.98	11.85
17	20.08	18.75	19.67	17.39	14.33	15.51	11.41	9.87	10.53	12.99	11.42	12.16
18	19.81	19.22	19.47	15.95	14.13	15.30	12.90	10.01	12.07	11.69	10.52	11.08
19	20.15	19.30	19.56	14.39	13.74	14.07	12.79	12.03	12.43	11.86	9.30	10.91
20	19.63	17.37	18.66	16.49	12.90	14.30	12.62	11.85	12.28	11.84	10.40	11.12
21	18.56	16.80	17.31	17.24	14.00	15.62	12.64	12.06	12.31	11.13	9.47	10.12
22	16.84	15.61	16.14	18.17	14.34	16.51	12.49	11.92	12.20	11.06	10.20	10.55
23	18.68	15.05	16.88	18.02	14.50	15.88	12.71	11.08	12.25	11.57	10.23	10.97
24	18.28	15.47	16.44	17.53	13.81	15.20	11.11	9.48	10.16	13.09	9.64	11.88
25	16.18	15.53	15.76	15.80	14.10	14.73	10.42	9.25	9.69	12.22	11.16	11.68
26	17.50	15.49	16.63	15.76	13.95	14.59	13.23	9.41	10.96	12.46	11.65	12.01
27	16.98	15.33	15.72	15.95	13.88	14.60	12.15	11.19	11.56	12.22	9.26	10.77
28	15.57	13.58	14.20	15.63	12.59	13.80	12.07	10.39	11.64	9.73	8.11	9.06
29	13.91	13.11	13.58	15.89	12.24	13.40	11.09	8.60	9.48	10.06	7.77	9.14
30	13.77	13.11	13.49	15.57	12.19	13.19	10.48	8.03	8.98	11.90	9.62	11.10
31	---	---	---	15.51	12.19	13.05	9.21	8.27	8.67	---	---	---
MONTH	29.04	13.11	20.35	18.17	9.66	13.88	16.23	8.03	12.00	15.49	7.77	11.17
YEAR	29.04	7.77	16.39									

LOWER COLUMBIA RIVER BASIN

14128910 COLUMBIA RIVER AT WARRENDALE, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°36'45", long 122°01'35", in NE¼SE¼ sec.35, T.2 N., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.1 mi downstream from Tumult Creek, 1.0 mi west of Warrendale, 5.1 mi downstream from Bonneville Dam, and at mile 141.0.

DRAINAGE AREA.--240,000 mi², approximately.

WATER-STAGE RECORDS

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 30.91 ft June 20, 1972; minimum, 4.49 ft July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 24.31 ft Feb. 25; minimum recorded, 5.44 ft Sept. 1.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.13	8.00	8.52	11.19	10.72	10.91	10.46	9.82	10.11	9.07	8.36	8.67
2	9.53	9.01	9.18	10.80	8.99	9.55	12.75	10.28	10.88	9.07	8.29	8.64
3	9.48	7.99	8.59	9.39	8.18	8.70	13.55	11.32	12.80	9.35	8.44	8.99
4	9.03	8.32	8.56	8.69	7.91	8.26	11.68	10.08	10.67	8.55	7.80	8.26
5	9.19	7.57	8.21	9.68	8.09	8.83	12.06	11.56	11.84	9.28	7.77	8.41
6	7.84	6.62	7.08	10.13	9.65	9.96	11.65	11.12	11.49	9.62	8.62	9.00
7	9.12	7.46	8.52	12.09	10.07	11.03	12.27	11.00	11.58	9.99	8.51	9.11
8	8.75	8.15	8.53	12.47	11.77	12.28	13.19	12.01	12.38	10.53	9.39	9.89
9	8.66	7.87	8.24	12.13	11.23	11.61	14.06	13.15	13.46	10.47	9.14	9.64
10	9.09	8.48	8.81	12.46	11.79	12.12	14.19	13.54	13.85	11.07	9.76	10.32
11	9.23	8.61	8.94	13.14	11.64	12.28	14.27	13.18	13.75	10.72	9.02	9.73
12	9.18	8.27	8.81	13.26	12.44	12.84	14.24	13.23	13.61	9.77	8.03	8.79
13	9.07	6.95	7.99	12.59	11.10	11.92	14.63	14.00	14.24	10.11	8.96	9.61
14	8.63	6.61	7.67	12.58	10.99	11.80	14.62	12.29	13.17	10.26	8.90	9.41
15	9.36	7.69	8.41	13.62	10.89	11.82	12.42	9.93	10.86	10.57	9.92	10.16
16	9.68	8.39	8.85	13.47	8.84	10.17	12.97	10.19	11.56	10.51	9.72	10.12
17	9.69	8.57	9.05	9.41	8.16	8.59	13.08	11.74	12.44	10.20	9.35	9.86
18	10.13	8.91	9.31	10.32	8.54	9.53	11.83	10.55	11.30	12.07	9.20	10.73
19	10.20	8.19	9.15	10.50	9.21	9.68	11.11	9.39	9.89	12.22	10.88	11.54
20	8.83	7.44	8.00	12.99	10.54	12.12	9.88	9.16	9.52	12.42	12.05	12.21
21	8.61	8.13	8.38	13.34	12.07	12.80	10.47	9.49	9.98	12.03	11.01	11.49
22	9.00	8.19	8.58	12.90	11.08	12.04	10.46	9.00	9.88	11.30	10.37	10.75
23	9.71	8.63	9.14	12.38	10.60	11.12	9.33	7.33	8.37	12.17	11.05	11.77
24	9.87	9.09	9.44	13.32	11.05	12.02	7.30	6.20	6.75	12.92	10.50	11.84
25	10.51	9.21	9.86	13.91	12.91	13.48	8.49	7.20	7.69	12.07	11.13	11.56
26	10.52	9.28	9.84	12.91	11.13	11.71	8.36	7.36	7.91	12.04	10.22	10.93
27	10.26	9.25	9.78	11.22	10.31	10.73	9.20	6.87	7.91	11.14	10.23	10.69
28	9.61	8.66	9.12	10.97	8.76	9.54	9.41	8.45	8.88	10.78	9.40	10.01
29	9.67	8.28	9.08	12.11	9.48	10.55	9.30	8.28	8.82	10.15	9.46	9.73
30	9.69	8.52	8.96	12.05	10.12	10.76	8.83	8.16	8.50	11.14	10.13	10.73
31	11.22	9.29	10.00	---	---	---	8.96	8.40	8.64	10.79	9.94	10.41
MONTH	11.22	6.61	8.79	13.91	7.91	10.96	14.63	6.20	10.73	12.92	7.77	10.10

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	11.29	10.43	10.86	21.85	21.39	21.64	18.26	17.29	17.73	16.42	15.80	16.10
2	11.79	10.98	11.35	21.46	20.29	20.89	18.03	17.10	17.42	16.25	15.81	16.05
3	11.65	11.26	11.45	20.43	20.00	20.21	17.81	17.31	17.49	16.06	15.25	15.60
4	13.21	10.98	12.09	20.04	18.66	19.62	17.68	17.43	17.58	15.25	14.04	14.55
5	12.32	10.78	11.55	18.64	17.48	18.07	17.72	16.69	17.20	15.74	13.98	14.94
6	12.54	11.59	12.08	17.45	16.75	17.12	16.67	15.70	16.05	16.57	15.67	16.16
7	12.67	11.56	12.20	18.73	16.61	17.46	15.97	15.64	15.77	16.01	15.31	15.64
8	12.84	11.67	12.37	21.11	18.71	19.59	16.06	14.83	15.35	15.99	15.34	15.58
9	12.88	12.49	12.68	21.60	21.03	21.37	15.48	14.59	14.89	16.54	15.84	16.25
10	13.51	12.71	13.07	21.20	20.44	20.86	14.92	14.44	14.67	16.13	15.81	15.99
11	13.60	12.91	13.32	20.44	19.74	20.20	16.29	15.04	15.83	16.33	15.87	16.11
12	13.08	12.28	12.88	19.78	18.95	19.37	16.30	15.25	15.73	17.28	16.36	16.70
13	12.59	12.03	12.31	20.18	18.81	19.24	16.24	15.12	15.60	17.13	16.09	16.67
14	12.74	12.43	12.57	20.58	20.11	20.33	17.37	16.23	16.87	16.49	14.99	15.58
15	12.92	10.89	11.86	20.39	19.93	20.21	17.21	16.19	16.58	16.82	16.19	16.52
16	12.24	10.99	11.51	19.96	19.04	19.60	16.52	16.11	16.25	16.86	16.38	16.65
17	14.44	12.25	13.27	19.06	17.75	18.47	16.44	16.14	16.25	16.71	15.30	15.76
18	15.25	14.43	14.93	18.00	17.17	17.53	17.23	16.31	16.81	15.35	---	---
19	15.60	15.05	15.23	17.23	16.77	17.03	16.77	14.56	16.06	16.25	---	---
20	16.18	15.60	15.86	17.57	17.13	17.33	14.53	13.52	13.87	16.51	15.84	16.15
21	16.52	15.13	15.91	17.51	16.83	17.08	15.00	13.39	14.04	17.50	15.69	16.81
22	16.41	15.18	15.92	16.89	15.29	15.77	15.82	14.70	15.21	18.12	16.94	17.49
23	22.14	16.41	18.94	15.30	13.99	14.43	16.19	14.99	15.63	17.72	16.89	17.46
24	23.75	22.14	22.77	15.76	12.69	14.81	17.51	16.12	16.71	16.79	14.15	15.49
25	24.31	23.63	24.02	16.24	12.21	14.60	17.87	16.58	17.18	14.12	13.16	13.65
26	24.25	23.17	23.79	17.86	16.18	17.17	17.65	16.68	17.27	13.64	12.92	13.35
27	23.19	22.43	22.77	17.76	17.06	17.34	17.72	16.56	17.10	16.41	13.64	14.89
28	22.44	21.83	22.10	17.39	16.65	17.06	17.19	16.13	16.63	18.37	16.39	17.41
29	---	---	---	16.71	15.22	15.92	18.14	15.86	17.08	19.77	18.36	19.01
30	---	---	---	18.47	15.13	16.84	16.68	15.67	16.10	20.74	19.76	20.20
31	---	---	---	19.38	18.20	18.84	---	---	---	21.29	20.68	20.95
MONTH	24.31	10.43	14.99	21.85	12.21	18.26	18.26	13.39	16.23	21.29	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	21.34	20.66	21.04	9.86	8.65	9.18	10.56	8.84	9.35	6.76	5.44	6.23
2	---	---	---	9.76	8.70	9.39	10.27	9.61	9.95	7.19	6.15	6.69
3	21.68	21.30	21.49	---	---	---	10.15	9.62	9.85	8.82	6.76	8.00
4	22.15	21.44	21.63	8.24	6.98	7.61	10.08	9.36	9.71	10.54	8.23	9.56
5	---	---	---	7.81	6.66	7.15	9.16	7.75	8.31	9.88	8.89	9.47
6	20.71	20.13	20.47	---	6.65	---	9.20	8.20	8.64	---	---	---
7	---	---	---	7.89	6.64	7.17	9.33	8.34	8.86	9.90	8.97	9.37
8	20.38	19.18	19.70	9.02	---	---	9.20	7.76	8.71	9.91	8.54	9.21
9	19.53	18.26	19.05	9.97	7.92	9.06	9.45	8.36	8.78	9.17	8.12	8.67
10	18.28	17.07	17.68	---	---	---	9.82	9.01	9.29	9.14	7.49	8.23
11	17.13	16.71	16.92	---	---	---	10.02	8.79	9.41	8.46	6.84	7.57
12	17.09	15.95	16.59	12.08	10.45	11.59	9.92	9.20	9.51	7.96	6.86	7.28
13	15.99	15.07	15.48	11.86	10.24	10.96	10.42	9.71	10.06	7.98	6.82	7.31
14	15.13	13.91	14.62	11.89	10.26	11.17	10.47	8.73	9.73	7.93	6.86	7.38
15	14.30	13.87	14.02	---	---	---	9.57	8.55	8.98	8.22	7.09	7.60
16	14.73	14.25	14.46	---	---	---	9.21	8.00	8.55	9.23	7.54	8.33
17	15.09	14.38	14.83	---	---	---	8.62	7.03	7.78	9.24	8.28	8.86
18	14.92	14.43	14.63	11.70	10.68	---	9.28	7.08	8.53	8.85	7.55	8.21
19	15.07	14.65	14.77	10.80	9.93	10.38	9.56	8.58	8.99	8.79	6.90	7.97
20	14.86	13.68	14.21	---	---	---	9.35	8.46	8.89	8.78	7.64	8.16
21	13.85	12.52	13.17	12.32	10.21	11.24	9.40	8.52	8.94	8.48	6.73	7.44
22	---	---	---	13.09	10.80	11.96	9.18	8.41	8.81	8.17	7.00	7.52
23	13.48	---	---	13.09	11.21	11.84	9.18	8.49	8.85	---	---	---
24	13.25	11.82	12.33	11.92	10.48	11.12	8.79	6.63	7.48	---	---	---
25	12.29	11.29	11.71	11.67	10.34	10.79	7.78	6.24	6.88	8.85	7.67	8.20
26	12.58	---	---	11.04	10.13	10.50	8.24	6.69	7.32	9.13	8.22	8.57
27	12.46	11.07	11.65	10.90	9.97	10.42	8.70	7.57	8.07	8.59	7.09	7.74
28	11.40	9.62	10.43	10.75	9.06	9.88	---	---	---	6.97	6.11	6.49
29	10.05	9.20	9.66	10.03	8.63	9.39	---	---	---	6.85	5.85	6.29
30	9.73	9.15	9.48	9.82	8.50	9.21	---	---	---	---	---	---
31	---	---	---	9.93	8.41	9.08	6.67	5.45	6.03	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

LOWER COLUMBIA RIVER BASIN

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14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to current year.

WATER TEMPERATURES: October 1975 to current year.

INSTRUMENTATION.--Specific conductance and temperature recorders since October 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 243 microsiemens Mar. 4, 5, 1986; minimum, 95 microsiemens June 26, 27, 1982.

WATER TEMPERATURES: Maximum, 22.5°C Aug. 17, 18, 1977, Aug. 11, 1980; minimum recorded, 0.0°C many days in January and February, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 243 microsiemens Mar. 4, 5; minimum, 126 microsiemens June 16, 17.

WATER TEMPERATURES: Maximum recorded, 22.0°C Aug. 26-28; minimum, 1.5°C Dec. 27, 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOC CI FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CAC03)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CAC03	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 05...	1250	134000	182	7.9	12.0	11.2	K2	K11	74	0	20
MAR 26...	1130	286000	145	7.5	7.0	12.4	K14	K9	66	4	16
MAY 20...	1230	250000	161	8.4	12.5	10.8	3	4	66	2	18
SEP 04...	1220	156000	146	7.8	21.0	8.7	K5	K5	64	3	18

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 05...	5.7	8.3	1.5	76	16	4.1	0.2	--	0.25	0.2	0.02
MAR 26...	6.4	7.2	1.6	62	11	3.1	0.2	0.03	0.36	0.3	0.03
MAY 20...	5.0	5.9	1.3	66	14	3.4	0.2	<0.01	<0.10	0.5	<0.01
SEP 04...	4.6	4.3	1.1	61	10	2.2	0.2	0.02	<0.10	0.3	0.02

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 05...	0.02	0.03	9.4	102	110	36900	2.0	9	3260	85
MAR 26...	0.04	0.06	16	102	99	78800	16	25	19300	85
MAY 20...	0.02	0.03	7.5	95	93	6410	1.2	--	--	--
SEP 04...	0.02	0.02	7.6	110	85	46300	2.1	10	4210	72

K - Results based on colony count outside acceptable range (non-ideal colony count).

LOWER COLUMBIA RIVER BASIN

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 05...	10	1	32	<0.5	--	2	<3	4	5	<1
MAR 26...	80	1	20	<0.5	<1	<1	<3	5	56	1
MAY 20...	--	--	--	--	--	--	--	--	--	--
SEP 04...	<10	1	28	<0.5	<1	<1	<3	3	6	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 05...	7	<1	<0.1	<10	4	<1	<1	110	<6	9
MAR 26...	6	6	<0.1	<10	3	<1	<1	84	<6	20
MAY 20...	--	--	--	--	--	--	--	--	--	--
SEP 04...	6	<1	0.1	<10	<1	<1	<1	95	<6	13

LOWER COLUMBIA RIVER BASIN

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14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	174	171	173	176	173	175	191	189	190	169	168	169
2	175	173	174	179	176	177	190	187	189	170	168	169
3	185	174	176	180	178	179	187	180	183	170	168	169
4	179	176	177	181	178	179	180	178	179	171	169	170
5	178	177	178	182	179	181	179	174	175	172	170	171
6	177	174	176	185	181	183	178	174	176	173	171	172
7	175	173	174	184	179	181	177	173	175	175	172	173
8	175	173	174	181	179	180	172	171	172	176	175	175
9	175	174	174	180	176	179	172	171	171	178	176	177
10	176	174	175	184	179	182	172	171	172	178	177	178
11	174	170	173	189	184	187	175	171	173	178	177	177
12	171	169	170	193	189	192	176	175	175	179	176	177
13	170	168	169	193	192	193	178	176	177	181	178	180
14	170	169	169	192	191	192	178	177	177	184	181	182
15	171	169	169	191	190	191	178	177	177	185	183	184
16	171	169	170	192	189	191	178	177	177	185	183	184
17	170	169	170	192	191	192	178	177	177	184	182	183
18	169	168	169	195	192	194	177	173	175	183	179	181
19	169	168	169	196	195	195	173	170	171	178	173	175
20	169	168	169	194	190	192	171	169	170	177	175	176
21	169	167	168	191	187	189	172	170	170	180	177	179
22	167	165	166	187	182	184	170	169	170	180	179	179
23	166	165	166	182	181	181	171	169	170	180	178	179
24	167	165	166	187	181	184	172	170	172	182	178	180
25	165	163	164	192	187	189	172	171	172	185	181	183
26	165	164	164	192	191	191	172	169	171	186	184	185
27	165	164	165	191	190	190	169	166	168	188	185	186
28	166	164	165	190	188	189	166	165	166	188	186	187
29	168	165	167	188	186	186	168	165	167	187	185	185
30	170	168	169	189	187	188	169	167	168	184	179	181
31	173	170	171	---	---	---	169	168	169	179	178	179
MONTH	185	163	170	196	173	186	191	165	174	188	168	178
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	179	178	179	202	198	201	159	157	158	162	160	161
2	178	177	178	204	197	200	159	158	159	163	161	162
3	180	177	178	226	203	212	160	159	159	163	162	162
4	186	180	183	243	227	237	160	158	159	163	161	162
5	192	186	189	243	235	241	161	159	160	162	161	161
6	195	192	193	237	228	231	161	160	160	163	161	162
7	195	193	194	228	218	223	162	160	161	163	162	163
8	193	188	191	219	208	214	162	160	161	163	160	162
9	189	188	189	207	190	199	162	160	161	161	157	159
10	197	189	191	190	182	185	163	161	162	158	154	156
11	197	193	195	181	175	178	164	163	164	154	151	153
12	197	192	195	175	173	174	166	164	165	151	150	150
13	216	198	205	176	174	175	166	165	165	150	149	150
14	225	214	220	175	174	174	166	165	166	151	150	150
15	226	222	225	178	174	176	166	164	166	152	150	151
16	223	217	220	179	177	178	165	162	163	153	151	152
17	222	216	220	177	170	174	162	160	160	155	153	154
18	220	211	216	170	162	166	160	159	160	157	155	156
19	215	203	210	162	157	160	160	159	159	158	157	157
20	208	193	203	157	153	155	161	159	160	158	156	157
21	208	196	202	152	147	150	161	159	160	157	153	155
22	202	196	199	147	144	146	163	160	161	154	150	152
23	195	177	189	145	142	143	164	162	162	150	148	149
24	176	159	169	143	141	142	164	163	164	149	148	148
25	168	160	165	145	142	143	163	162	163	150	148	149
26	180	168	174	148	143	146	164	163	163	151	150	150
27	199	181	190	149	145	147	164	163	164	152	150	151
28	203	199	201	151	148	150	164	162	163	152	150	151
29	---	---	---	152	150	151	164	161	162	153	150	151
30	---	---	---	155	152	153	161	160	161	154	151	152
31	---	---	---	157	154	156	---	---	---	154	152	153
MONTH	226	159	195	243	141	177	166	157	162	163	148	155

LOWER COLUMBIA RIVER BASIN

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	155	153	154	---	---	---	132	130	131	160	138	143
2	156	154	155	---	---	---	134	132	133	162	138	143
3	156	155	155	---	---	---	135	133	134	160	138	142
4	156	148	153	---	---	---	136	134	135	157	139	141
5	150	146	148	---	---	---	137	135	136	157	140	143
6	147	143	146	---	---	---	137	136	137	157	141	143
7	144	140	142	---	---	---	139	136	138	145	144	144
8	143	139	140	---	---	---	139	137	138	162	143	144
9	143	137	139	---	---	---	139	137	138	146	143	145
10	145	138	140	---	---	---	139	138	138	150	146	148
11	139	132	137	---	---	---	140	138	139	152	149	151
12	137	130	134	---	---	---	141	139	140	153	151	153
13	139	133	136	---	---	---	143	141	142	156	154	155
14	137	132	135	---	---	---	145	142	144	157	155	156
15	138	129	134	---	---	---	146	144	145	157	156	157
16	130	126	128	---	---	---	146	143	144	159	157	158
17	132	126	129	---	---	---	146	144	145	160	158	159
18	131	127	130	---	---	---	146	144	144	163	158	160
19	132	129	131	---	---	---	145	143	144	160	159	159
20	136	130	133	---	---	---	148	145	146	165	157	159
21	138	133	135	---	---	---	148	146	147	158	157	158
22	139	134	137	---	---	---	147	144	146	189	158	159
23	138	134	137	---	---	---	147	146	146	167	156	158
24	137	135	136	---	---	---	146	145	146	157	155	156
25	138	135	137	---	---	---	146	144	146	157	155	156
26	137	136	137	---	---	---	147	146	146	157	155	155
27	---	---	---	---	---	---	148	146	147	159	156	158
28	---	---	---	---	---	---	148	147	148	162	159	160
29	---	---	---	---	---	---	150	147	148	164	162	163
30	---	---	---	134	128	129	149	146	147	171	164	167
31	---	---	---	131	128	130	147	146	147	---	---	---
MONTH	---	---	---	---	---	---	150	130	142	189	138	153

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	15.0	15.5	12.0	12.0	12.0	3.0	2.5	3.0	2.0	2.0	2.0
2	16.0	15.5	15.5	12.0	12.0	12.0	2.5	2.0	2.0	2.0	2.0	2.0
3	15.5	15.5	15.5	12.0	12.0	12.0	2.5	2.0	2.5	2.0	2.0	2.0
4	15.5	15.5	15.5	12.0	12.0	12.0	2.5	2.5	2.5	2.0	2.0	2.0
5	15.5	15.5	15.5	12.0	11.5	12.0	2.5	2.5	2.5	2.0	2.0	2.0
6	15.5	15.5	15.5	11.5	11.5	11.5	3.0	2.5	2.5	2.5	2.0	2.0
7	15.5	15.0	15.5	11.5	11.0	11.5	3.0	3.0	3.0	2.5	2.5	2.5
8	15.0	15.0	15.0	11.0	11.0	11.0	3.0	3.0	3.0	2.5	2.5	2.5
9	15.0	14.5	14.5	11.0	10.5	10.5	3.0	3.0	3.0	2.5	2.0	2.5
10	14.5	14.0	14.5	10.5	10.0	10.5	3.0	2.5	2.5	2.5	2.5	2.5
11	14.5	14.0	14.5	10.0	9.5	10.0	2.5	2.5	2.5	2.5	2.5	2.5
12	14.5	14.0	14.0	9.5	9.5	9.5	2.5	2.5	2.5	2.5	2.5	2.5
13	14.0	14.0	14.0	9.5	9.0	9.0	2.5	2.5	2.5	2.5	2.5	2.5
14	14.0	14.0	14.0	9.0	8.5	9.0	2.5	2.5	2.5	2.5	2.5	2.5
15	14.0	14.0	14.0	8.5	8.5	8.5	2.5	2.5	2.5	2.5	2.5	2.5
16	14.0	14.0	14.0	8.5	8.5	8.5	3.0	2.5	2.5	2.5	2.5	2.5
17	14.0	14.0	14.0	8.5	8.5	8.5	2.5	2.5	2.5	2.5	2.5	2.5
18	14.0	13.5	14.0	8.5	8.0	8.0	2.5	2.5	2.5	3.0	2.5	3.0
19	14.0	13.5	13.5	8.0	8.0	8.0	2.5	2.5	2.5	3.0	3.0	3.0
20	13.5	13.5	13.5	7.5	7.0	7.5	2.5	2.5	2.5	3.0	3.0	3.0
21	13.5	13.0	13.0	7.0	6.5	7.0	2.5	2.5	2.5	3.0	3.0	3.0
22	13.0	13.0	13.0	6.5	6.5	6.5	2.5	2.5	2.5	3.0	3.0	3.0
23	13.0	13.0	13.0	6.0	5.5	6.0	2.5	2.0	2.5	3.0	3.0	3.0
24	13.0	13.0	13.0	5.5	4.5	5.0	2.0	2.0	2.0	3.0	3.0	3.0
25	13.0	12.5	12.5	5.0	5.0	5.0	2.0	2.0	2.0	3.0	3.0	3.0
26	12.5	12.5	12.5	5.5	5.0	5.0	2.0	2.0	2.0	3.0	3.0	3.0
27	12.5	12.5	12.5	5.5	4.5	5.0	2.0	1.5	1.5	3.0	3.0	3.0
28	12.5	12.5	12.5	4.5	3.5	4.0	2.0	2.0	2.0	3.0	3.0	3.0
29	12.5	12.0	12.5	3.5	3.5	3.5	2.0	2.0	2.0	3.0	3.0	3.0
30	12.5	12.0	12.0	3.5	3.0	3.5	2.0	1.5	2.0	3.5	3.0	3.0
31	12.0	12.0	12.0	---	---	---	2.0	2.0	2.0	3.5	3.5	3.5
MONTH	16.0	12.0	14.0	12.0	3.0	8.5	3.0	1.5	2.5	3.5	2.0	2.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.5	3.5	3.5	5.5	5.0	5.5	8.5	8.5	8.5	9.5	9.5	9.5
2	4.0	3.5	3.5	5.5	5.5	5.5	8.5	8.5	8.5	10.0	9.5	10.0
3	4.0	4.0	4.0	6.0	6.0	6.0	8.5	8.5	8.5	10.5	10.0	10.0
4	4.0	4.0	4.0	6.0	6.0	6.0	8.5	8.5	8.5	10.5	10.0	10.0
5	4.5	4.0	4.0	6.5	6.0	6.5	8.5	8.5	8.5	10.5	10.0	10.5
6	4.5	4.0	4.0	6.5	6.5	6.5	9.0	8.5	8.5	10.0	10.0	10.0
7	4.0	4.0	4.0	6.5	6.5	6.5	9.0	8.5	8.5	10.0	10.0	10.0
8	4.0	4.0	4.0	6.5	6.5	6.5	9.0	8.5	9.0	10.5	10.0	10.5
9	4.0	3.5	4.0	6.5	6.0	6.5	9.0	9.0	9.0	10.5	10.5	10.5
10	4.0	3.5	4.0	6.5	6.5	6.5	9.0	8.5	9.0	10.5	10.5	10.5
11	4.0	4.0	4.0	7.0	6.5	6.5	9.0	9.0	9.0	10.5	10.0	10.5
12	4.0	3.5	4.0	7.0	7.0	7.0	9.0	8.5	9.0	10.5	10.5	10.5
13	4.0	3.5	3.5	7.0	7.0	7.0	9.0	9.0	9.0	11.0	10.5	11.0
14	3.5	3.5	3.5	7.0	7.0	7.0	9.5	9.0	9.0	11.0	10.5	11.0
15	3.5	3.5	3.5	7.0	7.0	7.0	9.5	9.0	9.5	11.0	11.0	11.0
16	4.0	3.5	3.5	7.5	7.0	7.5	9.5	9.5	9.5	11.5	11.0	11.0
17	4.0	3.5	3.5	7.5	7.5	7.5	9.5	9.5	9.5	11.5	11.0	11.5
18	4.0	4.0	4.0	7.5	7.5	7.5	9.5	9.0	9.5	12.0	11.5	12.0
19	4.0	4.0	4.0	8.0	7.5	7.5	9.5	9.0	9.5	12.5	12.0	12.0
20	4.0	3.5	3.5	8.0	7.5	7.5	10.0	9.5	9.5	12.0	12.0	12.0
21	4.0	3.5	4.0	8.0	7.5	7.5	10.0	9.5	10.0	12.0	12.0	12.0
22	4.0	4.0	4.0	7.5	7.5	7.5	10.0	9.5	10.0	12.5	12.0	12.0
23	4.5	4.0	4.0	7.5	7.5	7.5	9.5	9.5	9.5	12.5	12.5	12.5
24	5.0	4.5	4.5	7.5	7.0	7.5	9.5	9.0	9.5	13.0	12.5	12.5
25	5.0	5.0	5.0	7.5	7.5	7.5	9.5	9.0	9.5	13.5	12.5	13.0
26	5.5	5.0	5.0	8.0	7.5	7.5	9.5	9.5	9.5	14.0	13.5	13.5
27	5.5	5.0	5.0	8.0	8.0	8.0	10.0	9.5	9.5	14.5	13.5	14.0
28	5.0	5.0	5.0	8.0	8.0	8.0	10.0	9.5	9.5	14.0	14.0	14.0
29	---	---	---	8.5	8.0	8.5	10.0	9.5	9.5	14.5	14.0	14.0
30	---	---	---	9.0	8.5	8.5	9.5	9.5	9.5	15.0	14.5	14.5
31	---	---	---	8.5	8.5	8.5	---	---	---	15.5	15.0	15.0
MONTH	5.5	3.5	4.0	9.0	5.0	7.0	10.0	8.5	9.0	15.5	9.5	11.5

LOWER COLUMBIA RIVER BASIN

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	15.5	15.5	---	---	---	19.5	19.0	19.5	21.0	20.5	21.0
2	17.0	16.0	16.5	---	---	---	20.0	19.5	19.5	21.0	20.5	21.0
3	16.5	16.5	16.5	---	---	---	20.5	20.0	20.0	21.0	20.5	20.5
4	16.5	16.0	16.0	---	---	---	20.5	20.0	20.0	21.5	21.0	21.0
5	16.0	16.0	16.0	---	---	---	20.0	20.0	20.0	21.5	21.0	21.5
6	16.0	16.0	16.0	---	---	---	20.5	20.0	20.0	21.5	21.0	21.0
7	16.0	16.0	16.0	---	---	---	20.5	20.0	20.5	21.0	21.0	21.0
8	16.0	15.5	15.5	---	---	---	21.0	20.5	20.5	21.0	20.5	21.0
9	16.0	15.5	16.0	---	---	---	21.0	20.5	21.0	20.5	20.0	20.5
10	16.5	16.0	16.0	---	---	---	21.0	20.5	21.0	20.0	20.0	20.0
11	16.5	16.0	16.5	---	---	---	21.0	20.5	20.5	20.0	19.5	20.0
12	16.5	16.5	16.5	---	---	---	21.0	20.5	20.5	19.5	19.5	19.5
13	17.0	16.5	16.5	---	---	---	21.0	20.5	20.5	19.5	19.5	19.5
14	16.5	16.5	16.5	---	---	---	21.5	20.5	21.0	19.5	19.5	19.5
15	17.0	16.0	16.5	---	---	---	21.5	21.0	21.5	19.5	19.0	19.0
16	16.5	16.5	16.5	---	---	---	21.5	21.0	21.5	19.5	19.0	19.5
17	17.0	16.5	16.5	---	---	---	21.5	21.5	21.5	19.0	19.0	19.0
18	16.5	16.5	16.5	---	---	---	21.5	21.0	21.5	19.0	19.0	19.0
19	17.0	16.5	17.0	---	---	---	21.0	21.0	21.0	19.0	19.0	19.0
20	17.0	16.5	17.0	---	---	---	21.5	21.0	21.0	19.0	19.0	19.0
21	17.0	16.5	17.0	---	---	---	21.5	21.0	21.5	19.0	18.5	18.5
22	17.5	17.0	17.0	---	---	---	21.5	21.5	21.5	18.5	18.5	18.5
23	17.5	17.5	17.5	---	---	---	21.5	21.5	21.5	18.5	18.0	18.5
24	18.0	17.5	17.5	---	---	---	21.5	21.5	21.5	18.0	17.5	18.0
25	18.0	17.5	17.5	---	---	---	21.5	21.5	21.5	18.0	17.5	17.5
26	18.0	17.5	18.0	---	---	---	22.0	21.5	21.5	17.5	17.5	17.5
27	---	---	---	---	---	---	22.0	22.0	22.0	17.5	17.0	17.0
28	---	---	---	---	---	---	22.0	21.5	22.0	17.0	16.5	16.5
29	---	---	---	---	---	---	21.5	21.0	21.5	16.5	16.5	16.5
30	---	---	---	19.0	18.5	18.5	21.0	21.0	21.0	17.0	16.5	17.0
31	---	---	---	19.0	18.5	19.0	21.0	20.5	21.0	---	---	---
MONTH	---	---	---	---	---	---	22.0	19.0	21.0	21.5	16.5	19.0

SANDY RIVER BASIN

51

14131400 ZIGZAG RIVER NEAR RHODODENDRON, OR

LOCATION.--Lat 45°18'32", long 121°51'31", in NE¼SE¼ sec.18, T.3 S., R.8 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank at bridge, 0.5 mi upstream from Devil Canyon Creek, 1.2 mi downstream from Lady Creek, and 2.8 mi southeast of Rhododendron.

DRAINAGE AREA.--14.8 mi².

PERIOD OF RECORD.--July 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,191.52 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharge: Nov. 29. Records good. No regulation. Small diversion for private water supply from Lady Creek.

AVERAGE DISCHARGE.--5 years (water years 1982-86), 82.3 ft³/s, 75.52 in/yr, 59,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 438 ft³/s Jan. 6, 1983, gage height, 5.35 ft; minimum discharge, 42 ft³/s Oct. 20, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 25, 1980, reached a stage of 6.0 ft, discharge, 863 ft³/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1500	320	5.10	Feb. 24	0300	*435	*5.38

Minimum discharge, 43 ft³/s Sept. 3, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	56	77	63	69	86	183	87	85	115	61	51	49		
2	56	93	66	66	83	164	85	90	112	60	52	49		
3	56	85	64	66	80	151	83	88	106	60	52	48		
4	56	85	66	66	81	144	82	86	98	66	52	48		
5	56	85	65	71	79	139	80	87	94	61	52	47		
6	57	159	77	70	75	133	81	82	90	59	51	47		
7	63	244	81	66	72	155	82	80	88	59	51	47		
8	56	177	75	69	70	140	83	81	84	59	52	48		
9	55	137	71	73	69	128	83	86	83	59	51	57		
10	56	114	68	73	69	122	80	88	84	62	51	49		
11	65	102	67	71	67	119	79	86	84	60	51	46		
12	63	95	65	69	67	110	78	86	82	58	50	46		
13	59	90	64	71	66	107	78	100	82	57	51	46		
14	59	85	63	70	69	102	77	89	81	58	50	48		
15	58	99	63	70	73	99	77	87	78	58	50	50		
16	60	96	63	83	97	94	78	84	78	62	49	49		
17	57	89	64	81	82	93	80	89	78	61	48	52		
18	56	84	68	92	75	90	80	90	78	57	49	52		
19	61	80	69	90	72	92	80	91	76	56	49	48		
20	60	79	69	80	70	93	87	94	73	56	48	56		
21	58	75	68	76	77	94	89	92	72	57	48	49		
22	84	74	68	81	181	90	87	90	72	56	48	48		
23	86	72	71	84	349	91	81	87	71	56	48	63		
24	84	70	71	78	338	92	78	91	70	55	47	75		
25	117	69	72	76	267	88	79	97	68	54	47	60		
26	87	66	70	73	233	89	80	101	65	54	47	62		
27	82	66	69	75	217	91	102	101	63	54	48	65		
28	83	65	67	77	204	93	95	102	65	53	49	67		
29	77	65	66	87	---	91	89	109	63	53	51	71		
30	76	64	65	94	---	95	85	114	61	52	52	63		
31	74	---	64	86	---	89	---	118	---	51	49	---		
TOTAL	2073	2841	2102	2353	3368	3461	2485	2851	2414	1784	1544	1605		
MEAN	66.9	94.7	67.8	75.9	120	112	82.8	92.0	80.5	57.5	49.8	53.5		
MAX	117	244	81	94	349	183	102	118	115	66	52	75		
MIN	55	64	63	66	66	88	77	80	61	51	47	46		
CFSM	4.52	6.40	4.58	5.13	8.11	7.57	5.59	6.22	5.44	3.89	3.36	3.61		
IN.	5.21	7.14	5.28	5.91	8.47	8.70	6.25	7.17	6.07	4.48	3.88	4.03		
AC-FT	4110	5640	4170	4670	6680	6860	4930	5650	4790	3540	3060	3180		
CAL YR 1985	TOTAL	28056	MEAN	76.9	MAX	244	MIN	49	CFSM	5.20	IN.	70.52	AC-FT	55650
WTR YR 1986	TOTAL	28881	MEAN	79.1	MAX	349	MIN	46	CFSM	5.34	IN.	72.59	AC-FT	57290

SANDY RIVER BASIN

14134000 SALMON RIVER NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°15'55", long 121°43'00", in SE¼NW¼ sec.31, T.3 S., R.9 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank near lower end of Red Top Meadows and 3.0 mi southeast of Government Camp.

DRAINAGE AREA.--8.00 mi².

PERIOD OF RECORD.--May 1910 to May 1912, April 1926 to current year. Published as "near Rowe" 1910-12.

REVISED RECORDS.--WSP 1398: 1911-12, 1926-27, 1933(M), 1949. WDR OR-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,445.53 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1910, nonrecording gage at site 0.2 mi upstream at different datum. Nov. 21, 1910, to May 31, 1912, and Apr. 21, 1926, to Sept. 30, 1933, at site 75 ft upstream from former site at different datums. Oct. 1, 1933, to Sept. 30, 1960, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-29, Nov. 22 to Dec. 3. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--61 years (water years 1911, 1927-86), 44.5 ft³/s, 75.54 in/yr, 32,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s Dec. 23, 1964, gage height, 4.75 ft, from rating curve extended above 310 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 10 ft³/s Nov. 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1400	*372	*2.87	Feb. 23	1000	351	2.80

Minimum discharge, 18 ft³/s Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	24	46	29	27	47	90	61	51	67	35	27	23		
2	24	63	34	26	46	83	57	58	64	38	27	23		
3	24	48	30	25	42	76	54	57	61	36	27	23		
4	24	46	34	24	41	77	53	57	58	42	26	22		
5	24	46	31	29	38	79	54	55	55	36	26	21		
6	25	136	35	30	35	82	56	49	53	33	26	21		
7	29	247	43	27	33	112	60	51	54	33	26	21		
8	24	109	37	28	32	95	66	52	51	33	26	21		
9	22	80	34	33	31	84	66	57	50	33	26	29		
10	24	66	32	32	30	81	59	57	49	40	26	21		
11	31	57	31	31	29	77	55	52	48	37	25	21		
12	28	53	30	29	30	70	53	52	47	33	25	20		
13	25	50	29	28	29	66	51	67	46	31	24	21		
14	26	46	29	29	28	62	49	54	46	30	25	22		
15	25	62	29	29	33	58	51	52	45	31	25	25		
16	26	62	28	42	52	54	51	52	45	38	24	22		
17	25	51	28	43	36	52	53	57	45	35	23	25		
18	24	47	28	59	32	52	51	61	46	30	24	24		
19	27	45	28	57	30	56	52	61	46	30	23	24		
20	26	43	27	43	29	59	60	63	42	30	23	27		
21	25	40	27	38	31	63	68	62	41	30	23	21		
22	45	37	27	38	113	57	64	60	41	30	22	20		
23	47	35	27	39	269	60	53	55	41	30	22	33		
24	45	34	27	34	191	63	51	59	41	29	22	37		
25	84	33	26	33	132	55	50	65	41	29	22	30		
26	48	32	26	31	113	62	51	69	39	29	23	32		
27	41	31	26	32	100	67	74	68	38	28	24	35		
28	44	31	26	35	94	73	64	67	38	27	25	35		
29	41	30	25	43	---	74	54	70	38	28	24	40		
30	40	29	25	50	---	77	51	72	36	27	25	30		
31	37	---	25	45	---	66	---	69	---	27	23	---		
TOTAL	1004	1735	913	1089	1746	2182	1692	1831	1412	998	759	769		
MEAN	32.4	57.8	29.5	35.1	62.4	70.4	56.4	59.1	47.1	32.2	24.5	25.6		
MAX	84	247	43	59	269	112	74	72	67	42	27	40		
MIN	22	29	25	24	28	52	49	49	36	27	22	20		
CFSM	4.05	7.22	3.69	4.39	7.80	8.80	7.05	7.39	5.89	4.02	3.06	3.20		
IN.	4.67	8.07	4.25	5.06	8.12	10.15	7.87	8.51	6.57	4.64	3.53	3.58		
AC-FT	1990	3440	1810	2160	3460	4330	3360	3630	2800	1980	1510	1530		
CAL YR 1985	TOTAL	15530	MEAN	42.5	MAX	247	MIN	17	CFSM	5.31	IN.	72.21	AC-FT	30800
WTR YR 1986	TOTAL	16130	MEAN	44.2	MAX	269	MIN	20	CFSM	5.52	IN.	75.00	AC-FT	31990

SANDY RIVER BASIN

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14137000 SANDY RIVER NEAR MARMOT, OR

LOCATION.--Lat 45°23'30", long 122°07'40", in SE¼ sec.13, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on right bank 0.7 mi southwest of Marmot, 0.8 mi upstream from Sandy River Dam of Portland General Electric Co., 6.6 mi downstream from Salmon River, and at mile 30.9.

DRAINAGE AREA.--262 mi².

PERIOD OF RECORD.--August 1911 to current year. Published as "at Marmot" October 1912 to September 1913. Records for January 1916 to June 1919, published as "below dam, near Marmot," obtained by combining records for Sandy River below dam, near Marmot, with records for Sandy River Canal near Marmot.

REVISED RECORDS.--WSP 594: Drainage area. WSP 1288: 1912(M), 1915, 1922, 1924, 1934(M). WSP 1318: 1932(M).

GAGE.--Water-stage recorder. Elevation of gage is 730 ft, from river-profile map. Aug. 15, 1911, to Dec. 20, 1915, and July 2, 1919, to Oct. 19, 1933, nonrecording gage at site 1.0 mi upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 23-26, Nov. 28 to Dec. 3, Feb. 23. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--75 years, 1,367 ft³/s, 70.85 in/yr, 990,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft³/s Dec. 22, 1964, gage height, 17.05 ft, from rating curve extended above 7,000 ft³/s; maximum gage height, 17.10 ft, Feb. 23, 1986; minimum, 195 ft³/s Nov. 27, 28, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1900	17,500	13.91	Feb. 23	unknown	*37,800	*17.10

Minimum discharge, 258 ft³/s Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	340	1050	730	1080	1700	3400	1230	1620	1100	529	389	318		
2	339	1190	760	1100	1590	2880	1190	1580	1050	566	393	325		
3	346	1220	825	1320	1540	2520	1130	1550	985	534	387	320		
4	333	1340	862	1150	1620	2290	1100	1450	930	596	376	316		
5	329	1450	926	1150	1820	2160	1050	1510	879	553	367	302		
6	332	3300	1420	1530	1590	2090	1030	1370	834	485	371	291		
7	393	11300	2170	1270	1420	2650	1020	1280	840	471	374	290		
8	343	7620	1910	1270	1270	2590	1040	1270	783	472	380	286		
9	321	3860	1480	1430	1170	2560	1060	1280	752	481	381	372		
10	321	2560	1250	1510	1070	2310	1010	1620	748	570	376	316		
11	466	1920	1090	1460	1010	2270	1000	1730	748	618	359	287		
12	554	1560	993	1310	981	2100	1060	1710	732	542	348	273		
13	479	1340	922	1220	953	1970	1060	2300	705	500	353	264		
14	413	1190	863	1160	929	1900	1040	2080	713	475	356	262		
15	401	1470	823	1140	1060	1710	1050	1700	681	461	347	325		
16	450	2090	837	1480	3340	1540	1110	1470	649	514	338	312		
17	450	1840	942	1930	2500	1420	1490	1350	686	595	327	316		
18	408	1530	1180	2300	1830	1320	1720	1310	705	496	337	392		
19	479	1380	1270	2600	1500	1300	1500	1250	719	459	340	309		
20	616	1270	1160	2230	1340	1280	1420	1320	622	463	325	377		
21	517	1150	1060	1830	1620	1330	1440	1380	590	469	318	338		
22	1060	1060	1070	1830	7600	1250	1420	1410	586	462	316	295		
23	2100	940	1170	2420	25000	1280	1230	1270	598	450	303	354		
24	1760	890	1210	2250	14700	1540	1110	1190	613	442	297	997		
25	3300	830	1170	1820	8190	1400	1150	1210	597	432	305	569		
26	2110	815	1060	1540	6360	1330	1210	1250	582	417	314	802		
27	1430	806	967	1440	4950	1350	2190	1210	577	405	329	710		
28	1760	740	899	1400	4090	1360	2740	1180	580	397	348	985		
29	1340	700	853	1460	---	1350	2170	1160	577	399	361	1020		
30	1170	680	799	1810	---	1440	1820	1190	547	388	358	1020		
31	1120	---	778	1720	---	1300	---	1190	---	387	341	---		
TOTAL	25780	59091	33449	49160	102743	57190	39790	44390	21708	15028	10814	13343		
MEAN	832	1970	1079	1586	3669	1845	1326	1432	724	485	349	445		
MAX	3300	11300	2170	2600	25000	3400	2740	2300	1100	618	393	1020		
MIN	321	680	730	1080	929	1250	1000	1160	547	387	297	262		
CFSM	3.18	7.52	4.12	6.05	14.0	7.04	5.06	5.47	2.76	1.85	1.33	1.70		
IN.	3.66	8.39	4.75	6.98	14.59	8.12	5.65	6.30	3.08	2.13	1.54	1.89		
AC-FT	51130	117200	66350	97510	203800	113400	78920	88050	43060	29810	21450	26470		
CAL YR 1985	TOTAL	421835	MEAN	1156	MAX	11300	MIN	314	CFSM	4.41	IN.	59.89	AC-FT	836700
WTR YR 1986	TOTAL	472486	MEAN	1294	MAX	25000	MIN	262	CFSM	4.94	IN.	67.09	AC-FT	937200

SANDY RIVER BASIN

14138800 BLAZED ALDER CREEK NEAR RHODODENDRON, OR

LOCATION.--Lat 45°27'10", long 121°53'25", in NW¼SE¼ sec.25, T.1 S., R.7 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 600 ft below the confluence of Bedrock and Hickman Creeks and 8.6 mi north of Rhododendron.

DRAINAGE AREA.--8.17 mi².

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,540 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 21 to Dec. 4. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--23 years, 59.5 ft³/s, 98.90 in/yr, 43,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft³/s Dec. 22, 1964, gage height, 8.25 ft, from rating curve extended above 330 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft³/s Sept. 5-10, 28, 29, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 25	0530	505	3.50	Feb. 23	0930	*1,660	*6.35
Nov. 7	1300	798	4.34				

Minimum discharge, 2.1 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	8.3	64	21	81	105	113	34	67	21	5.2	4.4	2.8		
2	7.8	88	25	72	84	95	33	64	18	5.1	4.1	2.7		
3	7.7	100	30	95	82	79	30	68	17	5.0	3.9	2.5		
4	7.3	99	25	64	124	74	27	61	16	8.8	3.7	2.5		
5	7.0	105	25	65	106	74	25	67	14	6.9	3.6	2.3		
6	6.9	303	52	91	74	77	23	59	14	5.6	3.6	2.2		
7	13	653	97	66	58	154	24	49	14	5.0	3.4	2.1		
8	8.4	291	77	81	46	117	25	42	12	4.8	3.4	3.0		
9	7.5	129	55	107	37	112	25	42	12	4.5	3.2	7.5		
10	7.6	81	42	108	31	89	23	55	10	10	3.1	3.5		
11	24	58	34	100	28	111	24	61	9.8	13	3.1	3.1		
12	29	44	28	75	30	98	29	67	9.2	9.6	3.1	2.9		
13	20	35	25	64	31	86	30	145	8.7	8.0	2.9	2.7		
14	16	30	22	58	31	77	26	106	8.6	7.1	2.9	3.0		
15	14	73	21	61	45	59	28	72	8.3	6.6	2.9	4.4		
16	18	145	20	120	151	48	43	54	8.6	12	2.7	3.8		
17	16	95	21	132	86	41	78	46	8.9	19	2.7	5.6		
18	14	68	29	219	61	36	71	42	13	12	2.7	8.7		
19	28	55	42	234	47	35	54	39	15	9.6	2.7	4.5		
20	32	45	39	126	38	36	52	42	9.9	8.6	2.6	8.7		
21	24	36	34	83	81	44	57	47	8.7	7.8	2.5	5.7		
22	130	31	37	118	386	37	51	63	8.1	7.3	2.5	4.4		
23	182	27	52	210	1140	58	39	52	7.3	7.0	2.5	34		
24	161	24	56	127	476	97	32	45	7.0	6.6	2.5	78		
25	353	22	47	80	278	66	38	42	6.5	6.1	2.4	67		
26	138	20	39	60	239	57	56	39	6.2	5.8	2.3	105		
27	92	18	33	63	160	54	170	35	5.8	5.6	2.3	74		
28	111	17	28	68	131	51	165	31	5.7	5.3	2.3	92		
29	71	17	25	72	---	46	108	28	6.2	5.0	3.3	92		
30	67	18	22	133	---	50	82	25	5.7	4.8	3.5	71		
31	64	---	22	114	---	40	---	23	---	4.5	3.2	---		
TOTAL	1685.5	2791	1125	3147	4186	2211	1502	1678	315.2	232.2	94.0	701.6		
MEAN	54.4	93.0	36.3	102	150	71.3	50.1	54.1	10.5	7.49	3.03	23.4		
MAX	353	653	97	234	1140	154	170	145	21	19	4.4	105		
MIN	6.9	17	20	58	28	35	23	23	5.7	4.5	2.3	2.1		
CFSM	6.66	11.4	4.44	12.5	18.4	8.73	6.13	6.62	1.29	.92	.37	2.86		
IN.	7.67	12.71	5.12	14.33	19.06	10.07	6.84	7.64	1.44	1.06	.43	3.19		
AC-FT	3340	5540	2230	6240	8300	4390	2980	3330	625	461	186	1390		
CAL YR 1985	TOTAL	17322.6	MEAN	47.5	MAX	653	MIN	2.8	CFSM	5.81	IN.	78.87	AC-FT	34360
WTR YR 1986	TOTAL	19668.5	MEAN	53.9	MAX	1140	MIN	2.1	CFSM	6.60	IN.	89.56	AC-FT	39010

SANDY RIVER BASIN

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14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'50", long 122°00'50", near center of sec.12, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 1.2 mi upstream from North Fork, 7.0 mi southeast of Multnomah Falls, and at mile 14.8.

DRAINAGE AREA.--47.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,080 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Regulation at times since 1915 by Bull Run Lake, usable capacity, 12,270 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--20 years, 421 ft³/s, 119.36 in/yr, 305,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,610 ft³/s Jan. 20, 1972, gage height, 13.22 ft; minimum discharge, 33 ft³/s Sept. 27, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1230	4,330	9.67	Feb. 23	0930	*8,030	*12.81

Minimum discharge, 40 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	81	412	186	506	616	705	272	458	194	70	63	45		
2	79	577	212	461	524	586	270	425	178	68	60	44		
3	78	746	234	658	526	512	258	414	163	68	60	44		
4	74	791	210	437	853	473	244	377	152	92	58	44		
5	72	886	206	477	800	458	230	453	143	80	56	42		
6	70	2410	374	654	550	460	213	392	137	72	56	41		
7	101	3730	698	468	428	1010	208	338	133	68	54	40		
8	81	1730	546	527	345	843	211	302	127	67	54	45		
9	73	918	378	687	293	862	209	297	119	65	53	84		
10	71	588	298	677	256	699	195	374	114	124	51	63		
11	206	422	251	658	229	747	206	437	108	158	51	67		
12	273	336	223	492	214	671	261	487	103	117	51	69		
13	192	282	202	395	202	608	277	961	97	98	51	72		
14	152	247	188	361	187	607	262	679	97	89	50	75		
15	137	576	176	366	266	477	273	485	97	84	49	87		
16	186	1120	172	688	1220	391	366	386	93	103	48	91		
17	168	672	187	814	600	334	603	330	98	169	48	103		
18	143	463	237	1330	412	298	565	303	111	122	46	150		
19	238	376	269	1650	325	282	424	281	142	105	46	96		
20	291	314	248	976	281	275	378	309	104	97	46	110		
21	230	270	230	605	479	307	372	321	96	90	44	96		
22	941	240	231	657	2250	277	346	410	90	85	44	85		
23	1230	212	269	1330	5990	368	289	354	86	81	44	241		
24	1250	218	281	902	3220	679	258	308	83	80	44	549		
25	2170	196	252	562	1990	513	304	286	80	74	44	410		
26	878	177	224	418	1540	423	421	272	75	73	44	566		
27	609	167	203	408	1100	380	1280	256	75	73	43	484		
28	710	150	186	432	849	352	1140	244	73	70	43	612		
29	449	151	174	430	---	320	725	229	76	66	44	650		
30	423	168	159	725	---	334	559	221	74	65	50	508		
31	406	---	157	639	---	292	---	209	---	64	51	---		
TOTAL	12062	19545	7861	20390	26545	15543	11619	11598	3318	2737	1546	5613		
MEAN	389	652	254	658	948	501	387	374	111	88.3	49.9	187		
MAX	2170	3730	698	1650	5990	1010	1280	961	194	169	63	650		
MIN	70	150	157	361	187	275	195	209	73	64	43	40		
CFSM	8.12	13.6	5.30	13.7	19.8	10.5	8.08	7.81	2.32	1.84	1.04	3.90		
IN.	9.37	15.18	6.10	15.84	20.62	12.07	9.02	9.01	2.58	2.13	1.20	4.36		
AC-FT	23920	38770	15590	40440	52650	30830	23050	23000	6580	5430	3070	11130		
CAL YR 1985	TOTAL	124631	MEAN	341	MAX	3730	MIN	47	CFSM	7.12	IN.	96.79	AC-FT	247200
WTR YR 1986	TOTAL	138377	MEAN	379	MAX	5990	MIN	40	CFSM	7.91	IN.	107.47	AC-FT	274500

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR---Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.

WATER TEMPERATURES: October 1977 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986 (discontinued).

INSTRUMENTATION.--Conductivity/temperature recorder since October 1977. Automatic pumping sediment sampler since October 1977.

REMARKS.--Sediment concentrations and corresponding sediment discharges reported as 0 mg/L or 0 tons should be interpreted as <1 due to the limitations of sampling equipment, analytical methods, rounding errors, and the likelihood of minor amounts of sediment transport occurring at even the lowest of discharges.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 38 microsiemens July 19, 1979; minimum recorded, 9 microsiemens Jan. 23, 1982, Feb. 23, 1986.

WATER TEMPERATURES: Maximum, 17.0°C July 19, 20, 1979; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 290 mg/L Dec. 2, 1977; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 5,930 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 31 microsiemens Aug. 29, 30; minimum, 9 microsiemens Feb. 23.

WATER TEMPERATURES: Maximum, 16.5°C May 31; minimum recorded, 1.0°C Feb. 12-14, 16, 17, but may have been less during period of missing record Nov. 10 to Jan. 7.

SEDIMENT CONCENTRATIONS: Maximum daily, 280 mg/L Feb. 23; minimum, 2 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 5,340 tons Feb. 23; minimum, .38 tons Oct. 6, 10.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	25	24	25	21	19	20				---	---	---
2	26	25	25	21	18	21				---	---	---
3	26	25	25	23	18	20				---	---	---
4	26	25	26	22	18	19				---	---	---
5	26	26	26	21	17	18				---	---	---
6	27	26	26	18	14	17				---	---	---
7	27	25	26	17	14	16				---	---	---
8	28	26	26	19	15	17				18	18	18
9	28	26	26	19	18	18				20	18	18
10	29	26	27	---	---	---				22	19	20
11	27	24	25	---	---	---				21	19	20
12	24	23	23	---	---	---				---	19	---
13	23	22	23	---	---	---				20	19	19
14	23	23	23	---	---	---				20	19	20
15	24	23	24	---	---	---				20	19	20
16	24	22	23	---	---	---				19	17	18
17	26	23	24	---	---	---				18	17	18
18	25	23	24	---	---	---				17	16	17
19	25	21	23	---	---	---				17	15	16
20	23	21	22	---	---	---				18	17	17
21	23	21	22	---	---	---				19	18	18
22	22	18	20	---	---	---				19	17	18
23	19	18	18	---	---	---				17	16	16
24	20	17	19	---	---	---				18	16	17
25	21	16	17	---	---	---				19	18	18
26	23	18	20	---	---	---				20	19	19
27	24	19	21	---	---	---				20	19	19
28	24	18	21	---	---	---				19	19	19
29	22	19	21	---	---	---				19	19	19
30	23	19	20	---	---	---				19	17	18
31	22	19	20	---	---	---				18	18	18
MONTH	29	16	23	---	---	---				---	---	---

SANDY RIVER BASIN

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14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	18	18	18	17	16	16	20	19	19	18	17	18
2	19	18	19	17	17	17	20	19	20	18	18	18
3	19	18	19	17	17	17	20	20	20	18	18	18
4	19	17	18	---	17	---	20	20	20	19	18	19
5	21	18	19	---	18	---	21	20	20	18	17	18
6	19	18	19	18	17	18	21	20	21	19	18	18
7	20	19	20	18	14	15	21	20	21	19	19	19
8	21	20	20	16	15	16	21	20	21	19	19	19
9	21	21	21	16	15	16	21	20	21	20	19	19
10	22	21	21	17	16	16	21	21	21	19	18	19
11	22	22	22	17	16	16	21	20	21	19	18	18
12	22	22	22	17	16	16	20	20	20	18	18	18
13	22	22	22	17	16	17	20	19	20	18	15	16
14	22	22	22	17	16	17	20	19	20	17	16	17
15	24	21	22	18	17	17	20	19	20	18	17	18
16	20	16	18	18	18	18	20	18	19	19	18	19
17	22	19	20	19	18	19	18	17	17	20	19	19
18	22	20	21	19	19	19	18	17	17	20	19	20
19	24	21	22	20	19	20	18	18	18	20	20	20
20	24	21	22	20	19	20	19	18	19	20	19	19
21	23	18	21	20	19	19	19	18	19	20	19	19
22	18	15	17	20	19	19	19	18	19	19	18	19
23	17	9	12	20	17	19	19	19	19	19	19	19
24	13	11	12	17	16	16	20	19	20	20	19	20
25	14	13	13	17	17	17	20	19	20	20	20	20
26	15	13	14	18	17	18	19	17	18	20	20	20
27	15	14	15	18	18	18	17	15	16	20	20	20
28	16	15	16	---	18	---	16	15	15	21	20	21
29	---	---	---	---	19	---	17	16	17	21	21	21
30	---	---	---	19	18	19	17	17	17	22	21	22
31	---	---	---	19	19	19	---	---	---	22	21	22
MONTH	24	9	19	---	14	---	21	15	19	22	15	19
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22	22	22	27	26	26	28	27	27	29	28	29
2	23	22	22	27	26	27	28	27	27	29	29	29
3	23	22	22	27	26	26	28	27	28	30	29	29
4	23	22	23	26	25	26	28	27	28	30	29	29
5	23	22	23	26	25	25	28	27	28	30	29	29
6	23	23	23	27	25	26	28	27	28	29	29	29
7	24	23	23	27	26	26	29	27	28	29	29	29
8	24	23	24	27	26	27	29	28	28	29	28	29
9	24	23	24	27	26	27	29	28	28	29	27	28
10	25	24	24	27	23	25	29	28	28	29	28	29
11	25	24	25	24	23	23	28	28	28	29	28	28
12	25	24	25	24	23	24	28	28	28	29	28	28
13	26	24	25	25	24	24	29	28	28	29	28	28
14	25	25	25	25	24	25	29	28	29	28	27	28
15	25	24	25	25	24	25	29	28	29	28	27	28
16	25	25	25	25	23	25	29	28	28	28	27	27
17	25	24	25	23	22	23	29	28	28	28	26	27
18	25	23	24	24	23	23	29	28	28	26	26	26
19	24	23	23	24	23	24	29	28	28	27	26	27
20	25	24	24	25	24	25	29	28	29	27	26	27
21	25	24	25	26	24	25	29	28	29	27	26	27
22	26	25	25	25	25	25	29	28	29	27	27	27
23	26	25	26	25	25	25	29	28	29	28	22	26
24	27	26	26	26	25	25	29	28	29	22	20	21
25	27	26	26	26	25	26	29	29	29	21	19	21
26	27	26	26	26	25	26	29	29	29	19	19	19
27	27	26	26	26	25	26	29	29	29	19	19	19
28	27	26	26	26	25	26	29	29	29	19	19	19
29	27	26	26	26	26	26	31	29	29	20	18	19
30	27	26	26	27	26	26	31	29	29	19	19	19
31	---	---	---	28	26	27	29	28	29	---	---	---
MONTH	27	22	24	28	22	25	31	27	28	30	18	26

SANDY RIVER BASIN

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.0	7.5	8.0	7.5	6.5	7.0				---	---	---
2	9.5	9.0	9.0	8.5	7.5	8.0				---	---	---
3	9.5	9.0	9.5	8.5	8.0	8.5				---	---	---
4	9.5	8.5	9.0	8.5	6.0	7.5				---	---	---
5	9.5	8.5	9.0	6.5	6.0	6.0				---	---	---
6	9.5	9.0	9.5	7.5	6.5	7.0				---	---	---
7	9.5	7.5	8.5	7.5	6.5	7.0				---	---	---
8	7.5	5.5	6.0	6.5	5.0	5.5				4.0	4.0	4.0
9	5.5	4.5	5.0	5.0	4.5	5.0				4.5	3.5	4.0
10	7.0	5.5	6.0	---	---	---				4.5	3.5	4.0
11	7.5	7.0	7.5	---	---	---				4.0	3.5	4.0
12	7.5	7.0	7.0	---	---	---				4.0	3.5	3.5
13	7.0	6.0	6.5	---	---	---				4.0	3.0	3.5
14	7.5	6.5	7.0	---	---	---				4.0	3.5	4.0
15	9.0	7.5	8.5	---	---	---				4.0	3.5	3.5
16	9.0	8.5	8.5	---	---	---				4.5	4.0	4.0
17	8.5	7.0	7.5	---	---	---				4.0	3.5	4.0
18	7.5	6.5	7.0	---	---	---				5.0	4.0	4.5
19	8.0	7.5	7.5	---	---	---				5.0	4.0	4.0
20	9.0	8.0	8.5	---	---	---				4.0	3.5	4.0
21	8.5	7.0	7.5	---	---	---				4.0	3.0	3.5
22	7.5	7.0	7.5	---	---	---				4.0	3.5	3.5
23	8.0	7.5	7.5	---	---	---				4.0	3.5	3.5
24	8.5	8.0	8.5	---	---	---				4.0	3.0	3.5
25	8.5	7.0	8.0	---	---	---				3.5	3.5	3.5
26	8.0	6.5	7.5	---	---	---				3.5	3.0	3.0
27	8.5	7.5	8.0	---	---	---				4.5	3.5	4.0
28	7.5	6.0	6.5	---	---	---				4.5	3.5	4.0
29	6.5	5.5	6.0	---	---	---				4.0	3.5	4.0
30	6.5	6.0	6.0	---	---	---				5.0	4.0	4.5
31	6.0	6.0	6.0	---	---	---				4.5	4.0	4.5
MONTH	9.5	4.5	7.5	---	---	---				---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	4.5	4.0	4.5	5.5	4.5	5.0	5.5	4.5	5.0	6.5	5.0	5.5
2	5.0	4.0	4.5	5.5	4.0	4.5	5.5	4.5	5.0	7.0	5.5	6.0
3	5.0	4.0	4.5	6.0	4.5	5.0	6.0	4.0	5.0	7.0	5.0	6.0
4	4.5	4.0	4.5	6.0	4.5	5.0	6.0	5.5	5.5	6.5	5.5	6.0
5	4.0	3.0	3.5	6.5	4.5	5.5	6.5	4.5	5.5	6.0	5.0	5.5
6	4.0	3.5	3.5	6.0	5.5	5.5	7.5	5.0	6.0	5.5	4.0	5.0
7	3.5	2.5	3.0	6.0	5.0	5.5	8.5	6.0	7.0	6.0	5.5	5.5
8	3.0	2.0	2.5	5.0	4.5	5.0	8.0	7.5	7.5	7.0	5.5	6.0
9	3.0	2.0	2.5	5.5	4.5	5.0	7.5	6.0	6.5	6.5	5.5	6.0
10	2.5	2.0	2.5	6.0	4.5	5.0	6.5	5.0	6.0	6.0	4.5	5.0
11	2.5	2.0	2.5	5.5	5.0	5.0	5.5	4.5	5.0	5.5	4.0	4.5
12	2.0	1.0	1.5	5.0	4.5	5.0	5.0	4.0	4.5	7.0	5.0	6.0
13	2.0	1.0	1.5	5.0	4.0	4.5	5.0	4.0	4.5	6.5	5.5	6.0
14	1.5	1.0	1.5	5.0	3.5	4.0	6.0	4.0	5.0	7.5	4.5	5.5
15	2.5	1.5	2.0	5.0	4.0	4.5	6.0	5.5	6.0	8.0	4.5	6.0
16	2.5	1.0	2.0	5.5	3.5	4.5	5.5	5.0	5.0	8.5	5.0	6.5
17	2.0	1.0	1.5	5.0	4.5	5.0	5.0	4.5	5.0	10.0	6.5	8.0
18	2.5	2.0	2.5	5.5	4.5	5.0	6.0	4.5	5.5	9.5	8.5	9.0
19	2.0	1.5	2.0	7.0	5.0	6.0	7.5	5.0	6.0	10.5	8.0	9.5
20	2.5	1.5	2.0	7.5	6.0	6.5	9.0	5.5	7.0	10.0	7.5	8.5
21	3.0	2.5	2.5	7.0	5.5	6.5	9.5	6.5	8.0	7.5	6.0	6.5
22	3.5	2.5	3.0	6.0	4.5	5.5	9.0	5.5	7.0	8.0	5.0	6.5
23	4.0	2.5	3.5	6.0	5.0	5.5	6.0	4.5	5.0	8.5	6.0	7.5
24	4.5	3.5	4.0	5.5	4.5	5.0	5.0	4.0	4.5	11.0	7.5	9.0
25	4.5	4.0	4.0	6.0	4.0	5.0	5.0	4.0	4.5	13.0	9.0	10.5
26	5.0	4.0	4.5	7.5	5.5	6.0	5.5	4.0	4.5	12.0	11.0	11.5
27	5.5	4.5	5.0	8.0	5.5	6.5	5.5	4.5	5.0	13.5	10.0	11.5
28	5.5	4.0	4.5	7.5	6.0	7.0	5.0	4.0	4.5	13.5	10.5	11.5
29	---	---	---	8.0	6.0	7.0	5.5	3.5	4.5	14.0	10.5	12.0
30	---	---	---	7.0	5.5	6.5	6.5	3.5	5.0	15.5	11.5	13.0
31	---	---	---	6.0	4.0	5.0	---	---	---	16.5	13.0	14.5
MONTH	5.5	1.0	3.0	8.0	3.5	5.5	9.5	3.5	5.5	16.5	4.0	7.5

SANDY RIVER BASIN

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14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	13.0	14.5	14.5	12.0	13.0	15.0	13.0	14.0	13.5	12.5	13.0
2	15.0	12.5	14.0	14.5	12.5	13.5	15.5	13.5	14.5	13.5	13.0	13.5
3	14.0	12.0	13.0	13.5	12.0	12.5	16.0	14.0	15.0	14.0	13.0	13.5
4	13.5	11.5	12.5	12.0	10.5	11.0	15.5	13.5	14.5	14.0	13.5	13.5
5	12.5	11.0	11.5	12.0	10.0	10.5	15.0	13.0	14.0	14.0	13.0	13.5
6	11.5	10.0	10.5	13.5	10.0	11.5	15.5	13.5	14.5	14.0	13.5	13.5
7	10.0	9.5	10.0	13.5	12.0	13.0	16.0	14.0	15.0	13.5	12.5	13.0
8	10.0	9.0	9.5	14.0	12.5	13.0	16.0	14.5	15.5	12.5	11.5	12.0
9	12.5	8.5	10.0	14.0	12.5	13.0	16.0	14.5	15.5	11.5	11.0	11.5
10	14.0	10.5	12.0	12.5	11.5	12.0	16.0	14.5	15.0	11.5	10.5	11.0
11	15.0	11.5	13.0	13.5	12.0	12.5	15.5	14.0	14.5	10.5	9.0	9.5
12	14.5	11.5	13.0	13.0	11.5	12.0	15.0	13.5	14.0	10.0	9.0	9.5
13	15.0	11.5	13.0	13.5	11.0	12.0	15.5	14.0	14.5	10.0	8.5	9.0
14	14.5	11.5	12.5	13.5	11.5	12.0	15.5	14.0	15.0	9.0	7.5	8.5
15	13.0	10.5	11.5	11.5	10.5	10.5	15.5	14.0	15.0	9.0	8.5	9.0
16	12.5	10.5	11.0	10.5	10.0	10.0	15.0	13.0	13.5	9.0	8.5	8.5
17	11.0	10.5	10.5	12.5	9.5	11.0	14.0	12.5	13.5	9.0	8.5	9.0
18	10.5	9.5	10.5	12.5	10.0	11.0	14.0	12.5	13.0	10.0	9.0	9.5
19	12.0	9.0	10.5	14.0	11.0	12.5	14.0	13.0	13.5	9.5	8.0	9.0
20	12.0	10.0	11.0	15.0	12.0	13.5	14.0	12.5	13.5	9.5	9.0	9.0
21	13.5	10.5	11.5	15.5	13.0	14.0	14.0	13.0	13.5	10.0	9.0	9.5
22	14.5	11.5	13.0	15.0	13.0	14.0	14.0	13.0	13.5	10.0	8.5	9.0
23	16.0	12.5	14.0	14.0	12.5	13.0	14.0	13.0	13.5	10.0	8.5	9.0
24	15.5	13.5	14.5	13.5	11.5	12.5	14.0	13.0	13.5	10.0	8.5	9.0
25	15.0	13.0	14.0	14.0	12.0	13.0	14.5	13.0	13.5	9.0	8.5	8.5
26	14.5	12.5	13.5	14.0	12.0	12.5	15.0	13.5	14.0	9.0	8.5	8.5
27	14.5	12.5	13.5	12.0	11.0	11.5	15.0	14.5	14.5	9.0	8.5	8.5
28	14.5	12.0	13.0	13.0	10.5	11.5	15.0	14.0	14.5	9.0	8.5	9.0
29	12.0	11.0	11.5	13.5	12.0	12.5	14.5	13.0	13.5	9.5	9.0	9.0
30	13.5	10.5	12.0	13.5	11.0	12.5	13.0	12.5	12.5	9.0	8.5	9.0
31	---	---	---	14.5	12.0	13.0	13.5	12.0	12.5	---	---	---
MONTH	16.0	8.5	12.0	15.5	9.5	12.5	16.0	12.0	14.0	14.0	7.5	10.5

14138850 BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	.65	---	4.5		1.5	---	8.2	6	10	4	7.6
2	---	.64	---	6.2		1.7	---	5.0	3	4.2	4	6.3
3	---	.63	---	8.1		1.9	---	8.9	4	5.7	4	5.5
4	---	.60	---	8.5		1.7	---	4.7	8	18	4	5.1
5	---	.58	---	9.6		1.7	---	5.2	4	8.6	4	4.9
6	---	.38	---	39		6.1	---	7.1	4	5.9	4	5.0
7	2	.55	21	211		11	---	5.0	4	4.6	7	19
8	2	.44	---	28		5.9	---	5.7	4	3.7	6	14
9	2	.39	---	12		4.1	---	7.4	4	3.2	6	14
10	---	.38	---	7.9		3.2	---	7.3	4	2.8	6	11
11	4	2.2	---	4.6		2.0	---	7.1	2	1.2	5	10
12	---	2.2	---	3.6		1.8	---	5.3	2	1.2	5	9.1
13	---	1.0	---	3.1		1.6	---	4.3	2	1.1	5	8.2
14	---	.82	---	2.7		1.5	---	3.9	2	1.0	5	8.2
15	---	.74	---	9.3		1.4	4	3.9	3	2.2	5	6.4
16	---	1.0	---	30		1.4	6	11	5	16	5	5.3
17	---	.91	---	7.3		1.5	5	11	2	3.2	5	4.5
18	2	.77	---	5.0		1.9	7	25	2	2.2	---	4.0
19	---	1.3	---	4.1		2.2	6	27	2	1.8	5	3.8
20	---	1.6	---	3.4		2.0	4	11	2	1.5	5	3.7
21	---	1.2	---	2.2		1.9	4	6.5	2	2.6	4	3.3
22	---	13	---	1.9		1.9	4	7.1	6	36	4	3.0
23	---	13	---	1.7		2.2	6	22	280	5340	4	4.0
24	3	10	---	1.8		2.3	4	9.7	27	235	4	7.3
25	---	23	---	1.6		2.0	3	4.6	10	54	4	5.5
26	---	9.5	---	.96		1.8	5	5.6	6	25	5	5.7
27	---	6.6	---	.90		1.6	5	5.5	5	15	5	5.1
28	---	7.7	---	.81		1.5	4	4.7	5	11	5	4.8
29	---	4.9	---	.82		1.4	3	3.5	---	---	5	4.3
30	4	4.6	---	.91		1.3	5	9.8	---	---	5	4.5
31	---	4.4	---	---		1.3	3	5.2	---	---	5	3.9
TOTAL	---	115.68	---	421.50		75.3	---	258.2	---	5816.7	---	207.0
DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5	3.7	4	4.9	5	2.6	6	1.1	5	.85	6	.72
2	---	3.6	4	4.6	5	2.4	6	1.1	5	.81	6	.71
3	5	3.5	4	4.5	5	2.2	6	1.1	5	.81	6	.71
4	5	3.3	4	4.1	5	2.0	6	1.5	5	.78	6	.71
5	---	3.1	4	4.9	5	1.9	6	1.3	5	.76	6	.68
6	6	3.5	4	4.2	6	2.2	6	1.2	6	.91	5	.56
7	6	3.4	4	3.7	6	2.2	6	1.1	6	.87	5	.54
8	6	3.4	4	3.3	6	2.1	6	1.1	6	.87	5	.61
9	6	3.4	4	3.2	6	1.9	6	1.1	---	.86	5	1.1
10	6	3.2	4	4.0	6	1.8	6	2.0	6	.83	5	.84
11	6	3.3	4	4.7	5	1.5	6	2.6	---	.83	5	.90
12	6	4.2	4	5.3	5	1.4	6	1.9	6	.83	5	.93
13	6	4.5	---	10	5	1.3	6	1.6	6	.83	5	.97
14	6	4.2	4	7.3	5	1.3	6	1.4	6	.81	5	1.0
15	6	4.4	4	5.2	5	1.3	6	1.4	6	.79	5	1.2
16	5	4.9	5	5.2	6	1.5	5	1.4	5	.65	4	.99
17	5	8.1	5	4.5	6	1.6	5	2.3	5	.65	4	1.1
18	5	7.6	5	4.1	6	1.8	5	1.7	5	.62	9	3.7
19	5	5.7	5	3.8	6	2.3	5	1.4	5	.62	7	1.8
20	5	5.1	5	4.2	6	1.7	5	1.3	5	.62	6	1.8
21	4	4.0	5	4.3	6	1.6	5	1.2	5	.59	5	1.3
22	4	3.7	5	5.5	6	1.5	5	1.2	5	.59	6	1.4
23	4	3.1	5	4.8	6	1.4	5	1.1	5	.59	6	3.9
24	4	2.8	5	4.2	6	1.3	5	1.1	5	.59	9	13
25	4	3.3	5	3.9	6	1.3	5	1.0	5	.59	6	6.6
26	5	5.7	5	3.7	5	1.0	5	.99	5	.59	6	9.2
27	5	17	5	3.5	5	1.0	5	.98	5	.58	6	7.8
28	---	15	---	3.3	5	.99	5	.94	5	.58	6	9.9
29	5	9.8	5	3.1	5	1.0	5	.89	5	.59	6	11
30	5	7.5	5	3.0	5	1.0	5	.88	5	.68	5	6.9
31	---	---	5	2.8	---	---	5	.86	5	.69	---	---
TOTAL	---	158.0	---	137.8	---	49.09	---	40.74	---	22.26	---	92.57

SANDY RIVER BASIN

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14138870 FIR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°28'56", long 122°01'36", in NE¼SE¼ sec.14, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, on right bank, 6.4 mi north of Brightwood and 0.6 mi above Bull Run Reservoir Number One.

DRAINAGE AREA.--5.46 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to current year.

REVISED RECORDS.--WDR OR-78-1: 1976. WDR OR-82-2: 1976(P), 1978-79(P), 1981.

GAGE.--Water-stage recorder. Elevation of gage is 1,440 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 2. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--11 years, 35.1 ft³/s, 87.30 in/yr, 25,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft³/s Dec. 2, 1977, gage height, 5.64 ft; minimum discharge, 1.9 ft³/s Aug. 17-23, 1977, Sept. 16-18, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	0500	409	4.39	Feb. 23	0830	*1,060	*5.40

Minimum discharge, 2.4 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	6.7	33	11	43	44	58	20	43	14	5.5	5.0	3.0		
2	6.3	35	12	37	38	48	20	40	13	5.4	4.8	2.8		
3	6.3	46	20	48	37	42	20	37	12	5.4	4.6	2.8		
4	6.0	63	20	36	53	38	20	32	12	7.8	4.4	2.7		
5	5.8	68	21	54	59	35	19	38	11	6.3	4.4	2.6		
6	5.8	211	40	64	45	33	18	33	11	5.6	4.2	2.5		
7	8.8	366	77	45	36	69	17	29	11	5.3	4.0	2.4		
8	6.3	170	57	47	30	55	16	26	9.9	5.2	4.0	2.7		
9	5.6	90	38	53	26	64	16	26	9.4	5.0	3.9	6.9		
10	5.4	57	29	49	22	55	15	31	8.8	12	3.7	3.5		
11	16	41	24	44	20	57	16	37	8.5	12	3.7	3.3		
12	15	32	21	33	19	50	19	47	8.0	9.7	3.7	3.0		
13	12	27	18	29	18	49	22	80	7.7	8.3	3.7	2.8		
14	9.8	24	17	27	17	50	23	58	7.8	7.5	3.5	2.8		
15	8.9	63	16	28	28	43	26	43	7.7	7.2	3.5	3.2		
16	15	111	15	46	143	35	36	34	7.5	11	3.4	3.8		
17	13	64	17	50	64	29	55	28	8.1	18	3.3	6.1		
18	11	43	22	82	41	26	54	25	8.9	12	3.2	10		
19	17	33	26	106	31	24	43	23	11	10	3.2	5.0		
20	20	28	24	70	26	23	38	25	7.9	9.0	3.1	8.5		
21	17	25	22	47	49	23	36	27	7.3	8.2	3.1	5.9		
22	54	22	23	66	202	21	31	39	7.0	7.6	3.1	4.8		
23	72	19	27	120	536	33	25	34	6.7	7.3	3.0	19		
24	97	18	27	76	255	55	22	28	6.4	7.0	3.0	47		
25	186	16	24	49	173	44	25	24	6.3	6.5	3.0	39		
26	75	15	21	37	124	36	32	22	6.1	6.3	2.9	43		
27	56	14	19	35	88	30	105	20	6.0	6.2	2.8	38		
28	65	13	17	34	69	26	89	19	5.8	5.8	2.8	42		
29	42	12	16	33	---	23	61	18	6.5	5.6	3.0	53		
30	37	11	14	55	---	24	51	17	5.8	5.3	4.5	45		
31	35	---	14	45	---	21	---	15	---	5.1	3.7	---		
TOTAL	936.7	1770	749	1588	2293	1219	990	998	259.1	239.1	112.2	417.1		
MEAN	30.2	59.0	24.2	51.2	81.9	39.3	33.0	32.2	8.64	7.71	3.62	13.9		
MAX	186	366	77	120	536	69	105	80	14	18	5.0	53		
MIN	5.4	11	11	27	17	21	15	15	5.8	5.0	2.8	2.4		
CFSM	5.53	10.8	4.43	9.38	15.0	7.20	6.04	5.90	1.58	1.41	.66	2.55		
IN.	6.38	12.06	5.10	10.82	15.62	8.31	6.75	6.80	1.77	1.63	.76	2.84		
AC-FT	1860	3510	1490	3150	4550	2420	1960	1980	514	474	223	827		
CAL YR 1985	TOTAL	10574.0	MEAN	29.0	MAX	366	MIN	2.6	CFSM	5.31	IN.	72.04	AC-FT	20970
WTR YR 1986	TOTAL	11571.2	MEAN	31.7	MAX	536	MIN	2.4	CFSM	5.81	IN.	78.84	AC-FT	22950

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1977 to current year.

WATER TEMPERATURES: October 1977 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1977 to September 1986 (discontinued).

INSTRUMENTATION.--Conductivity/temperature recorder since October 1977. Automatic pumping sediment sampler since October 1977.

REMARKS.--Sediment concentrations and corresponding sediment discharges reported as 0 mg/L or 0 tons should be interpreted as <1 due to the limitations of sampling equipment, analytical methods, rounding errors, and the likelihood of minor amounts of sediment transport occurring at even the lowest of discharges.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 30 microsiemens Aug. 5, 12, 13, 17-19, 27, Sept. 10, 11, 16-18, 1980; minimum, 9 microsiemens Dec. 4, 1978.

WATER TEMPERATURES: Maximum recorded, 15.0°C Aug. 8, 9, 1978, Aug. 9-11, 1981, July 18-20, 1985; minimum recorded, 0.0°C on several days in 1978-80, 1983.

SEDIMENT CONCENTRATIONS: Maximum, 200 mg/L Jan. 23, Feb. 20, 1982; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum, 345 tons Dec. 2, 1977; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 28 microsiemens Sept. 2; minimum, 11 microsiemens Feb. 23.

WATER TEMPERATURES: Maximum, 14.5°C Aug. 8-10, 27; minimum recorded, 1.5°C Feb. 12.

SEDIMENT CONCENTRATIONS: Maximum daily observed, 10 mg/L Feb. 24; minimum, 0 mg/L several days in winter.

SEDIMENT DISCHARGE: Maximum daily, 22 tons Feb. 23; minimum, .01 tons on several days in September.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	23	22	23	20	19	20	22	22	22	21	19	20
2	24	23	23	20	19	20	22	21	22	20	19	19
3	24	23	23	19	19	19	21	21	21	21	19	19
4	24	23	23	19	18	18	21	21	21	20	20	20
5	24	23	24	19	17	18	21	20	21	20	18	19
6	24	23	24	17	15	16	21	19	20	19	18	19
7	25	24	24	16	14	15	19	18	19	20	19	19
8	24	24	24	18	16	16	19	19	19	20	19	19
9	24	23	24	18	17	18	20	19	20	19	19	19
10	24	23	24	19	18	19	20	20	20	19	18	19
11	26	23	25	20	19	20	20	20	20	19	18	19
12	26	24	25	20	20	20	21	20	21	20	19	19
13	25	23	24	21	20	20	21	21	21	20	19	20
14	24	23	24	21	21	21	21	21	21	20	20	20
15	25	22	24	21	16	19	21	21	21	20	19	20
16	24	23	23	18	16	17	21	21	21	19	18	19
17	25	22	23	19	17	18	21	21	21	19	18	19
18	23	23	23	19	19	19	21	20	21	18	18	18
19	23	22	23	20	19	19	20	20	20	18	16	17
20	23	22	22	20	20	20	20	20	20	18	18	18
21	22	22	22	20	20	20	20	20	20	19	18	19
22	22	20	21	21	20	21	21	20	21	19	17	19
23	20	20	20	22	21	21	21	20	20	18	16	17
24	20	18	19	22	21	21	20	20	20	19	17	18
25	18	17	17	21	21	21	20	20	20	20	19	19
26	19	18	19	21	21	21	21	20	21	20	19	20
27	20	18	19	21	21	21	21	20	21	20	20	20
28	19	18	19	22	21	22	21	20	21	20	20	20
29	20	19	19	22	22	22	21	21	21	21	19	20
30	20	19	20	22	22	22	21	20	21	19	18	19
31	20	19	20	---	---	---	21	21	21	20	19	19
MONTH	26	17	22	22	14	19	22	18	21	21	16	19

SANDY RIVER BASIN

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14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	20	19	19	---	---	---	20	20	20	19	19	19
2	20	20	20	---	---	---	20	20	20	20	19	19
3	20	20	20	---	---	---	20	20	20	20	19	19
4	20	19	19	---	---	---	20	20	20	20	19	20
5	19	19	19	---	---	---	21	20	20	19	19	19
6	20	19	20	---	---	---	21	20	20	20	19	19
7	20	20	20	---	---	---	21	20	21	20	20	20
8	21	20	20	---	---	---	21	21	21	20	20	20
9	21	20	21	---	---	---	21	21	21	20	20	20
10	21	21	21	---	---	---	21	21	21	20	19	20
11	21	21	21	---	---	---	21	20	21	20	19	20
12	21	21	21	---	---	---	21	21	21	20	19	19
13	21	21	21	---	---	---	21	20	21	19	17	18
14	21	21	21	---	---	---	20	20	20	19	18	18
15	21	19	20	---	---	---	20	20	20	19	19	19
16	19	16	17	---	---	---	20	19	19	20	19	20
17	19	18	18	---	---	---	19	19	19	21	20	20
18	19	19	19	---	---	---	19	19	19	21	20	21
19	20	19	19	---	---	---	19	19	19	21	20	21
20	20	20	20	---	---	---	20	19	19	20	20	20
21	20	16	19	---	---	---	19	19	19	20	20	20
22	17	15	16	---	---	---	20	19	19	20	19	20
23	16	11	13	---	---	---	20	20	20	20	19	20
24	15	13	14	---	---	---	20	20	20	20	20	20
25	---	---	---	---	---	---	20	20	20	21	20	20
26	---	---	---	---	---	---	20	19	20	21	20	21
27	---	---	---	---	---	---	19	16	18	21	21	21
28	---	---	---	20	20	20	18	17	17	21	21	21
29	---	---	---	20	20	20	18	18	18	22	21	21
30	---	---	---	20	20	20	19	18	19	23	22	22
31	---	---	---	21	20	20	---	---	---	23	22	22
MONTH	---	---	---	---	---	---	21	16	20	23	17	20
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	23	22	22	25	24	25	25	25	25	27	26	26
2	23	22	23	25	24	25	25	25	25	28	26	27
3	23	22	22	25	24	24	26	25	25	27	26	27
4	23	22	23	24	23	24	25	25	25	27	27	27
5	23	22	23	24	24	24	25	25	25	27	26	27
6	23	22	23	25	24	24	26	25	25	27	26	27
7	23	22	23	25	24	25	26	25	26	27	26	26
8	23	22	23	25	24	25	26	25	26	26	26	26
9	24	23	23	26	24	25	26	25	26	27	26	26
10	24	23	24	25	23	24	26	25	25	27	26	27
11	24	24	24	24	23	23	26	25	25	26	26	26
12	24	23	24	24	23	23	26	25	26	26	26	26
13	24	24	24	24	23	23	26	25	26	26	25	26
14	24	23	24	24	23	23	26	26	26	26	25	26
15	24	23	23	24	23	23	26	26	26	26	25	26
16	24	23	24	23	22	23	26	25	26	26	25	25
17	24	23	24	22	21	22	26	25	26	26	25	25
18	24	23	23	23	22	22	26	25	26	25	25	25
19	23	23	23	23	22	23	26	25	26	26	25	25
20	24	23	23	23	23	23	26	26	26	25	24	25
21	24	24	24	24	23	23	26	26	26	25	25	25
22	24	24	24	24	22	23	26	26	26	25	25	25
23	25	24	24	24	23	23	27	26	26	25	22	24
24	25	24	24	24	23	23	26	26	26	22	19	20
25	24	24	24	25	23	24	27	26	26	21	19	20
26	25	24	24	24	23	24	27	26	26	20	19	19
27	25	24	25	24	23	24	27	26	27	20	19	20
28	25	24	24	24	23	24	27	25	26	20	19	20
29	24	24	24	24	23	24	27	26	26	20	19	19
30	25	24	24	24	24	24	27	26	26	20	19	19
31	---	---	---	25	24	25	26	26	26	---	---	---
MONTH	25	22	24	26	21	24	27	25	26	28	19	24

SANDY RIVER BASIN

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.0	7.0	7.5	7.5	6.5	7.0	---	---	---	4.0	3.5	3.5
2	8.5	8.0	8.0	8.0	7.5	8.0	---	---	---	4.0	3.5	3.5
3	8.5	8.0	8.5	8.0	8.0	8.0	---	---	---	4.5	4.0	4.0
4	8.5	8.0	8.0	8.0	6.5	7.5	3.0	2.5	2.5	4.0	3.5	3.5
5	8.5	8.0	8.5	7.0	6.5	7.0	3.5	3.0	3.5	4.0	3.5	4.0
6	8.5	8.0	8.5	8.0	7.0	7.5	4.0	3.5	3.5	4.0	4.0	4.0
7	8.5	6.5	7.5	---	---	---	4.0	4.0	4.0	4.5	4.0	4.0
8	6.5	5.0	5.5	---	---	---	4.5	4.0	4.5	4.5	4.0	4.5
9	5.0	4.0	4.5	---	---	---	4.0	3.5	4.0	4.5	4.0	4.5
10	6.5	5.0	5.5	---	---	---	3.5	3.0	3.0	4.5	4.0	4.5
11	7.0	6.0	6.5	---	---	---	3.0	2.5	3.0	---	---	---
12	7.0	6.5	6.5	---	---	---	3.0	3.0	3.0	---	---	---
13	6.5	5.5	6.0	---	---	---	3.0	3.0	3.0	---	---	---
14	7.0	6.0	6.5	---	---	---	3.5	3.0	3.0	---	---	---
15	7.5	7.0	7.0	---	---	---	3.5	3.0	3.5	---	---	---
16	7.5	7.0	7.5	---	---	---	3.5	3.5	3.5	---	---	---
17	7.0	6.5	7.0	---	---	---	3.5	3.5	3.5	---	---	---
18	7.0	6.5	6.5	---	---	---	4.0	3.5	3.5	---	---	---
19	7.5	6.5	7.0	---	---	---	4.0	3.5	3.5	---	---	---
20	8.0	7.5	7.5	---	---	---	4.0	3.5	3.5	---	---	---
21	7.5	7.0	7.0	---	---	---	4.0	3.5	3.5	---	---	---
22	7.5	6.5	7.0	---	---	---	4.0	4.0	4.0	---	---	---
23	7.5	7.5	7.5	---	---	---	4.0	4.0	4.0	---	---	---
24	8.5	7.5	8.0	---	---	---	4.0	3.5	3.5	---	---	---
25	8.5	7.0	7.5	---	---	---	3.5	3.0	3.0	---	---	---
26	8.0	7.0	7.5	---	---	---	3.0	2.5	3.0	---	---	---
27	8.0	7.5	8.0	---	---	---	3.0	2.0	2.5	---	---	---
28	7.5	6.5	7.0	---	---	---	3.0	3.0	3.0	---	---	---
29	7.0	6.0	6.5	---	---	---	3.0	2.5	3.0	---	---	---
30	7.0	6.5	6.5	---	---	---	3.0	2.5	2.5	---	---	---
31	6.5	6.5	6.5	---	---	---	3.5	3.0	3.0	---	---	---
MONTH	8.5	4.0	7.0	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	5.0	4.5	5.0	5.5	4.5	5.0	6.0	5.0	5.0
2	---	---	---	5.0	4.0	4.5	5.0	4.5	5.0	6.0	5.5	5.5
3	---	---	---	5.5	4.5	5.0	5.5	4.0	5.0	6.0	5.0	5.5
4	---	---	---	5.5	4.5	5.0	5.5	5.0	5.5	6.0	5.5	5.5
5	---	---	---	5.5	4.5	5.0	5.5	4.0	5.0	5.5	4.5	5.0
6	---	---	---	5.5	5.5	5.5	6.5	5.0	5.5	5.0	4.5	5.0
7	---	---	---	6.0	5.0	5.5	7.0	5.5	6.5	5.5	5.0	5.5
8	---	---	---	5.5	5.0	5.0	7.0	6.5	6.5	6.0	5.5	5.5
9	---	---	---	5.5	4.5	5.0	6.5	5.5	6.0	6.0	5.5	5.5
10	3.5	3.0	3.0	5.5	5.0	5.0	6.0	5.0	5.5	5.5	4.5	5.0
11	3.5	2.0	3.0	5.5	5.0	5.5	5.0	4.5	5.0	5.0	4.5	4.5
12	3.0	1.5	2.5	5.0	4.5	5.0	5.0	4.0	4.5	6.0	5.0	5.5
13	2.5	2.0	2.0	5.0	4.5	5.0	5.0	4.0	4.5	5.5	5.0	5.5
14	2.5	2.5	2.5	5.0	4.0	4.5	5.5	4.0	5.0	6.0	4.5	5.5
15	3.0	2.5	3.0	5.0	4.5	4.5	5.5	5.0	5.0	6.5	5.0	5.5
16	3.0	2.5	2.5	5.0	4.0	4.5	5.0	4.5	5.0	7.0	5.0	6.0
17	3.0	2.0	2.5	5.0	4.5	5.0	5.0	4.5	4.5	8.0	6.0	7.0
18	3.5	3.0	3.0	5.5	4.5	5.0	5.5	4.5	5.0	8.0	7.0	7.5
19	3.0	2.5	2.5	6.0	5.0	5.5	6.0	5.0	5.5	9.0	7.0	8.0
20	3.0	2.5	3.0	6.5	5.5	6.0	7.0	5.5	6.5	8.0	7.0	7.5
21	3.5	2.5	3.0	6.5	5.5	6.0	7.5	6.0	6.5	7.0	5.0	6.5
22	3.5	2.5	3.0	5.5	4.5	5.5	7.0	5.0	6.0	6.5	5.0	5.5
23	4.0	2.0	3.5	5.5	5.0	5.5	5.0	4.5	5.0	7.5	6.0	6.5
24	4.5	3.5	4.0	5.5	4.5	5.0	5.0	4.0	4.5	9.0	7.0	8.0
25	4.5	3.5	4.0	5.5	4.5	5.0	4.5	4.0	4.0	10.0	8.0	9.0
26	5.0	4.0	4.5	6.5	5.5	6.0	5.0	4.0	4.5	10.0	9.0	9.5
27	5.0	4.5	5.0	6.5	5.5	6.5	4.5	4.5	4.5	10.5	8.5	9.5
28	5.0	4.5	4.5	7.0	6.0	6.5	5.0	4.0	4.5	11.0	9.0	10.0
29	---	---	---	7.0	6.0	6.5	5.0	4.0	4.5	11.5	9.0	10.0
30	---	---	---	6.5	5.0	6.0	5.5	4.0	5.0	12.5	10.0	11.0
31	---	---	---	5.5	4.5	5.0	---	---	---	12.0	10.0	11.0
MONTH	---	---	---	7.0	4.0	5.5	7.5	4.0	5.0	12.5	4.5	7.0

SANDY RIVER BASIN

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14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	12.0	10.5	11.5	12.5	11.0	11.5	13.0	11.0	12.0	12.5	11.5	12.0
2	12.0	10.5	11.0	12.0	11.5	12.0	13.5	12.0	12.5	12.5	12.0	12.5
3	11.0	10.0	10.5	11.5	11.0	11.0	13.5	12.5	13.0	13.0	12.0	12.5
4	10.5	9.5	10.0	11.0	9.5	10.0	13.5	12.0	13.0	13.5	12.0	13.0
5	10.0	9.0	9.5	10.5	9.0	9.5	13.0	12.0	12.5	13.5	12.5	13.0
6	9.5	8.5	9.0	11.5	9.0	10.5	13.5	12.0	13.0	13.5	12.5	13.0
7	9.0	8.5	8.5	12.0	10.5	11.0	14.0	12.5	13.5	13.0	12.0	12.5
8	8.5	8.0	8.5	12.0	11.0	11.5	14.5	13.0	14.0	12.0	11.5	12.0
9	10.5	7.5	9.0	11.5	11.0	11.5	14.5	13.5	14.0	11.5	10.5	11.0
10	11.5	9.0	10.5	11.0	10.5	11.0	14.5	13.5	13.5	11.0	10.5	11.0
11	12.5	10.0	11.0	11.5	10.5	11.0	13.5	13.0	13.0	10.5	9.5	10.0
12	12.5	10.5	11.5	11.0	10.5	10.5	13.5	12.5	13.0	10.0	9.5	9.5
13	13.0	10.5	12.0	11.5	10.0	11.0	14.0	12.5	13.0	10.0	9.0	9.5
14	12.0	10.5	11.5	11.0	10.5	10.5	14.0	12.5	13.5	9.5	8.5	9.0
15	11.5	10.0	11.0	10.0	9.5	9.5	14.0	13.0	13.5	9.5	9.0	9.0
16	11.0	9.5	10.5	9.5	9.0	9.0	13.5	12.0	13.0	9.5	8.5	9.0
17	10.0	9.5	9.5	10.0	8.5	9.5	13.5	12.0	12.5	9.0	9.0	9.0
18	9.5	9.0	9.5	10.5	8.5	9.5	13.0	12.0	12.5	9.5	8.5	9.0
19	10.0	8.5	9.0	11.5	9.5	10.5	13.0	12.0	12.5	9.0	8.5	9.0
20	10.0	9.0	9.5	12.5	10.5	11.5	13.0	11.5	12.5	9.0	8.5	9.0
21	11.0	9.0	10.0	12.5	11.0	12.0	13.5	12.0	13.0	9.5	9.0	9.0
22	12.5	10.0	11.0	12.0	11.0	11.5	13.5	12.0	13.0	9.5	8.5	9.0
23	13.0	11.0	12.0	11.5	11.0	11.0	13.5	12.5	13.0	9.0	8.5	8.5
24	13.0	11.5	12.5	11.0	10.5	10.5	13.0	12.0	12.5	9.0	8.0	8.5
25	13.0	11.0	12.0	12.0	10.5	11.0	13.5	12.0	13.0	8.5	8.0	8.0
26	12.5	11.5	12.0	11.5	10.5	11.0	14.0	12.5	13.5	8.0	8.0	8.0
27	13.0	11.5	12.0	10.5	10.0	10.5	14.5	13.5	14.0	8.0	7.5	8.0
28	12.5	11.0	11.5	11.0	9.5	10.5	14.0	13.5	14.0	8.5	8.0	8.0
29	11.0	10.5	11.0	11.0	10.5	10.5	13.5	12.5	13.0	8.5	8.0	8.5
30	12.0	10.0	11.0	11.5	10.0	10.5	12.5	12.0	12.0	8.5	8.0	8.0
31	---	---	---	12.0	10.5	11.5	12.5	11.5	12.0	---	---	---
MONTH	13.0	7.5	10.5	12.5	8.5	10.5	14.5	11.0	13.0	13.5	7.5	10.0

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	.05	1	.09		.03	---	.35	2	.24	3	.47
2	---	.05	---	.09		.03	---	.20	2	.21	3	.39
3	---	.05	1	.12		.05	---	.26	4	.40	3	.34
4	---	.05	3	.51		.05	---	.19	4	.57	3	.31
5	---	.05	3	.55		.06	---	.29	3	.48	3	.28
6	---	.03	4	2.3		.22	---	.52	2	.24	3	.27
7	---	.05	9	8.9		.62	1	.12	2	.19	5	.93
8	---	.03	3	1.4		.31	2	.25	3	.24	2	.30
9	---	.03	1	.24		.10	2	.29	3	.21	2	.35
10	---	.03	1	.15		.08	1	.13	3	.18	2	.30
11	---	.09	0	.11		.06	1	.12	3	.16	2	.31
12	---	.08	---	.09		.06	2	.18	4	.21	2	.27
13	---	.06	---	.07		.05	2	.16	4	.19	2	.26
14	---	.05	---	.06		.05	2	.15	4	.18	2	.27
15	---	.05	---	.17		.04	1	.08	4	.30	2	.23
16	---	.04	---	.90		.04	1	.12	6	2.3	2	.19
17	---	.04	---	.35		.05	2	.27	---	.86	2	.16
18	1	.03	---	.23		.06	2	.44	---	.44	2	.14
19	1	.05	---	.09		.14	3	.86	---	.25	2	.13
20	1	.05	---	.08		.06	1	.19	---	.14	2	.12
21	0	.05	---	.07		.06	1	.13	---	.40	4	.25
22	1	.15	---	.06		.06	1	.18	---	5.5	4	.23
23	1	.19	0	.05		.15	1	.32	---	22	3	.27
24	3	.79	0	.05		.07	2	.41	10	6.9	3	.45
25	4	2.0	---	.04		.06	2	.26	4	1.9	2	.24
26	1	.20	---	.04		.06	1	.10	4	1.3	2	.19
27	3	.45	---	.04		.05	1	.09	4	.95	2	.16
28	0	.18	---	.04		.05	0	.09	4	.75	2	.14
29	0	.11	---	.03		.04	0	.09	---	---	2	.12
30	0	.10	---	.03		.04	1	.15	---	---	2	.13
31	1	.09	---	---		.04	2	.24	---	---	2	.11
TOTAL	---	5.27	---	16.95		2.84	---	7.23	---	47.69	---	8.31
DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2	.11	3	.35	4	.15	2	.03	2	.03	2	.02
2	2	.11	3	.32	4	.14	2	.03	2	.03	2	.02
3	3	.16	3	.30	4	.13	3	.04	2	.02	2	.02
4	3	.16	3	.26	4	.13	4	.08	2	.02	2	.01
5	3	.15	---	.31	4	.12	2	.03	2	.02	2	.01
6	2	.10	---	.18	4	.12	2	.03	2	.02	2	.01
7	2	.09	---	.16	5	.15	2	.03	2	.02	1	.01
8	2	.09	---	.14	5	.13	2	.03	2	.02	1	.01
9	2	.09	---	.14	5	.13	---	.04	2	.02	3	.06
10	5	.20	---	.17	5	.12	---	.16	2	.02	2	.02
11	5	.22	---	.20	5	.11	---	.13	2	.02	2	.02
12	4	.21	3	.38	5	.11	---	.05	2	.02	1	.01
13	3	.18	5	1.1	5	.10	---	.04	2	.02	1	.01
14	3	.19	3	.47	4	.08	---	.04	2	.02	1	.01
15	3	.21	3	.35	4	.08	---	.04	2	.02	1	.01
16	3	.29	3	.28	4	.08	---	.12	3	.03	2	.02
17	3	.45	3	.23	3	.07	---	.34	4	.04	2	.03
18	3	.44	3	.20	4	.10	5	.16	5	.04	4	.11
19	3	.35	3	.19	5	.15	3	.08	5	.04	3	.04
20	2	.21	3	.20	4	.09	2	.05	4	.03	3	.07
21	2	.19	3	.22	3	.06	1	.02	4	.03	3	.05
22	1	.08	3	.32	2	.04	1	.02	3	.03	3	.04
23	1	.07	4	.37	2	.04	1	.02	3	.02	3	.15
24	2	.12	4	.30	2	.04	1	.02	3	.02	3	.38
25	5	.34	4	.26	2	.03	1	.02	3	.02	7	.74
26	6	.52	4	.24	2	.03	1	.02	3	.02	5	.58
27	7	2.0	4	.22	2	.03	1	.02	3	.02	4	.41
28	5	1.2	4	.21	2	.03	2	.03	3	.02	4	.45
29	4	.66	4	.19	2	.04	2	.03	3	.02	4	.57
30	3	.41	4	.18	2	.03	2	.03	4	.05	4	.49
31	---	---	4	.16	---	---	2	.03	3	.03	---	---
TOTAL	---	9.60	---	8.60	---	2.66	---	1.81	---	0.78	---	4.38

SANDY RIVER BASIN

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14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR

LOCATION.--Lat 45°29'40", long 122°02'05", near line between SE¼ and SW¼ sec.11, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, on left bank 7.0 mi southeast of Multnomah Falls and at mouth.

DRAINAGE AREA.--8.32 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,060 ft, from topographic map. Prior to Oct. 1, 1978, at site 700 ft upstream at datum 18.7 ft higher.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 2. Records good. Regulation at times since 1958 by North Fork Reservoir, capacity, about 1,030 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--21 years, 77.0 ft³/s, 125.68 in/yr, 55,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s, probably affected by surge from release of water temporarily impounded by landslide upstream from station, Jan. 20, 1972, gage height, 9.89 ft, from floodmark, from rating curve extended above 850 ft³/s on basis of estimate of peak flow from slope-area survey; minimum discharge, 9.1 ft³/s Oct. 2-14, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 6	2200	906	6.13	Feb. 23	0830	*2,000	*7.27

Minimum discharge, 12 ft³/s several days in August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	19	75	23	105	123	96	50	84	25	16	15	13		
2	19	84	23	90	104	82	49	81	25	17	14	13		
3	19	109	48	132	111	71	44	72	24	17	14	12		
4	19	138	49	88	187	65	44	67	23	22	14	12		
5	18	179	51	126	148	61	40	90	23	18	14	12		
6	19	519	100	148	108	62	37	70	23	17	14	12		
7	23	686	163	100	86	169	35	61	24	16	14	12		
8	19	289	121	107	70	126	34	55	23	16	14	14		
9	18	183	80	130	60	136	33	55	22	16	14	18		
10	18	120	64	120	54	105	31	67	21	33	13	14		
11	45	85	55	116	49	133	38	79	21	36	13	13		
12	44	68	49	88	46	114	50	83	20	23	14	13		
13	29	57	44	77	43	108	50	164	19	20	14	12		
14	25	49	41	71	44	103	47	100	20	19	13	12		
15	24	154	40	80	78	83	49	77	21	19	13	13		
16	35	232	39	141	223	68	66	63	20	22	13	14		
17	28	138	41	157	118	59	100	55	23	26	13	17		
18	25	95	46	241	84	55	90	49	26	20	13	23		
19	50	77	46	268	69	52	67	45	26	19	13	14		
20	48	66	43	172	62	49	57	56	21	18	13	16		
21	41	57	41	116	129	54	51	54	19	18	13	14		
22	148	51	41	148	345	47	48	55	19	17	13	13		
23	164	44	43	247	1310	78	43	46	18	17	13	47		
24	194	42	44	159	539	131	41	42	18	17	12	52		
25	333	39	43	109	344	94	53	39	18	16	12	72		
26	152	37	41	84	234	76	80	36	17	16	12	84		
27	118	35	38	84	164	65	251	34	17	16	12	72		
28	126	33	36	74	118	58	201	31	17	16	12	70		
29	80	30	35	78	---	53	123	29	19	15	12	97		
30	85	27	33	137	---	59	98	28	18	15	14	69		
31	73	---	34	106	---	50	---	27	---	15	13	---		
TOTAL	2058	3798	1595	3899	5050	2562	2000	1894	630	588	410	869		
MEAN	66.4	127	51.5	126	180	82.6	66.7	61.1	21.0	19.0	13.2	29.0		
MAX	333	686	163	268	1310	169	251	164	26	36	15	97		
MIN	18	27	23	71	43	47	31	27	17	15	12	12		
CFSM	7.98	15.3	6.19	15.1	21.6	9.93	8.02	7.34	2.52	2.28	1.59	3.49		
IN.	9.20	16.98	7.13	17.43	22.58	11.46	8.94	8.47	2.82	2.63	1.83	3.89		
AC-FT	4080	7530	3160	7730	10020	5080	3970	3760	1250	1170	813	1720		
CAL YR 1985	TOTAL	22751	MEAN	62.3	MAX	686	MIN	14	CFSM	7.49	IN.	101.72	AC-FT	45130
WTR YR 1986	TOTAL	25353	MEAN	69.5	MAX	1310	MIN	12	CFSM	8.35	IN.	113.36	AC-FT	50290

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1978 to current year.

pH: October 1980 to September 1981.

WATER TEMPERATURES: October 1978 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1986 (discontinued).

INSTRUMENTATION.--Water-quality monitor, prior to October 1980, conductivity/temperature recorder. Automatic pumping sediment sampler since October 1978.

REMARKS.--Sediment concentrations and corresponding sediment discharges reported as 0 mg/L or 0 tons should be interpreted as <1 due to the limitations of sampling equipment, analytical methods, rounding errors, and the likelihood of minor amounts of sediment transport occurring at even the lowest of discharges.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 103 microsiemens Jan. 13, 1981 (cement spill); minimum, 9 microsiemens Dec. 25, 1980, Jan. 6, 1983, Feb. 23, 1986.

pH: Maximum, 9.8 units Jan. 13, 1981 (cement spill); minimum, 6.3 units, June 19, 1981.

WATER TEMPERATURES: Maximum recorded, 14.0°C July 18-20, 1979, July 27, Aug. 9, 1981, May 31, June 1, 1986; minimum, 0.0°C on several days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 205 mg/L Dec. 25, 1980; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 765 tons Feb. 23, 1986; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 45 microsiemens Aug. 1, 4; minimum recorded, 9 microsiemens Feb. 23.

WATER TEMPERATURES: Maximum recorded, 14.0°C May 31, June 1; minimum, 0.0°C Nov. 23, 24, 29, Dec. 1, 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 201 mg/L Feb. 23; minimum, 1 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 765 tons Feb. 23; minimum, .03 tons on several days in August and September.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	36	35	35	22	21	22	30	29	29	28	19	22
2	36	35	36	22	20	21	30	27	29	21	20	21
3	36	35	36	20	20	20	27	26	26	20	18	19
4	37	36	36	20	18	19	26	25	26	21	20	20
5	37	37	37	19	15	18	26	24	25	21	17	19
6	38	36	37	15	13	14	24	20	21	19	17	18
7	37	34	36	14	13	13	20	18	19	20	19	20
8	38	36	37	16	14	15	20	18	19	20	19	20
9	37	36	37	18	16	17	22	20	21	19	18	19
10	37	36	37	19	18	18	23	22	22	19	18	19
11	37	30	32	20	19	20	23	23	23	19	18	19
12	32	29	30	22	21	21	25	25	25	20	19	20
13	32	31	31	23	21	22	26	25	26	21	20	21
14	33	32	32	24	23	23	27	26	26	22	21	21
15	34	33	33	24	15	19	27	27	27	22	19	21
16	34	29	31	17	14	16	27	27	27	19	16	18
17	31	30	31	18	17	18	27	26	27	18	16	18
18	32	31	32	20	18	19	26	25	26	16	15	16
19	32	26	29	21	20	20	26	25	25	16	14	15
20	28	26	27	22	21	21	26	26	26	17	16	17
21	28	26	27	23	22	22	26	25	26	19	17	18
22	26	20	22	24	22	23	26	26	26	19	15	18
23	20	20	20	25	24	24	26	26	26	16	15	15
24	20	17	19	25	25	25	26	25	26	18	16	17
25	17	15	16	26	25	26	26	26	26	19	18	18
26	19	17	18	27	26	26	27	26	26	20	19	20
27	20	18	20	27	27	27	27	27	27	21	19	20
28	20	18	19	28	27	27	28	27	27	21	20	21
29	21	20	21	28	28	28	28	28	28	21	19	21
30	22	20	21	29	28	29	29	28	28	19	17	18
31	22	21	21	---	---	---	29	28	29	19	18	19
MONTH	38	15	29	29	13	21	30	18	25	28	14	19

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SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25. WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	19	17	18	18	17	18	24	23	23	20	19	20
2	19	18	19	19	18	19	24	23	23	20	19	20
3	19	18	19	20	19	19	25	24	24	21	20	20
4	18	16	16	20	20	20	25	24	24	21	20	21
5	18	17	18	21	20	21	26	25	25	20	18	19
6	20	18	19	21	20	21	26	26	26	21	20	21
7	21	19	20	20	15	16	27	26	26	22	21	22
8	22	21	21	17	15	16	27	26	27	23	22	22
9	23	22	22	17	16	17	27	27	27	23	22	23
10	24	23	23	18	17	18	28	27	28	23	21	22
11	24	24	24	18	16	17	28	23	27	21	20	21
12	25	24	25	18	17	17	25	23	24	20	20	20
13	26	25	25	18	17	18	24	24	24	20	16	17
14	26	25	25	19	17	18	24	24	24	20	18	19
15	25	19	23	20	19	19	24	23	24	21	20	20
16	18	15	16	21	20	20	24	20	22	22	21	21
17	20	18	19	22	21	21	20	19	19	23	22	23
18	21	20	20	22	22	22	20	19	20	24	23	24
19	22	21	22	23	22	23	22	20	21	25	24	24
20	23	22	22	23	23	23	23	22	22	24	22	23
21	22	14	20	23	22	22	24	23	23	24	23	23
22	15	13	15	24	23	23	24	23	24	24	23	23
23	13	9	11	24	17	22	25	24	24	25	24	24
24	13	10	12	18	17	18	25	25	25	26	25	25
25	13	12	13	19	18	19	25	23	24	27	26	26
26	15	13	14	21	19	20	23	19	21	27	26	27
27	16	15	15	22	21	21	18	14	16	28	27	27
28	17	16	17	22	21	22	17	15	16	29	28	28
29	---	---	---	23	22	23	18	17	18	30	28	29
30	---	---	---	23	21	22	19	18	19	31	29	30
31	---	---	---	24	22	23	---	---	---	31	30	31
MONTH	26	9	19	24	15	20	28	14	23	31	16	23
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	31	30	31	40	38	39	45	40	41	42	41	42
2	32	31	32	41	38	39	44	40	41	42	41	42
3	32	31	32	41	38	39	44	40	41	43	41	42
4	33	32	32	40	35	37	45	40	41	43	42	42
5	33	32	32	40	36	37	42	40	41	43	42	42
6	34	32	33	40	38	39	41	40	41	43	42	42
7	33	32	32	41	38	39	41	40	41	43	42	42
8	34	33	33	40	39	39	42	40	41	42	39	41
9	35	33	34	42	39	40	42	40	41	40	38	39
10	35	34	35	42	30	35	42	40	41	41	40	41
11	36	34	35	35	30	32	42	40	41	42	40	41
12	36	35	35	38	33	35	41	40	41	42	41	41
13	37	35	36	38	35	36	42	41	41	42	41	42
14	36	35	36	39	36	37	42	41	41	42	41	41
15	36	35	35	40	36	37	42	41	41	42	40	41
16	37	35	36	39	34	36	42	40	41	41	40	41
17	35	34	35	37	33	34	42	40	41	41	36	40
18	34	32	33	39	35	37	42	40	41	39	35	36
19	35	32	33	39	36	37	42	40	41	40	39	39
20	36	35	36	40	38	38	42	41	41	40	38	39
21	37	36	37	41	38	39	42	41	42	40	39	40
22	38	37	37	40	37	38	42	41	42	41	40	40
23	38	37	38	40	38	38	42	41	42	41	26	36
24	39	37	38	40	38	38	42	41	42	30	26	28
25	39	38	38	40	38	39	42	41	42	30	22	27
26	39	38	39	42	38	39	43	41	42	23	22	23
27	40	38	39	43	38	39	43	41	42	23	22	23
28	40	38	39	43	38	39	43	41	42	23	22	23
29	38	37	38	43	39	40	42	41	42	23	20	22
30	39	38	39	44	39	40	42	40	41	23	21	22
31	---	---	---	44	39	40	42	40	41	---	---	---
MONTH	40	30	35	44	30	38	45	40	41	43	20	37
YEAR	45	9	28									

SANDY RIVER BASIN

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.0	7.0	7.5	7.0	6.0	7.0	.5	.0	.5	3.5	2.5	3.0
2	8.5	8.0	8.0	8.0	7.5	7.5	1.5	.0	1.0	3.5	2.5	3.0
3	9.0	7.5	8.0	8.0	8.0	8.0	2.0	1.5	2.0	4.0	3.0	3.5
4	9.0	7.5	8.0	8.0	6.0	7.0	2.5	2.0	2.5	3.0	3.0	3.0
5	8.5	7.5	8.0	6.5	6.0	6.0	3.0	2.5	3.0	4.0	3.0	3.5
6	8.0	7.0	8.0	7.5	6.5	7.0	3.0	2.5	3.0	3.5	3.5	3.5
7	8.0	6.5	7.5	7.5	6.5	7.0	3.5	3.0	3.0	4.0	3.5	3.5
8	6.5	5.0	6.0	6.5	4.5	5.0	3.5	3.0	3.5	4.0	3.5	4.0
9	6.0	4.5	5.5	5.0	4.5	4.5	3.5	3.0	3.0	4.0	3.5	4.0
10	7.0	5.5	6.5	4.5	3.0	3.5	3.0	2.0	2.5	4.5	3.5	4.0
11	7.5	6.5	7.0	3.0	2.5	3.0	2.0	1.5	2.0	4.0	3.5	3.5
12	7.5	6.5	7.0	3.0	2.0	2.5	2.5	1.5	2.0	4.0	3.5	3.5
13	7.0	6.0	6.5	3.0	2.5	2.5	2.5	2.0	2.5	4.5	3.5	4.0
14	7.0	6.5	7.0	3.5	2.5	3.0	3.0	2.5	2.5	4.5	4.0	4.0
15	8.5	7.0	7.5	4.0	3.5	3.5	3.5	3.0	3.0	4.0	3.5	4.0
16	8.0	7.5	7.5	4.5	4.0	4.5	3.5	3.0	3.0	4.0	3.5	4.0
17	7.5	6.5	7.0	4.0	3.0	3.5	3.5	3.0	3.5	4.0	3.0	3.5
18	7.5	6.0	7.0	3.5	3.5	3.5	3.5	3.0	3.5	4.5	3.5	4.0
19	8.0	7.0	7.5	3.5	2.0	2.5	3.5	3.0	3.5	4.5	3.5	4.0
20	8.5	7.5	8.0	2.5	2.0	2.5	3.5	2.5	3.0	4.0	3.5	3.5
21	7.5	7.0	7.0	2.5	1.0	2.0	3.5	3.0	3.0	4.0	3.0	3.5
22	7.5	6.5	7.0	1.5	.5	1.5	3.5	3.0	3.5	4.0	3.5	3.5
23	7.5	7.5	7.5	.5	.0	.5	4.0	3.5	3.5	4.0	3.5	3.5
24	8.5	7.5	8.0	1.0	.0	.5	3.5	3.0	3.5	4.0	3.5	3.5
25	8.0	7.0	7.5	2.0	.5	1.0	3.0	2.5	3.0	4.0	3.5	4.0
26	8.0	6.5	7.5	2.5	2.0	2.0	3.0	2.0	2.5	4.0	3.5	3.5
27	8.5	7.5	8.0	2.5	2.0	2.0	2.5	2.0	2.0	4.5	4.0	4.5
28	7.5	6.0	6.5	2.0	.5	1.0	2.5	2.0	2.5	4.5	4.0	4.5
29	6.5	5.5	6.0	.5	.0	.5	3.0	2.0	2.5	4.5	4.0	4.5
30	6.5	6.0	6.0	.5	.5	.5	2.5	2.0	2.5	5.0	4.5	4.5
31	6.0	5.5	6.0	---	---	---	3.5	2.5	3.0	5.0	4.5	4.5
MONTH	9.0	4.5	7.0	8.0	.0	3.5	4.0	.0	2.5	5.0	2.5	4.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.5	4.5	6.0	5.0	5.5	6.0	5.0	5.5	6.0	5.5	6.0
2	5.0	4.5	4.5	6.0	4.5	5.0	5.5	5.0	5.0	6.5	6.0	6.0
3	5.0	4.0	4.5	6.0	5.0	5.5	6.0	4.5	5.5	7.0	5.5	6.0
4	4.5	4.0	4.0	6.5	5.0	6.0	6.0	5.5	5.5	6.5	6.0	6.0
5	4.0	3.0	3.5	6.5	5.5	6.0	6.5	4.5	5.5	6.0	5.0	5.5
6	4.0	3.5	3.5	6.5	6.5	6.5	7.5	5.0	6.5	5.5	4.5	5.0
7	3.5	2.5	3.0	---	---	---	8.0	6.0	7.0	6.0	5.5	5.5
8	3.5	2.5	3.0	---	---	---	7.5	7.0	7.5	6.5	5.5	6.0
9	3.5	2.5	3.0	---	---	---	7.0	6.0	6.5	6.5	6.0	6.0
10	3.0	2.5	2.5	---	---	---	6.5	5.5	6.0	6.0	4.5	5.0
11	3.0	2.0	2.5	---	---	---	5.5	5.0	5.5	5.0	4.5	5.0
12	2.5	1.5	2.0	---	---	---	5.5	4.5	5.0	6.5	5.0	5.5
13	2.5	1.5	2.0	---	---	---	5.5	4.5	5.0	6.5	5.5	6.0
14	2.5	2.0	2.5	---	---	---	6.0	4.5	5.5	7.0	5.0	6.0
15	3.0	2.5	2.5	---	---	---	6.5	5.5	6.0	7.5	5.5	6.5
16	3.0	1.5	2.0	---	---	---	5.5	5.0	5.0	8.0	6.0	7.0
17	2.5	1.5	2.0	---	---	---	5.0	4.5	5.0	9.5	7.0	8.0
18	2.5	2.0	2.5	---	---	---	6.0	4.5	5.0	9.5	8.5	9.0
19	2.5	2.0	2.0	---	---	---	7.0	5.0	6.0	10.5	8.5	9.5
20	2.5	2.0	2.5	---	---	---	8.5	6.0	7.0	9.0	8.0	8.5
21	3.0	2.5	3.0	---	---	---	9.5	7.0	8.0	8.0	6.0	7.0
22	3.5	2.5	3.0	---	---	---	8.0	6.0	7.0	8.0	6.0	7.0
23	3.0	2.5	3.0	---	---	---	6.0	5.0	5.5	8.5	6.5	7.5
24	4.5	3.0	4.0	---	---	---	5.5	4.5	5.0	10.5	8.0	9.0
25	4.5	4.0	4.5	---	---	---	5.0	4.5	4.5	12.0	9.0	10.5
26	5.5	4.0	4.5	---	---	---	5.0	4.5	4.5	11.5	10.5	11.0
27	6.0	4.5	5.5	8.0	6.5	7.0	5.0	4.0	4.5	12.0	10.0	11.0
28	6.0	4.5	5.0	8.0	7.0	7.5	4.5	4.0	4.0	12.5	10.0	11.0
29	---	---	---	8.0	6.5	7.5	5.0	3.5	4.0	12.5	10.0	11.0
30	---	---	---	7.0	5.5	7.0	6.0	4.0	5.0	13.5	10.5	12.0
31	---	---	---	6.5	5.0	6.0	---	---	---	14.0	12.0	13.0
MONTH	6.0	1.5	3.5	---	---	---	9.5	3.5	5.5	14.0	4.5	7.5

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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible]

14138900 NORTH FORK BULL RUN RIVER NEAR MULTNOMAH FALLS, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3	.15	---	.41	---	.06	---	.85	---	1.0	---	2.1
2	3	.15	---	.45	---	.06	---	.49	---	.56	---	1.5
3	3	.15	---	.59	---	.26	---	1.1	---	.60	---	1.2
4	3	.15	---	.75	---	.26	---	.48	3	1.5	---	1.1
5	4	.19	---	1.4	---	.28	---	1.0	---	1.2	---	1.6
6	3	.15	11	19	---	.54	---	1.2	---	.87	12	2.0
7	3	.19	8	16	1.3	.81	---	.81	3	.70	10	4.6
8	---	.15	4	3.1	---	.65	---	.87	---	.57	8	2.7
9	---	.10	2	.99	---	.22	---	1.1	---	.49	5	1.8
10	---	.10	---	.65	---	.17	3	.97	---	.44	4	1.1
11	---	.36	---	.46	---	.15	---	.94	---	.40	5	1.8
12	---	.24	---	.37	---	.13	---	.71	---	.37	---	1.2
13	---	.16	---	.31	---	.12	---	.42	---	.35	---	1.2
14	---	.14	---	.26	---	.22	---	.38	3	.36	5	1.4
15	---	.13	---	1.2	---	.22	---	.65	4	.84	---	1.1
16	---	.28	---	2.5	---	.11	4	1.5	8	5.4	---	.92
17	---	.15	---	1.1	---	.11	---	1.7	2	.64	---	.64
18	---	.14	---	.51	---	.12	4	2.6	2	.45	---	.59
19	---	.41	---	.42	---	.12	6	4.4	---	.37	---	.56
20	---	.26	---	.36	---	.12	---	1.4	3	.50	---	.53
21	---	.22	---	.31	---	.11	---	.94	7	3.5	5	.73
22	---	2.7	---	.14	---	.11	---	1.6	16	17	---	.51
23	---	1.0	---	.12	---	.12	6	4.0	201	765	4	.84
24	---	2.1	---	.11	---	.12	5	2.1	70	113	7	2.5
25	---	10	---	.11	---	.12	---	1.2	15	14	6	1.5
26	---	1.7	---	.10	---	.11	---	.68	10	6.3	---	1.0
27	---	.60	---	.09	---	.10	---	.68	---	4.9	---	.70
28	---	.80	---	.09	---	.10	---	.40	10	3.2	4	.63
29	---	.43	---	.08	---	.09	---	.42	---	---	---	.57
30	---	.46	---	.07	---	.09	---	1.1	---	---	6	.96
31	---	.39	---	---	---	.09	2	.57	---	---	---	.68
TOTAL	---	24.15	---	52.05	---	6.38	---	37.26	---	944.51	---	40.26
DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	.54	4	.91	---	.14	---	.04	---	.04	---	.04
2	---	.53	4	.87	---	.14	---	.05	---	.04	---	.04
3	---	.48	---	.78	---	.13	---	.09	---	.04	---	.03
4	---	.48	---	.72	---	.12	---	.18	---	.04	---	.03
5	---	.43	6	1.5	---	.12	---	.15	---	.04	---	.03
6	---	.40	---	.76	---	.06	---	.09	---	.04	---	.03
7	---	.38	---	.66	---	.13	---	.04	---	.04	---	.03
8	---	.37	---	.59	---	.12	---	.04	---	.04	---	.08
9	---	.36	4	.59	---	.06	---	.04	---	.04	---	.15
10	---	.50	---	.72	---	.06	---	.27	---	.04	---	.11
11	7	.72	---	1.1	---	.06	---	.29	---	.04	---	.07
12	---	.81	6	1.3	---	.05	---	.12	---	.08	---	.04
13	---	.81	8	3.5	---	.05	---	.05	---	.04	---	.03
14	---	.76	6	1.6	---	.05	---	.05	---	.04	---	.03
15	6	.79	---	1.0	---	.06	---	.05	---	.04	---	.04
16	6	1.1	---	.68	---	.11	---	.06	---	.04	---	.04
17	7	1.9	---	.59	---	.12	---	.21	---	.04	---	.09
18	6	1.5	---	.53	---	.21	---	.11	---	.04	---	.19
19	3	.54	---	.49	---	.21	---	.10	---	.04	---	.11
20	---	.31	---	.76	---	.11	---	.10	---	.04	---	.09
21	---	.28	---	.58	---	.10	---	.10	---	.04	---	.08
22	---	.39	---	.59	---	.10	---	.09	---	.04	---	.04
23	---	.46	4	.50	---	.05	---	.05	---	.04	---	.38
24	4	.44	---	.45	---	.05	---	.05	---	.03	---	.42
25	5	.72	---	.42	---	.05	---	.05	---	.03	---	.58
26	6	1.3	---	.39	---	.05	---	.04	---	.03	---	.68
27	10	6.8	---	.37	---	.09	---	.04	---	.03	---	.39
28	9	4.9	---	.33	---	.05	---	.04	---	.03	---	.38
29	9	3.0	---	.23	---	.05	---	.04	---	.03	---	.79
30	6	1.6	---	.23	---	.05	---	.04	---	.08	---	.37
31	---	---	---	.15	---	---	---	.04	---	.07	---	---
TOTAL	---	33.60	---	23.89	---	2.75	---	2.70	---	1.29	---	5.41

14139000 BULL RUN RESERVOIR NUMBER ONE NEAR BULL RUN, OR

LOCATION.--Lat 45°28'50", long 122°04'50", in NW¼ sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, in Mount Hood National Forest, in control house of Bear Creek Dam on Bull Run River, 8.2 mi northeast of Bull Run, and at mile 11.2.

DRAINAGE AREA.--74.6 mi².

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1937, published as Bull Run Reservoir. October 1937 to September 1967, published as Lake Ben Morrow. Prior to October 1975, monthend contents only.

REVISED RECORDS.--WSP 814: 1935(M). WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to Oct. 9, 1930, Oct. 1, 1962, to Dec. 31, 1975, nonrecording gage and Oct. 9, 1930, to Sept. 30, 1962, water-stage recorder at present site and datum.

REMARKS.--Lake is formed by concrete dam completed in March 1929 for water supply of city of Portland. Storage began about Apr. 29, 1929; first filling occurred May 15, 1929. Capacity, 26,930 acre-ft at crest of spillway, elevation, 1,036.0 ft; capacity increased in October 1954 to 30,140 acre-ft at elevation 1,044.0 ft by installation of three gates 40 ft wide and 8 ft high. No dead storage. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 31,600 acre-ft Mar. 31, 1931, elevation, 1,047.40 ft; minimum contents observed, 169 acre-ft Jan. 10, 1960, elevation, 887.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,660 acre-ft May 22, elevation, 1,045.20 ft; minimum contents, 12,340 acre-ft Sept. 23, elevation, 989.89 ft.

Capacity table (elevation, in feet, and capacity, in acre-feet)

870	0	970	8,050
890	213	990	12,370
910	1,130	1,010	17,950
930	2,680	1,030	24,680
950	4,900	1,048	31,860

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1018.67	1035.09	1034.59	1035.31	1034.96	1024.97	1034.47	1043.08	1044.74	1040.51	1027.47	995.55
2	1017.84	1034.58	1034.35	1034.76	1034.83	1024.31	1034.71	1043.24	1044.81	1039.68	1025.71	993.50
3	1016.92	1035.58	1034.40	1035.22	1034.91	1023.81	1034.80	1043.05	1044.68	1039.15	1024.85	993.00
4	1015.63	1035.33	1034.17	1034.73	1035.22	1024.60	1034.81	1043.03	1044.57	1039.82	1024.00	991.51
5	1014.63	1035.58	1034.13	1034.79	1035.30	1027.98	1034.96	1043.50	1044.67	1039.28	1022.93	990.64
6	1013.41	1039.02	1034.84	1035.04	1035.25	1031.26	1034.73	1043.48	1044.72	1038.94	1021.82	991.11
7	1013.03	1039.64	1035.45	1034.74	1034.71	1035.53	1034.73	1043.54	1044.46	1038.28	1020.76	991.58
8	1013.76	1036.46	1035.00	1034.94	1034.70	1035.22	1034.57	1043.41	1044.56	1037.92	1019.54	992.14
9	1012.89	1035.60	1034.44	1035.27	1034.94	1035.05	1034.25	1043.23	1044.58	1037.29	1018.05	993.13
10	1012.73	1035.66	1034.63	1035.33	1034.82	1035.32	1034.47	1043.22	1044.45	1038.31	1016.60	993.84
11	1014.59	1035.15	1035.22	1035.07	1034.75	1035.57	1034.71	1043.52	1043.73	1038.43	1015.88	993.36
12	1015.54	1034.14	1034.87	1034.75	1034.49	1034.94	1034.67	1043.73	1043.24	1039.19	1014.66	992.74
13	1017.07	1035.13	1034.59	1034.54	1034.71	1032.71	1034.77	1044.31	1042.56	1038.82	1014.01	992.04
14	1017.00	1034.18	1035.13	1034.53	1034.58	1031.74	1036.70	1043.75	1042.04	1039.44	1012.03	991.51
15	1018.11	1035.70	1035.11	1034.49	1034.80	1031.50	1038.69	1043.32	1042.07	1038.55	1010.46	990.68
16	1018.50	1035.60	1034.47	1036.96	1035.72	1030.60	1041.29	1044.40	1041.80	1039.09	1009.53	991.24
17	1018.97	1035.57	1034.99	1035.98	1035.09	1031.35	1043.75	1044.39	1041.60	1040.20	1008.82	990.39
18	1019.96	1035.37	1034.68	1035.76	1034.73	1033.74	1042.97	1044.44	1042.44	1039.54	1006.84	990.45
19	1020.61	1034.69	1034.81	1035.83	1034.86	1034.52	1043.77	1044.24	1042.48	1036.45	1007.25	990.31
20	1022.96	1035.09	1034.76	1035.83	1035.01	1034.55	1043.44	1044.48	1042.19	1033.81	1007.71	990.34
21	1024.78	1034.85	1034.79	1035.15	1035.73	1034.66	1043.10	1044.47	1042.78	1033.98	1008.10	990.29
22	1030.23	1034.67	1034.84	1035.68	1037.82	1034.28	1043.05	1044.48	1041.94	1034.57	1007.30	990.02
23	1035.52	1034.34	1034.73	1035.81	1043.46	1035.01	1042.81	1044.20	1041.27	1034.93	1006.18	991.49
24	1036.28	1034.66	1034.79	1035.86	1038.28	1035.34	1043.04	1044.02	1040.10	1034.69	1004.85	994.34
25	1036.56	1034.97	1034.67	1035.28	1037.43	1035.15	1042.79	1043.97	1039.56	1032.73	1003.62	993.57
26	1035.36	1035.16	1034.69	1034.77	1035.71	1034.57	1043.23	1043.82	1038.81	1031.18	1001.90	998.93
27	1035.57	1034.20	1034.73	1035.32	1032.24	1034.57	1044.82	1043.25	1038.44	1030.72	1000.24	1003.42
28	1034.84	1034.41	1034.67	1034.69	1026.98	1034.81	1044.22	1043.53	1038.96	1029.99	998.68	1008.44
29	1034.54	1034.22	1034.70	1034.92	---	1034.47	1043.93	1044.94	1039.52	1029.87	997.66	1013.95
30	1035.56	1034.60	1034.55	1035.01	---	1034.30	1043.59	1044.66	1040.03	1028.70	997.09	1018.06
31	1034.89	---	1034.47	1035.23	---	1034.70	---	1044.46	---	1027.72	996.76	---
MAX	1036.56	1039.64	1035.45	1036.96	1043.46	1035.57	1044.82	1044.94	1044.81	1040.51	1027.47	1018.06
MIN	1012.73	1034.14	1034.13	1034.49	1026.98	1023.81	1034.25	1043.03	1038.44	1027.72	996.76	990.02
(†)	26510	26400	26350	26640	23590	26440	29970	30340	28510	23860	14110	20530
(‡)	+5320	-110	-50	+290	-3050	+2850	+3530	+370	-1830	-4650	-9750	+6420
CAL YR 1985	MAX	1045.02	MIN	1000.84	AC-FT‡	-20						
WTR YR 1986	MAX	1044.94	MIN	990.02	AC-FT‡	-660						

† Contents in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

SANDY RIVER BASIN

14139700 CEDAR CREEK NEAR BRIGHTWOOD, OR

LOCATION.--Lat 45°27'30", long 122°01'50", in NE¼ sec.26, T.1 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 5.8 mi north of Brightwood and at mile 2.5.

DRAINAGE AREA.--7.93 mi².

PERIOD OF RECORD.--July to November 1964, June 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,960 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 24, 25, 29, 30, Dec. 1, 2. Records good except for estimated daily discharges, and those above 400 ft³/s, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--21 years, 67.8 ft³/s, 116.11 in/yr, 49,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s Dec. 22, 1964, gage height, 7.20 ft, from rating curve extended above 320 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 6.9 ft³/s Oct. 9-13, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1500	844	4.74	Feb. 23	0830	*1,200	*5.55

Minimum discharge, 7.9 ft³/s Sept. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	16	60	20	96	89	91	41	79	24	14	13	9.1		
2	15	59	22	84	73	74	45	71	23	14	13	8.7		
3	14	80	31	129	74	63	40	64	22	14	12	8.7		
4	14	110	30	87	120	55	39	57	21	20	12	8.4		
5	13	118	30	107	123	50	37	73	21	17	12	8.2		
6	13	343	72	128	88	47	34	58	20	15	12	7.9		
7	17	709	136	89	69	101	32	51	22	14	12	7.9		
8	14	323	106	96	56	78	31	47	20	14	11	8.2		
9	13	168	71	108	47	112	31	47	19	14	11	14		
10	12	104	54	99	41	86	29	65	18	31	11	9.9		
11	33	71	44	88	37	106	34	74	17	39	11	9.3		
12	30	53	38	67	34	94	49	75	17	27	11	8.8		
13	23	44	34	62	34	99	53	143	16	22	11	8.4		
14	19	38	31	56	35	98	46	98	17	20	10	8.4		
15	18	105	30	63	56	75	49	73	17	19	9.9	9.4		
16	28	191	29	94	215	61	74	58	16	28	9.8	11		
17	24	119	30	95	117	53	121	49	19	44	9.7	14		
18	20	80	36	144	81	47	105	43	23	28	9.5	21		
19	36	61	42	178	61	44	77	38	27	24	9.4	12		
20	41	50	41	127	53	39	64	44	19	22	9.3	15		
21	31	42	40	87	106	42	56	53	18	21	9.1	12		
22	103	37	43	136	375	36	50	75	17	20	9.0	11		
23	138	33	49	232	870	65	44	55	16	19	8.9	35		
24	154	30	51	143	436	115	40	47	16	18	8.8	88		
25	311	28	47	95	274	81	58	41	15	17	8.7	73		
26	142	26	41	70	206	65	77	38	14	17	8.6	98		
27	106	25	37	66	151	55	203	35	14	16	8.5	75		
28	138	23	34	64	114	48	179	32	14	16	8.5	81		
29	81	21	31	65	---	43	129	30	16	15	9.1	102		
30	74	20	30	114	---	48	98	27	14	14	11	80		
31	70	---	29	86	---	41	---	26	---	14	10	---		
TOTAL	1761	3171	1359	3155	4035	2112	1965	1766	552	627	319.8	863.3		
MEAN	56.8	106	43.8	102	144	68.1	65.5	57.0	18.4	20.2	10.3	28.8		
MAX	311	709	136	232	870	115	203	143	27	44	13	102		
MIN	12	20	20	56	34	36	29	26	14	14	8.5	7.9		
CFSM	7.16	13.4	5.52	12.9	18.2	8.59	8.26	7.19	2.32	2.55	1.30	3.63		
IN.	8.26	14.88	6.38	14.80	18.93	9.91	9.22	8.28	2.59	2.94	1.50	4.05		
AC-FT	3490	6290	2700	6260	8000	4190	3900	3500	1090	1240	634	1710		
CAL YR 1985	TOTAL	19777	MEAN	54.2	MAX	709	MIN	11	CFSM	6.83	IN.	92.77	AC-FT	39230
WTR YR 1986	TOTAL	21686.1	MEAN	59.4	MAX	870	MIN	7.9	CFSM	7.49	IN.	101.73	AC-FT	43010

SANDY RIVER BASIN

75

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26'38", long 122°06'20", in NE¼NE¼ sec.31, T.1 S., R.6 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on right bank 6.2 mi northeast of Bull Run, and at mile 0.6.

DRAINAGE AREA.--15.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 990 ft from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23-25, Nov. 28 to Dec. 5. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 109 ft³/s, 96.12 in/yr, 78,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft³/s Dec. 2, 1977, gage height, 8.32 ft, from rating curve extended above 1,200 ft³/s; minimum discharge, 8.0 ft³/s Oct. 12, 13, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1530	1,830	7.15	Feb. 23	2000	*2,050	*7.40

Minimum discharge, 9.5 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	27	108	60	127	145	166	72	142	41	20	22	12		
2	26	101	70	129	126	140	73	128	39	20	21	11		
3	25	117	80	188	124	121	69	118	36	19	20	11		
4	24	160	70	143	169	107	68	102	35	29	18	10		
5	23	183	64	167	202	97	65	120	34	26	17	10		
6	22	505	122	198	156	92	61	105	32	22	17	9.9		
7	27	1370	219	150	129	152	58	95	35	20	17	9.5		
8	24	616	192	155	109	133	55	88	32	20	16	9.7		
9	22	314	139	172	95	186	54	84	30	19	15	18		
10	22	200	111	161	82	157	50	105	28	44	15	13		
11	46	139	93	148	74	168	56	125	27	55	15	12		
12	42	109	80	121	68	154	82	133	26	45	15	11		
13	35	92	71	110	66	155	90	223	25	37	14	10		
14	30	79	65	103	69	162	86	174	25	33	14	10		
15	29	158	59	104	94	137	89	134	26	31	13	11		
16	44	325	55	140	351	118	117	107	24	41	13	15		
17	40	223	54	146	221	101	194	90	27	68	13	16		
18	35	155	61	221	153	91	194	79	30	51	12	31		
19	52	125	69	272	119	83	147	71	44	44	12	17		
20	70	105	70	220	103	75	122	76	29	40	12	23		
21	59	90	71	159	156	75	105	80	26	36	12	19		
22	135	78	74	206	582	68	93	112	25	34	11	15		
23	192	70	81	374	1610	90	82	96	23	30	11	33		
24	224	65	86	251	909	158	74	84	22	30	11	112		
25	456	57	85	172	508	131	89	76	22	28	11	97		
26	239	51	79	131	402	113	113	68	21	26	11	140		
27	176	48	72	118	290	99	302	62	21	26	10	117		
28	223	45	67	112	214	88	318	56	21	25	10	127		
29	145	45	61	111	---	79	219	52	23	24	11	159		
30	128	50	55	172	---	83	170	49	21	23	16	146		
31	119	---	53	147	---	74	---	46	---	22	15	---		
TOTAL	2761	5783	2588	5128	7326	3653	3367	3080	850	988	440	1235.1		
MEAN	89.1	193	83.5	165	262	118	112	99.4	28.3	31.9	14.2	41.2		
MAX	456	1370	219	374	1610	186	318	223	44	68	22	159		
MIN	22	45	53	103	66	68	50	46	21	19	10	9.5		
CFSM	5.79	12.5	5.42	10.7	17.0	7.66	7.27	6.45	1.84	2.07	.92	2.68		
IN.	6.67	13.97	6.25	12.39	17.70	8.82	8.13	7.44	2.05	2.39	1.06	2.98		
AC-FT	5480	11470	5130	10170	14530	7250	6680	6110	1690	1960	873	2450		
CAL YR 1985	TOTAL	33112	MEAN	90.7	MAX	1370	MIN	17	CFSM	5.89	IN.	79.98	AC-FT	65680
WTR YR 1986	TOTAL	37199.1	MEAN	102	MAX	1610	MIN	9.5	CFSM	6.62	IN.	89.86	AC-FT	73780

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1978 to current year.

pH: November 1980 to September 1981.

WATER TEMPERATURES: October 1978 to current year.

SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1986 (discontinued).

INSTRUMENTATION.--Water-quality monitor, prior to October 1980 conductivity/temperature recorder. Automatic pumping sampler since October 1978.

REMARKS.--Sediment concentrations and corresponding sediment discharges reported as 0 mg/L or 0 tons should be interpreted as <1 due to the limitations of sampling equipment, analytical methods, rounding errors, and the likelihood of minor amounts of sediment transport occurring at even the lowest of discharges.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 44 microsiemens Sept. 16-19, 1981; minimum, 9 microsiemens Jan. 4, 1983.

WATER TEMPERATURES: Maximum, 17.0°C July 18-20, 1979, Aug. 9-12, 1981, July 19, 20, 1985; minimum, 0.0°C on many days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 212 mg/L Nov. 7, 1985; minimum, 0 mg/L on many days.

SEDIMENT DISCHARGE: Maximum daily, 794 tons Nov. 7, 1985; minimum, 0 tons on many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 41 microsiemens Aug. 27, Sept. 2-6, but may have been higher during period Sept. 8-15; minimum, 11 microsiemens Feb. 23.

WATER TEMPERATURES: Maximum, 16.5°C Aug. 8, 9; minimum, 0.0°C Nov. 29 to Dec. 2.

SEDIMENT CONCENTRATIONS: Maximum daily, 212 mg/L Nov. 7; minimum, 2 mg/L on several days throughout the year.

SEDIMENT DISCHARGE: Maximum daily, 794 tons Nov. 7; minimum, .19 tons Sept. 13, 14.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	31	30	31	21	20	20	27	26	26	26	20	22
2	32	31	31	22	21	21	27	26	27	21	20	21
3	32	32	32	21	20	21	26	25	25	20	19	19
4	32	32	32	21	18	19	25	25	25	20	20	20
5	33	32	33	19	18	18	25	24	25	20	19	20
6	33	33	33	19	13	16	25	21	22	20	19	19
7	33	32	32	16	12	14	21	19	19	20	20	20
8	33	32	32	18	14	17	20	19	19	21	20	20
9	33	32	32	20	17	18	21	20	20	20	20	20
10	33	32	33	20	18	19	21	21	21	20	20	20
11	33	31	32	22	18	20	22	21	22	20	20	20
12	33	30	31	22	19	21	23	22	23	21	20	21
13	30	30	30	23	20	21	24	23	23	22	21	21
14	31	30	31	23	21	22	25	24	24	22	22	22
15	32	31	31	24	17	21	25	24	25	22	21	22
16	31	29	30	18	16	17	26	25	25	21	20	21
17	29	29	29	20	17	18	26	26	26	21	20	20
18	29	28	29	22	19	20	26	25	26	20	19	19
19	29	27	28	21	20	20	25	24	25	19	18	18
20	27	26	27	23	21	21	25	24	24	19	18	19
21	26	26	26	23	21	23	24	24	24	21	19	20
22	26	21	24	23	22	23	24	24	24	21	18	19
23	21	19	20	26	23	24	24	23	24	18	17	17
24	20	18	19	26	23	25	23	23	23	19	18	18
25	18	16	17	26	24	25	23	23	23	20	19	20
26	19	17	18	25	24	25	23	23	23	22	20	21
27	19	18	19	25	25	25	24	23	23	22	22	22
28	18	17	17	25	25	25	24	24	24	22	21	22
29	19	18	18	26	25	26	25	24	25	22	21	22
30	19	19	19	26	26	26	26	25	25	21	20	20
31	20	19	19	---	---	---	26	26	26	21	20	20
MONTH	33	16	27	26	12	21	27	19	24	26	17	20

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	21	20	20	29	22	27	26	25	25	22	21	22
2	21	21	21	28	24	26	26	25	25	22	22	22
3	21	21	21	27	24	25	25	25	25	23	22	22
4	21	19	20	28	26	27	26	25	25	23	23	23
5	20	19	19	29	27	28	26	25	26	23	22	22
6	21	20	20	30	29	29	27	26	26	23	22	22
7	22	21	21	30	26	28	28	26	27	24	23	23
8	22	22	22	28	27	27	28	27	27	24	23	24
9	23	22	23	27	26	26	28	27	27	24	24	24
10	24	23	23	28	26	27	28	27	28	24	22	23
11	24	24	24	27	26	27	28	26	28	22	22	22
12	25	24	24	27	26	26	26	25	25	22	21	22
13	25	24	25	26	25	26	25	24	24	22	18	20
14	25	24	25	25	25	25	24	24	24	20	19	20
15	25	22	24	26	25	26	25	24	24	22	20	21
16	22	16	18	27	26	26	24	21	23	23	21	22
17	20	19	20	27	26	26	21	20	20	24	23	23
18	22	20	21	28	27	27	21	20	20	25	24	24
19	22	22	22	28	27	28	22	21	21	26	25	25
20	23	22	23	29	27	28	23	22	22	25	24	25
21	23	18	21	29	28	28	24	23	23	25	23	24
22	18	15	16	28	27	28	24	23	23	23	22	23
23	23	11	15	28	26	28	24	24	24	23	23	23
24	27	23	25	26	25	25	25	24	25	24	23	24
25	28	24	27	26	25	25	25	24	24	26	24	25
26	28	26	27	27	26	26	24	22	23	26	25	26
27	29	28	28	28	26	27	22	17	19	27	26	26
28	29	28	29	28	26	27	19	17	18	27	27	27
29	---	---	---	28	27	27	20	19	19	28	27	28
30	---	---	---	28	26	27	21	20	20	29	28	29
31	---	---	---	27	25	26	---	---	---	30	29	30
MONTH	29	11	22	30	22	27	28	17	24	30	18	24
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	30	30	30	37	37	37	35	35	35	40	39	39
2	31	30	30	38	36	37	35	35	35	41	39	40
3	31	30	30	37	36	36	36	35	35	41	40	40
4	31	30	31	36	34	35	37	35	36	41	40	40
5	31	31	31	35	34	34	36	36	36	41	40	40
6	32	31	31	36	35	36	37	36	37	41	40	40
7	32	31	31	37	36	36	37	37	37	40	39	40
8	32	31	31	38	36	37	38	37	38	40	---	---
9	33	32	32	38	37	37	38	38	38	---	---	---
10	34	33	33	37	31	34	38	37	37	---	---	---
11	34	34	34	31	29	30	38	37	37	---	---	---
12	34	34	34	30	29	29	38	37	38	---	---	---
13	35	34	34	31	30	30	39	38	38	---	---	---
14	35	34	34	32	31	31	39	38	39	---	---	---
15	34	33	34	32	31	32	39	38	39	---	---	---
16	34	34	34	32	29	31	39	38	38	39	38	38
17	35	34	34	29	26	27	39	38	38	39	37	38
18	34	32	33	28	27	28	39	38	38	37	34	35
19	32	30	31	29	28	28	39	38	38	37	36	36
20	33	32	33	30	29	29	39	39	39	37	35	36
21	34	33	34	31	30	30	39	39	39	36	35	36
22	35	34	35	31	30	30	39	38	39	37	36	37
23	36	35	35	31	30	31	39	39	39	37	29	36
24	36	35	36	32	31	31	40	39	39	32	25	26
25	36	35	36	32	32	32	40	39	39	26	23	25
26	36	36	36	32	32	32	40	39	40	23	22	22
27	37	36	36	33	32	32	41	39	40	23	22	22
28	37	36	36	33	32	33	40	39	39	23	22	22
29	36	35	36	34	33	33	40	39	39	23	21	22
30	37	36	36	34	33	34	40	38	39	22	21	21
31	---	---	---	35	34	34	40	38	39	---	---	---
MONTH	37	30	33	38	26	32	41	35	38	---	---	---

SANDY RIVER BASIN

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	8.5	7.5	8.0	7.5	7.0	7.0	.5	.0	.0	3.5	3.0	3.5
2	9.5	8.5	9.0	8.0	7.5	8.0	.5	.0	.5	3.5	3.0	3.5
3	9.0	9.0	9.0	8.5	8.0	8.0	1.0	.5	1.0	4.0	3.5	3.5
4	9.0	8.5	9.0	8.5	6.5	7.5	2.0	1.0	1.5	3.5	3.0	3.5
5	9.0	8.5	9.0	7.0	6.5	6.5	3.0	2.0	2.5	4.5	3.5	4.0
6	9.0	8.5	9.0	7.5	7.0	7.5	3.5	2.5	3.0	4.0	4.0	4.0
7	9.0	8.0	8.5	8.0	7.0	7.5	3.5	3.5	3.5	4.5	4.0	4.0
8	8.0	6.0	7.0	7.0	6.0	6.5	4.0	3.5	4.0	4.5	4.0	4.5
9	6.0	5.0	5.5	6.0	5.5	6.0	4.0	3.5	3.5	4.5	4.5	4.5
10	6.5	5.5	6.0	5.5	4.0	5.0	3.5	2.5	3.0	5.0	4.0	4.5
11	7.5	6.5	7.0	4.0	3.5	3.5	2.5	2.0	2.5	4.5	4.0	4.0
12	7.5	7.0	7.5	3.5	3.0	3.0	2.5	2.0	2.0	4.5	4.0	4.5
13	7.5	6.5	7.0	3.5	3.0	3.0	2.5	2.0	2.0	5.0	4.5	4.5
14	7.5	6.5	7.0	3.5	3.0	3.0	2.5	2.5	2.5	5.0	4.5	4.5
15	8.0	7.5	7.5	4.5	3.5	4.0	3.0	2.5	2.5	4.5	4.5	4.5
16	8.5	8.0	8.0	5.5	4.5	5.0	3.0	2.5	3.0	5.0	4.5	4.5
17	8.0	7.0	7.5	5.0	3.5	4.0	3.0	2.5	2.5	5.0	4.5	4.5
18	7.0	6.5	7.0	4.5	4.0	4.0	3.0	2.5	2.5	5.5	4.5	5.0
19	7.5	7.0	7.0	4.0	3.0	3.5	3.0	2.5	2.5	5.5	4.5	5.0
20	8.0	7.5	8.0	3.5	2.5	3.0	2.5	2.5	2.5	4.5	4.0	4.5
21	8.0	7.5	7.5	3.0	2.0	3.0	2.5	2.5	2.5	4.5	4.0	4.5
22	7.5	7.0	7.5	2.0	1.5	1.5	3.0	2.5	3.0	4.5	4.5	4.5
23	8.0	7.5	8.0	1.0	.5	.5	3.0	3.0	3.0	4.5	4.5	4.5
24	8.5	8.0	8.5	1.0	.5	.5	3.0	3.0	3.0	4.5	4.0	4.5
25	8.5	7.5	8.0	2.0	1.0	1.5	3.0	2.5	3.0	4.5	4.0	4.5
26	8.0	7.5	8.0	2.5	2.0	2.5	2.5	2.5	2.5	4.5	4.0	4.5
27	8.5	7.5	8.0	2.5	2.5	2.5	2.5	2.0	2.5	5.5	4.5	5.0
28	7.5	6.5	7.0	2.5	.5	1.5	2.5	2.0	2.5	5.0	4.5	5.0
29	7.0	6.0	6.5	.5	.0	.5	2.5	2.5	2.5	5.5	5.0	5.0
30	7.0	6.5	6.5	.5	.0	.0	2.5	2.0	2.0	5.5	5.0	5.5
31	6.5	6.5	6.5	---	---	---	3.0	2.5	3.0	6.0	5.0	5.5
MONTH	9.5	5.0	7.5	8.5	.0	4.0	4.0	.0	2.5	6.0	3.0	4.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.5	5.0	5.5	6.0	5.0	5.5	6.5	5.5	5.5	6.5	5.5	6.0
2	5.5	5.0	5.5	5.5	4.5	5.0	6.0	5.0	5.5	6.5	6.0	6.5
3	5.5	5.5	5.5	6.0	5.0	5.5	6.0	4.5	5.5	7.0	5.5	6.0
4	5.5	5.0	5.0	6.0	5.0	5.5	6.0	5.5	6.0	6.5	6.0	6.5
5	5.0	4.0	4.0	6.5	5.5	6.0	6.5	5.0	5.5	6.5	5.5	6.0
6	4.5	4.0	4.0	6.5	6.0	6.5	7.0	5.5	6.0	6.0	5.0	5.5
7	4.0	3.5	3.5	6.5	6.0	6.5	7.5	6.0	7.0	6.5	5.5	6.0
8	3.5	3.0	3.0	6.0	5.5	6.0	7.5	7.5	7.5	6.5	6.0	6.0
9	3.0	3.0	3.0	6.0	5.5	5.5	7.5	6.5	7.0	6.5	6.0	6.0
10	3.0	2.5	3.0	6.0	5.5	6.0	6.5	5.5	6.0	6.0	5.0	5.5
11	3.5	2.0	3.0	6.0	5.5	6.0	6.0	5.5	5.5	5.5	5.0	5.0
12	2.5	1.5	2.5	6.0	5.5	5.5	5.5	4.5	5.0	7.0	5.5	6.0
13	2.5	2.0	2.5	5.5	5.0	5.5	5.5	5.0	5.0	6.5	6.0	6.5
14	3.0	2.5	3.0	5.5	4.5	5.0	6.0	4.5	5.5	7.5	5.0	6.0
15	3.5	3.0	3.0	5.5	4.5	5.0	6.5	5.5	6.0	8.0	5.5	6.5
16	4.0	2.0	2.5	5.5	4.0	4.5	6.0	5.5	5.5	8.0	5.5	7.0
17	3.0	2.0	2.5	5.5	5.0	5.5	5.5	5.0	5.0	9.5	7.0	8.0
18	3.5	3.0	3.5	6.0	5.0	5.5	6.5	5.0	5.5	9.0	8.0	9.0
19	3.5	3.0	3.0	6.5	5.5	6.0	7.5	5.0	6.0	10.0	8.0	9.0
20	3.5	3.0	3.5	7.0	6.0	6.5	8.5	6.0	7.0	9.5	8.0	9.0
21	3.5	3.5	3.5	7.0	6.5	7.0	9.0	6.5	8.0	8.0	6.0	7.5
22	4.0	2.5	3.5	6.5	5.5	6.0	8.5	6.0	7.0	8.0	5.5	6.5
23	4.0	2.5	3.0	6.5	6.0	6.0	6.0	5.5	5.5	9.0	6.5	7.5
24	5.0	4.0	4.5	6.0	5.5	5.5	5.5	4.5	5.0	10.5	8.0	9.0
25	5.0	4.5	5.0	6.5	5.0	5.5	5.5	4.5	5.0	12.0	9.0	10.5
26	5.5	4.5	5.0	7.5	6.0	6.5	5.5	4.5	5.0	11.5	10.5	11.0
27	6.0	5.0	5.5	7.5	6.5	7.0	6.0	5.0	5.5	12.5	10.0	11.0
28	6.0	5.0	5.5	7.5	7.0	7.0	5.5	4.0	5.0	13.0	11.0	12.0
29	---	---	---	8.0	6.5	7.0	5.5	4.0	4.5	13.5	11.0	12.0
30	---	---	---	7.5	6.0	7.0	6.5	4.0	5.5	14.5	12.0	13.0
31	---	---	---	6.5	5.0	6.0	---	---	---	15.5	13.0	14.5
MONTH	6.0	1.5	4.0	8.0	4.0	6.0	9.0	4.0	6.0	15.5	5.0	8.0

SANDY RIVER BASIN

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14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	14.0	14.5	14.5	12.5	13.5	15.0	12.5	14.0	14.0	13.0	13.5
2	15.0	13.5	14.5	14.0	13.0	13.5	15.5	13.5	14.5	14.5	13.5	14.0
3	14.0	13.0	13.5	13.5	12.0	13.0	16.0	14.0	15.0	14.5	13.5	14.0
4	13.0	12.5	12.5	12.0	10.5	11.5	15.5	14.0	14.5	14.5	13.5	14.0
5	12.5	11.5	12.0	12.0	10.5	11.0	15.0	13.5	14.5	14.5	13.5	14.0
6	11.5	10.5	11.0	13.5	10.5	12.0	16.0	13.5	14.5	14.5	13.5	14.0
7	11.0	10.5	10.5	13.5	12.0	12.5	16.0	14.0	15.0	14.0	13.0	13.5
8	10.5	9.5	10.0	14.0	12.5	13.0	16.5	14.5	15.5	---	13.0	---
9	12.0	9.0	10.5	13.0	12.5	13.0	16.5	15.0	16.0	---	---	---
10	14.0	11.0	12.5	12.5	12.0	12.0	16.0	15.0	15.5	---	---	---
11	14.5	12.0	13.5	13.0	11.5	12.0	15.5	14.5	15.0	---	---	---
12	15.0	12.5	13.5	12.5	11.5	12.0	15.5	14.5	15.0	---	---	---
13	15.0	12.5	14.0	13.0	11.0	12.0	16.0	14.0	15.0	---	---	---
14	14.0	12.0	13.0	12.0	11.5	12.0	16.0	14.5	15.0	---	---	---
15	13.5	11.5	12.5	11.5	10.5	11.0	16.0	14.5	15.0	10.5	---	---
16	12.5	11.5	12.0	10.5	10.0	10.5	15.0	13.5	14.5	10.5	9.5	10.0
17	11.5	11.0	11.0	12.0	10.0	10.5	15.0	13.5	14.0	10.5	10.0	10.0
18	11.0	10.0	10.5	11.5	10.0	11.0	14.5	13.0	14.0	10.5	9.5	10.0
19	11.5	9.5	10.5	13.0	11.0	12.0	14.5	13.0	14.0	10.0	9.5	10.0
20	12.0	10.5	11.0	14.0	12.0	13.0	15.0	13.0	14.0	10.0	9.5	10.0
21	13.5	11.0	12.0	14.5	12.5	13.5	15.0	13.5	14.5	10.5	10.0	10.0
22	14.5	12.0	13.0	13.5	13.0	13.0	15.0	13.5	14.0	10.0	9.5	10.0
23	15.5	13.0	14.0	13.0	12.0	12.5	14.5	13.5	14.0	9.5	9.5	9.5
24	15.5	13.5	14.5	12.5	12.0	12.0	14.5	13.5	14.0	9.5	9.0	9.5
25	15.5	13.0	14.5	13.5	12.0	12.5	15.0	13.5	14.0	9.0	9.0	9.0
26	15.0	13.5	14.0	13.0	12.0	12.5	15.5	13.5	14.5	9.0	8.5	9.0
27	15.0	13.0	14.0	12.5	11.5	12.0	15.5	14.5	15.0	9.0	8.5	9.0
28	14.0	12.5	13.5	13.0	11.0	12.0	15.5	14.5	15.0	9.5	9.0	9.0
29	13.0	12.0	12.5	13.5	12.0	12.5	15.0	14.0	14.5	9.5	9.0	9.0
30	14.0	11.0	12.5	13.0	11.5	12.5	14.0	13.5	13.5	9.0	9.0	9.0
31	---	---	---	14.0	12.0	13.0	14.0	13.0	13.5	---	---	---
MONTH	15.5	9.0	12.5	14.5	10.0	12.0	16.5	12.5	14.5	---	---	---

SANDY RIVER BASIN

14139800 SOUTH FORK BULL RUN RIVER NEAR BULL RUN, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	.66	6	1.7		.65	---	1.7	9	3.5	5	2.2
2	---	.63	7	1.9		.95	---	2.1	10	3.4	5	1.9
3	---	.61	8	2.5		1.3	---	5.6	---	3.4	6	2.0
4	---	.58	10	4.3		.95	---	2.3	5	2.3	6	1.7
5	---	.56	10	4.9		.69	---	4.1	7	3.8	6	1.6
6	12	.73	73	127		3.0	---	6.4	3	1.3	6	1.5
7	---	1.3	212	794		10	---	2.8	3	1.0	7	2.9
8	---	1.0	57	95		6.2	---	3.4	4	1.2	4	1.4
9	---	.83	26	22		2.3	2	.93	3	.77	4	2.0
10	---	.71	25	14		1.2	5	2.2	2	.44	4	1.7
11	---	1.2	---	3.8		1.0	6	2.4	5	1.0	4	1.8
12	15	1.7	---	2.4		.65	7	2.3	7	1.3	4	1.7
13	---	1.1	---	1.5		.58	6	1.8	5	.88	5	2.1
14	---	.82	---	1.3		.52	5	1.4	5	.93	5	2.2
15	---	.62	---	5.1		.32	5	1.4	6	1.5	5	1.8
16	---	.72	---	26		.30	6	2.3	---	57	5	1.6
17	5	.55	---	11		.29	6	2.4	---	15	5	1.4
18	---	.48	---	4.6		.49	6	3.6	4	1.6	5	1.2
19	7	.98	---	3.0		.56	38	28	3	.97	5	1.1
20	6	1.1	---	2.0		.57	14	8.3	3	.83	5	1.0
21	4	.63	---	1.5		.58	5	2.1	2	.84	5	1.0
22	---	2.2	---	1.0		.60	6	3.3	4	6.3	5	.91
23	9	4.7	---	.95		.66	7	7.1	74	353	6	1.5
24	10	6.1	---	.88		.70	12	8.1	44	102	6	2.6
25	14	17	---	.62		.69	6	2.8	8	11	5	1.8
26	13	8.4	---	.55		.64	7	2.5	4	4.3	4	1.2
27	10	4.8	---	.39		.59	5	1.6	3	2.4	4	1.1
28	11	6.6	---	.36		.54	5	1.5	3	1.7	4	.95
29	10	3.9	---	.36		.49	5	1.5	---	---	4	.86
30	9	3.1	---	.54		.30	6	2.8	---	---	5	1.1
31	7	2.3	---	---		.29	5	2.0	---	---	7	1.4
TOTAL	---	76.61	---	1135.15		38.60	---	120.73	---	583.66	---	49.22
DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6	1.2	---	1.9	---	.67	---	.49	---	.42	---	.32
2	6	1.2	4	1.4	---	.63	---	.48	---	.45	---	.33
3	5	.93	---	1.6	---	.59	---	.47	---	.49	---	.33
4	5	.91	---	1.4	---	.66	15	1.2	---	.49	11	.30
5	5	.88	---	1.6	7	.64	---	.97	---	.51	---	.30
6	---	.82	---	1.4	---	.61	---	.70	---	.55	---	.32
7	---	.78	---	1.3	---	.75	---	.59	13	.58	13	.33
8	---	.75	---	.95	---	.70	---	.54	---	.52	---	.34
9	---	.73	4	.91	---	.73	---	.51	---	.50	---	.59
10	6	.81	---	1.1	---	.69	---	1.3	---	.45	---	.40
11	---	.91	5	1.7	---	.73	10	1.5	---	.41	---	.32
12	---	1.3	---	1.8	10	.70	---	1.1	---	.36	---	.24
13	6	1.5	5	3.0	---	.68	---	.80	---	.30	---	.19
14	---	1.4	---	2.3	---	.67	---	.62	7	.26	---	.19
15	---	1.4	4	1.5	---	.69	---	.51	---	.25	7	.21
16	5	1.6	---	1.2	---	.66	---	.66	---	.25	---	.27
17	7	3.7	---	.97	---	.73	7	1.3	---	.25	---	.30
18	6	3.1	---	.85	---	.81	---	.83	---	.23	8	.67
19	---	2.0	---	.57	9	1.1	---	.83	---	.26	7	.31
20	---	1.6	---	.61	---	.70	---	.76	---	.26	---	.37
21	---	1.4	3	.64	---	.64	---	.68	8	.25	5	.25
22	---	1.3	---	.91	---	.54	---	.73	---	.24	---	.20
23	5	1.1	---	.77	---	.50	---	.81	---	.24	---	.53
24	---	.99	---	.68	---	.48	11	.89	---	.24	10	3.0
25	---	1.2	---	.62	---	.48	---	.76	---	.24	6	1.6
26	6	1.8	---	.73	8	.46	---	.70	---	.27	5	1.9
27	13	11	---	.67	---	.45	---	.70	---	.25	---	1.6
28	10	8.6	---	.76	---	.45	---	.61	10	.27	4	1.4
29	6	3.5	---	.70	---	.55	---	.52	---	.29	7	3.0
30	---	2.8	6	.79	9	.52	---	.50	---	.43	---	3.5
31	---	---	---	.74	---	---	7	.42	---	.39	---	---
TOTAL	---	61.21	---	36.07	---	19.21	---	23.48	---	10.90	---	23.61

SANDY RIVER BASIN

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14139900 BULL RUN RESERVOIR NUMBER TWO NEAR BULL RUN, OR

LOCATION.--Lat 45°26'55", long 122°08'45", on line between secs.25 and 26, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on headworks dam on Bull Run River, 4.4 mi northeast of Bull Run, and at mile 6.5.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--December 1961 to current year. Prior to October 1975, monthend contents only.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to Dec. 31, 1975, nonrecording gage at same site and datum.

REMARKS.--Elevations for July 17 to Aug. 5 furnished by Portland General Electric Co. Reservoir is formed by earth and rockfill dam with concrete spillway built by Portland Water Bureau. Storage began about Dec. 20, 1961; first filling occurred Dec. 24, 1961. Capacity, 20,990 acre-ft at crest of spillway, elevation, 860.0 ft. Dead storage negligible. Water is used for power generation by Portland General Electric Co. and municipal supply for city of Portland.

COOPERATION.--Capacity table furnished by Portland Water Bureau.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 23,660 acre-ft Dec. 22, 1964, elevation, 866.00 ft; no contents at times during low-flow periods.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,910 acre-ft Feb. 23, elevation, 864.33 ft; minimum contents, 16,230 acre-ft Mar. 5, elevation, 848.41 ft.

Capacity table (elevation, in feet, and capacity in acre-feet)

752	0	830	10,000
770	234	850	16,800
790	1,860	870	25,500
810	5,070		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	858.85	859.79	857.91	859.24	859.06	858.22	859.74	859.62	859.58	855.66	859.80	855.72
2	858.77	859.58	858.18	859.48	859.11	854.18	859.65	859.42	859.56	855.98	859.30	856.13
3	858.73	859.37	859.09	859.30	859.08	849.76	859.38	859.56	859.39	856.03	859.90	855.85
4	858.91	859.37	859.84	859.30	859.06	849.54	859.51	859.65	859.68	855.43	859.30	855.89
5	858.79	859.37	859.89	859.47	859.24	848.47	859.38	859.10	859.72	855.96	859.70	855.44
6	858.93	861.72	859.51	859.26	859.45	848.92	859.47	859.45	859.73	855.92	859.55	854.33
7	859.01	862.36	859.55	858.99	859.72	849.47	859.28	859.56	859.76	855.90	859.40	853.19
8	858.36	861.14	859.64	859.12	859.96	849.30	859.17	859.57	859.82	855.83	859.37	852.25
9	858.92	860.48	859.80	859.28	859.67	851.53	859.11	859.61	859.68	855.87	859.49	851.43
10	858.83	859.76	859.69	859.26	859.54	856.67	858.58	859.74	859.45	855.41	859.62	850.68
11	858.51	859.76	859.60	859.09	859.67	859.35	858.34	859.48	859.71	856.04	859.26	850.61
12	858.91	860.00	859.96	859.52	860.01	858.13	858.78	859.73	859.63	855.46	859.45	850.65
13	858.49	860.04	859.87	859.45	859.64	858.04	859.23	860.09	859.72	855.88	859.07	850.72
14	858.93	859.57	859.41	859.68	859.64	860.10	858.67	859.25	859.86	855.14	859.49	850.74
15	858.38	859.53	859.25	859.66	859.53	860.72	858.47	859.55	859.75	856.03	859.63	850.94
16	858.76	860.44	859.65	859.97	860.57	860.74	858.47	859.35	859.78	856.03	859.61	850.45
17	858.78	859.85	859.07	859.54	859.81	859.83	859.24	859.57	859.89	855.90	859.26	851.09
18	858.38	859.68	859.58	860.47	859.48	858.63	859.55	859.46	859.43	856.40	859.72	851.39
19	858.98	859.55	859.81	860.63	859.77	859.25	859.26	859.44	859.66	854.70	858.58	851.37
20	858.72	859.62	859.69	859.77	859.76	859.64	859.55	859.48	859.86	857.50	857.52	851.49
21	858.35	859.84	859.76	859.25	859.64	859.66	859.31	859.60	859.10	859.80	856.10	851.46
22	859.10	859.65	859.73	859.37	861.52	859.74	859.33	859.60	859.46	858.20	855.68	851.47
23	860.12	859.79	859.89	860.66	863.86	859.71	859.48	859.62	859.48	858.20	855.62	851.68
24	860.18	859.47	859.85	859.70	861.70	859.21	859.59	859.46	859.76	857.10	855.69	853.05
25	860.99	859.12	859.76	859.28	861.13	859.23	859.60	859.42	859.69	857.20	855.59	856.12
26	859.63	858.78	859.63	859.65	860.73	859.69	859.47	859.42	859.71	858.50	855.63	856.18
27	859.81	859.39	859.42	859.23	860.64	859.60	860.57	859.60	859.44	859.40	855.61	856.22
28	859.81	858.78	859.22	859.48	860.56	859.72	860.23	859.35	858.58	859.50	855.69	856.22
29	859.66	858.55	858.82	859.11	---	859.60	859.52	858.71	857.86	859.80	855.79	856.51
30	859.66	858.31	858.98	859.15	---	859.54	859.25	859.45	856.84	859.40	855.71	856.64
31	859.37	---	859.74	859.02	---	859.72	---	859.86	---	859.80	855.60	---
MAX	860.99	862.36	859.96	860.66	863.86	860.74	860.57	860.09	859.89	859.80	859.90	856.64
MIN	858.35	858.31	857.91	858.99	859.06	848.47	858.34	858.71	856.84	854.70	855.59	850.45
(+)	20720	20260	20890	20570	21250	20880	20670	20940	19610	20910	19060	19520
(#)	+320	-460	+630	-320	+680	-370	-210	+270	-1330	+1300	-1850	+460

CAL YR 1985 MAX 862.36 MIN 856.45 AC-FT† +100
WTR YR 1986 MAX 863.86 MIN 848.47 AC-FT† -880

† Contents in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

14140001 BULL RUN RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°26'15", long 122°10'40", in NE¼SW¼ sec.34, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 1.8 mi downstream from Bull Run Reservoir Number Two, 2.7 mi northeast of Bull Run, and at mile 4.7.

DRAINAGE AREA.--107 mi².

PERIOD OF RECORD.--September 1907 to current year. Records for January 1895 to August 1907, published in WSP 370, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1288: 1910-11, 1913, 1920-23, 1926, 1929. WSP 1318: 1919(M). WSP 1568: 1952. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 567.90 ft above National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to July 27, 1909, nonrecording gage at site 1.5 mi upstream at different datum. July 27, 1909, to Sept. 30, 1959, water-stage recorder at site 2.5 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records good except those below 10 ft³/s, which are fair. Flow regulated since 1915 by Bull Run Lake, capacity, 12,270 acre-ft, since 1929 by Bull Run Reservoir Number One (station 14139000), since 1958 by North Fork Reservoir, capacity, 1,030 acre-ft, and since 1961 by Bull Run Reservoir Number Two (station 14139900). All records given herein include flow diverted from Bull Run Reservoir Number Two for city of Portland, and that used by Portland General Electric Co. for power generation, which returns to Bull Run River downstream from station. Total diversion, 140,200 acre-ft of which 5,990 acre-ft was used for power generation and returned to Bull Run River.

COOPERATION.--Records of daily diversion furnished by Portland Water Bureau.

AVERAGE DISCHARGE.--79 years, 779 ft³/s, 98.87 in/yr, 564,400 acre-ft/yr, adjusted for storage in Bull Run Reservoir Number One since 1929 and Bull Run Reservoir Number Two since 1961.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 24,800 ft³/s Dec. 22, 1964, gage height, 17.21 ft, from rating curve extended above 8,800 ft³/s on basis of computation of peak flow over dam; minimum discharge, 1.1 ft³/s Oct. 4, 1974.

Combined flow, maximum discharge, 25,100 ft³/s Dec. 22, 1964; minimum daily, 63 ft³/s Aug. 13-16, 1926.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 15,600 ft³/s Feb. 23, gage height, 14.54 ft; minimum discharge, 2.0 ft³/s Sept. 5-8.

Combined flow, maximum discharge, 15,800 ft³/s Feb. 23; minimum daily, 85 ft³/s Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	336	628	341	825	1180	2120	545	952	348	304	304	235
2	334	873	373	940	1020	2020	516	876	273	252	314	257
3	329	1210	223	1160	1010	1870	533	806	356	262	295	234
4	322	1400	290	985	1400	732	439	715	221	215	289	276
5	340	1420	472	1020	1450	404	443	911	238	189	303	278
6	333	2860	785	1300	1100	85	432	662	236	231	291	255
7	317	7670	1340	1100	968	628	430	620	291	289	323	258
8	172	4800	1400	988	736	1380	424	640	205	249	325	227
9	170	2560	1030	1160	675	1080	453	623	259	259	325	202
10	158	1650	752	1190	623	94	442	706	289	216	318	183
11	153	1180	534	1250	505	623	435	851	288	189	285	200
12	153	984	537	873	451	1590	435	825	259	217	264	206
13	167	502	568	817	538	1590	434	1380	314	210	291	204
14	158	857	452	667	485	872	280	1530	235	239	318	188
15	159	931	462	747	634	809	181	925	197	227	312	201
16	184	2020	418	656	2070	955	194	579	222	189	246	196
17	188	1720	443	1630	1840	752	403	590	212	191	280	175
18	193	1190	429	1890	1260	452	1200	581	171	213	287	181
19	178	1120	438	2450	775	315	782	583	207	254	292	168
20	164	717	532	1910	753	426	739	526	237	258	280	177
21	161	691	445	1460	1090	742	840	640	250	290	322	178
22	165	680	454	1310	3080	744	619	741	292	256	307	178
23	539	526	518	2090	11700	758	594	706	314	235	254	180
24	1740	458	527	1950	7790	1450	434	657	338	253	271	180
25	3300	443	542	1410	3980	1180	665	555	294	237	291	176
26	2270	443	483	953	3160	1010	760	523	308	237	323	172
27	1160	458	447	870	2740	785	1530	542	300	212	323	173
28	1580	428	441	934	2520	573	2190	455	249	231	281	170
29	1060	401	439	910	---	702	1620	246	224	240	236	174
30	672	342	331	1290	---	654	1230	257	281	281	215	180
31	1050	---	161	1140	---	440	---	271	---	285	190	---
TOTAL	18205	41162	16607	37875	55533	27835	20222	21474	7908	7410	8955	6062
MEAN	587	1372	536	1222	1983	898	674	693	264	239	289	202
MAX	3300	7670	1400	2450	11700	2120	2190	1530	356	304	325	278
MIN	153	342	161	656	451	85	181	246	171	189	190	168
AC-FT	36110	81640	32940	75130	110100	55210	40110	42590	15690	14700	17760	12020
MEAN†	679	1362	545	1221	1940	938	730	703	211	185	100	318
CFSM†	6.35	12.7	5.09	11.4	18.1	8.77	6.82	6.57	1.97	1.73	0.93	2.97
IN.†	7.32	14.21	5.88	13.16	18.88	10.11	7.61	7.58	2.20	1.99	1.08	3.31
AC-FT†	41750	81070	33520	75100	107700	57690	43430	43230	12530	11350	6160	18900

CAL YR 1985 TOTAL 237483 MEAN 651 MAX 7670 MIN 146 AC-FT 471000 MEAN† 651 CFSM† 6.08 IN.† 82.57 AC-FT† 471100
WTR YR 1986 TOTAL 269248 MEAN 738 MAX 11700 MIN 85 AC-FT 534100 MEAN† 736 CFSM† 6.88 IN.† 93.35 AC-FT† 532600

† Adjusted for change in Bull Run Reservoir Number One and Bull Run Reservoir Number Two.

14141500 LITTLE SANDY RIVER NEAR BULL RUN, OR

LOCATION.--Lat 45°24'55", long 122°10'20", in NE¼NE¼ sec.10, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 0.25 mi upstream from Portland General Electric Co. dam and tunnel from Sandy River, 3.0 mi east of Bull Run, and at mile 1.95.

DRAINAGE AREA.--22.3 mi².

PERIOD OF RECORD.--May to July 1911, October 1911 to March 1912, June 1912 to April 1913, July 1919 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1154: 1949. WSP 1248: Drainage area. WSP 1288: 1912, 1920-21(M), 1922-23, 1931, 1945. WSP 1318: 1920. WDR OR-82-2: 1972(P), 1974-76(P), 1978-81(P).

GAGE.--Water-stage recorder. Elevation of gage is 720 ft, from topographic map. May 23, 1911, to Apr. 29, 1913, nonrecording gage at site 0.85 mi downstream at different datum, 0.5 mi downstream from Sandy River diversion tunnel. July 1, 1919, to Sept. 30, 1931, water-stage recorder at site 0.1 mi downstream at different datum. Oct 1, 1931, to Nov. 3, 1967, at site 0.1 mi downstream at datum 712 ft above National Geodetic Vertical Datum of 1929. Nov. 4, 1967, to Aug. 8, 1971, water-stage recorder at site 0.1 mi downstream at datum 697.44 ft above National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--67 years (water years 1920-86), 146 ft³/s, 88.91 in/yr, 105,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,320 ft³/s Nov. 20, 1921, gage height, 9.18 ft, site and datum then in use, from rating curve extended above 2,200 ft³/s; minimum discharge, 8 ft³/s Aug. 20, Sept. 16, 17, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	1600	2,030	5.47	Feb. 23	0900	*3,920	*6.89

Minimum daily discharge, 13 ft³/s Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	25	117	69	139	179	256	94	164	52	25	23	17		
2	25	114	84	130	152	212	100	157	47	25	22	16		
3	25	136	80	148	148	185	98	150	44	27	21	16		
4	23	186	86	125	194	166	97	131	42	42	20	15		
5	22	200	88	152	213	153	90	157	42	36	22	14		
6	22	683	173	185	168	145	81	134	41	28	20	14		
7	31	1570	269	145	146	238	75	120	52	28	19	13		
8	25	686	233	159	124	196	72	115	45	25	19	13		
9	22	377	176	191	110	274	71	114	40	24	18	24		
10	22	250	141	177	98	214	66	152	37	62	17	19		
11	57	182	119	165	91	225	70	168	35	76	17	18		
12	69	144	105	132	87	204	97	191	33	55	17	16		
13	51	119	95	121	86	191	103	303	32	43	17	15		
14	38	103	87	113	96	187	99	208	32	39	17	15		
15	35	226	80	117	128	159	108	155	33	36	16	16		
16	66	401	76	169	464	138	134	127	32	59	19	19		
17	59	272	74	169	322	122	240	110	37	108	16	22		
18	46	197	80	261	224	117	233	100	44	66	16	40		
19	64	165	89	312	173	111	181	91	69	52	16	24		
20	91	145	91	240	146	103	156	109	42	44	16	53		
21	68	125	89	180	195	106	143	118	36	40	15	33		
22	151	111	91	222	761	96	127	133	33	39	15	25		
23	243	94	99	342	2330	118	105	110	31	35	15	40		
24	234	88	107	250	1110	178	92	95	29	35	14	165		
25	422	84	108	188	743	140	102	86	28	33	15	109		
26	225	76	98	151	575	124	125	80	27	31	15	170		
27	158	72	89	144	412	113	348	74	26	30	14	154		
28	242	67	82	147	321	104	321	68	26	29	14	208		
29	147	63	75	157	---	96	227	62	31	27	15	247		
30	131	59	68	250	---	112	189	57	30	26	27	188		
31	131	---	68	192	---	98	---	54	---	25	23	---		
TOTAL	2970	7112	3269	5573	9796	4881	4044	3893	1128	1250	550	1738		
MEAN	95.8	237	105	180	350	157	135	126	37.6	40.3	17.7	57.9		
MAX	422	1570	269	342	2330	274	348	303	69	108	27	247		
MIN	22	59	68	113	86	96	66	54	26	24	14	13		
CFSM	4.30	10.6	4.71	8.07	15.7	7.04	6.05	5.65	1.69	1.81	.79	2.60		
IN.	4.95	11.86	5.45	9.30	16.34	8.14	6.75	6.49	1.88	2.09	.92	2.90		
AC-FT	5890	14110	6480	11050	19430	9680	8020	7720	2240	2480	1090	3450		
CAL YR 1985	TOTAL	40869	MEAN	112	MAX	1570	MIN	13	CFSM	5.02	IN.	68.18	AC-FT	81060
WTR YR 1986	TOTAL	46204	MEAN	127	MAX	2330	MIN	13	CFSM	5.70	IN.	77.08	AC-FT	91650

SANDY RIVER BASIN

14142500 SANDY RIVER BELOW BULL RUN RIVER, NEAR BULL RUN, OR

LOCATION.--Lat 45°26'57", long 122°14'38", in SW¼ sec.30, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, on left bank 0.1 mi downstream from Bull Run River, 0.2 mi downstream from Dodge Park, 400 ft below city of Portland water conduit crossing Sandy River, and at mile 18.4.

DRAINAGE AREA.--436 mi².

PERIOD OF RECORD.--April 1910 to September 1914, October 1929 to September 1966, May 1984 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Elevation of gage is 240 ft, from topographic map. April 1910 to September 1914, staff gage at present site at different datum. October 1929 to September 1966, water-stage recorder at site 0.8 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-7, 14-21, July 7 to Aug. 12. Records good except for estimated daily discharges, which are fair. Flow regulated since 1915 by Bull Run Lake, since 1929 by Bull Run Reservoir Number One (station 14139000), and since 1961 by Bull Run Reservoir Number Two (station 14139900). Some fluctuation caused by Bull Run powerplant of Portland General Electric Company. Portland Water Bureau diverted 140,200 acre-ft from Bull Run River during the 1986 water year, of which 5,990 acre-ft were used for power generation by Portland General Electric Company and returned to Bull Run River.

AVERAGE DISCHARGE.--43 years (water years 1911-14, 1930-66, 1985-86) 2,343 ft³/s, 1,698,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 84400 ft³/s Dec. 22, 1964, gage height, 22.3 ft, site and datum then in use; minimum discharge, 45 ft³/s Sept. 26, 1962, minimum daily, 63 ft³/s Oct. 12, Nov. 9, 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 61,600 ft³/s Feb. 23, gage height, 20.98 ft; minimum discharge, 268 ft³/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	1750	951	1860	3070	6000	1890	2880	1320	611	490	403
2	390	2100	881	2120	2810	5520	1840	2670	1230	655	480	371
3	410	2520	1040	2550	2700	5020	1790	2610	1260	658	475	385
4	400	2850	1110	2230	3180	3530	1650	2370	1070	769	460	367
5	390	3060	1420	2260	3570	3070	1590	2670	1010	692	450	349
6	400	6110	2270	3010	2930	2630	1530	2280	924	644	455	358
7	480	20400	3840	2540	2590	3700	1490	2100	1050	595	450	333
8	404	14100	3810	2360	2150	4520	1520	2110	894	590	460	333
9	383	7320	2750	2730	1950	4350	1570	2050	847	600	470	432
10	377	4910	2220	2880	1780	2940	1490	2540	848	740	450	399
11	560	3500	1770	2850	1580	3190	1470	2840	835	810	430	345
12	678	2800	1590	2310	1520	3970	1600	2840	803	720	420	333
13	597	2060	1520	2140	1590	3830	1600	4010	780	660	428	325
14	530	2100	1320	1900	1530	3100	1430	3970	780	600	405	317
15	500	2600	1280	1940	1830	2760	1330	2900	759	590	396	376
16	560	4790	1260	2180	6440	2750	1410	2310	733	680	412	385
17	550	4120	1330	3750	5640	2430	2060	2120	783	820	371	385
18	520	3070	1530	4490	4030	1990	3270	2050	837	680	379	505
19	500	2750	1690	5440	2910	1740	2580	1960	918	600	413	389
20	720	2230	1680	4530	2520	1830	2340	2000	716	590	375	473
21	600	2040	1500	3550	3110	2040	2500	2150	680	600	359	447
22	1070	1920	1490	3390	11100	1960	2190	2350	662	590	386	380
23	2710	1530	1650	4960	39900	2000	2030	2150	657	580	351	394
24	3770	1390	1720	4690	25600	3030	1680	1980	684	560	339	1330
25	6700	1360	1720	3560	12800	2590	1900	1820	671	540	345	788
26	4840	1280	1550	2720	10000	2340	2100	1830	669	530	389	1120
27	2770	1240	1410	2450	8090	2160	3920	1800	679	500	362	947
28	3630	1170	1310	2500	6880	2040	5330	1620	661	490	385	1310
29	2610	1060	1260	2510	---	2150	4170	1380	682	480	408	1340
30	1930	996	1120	3370	---	2180	3370	1410	649	470	442	1440
31	2350	---	897	3120	---	1870	---	1390	---	465	408	---
TOTAL	42729	109126	50889	92890	173800	93230	64640	71160	25091	19109	12843	17059
MEAN	1378	3638	1642	2996	6207	3007	2155	2295	836	616	414	569
MAX	6700	20400	3840	5440	39900	6000	5330	4010	1320	820	490	1440
MIN	377	996	881	1860	1520	1740	1330	1380	649	465	339	317
AC-FT	84750	216500	100900	184200	344700	184900	128200	141100	49770	37900	25470	33840
CAL YR 1985	TOTAL 669161	MEAN 1833	MAX 20400	MIN 356	AC-FT 1327000							
WTR YR 1986	TOTAL 772566	MEAN 2117	MAX 39900	MIN 317	AC-FT 1532000							

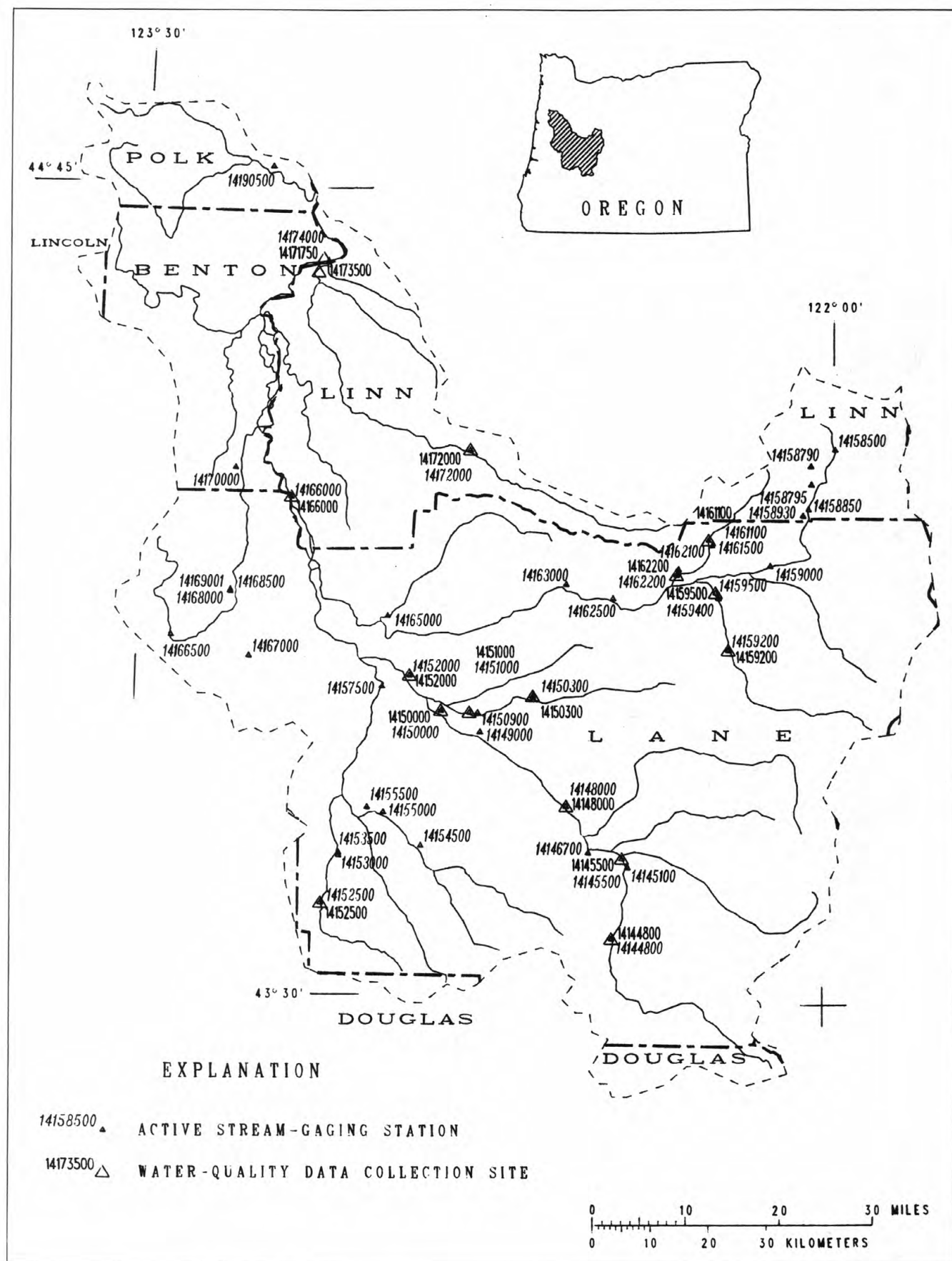


Figure 2.--Location of surface-water and water-quality stations in the Willamette River, upstream from the Luckiamute River, and McKenzie River basins.

MIDDLE FORK WILLAMETTE RIVER BASIN

14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°35'50", long 122°27'20", in NW¼NE¼ sec.9, T.23 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 0.2 mi upstream from Windfall Creek, 8.3 mi upstream from Hills Creek Dam, 10.2 mi south of Oakridge, and at mile 240.8.

DRAINAGE AREA.--258 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,556.83 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 21, 1967, at site 0.5 mi upstream at different datums. June 22, 1967, to June 23, 1971, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--Estimated daily discharges: Feb. 18 to Mar. 8. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--28 years, 824 ft³/s, 43.37 in/yr, 597,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,800 ft³/s Dec. 22, 1964, gage height, 16.96 ft, from floodmark, site and datum then in use, from rating curve extended above 5,100 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 187 ft³/s Sept. 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 17	0230	3,590	8.32	Feb. 23	unknown	*11,600	*a12.11
Feb. 18	0130	3,960	8.57				

Minimum discharge, 230 ft³/s Aug. 26, 27.

a From crest-stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	309	463	438	1180	1140	2170	892	863	952	358	278	243		
2	309	442	870	1150	1090	1850	828	951	900	353	275	242		
3	308	424	1760	1100	1130	1610	778	1100	875	354	275	241		
4	305	418	1200	940	1080	1510	744	1020	774	428	273	237		
5	305	426	1100	976	1050	1450	713	1050	708	404	272	236		
6	305	404	1820	1050	954	1440	699	1050	663	369	272	236		
7	308	403	2450	913	869	1510	707	991	624	355	268	236		
8	309	460	1680	947	802	2080	729	938	582	350	266	236		
9	305	493	1160	1860	746	2480	731	896	553	342	263	238		
10	305	464	935	1690	707	1940	721	909	532	344	264	245		
11	327	432	795	1370	671	1700	709	882	522	346	262	244		
12	339	404	712	1150	714	1560	709	852	514	335	262	244		
13	322	394	651	1020	1180	1440	686	851	498	328	261	245		
14	314	388	604	930	1440	1320	661	839	492	321	258	245		
15	309	668	573	885	1540	1200	666	809	484	322	256	265		
16	309	1290	560	1620	2530	1090	681	786	464	326	256	271		
17	309	1030	557	2990	2990	1000	709	783	460	330	255	327		
18	309	796	607	2270	3660	922	687	825	515	320	252	370		
19	309	676	666	2030	3040	875	685	860	484	315	250	313		
20	309	626	713	1780	2580	853	721	969	447	307	248	370		
21	336	572	732	1450	2800	849	809	986	430	303	248	302		
22	668	547	726	1620	9120	821	899	886	417	301	246	281		
23	1900	506	749	2120	10300	882	827	825	410	297	247	293		
24	1380	487	789	1650	5840	1230	760	798	404	296	246	517		
25	1040	471	833	1320	3850	1120	753	849	398	292	244	787		
26	879	444	814	1150	3160	1040	718	944	392	292	240	1020		
27	695	432	772	1090	2820	1010	1020	970	385	291	233	697		
28	663	455	729	1110	2460	1020	1200	983	381	289	234	574		
29	578	441	680	1210	---	1050	1040	988	377	288	237	522		
30	524	424	636	1350	---	1010	925	1010	368	284	243	590		
31	490	---	609	1240	---	941	---	971	---	281	244	---		
TOTAL	15377	15880	27920	43161	70263	40973	23407	28434	16005	10121	7928	10867		
MEAN	496	529	901	1392	2509	1322	780	917	534	326	256	362		
MAX	1900	1290	2450	2990	10300	2480	1200	1100	952	428	278	1020		
MIN	305	388	438	885	671	821	661	783	368	281	233	236		
CFSM	1.92	2.05	3.49	5.40	9.72	5.12	3.02	3.55	2.07	1.26	.99	1.40		
IN.	2.22	2.29	4.03	6.22	10.13	5.91	3.37	4.10	2.31	1.46	1.14	1.57		
AC-FT	30500	31500	55380	85610	139400	81270	46430	56400	31750	20080	15730	21550		
CAL YR 1985	TOTAL	254638	MEAN	698	MAX	2450	MIN	286	CFSM	2.71	IN.	36.72	AC-FT	505100
WTR YR 1986	TOTAL	310336	MEAN	850	MAX	10300	MIN	233	CFSM	3.29	IN.	44.75	AC-FT	615600

MIDDLE FORK WILLAMETTE RIVER BASIN

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14144800 MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1958 to January 1959, September 1959 to current year.

INSTRUMENTATION.--Temperature recorder October 1958 to January 1959, September 1959 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.0°C July 15, 1970; minimum, 0.0°C on several days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 19.0°C Aug. 3, 7-9; minimum, 0.5°C Nov. 23.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.0	7.0	9.0	9.0	6.0	7.5	3.5	1.5	2.5	---	---	---
2	12.5	8.5	10.0	9.5	7.5	8.5	4.0	2.5	3.0	---	---	---
3	12.5	8.0	10.0	9.0	7.0	7.5	5.5	4.0	4.5	---	---	---
4	12.0	7.5	10.0	7.5	6.5	7.0	6.0	4.5	5.0	---	---	---
5	12.5	7.5	10.0	7.0	5.0	6.5	5.5	4.5	5.0	---	---	---
6	10.5	8.5	9.5	8.0	6.0	7.0	5.5	5.0	5.5	---	---	---
7	10.0	8.0	9.0	8.0	7.0	7.5	6.0	4.5	5.5	---	---	---
8	9.0	6.0	7.0	7.0	5.5	6.5	5.5	4.5	5.0	---	---	---
9	8.0	4.0	6.0	5.5	4.0	5.0	5.5	4.0	4.5	---	---	---
10	9.0	5.0	7.0	5.5	3.5	4.5	4.0	2.5	3.5	---	---	---
11	9.5	8.0	8.5	4.5	2.5	3.5	2.5	1.5	2.0	---	---	---
12	10.0	7.0	8.0	3.5	1.0	2.5	3.0	1.5	2.0	---	---	---
13	9.0	6.0	7.5	4.0	1.5	2.5	3.5	2.0	2.5	---	---	---
14	9.0	5.0	7.0	4.5	2.0	3.0	3.5	2.0	2.5	---	---	---
15	10.0	6.0	7.5	5.0	3.0	4.5	4.0	3.0	3.5	---	---	---
16	9.0	6.5	8.0	6.0	4.5	5.0	4.0	2.5	3.0	---	---	---
17	10.0	7.0	8.0	5.0	3.5	4.5	4.0	2.5	3.0	---	---	---
18	9.5	6.0	7.5	4.5	3.0	4.0	4.0	2.5	3.0	---	---	---
19	9.0	6.5	7.5	4.5	3.5	4.0	4.0	2.5	3.0	---	---	---
20	9.5	6.5	8.0	4.0	3.5	3.5	3.5	2.5	3.0	---	---	---
21	8.5	7.0	7.5	3.5	3.0	3.5	---	---	---	---	---	---
22	8.0	7.0	7.5	3.5	2.0	2.5	4.5	3.0	3.5	---	---	---
23	8.5	7.5	8.0	2.5	.5	1.5	4.5	3.0	4.0	---	---	---
24	9.0	8.0	8.5	4.5	2.0	3.0	4.5	3.0	3.5	---	---	---
25	9.5	8.5	8.5	4.5	2.5	3.5	4.5	2.5	3.5	---	---	---
26	9.5	7.0	8.0	2.5	1.0	2.0	4.0	2.5	3.5	---	---	---
27	9.0	6.5	8.0	3.0	2.0	2.5	4.5	2.5	3.5	---	---	---
28	8.5	6.5	7.5	3.0	1.0	2.0	4.0	3.0	3.5	7.0	6.0	6.5
29	7.5	5.0	6.0	4.0	3.0	3.5	---	---	---	6.5	6.0	6.5
30	7.0	5.5	6.0	3.5	2.0	2.5	---	---	---	7.0	6.0	6.5
31	7.0	6.0	6.5	---	---	---	---	---	---	7.0	5.0	6.0
MONTH	12.5	4.0	8.0	9.5	.5	4.5	---	---	---	---	---	---

UPPER MALHEUR RIVER BASIN

13217000 BEULAH RESERVOIR AT BEULAH, OR

LOCATION.--Lat 43°54'41", long 118°09'25", in SW¼SE¼ sec.15, T.19 S., R.37 E., Malheur County, Hydrologic Unit 17050116, on top of dam near right end of dam on North Fork Malheur River, 0.2 mi northwest of Beulah, and at mile 15.0.

DRAINAGE AREA.--440 mi², approximately.

PERIOD OF RECORD.--December 1935 to current year. Prior to October 1968, published as Agency Valley Reservoir at Beulah. Prior to March 1979, monthend contents only.

REVISED RECORDS.--WSP 1397: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7.49 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1978, published as "National Geodetic Vertical Datum of 1929, Bureau of Reclamation construction datum." Prior to Mar. 28, 1979, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill, rock-faced dam. Storage began December 1935. Capacity, 59,920 acre-ft between gage heights 3,263.21 ft, bottom of outlet tunnel, and 3,340.0 ft, top of spillway gates; with gates open the capacity is 32,220 acre-ft. No dead storage. Water is used for irrigation of lands below Juntura, on Vale project, Bureau of Reclamation.

COOPERATION.--Prior to Mar. 28, 1979, daily gage heights furnished by Vale-Oregon Irrigation District. Capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 62,770 acre-ft May 3, 1941, gage height, 3,341.50 ft; no contents Sept. 17 to Oct. 13, 1950, Aug. 28 to Oct. 4, 1955, Aug. 13 to Oct. 1, 1961, Sept. 21 to Oct. 5, 1968, sometime Aug. 1-31 to Oct. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 60,070 acre-ft Apr. 10, gage height, 3,340.08 ft; minimum contents, 17,850 acre-ft Oct. 12, gage height, 3,310.90 ft.

Capacity table (gage height, in feet, and total contents, in acre-feet)

3,285	2,020	3,300	8,980	3,320	28,250
3,290	3,750	3,305	12,520	3,330	42,530
3,295	6,090	3,310	16,950	3,341	61,840

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3312.41	3313.74	3317.20	3320.51	3324.13	3337.04	3339.94	3339.52	3337.84	3331.28	3323.92	3315.42
2	3312.37	3313.86	3317.38	3320.65	3324.29	3337.01	3339.88	3339.48	3337.75	3330.94	3323.63	3315.26
3	3312.32	3313.98	3317.52	3320.74	3324.42	3337.04	3339.87	3339.42	3337.76	3330.68	3323.36	3315.09
4	3312.23	3314.10	3317.65	3320.86	3324.56	3337.15	3339.84	3339.36	3337.65	3330.34	3323.08	3314.91
5	3312.13	3314.22	3317.77	3320.98	3324.69	3337.31	3339.80	3339.36	3337.51	3330.11	3322.79	3314.74
6	3312.05	3314.35	3317.92	3321.08	3324.79	3337.44	3339.74	3339.37	3337.38	3329.86	3322.46	3314.54
7	3311.94	3314.48	3318.07	3321.19	3324.88	3337.81	3339.80	3339.37	3337.23	3329.58	3322.13	3314.34
8	3311.74	3314.61	3318.19	3321.28	3324.96	3338.05	3339.88	3339.36	3337.09	3329.30	3321.82	3314.20
9	3311.47	3314.75	3318.29	3321.40	3325.02	3337.74	3339.98	3339.35	3336.96	3329.07	3321.50	3314.02
10	3311.24	3314.87	3318.37	3321.51	3325.13	3337.69	3339.95	3339.32	3336.82	3328.85	3321.15	3313.86
11	3311.00	3314.95	3318.42	3321.60	3325.24	3337.65	3339.93	3339.32	3336.65	3328.68	3320.80	3313.70
12	3310.97	3315.03	3318.48	3321.70	3325.39	3337.54	3339.87	3339.33	3336.47	3328.49	3320.44	3313.52
13	3311.10	3315.12	3318.55	3321.80	3325.55	3337.55	3339.82	3339.27	3336.27	3328.31	3320.11	3313.35
14	3311.24	3315.21	3318.65	3321.93	3325.71	3337.64	3339.81	3339.23	3336.01	3328.10	3319.78	3313.18
15	3311.37	3315.32	3318.74	3322.08	3325.86	3337.70	3339.72	3339.16	3335.77	3327.88	3319.42	3313.02
16	3311.49	3315.49	3318.84	3322.24	3326.26	3337.76	3339.74	3339.13	3335.52	3327.67	3319.06	3312.84
17	3311.63	3315.61	3318.94	3322.37	3326.83	3337.80	3339.78	3339.05	3335.25	3327.55	3318.71	3312.74
18	3311.75	3315.72	3319.03	3322.49	3327.65	3337.96	3339.83	3338.93	3334.90	3327.38	3318.38	3312.65
19	3311.89	3315.85	3319.14	3322.61	3328.15	3338.26	3339.83	3338.82	3334.64	3327.21	3318.07	3312.54
20	3312.03	3315.96	3319.24	3322.71	3328.43	3338.59	3339.82	3338.67	3334.35	3326.99	3317.75	3312.44
21	3312.13	3316.05	3319.35	3322.80	3328.69	3338.81	3339.76	3338.52	3334.09	3326.77	3317.46	3312.33
22	3312.32	3316.15	3319.45	3322.94	3329.51	3338.97	3339.67	3338.45	3333.82	3326.49	3317.19	3312.23
23	3312.49	3316.22	3319.56	3323.06	3331.62	3339.15	3339.68	3338.37	3333.57	3326.25	3316.98	3312.11
24	3312.66	3316.32	3319.66	3323.14	3333.34	3339.37	3339.70	3338.32	3333.28	3326.00	3316.81	3312.03
25	3312.82	3316.42	3319.77	3323.23	3334.73	3339.53	3339.66	3338.27	3333.01	3325.75	3316.64	3311.99
26	3312.97	3316.52	3319.87	3323.31	3335.92	3339.62	3339.69	3338.20	3332.70	3325.49	3316.47	3312.01
27	3313.10	3316.64	3319.96	3323.43	3336.65	3339.72	3339.67	3338.10	3332.41	3325.25	3316.30	3311.99
28	3313.22	3316.79	3320.06	3323.57	3337.00	3339.79	3339.65	3338.03	3332.08	3325.00	3316.11	3311.95
29	3313.35	3316.93	3320.15	3323.70	---	3339.88	3339.58	3337.99	3331.81	3324.72	3315.94	3311.94
30	3313.47	3317.06	3320.24	3323.84	---	3339.94	3339.56	3337.92	3331.54	3324.46	3315.75	3311.92
31	3313.60	---	3320.37	3323.99	---	3339.99	---	3337.87	---	3324.19	3315.59	---
MAX	3313.60	3317.06	3320.37	3323.99	3337.00	3339.99	3339.98	3339.52	3337.84	3331.28	3323.92	3315.42
MIN	3310.97	3313.74	3317.20	3320.51	3324.13	3337.01	3339.56	3337.87	3331.54	3324.19	3315.59	3311.92
(+)	20670	24640	28730	33600	54370	59900	59090	55960	44990	33880	22910	18900
(+)	+1230	+3970	+4090	+4870	+20770	+5530	-810	-3130	-10970	-11110	-10970	-4010
CAL YR 1985	MAX	3340.02	MIN	3310.97	AC-FT#	-6250						
WTR YR 1986	MAX	3339.99	MIN	3310.97	AC-FT#	-540						

† Contents in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

MIDDLE FORK WILLAMETTE RIVER BASIN

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14145100 HILLS CREEK LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°42'30", long 122°25'25", in NW¼ sec.35, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, near right end of Hills Creek Dam on Middle Fork Willamette River, 600 ft downstream from Hills Creek, 3.5 mi southeast of Oakridge, and at mile 232.5.

DRAINAGE AREA.--389 mi².

PERIOD OF RECORD.--August 1961 to current year. Prior to October 1971, published as Hills Creek Reservoir near Oakridge.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1961 by the Corps of Engineers; storage began August 1961. Total capacity is 355,600 acre-ft at elevation 1,543.0 ft, top of spillway gates, and usable capacity is 248,900 acre-ft between elevations 1,414.0 ft, minimum power pool, and 1,543.0 ft. Reservoir used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 354,200 acre-ft June 25, 1971, elevation, 1,542.52 ft; minimum contents, 104,800 acre-ft Jan. 2, 1969, elevation, 1,412.52 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 350,500 acre-ft May 21, elevation, 1,541.17 ft; minimum contents, 156,400 acre-ft Jan. 8, elevation, 1,448.66 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,410	101,500	1,460	174,900	1,520	297,200
1,420	114,600	1,480	211,000	1,540	347,300
1,440	143,000	1,500	251,900	1,544	358,500

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1510.87	1484.96	1449.87	1451.22	1461.78	1518.94	1519.13	1535.57	1540.98	1540.99	1540.99	1538.09
2	1509.82	1483.99	1449.90	1450.88	1461.68	1516.27	1519.53	1535.98	1540.97	1540.99	1540.99	1537.67
3	1508.78	1482.99	1451.55	1450.61	1461.66	1513.34	1519.84	1536.08	1540.95	1540.98	1540.99	1536.96
4	1507.74	1482.02	1451.69	1450.02	1462.46	1510.94	1520.27	1536.22	1540.94	1541.04	1540.98	1536.18
5	1506.70	1481.01	1451.67	1449.57	1463.46	1508.92	1520.76	1536.74	1540.95	1541.04	1540.98	1535.35
6	1505.65	1480.01	1453.13	1449.27	1464.19	1507.13	1521.23	1537.20	1540.96	1541.02	1540.97	1534.52
7	1504.60	1479.00	1455.95	1448.82	1465.01	1507.92	1521.77	1537.56	1540.97	1541.02	1540.97	1533.83
8	1503.51	1478.12	1457.44	1448.79	1465.91	1508.23	1522.39	1537.80	1540.97	1541.01	1540.97	1533.29
9	1502.44	1477.31	1457.81	1450.55	1466.69	1506.80	1523.01	1538.22	1540.95	1541.01	1540.97	1532.77
10	1501.36	1476.39	1457.37	1451.65	1467.39	1505.70	1523.55	1538.77	1540.95	1541.02	1540.97	1532.27
11	1500.33	1475.40	1456.64	1452.19	1468.04	1505.92	1524.03	1539.29	1540.96	1541.03	1540.97	1531.42
12	1499.28	1474.36	1455.71	1452.30	1468.78	1506.39	1524.52	1539.88	1540.96	1541.01	1540.98	1530.44
13	1498.21	1473.31	1454.68	1452.28	1470.29	1506.73	1524.97	1540.22	1540.95	1540.99	1540.98	1529.47
14	1497.11	1472.21	1453.55	1452.54	1472.27	1506.87	1525.41	1540.00	1540.97	1540.99	1540.98	1528.60
15	1496.00	1471.54	1452.36	1452.56	1474.46	1506.88	1525.87	1540.10	1540.96	1540.98	1540.98	1528.14
16	1494.89	1471.76	1451.85	1453.40	1477.59	1506.76	1526.35	1540.27	1540.96	1540.98	1540.97	1527.55
17	1493.77	1471.74	1451.89	1456.84	1480.80	1506.97	1526.89	1540.48	1540.99	1541.00	1540.97	1526.80
18	1492.66	1470.67	1451.98	1458.44	1485.58	1507.59	1527.40	1540.75	1541.02	1541.00	1540.92	1525.94
19	1491.51	1468.82	1451.98	1459.65	1488.59	1508.32	1527.92	1540.94	1541.02	1541.00	1540.75	1525.04
20	1490.38	1466.90	1452.07	1460.56	1490.66	1509.03	1528.47	1540.97	1540.98	1541.00	1540.57	1524.18
21	1489.28	1464.85	1452.18	1460.37	1493.06	1509.75	1529.11	1541.15	1540.97	1541.00	1540.36	1523.22
22	1488.74	1463.30	1452.26	1460.08	1504.09	1510.41	1529.83	1541.02	1540.96	1540.99	1540.15	1522.24
23	1489.74	1461.92	1452.37	1461.30	1516.91	1511.22	1530.43	1541.01	1540.96	1540.98	1539.96	1521.30
24	1490.09	1460.50	1452.52	1462.06	1522.30	1512.48	1530.98	1541.00	1540.96	1540.98	1539.76	1520.57
25	1490.00	1459.04	1452.75	1462.23	1523.99	1513.56	1531.54	1541.05	1540.96	1540.98	1539.56	1520.15
26	1489.64	1457.55	1452.91	1462.17	1524.04	1514.51	1532.07	1541.06	1540.97	1540.98	1539.34	1520.09
27	1489.02	1456.03	1453.00	1461.90	1522.93	1515.42	1532.96	1541.02	1540.97	1540.98	1539.15	1519.59
28	1488.41	1454.58	1453.02	1461.69	1521.20	1516.31	1533.96	1541.02	1540.97	1541.00	1538.93	1518.91
29	1487.64	1453.06	1453.00	1461.63	---	1517.20	1534.67	1541.02	1540.97	1541.00	1538.71	1518.18
30	1486.81	1451.45	1452.53	1461.77	---	1518.03	1535.23	1541.03	1540.97	1541.00	1538.50	1517.52
31	1485.89	---	1451.63	1461.83	---	1518.62	---	1541.02	---	1540.99	1538.29	---
MAX	1510.87	1484.96	1457.81	1462.23	1524.04	1518.94	1535.23	1541.15	1541.02	1541.04	1540.99	1538.09
MIN	1485.89	1451.45	1449.87	1448.79	1461.66	1505.70	1519.13	1535.57	1540.94	1540.98	1538.29	1517.52
(+)	222500	160900	161200	178000	300100	294000	334900	350100	349900	350000	342800	291400
(+)	-55800	-61600	+300	+16800	+122100	-6100	+40900	+15200	-200	+100	-7200	-51400
CAL YR 1985	MAX	-----	MIN	-----	AC-FT#	+3200						
WTR YR 1986	MAX	1541.15	MIN	1448.79	AC-FT#	+13100						

+ Contents, in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

MIDDLE FORK WILLAMETTE RIVER BASIN

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°43'20", long 122°26'15", in NW¼NE¼ sec.27, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 90 ft upstream from highway bridge, 0.4 mi upstream from Salt Creek, 1.1 mi downstream from Hills Creek Dam, 2.3 mi southeast of Oakridge, and at mile 231.4.

DRAINAGE AREA.--392 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1913 to September 1914, September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1914.

GAGE.--Water-stage recorder. Datum of gage is 1,208.01 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Oct. 3, 1913, to Sept. 30, 1914, nonrecording gage and Sept. 1, 1935, to Aug. 18, 1960, water-stage recorder at sites 400 ft and 1,000 ft downstream, respectively, at different datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (see station 14145100). No diversions upstream from station.

AVERAGE DISCHARGE.--52 years, 1,161 ft³/s, 40.22 in/yr, 841,100 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s Dec. 28, 1945, gage height, 12.06 ft, site and datum then in use, from rating curve extended above 13,000 ft³/s; minimum observed discharge, 0.70 ft³/s Sept. 8-11, 13, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,980 ft³/s Feb. 28, gage height, 7.17 ft; minimum discharge, 132 ft³/s Apr. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1550	1560	1840	1850	1640	5940	594	799	1210	413	315	590
2	1540	1560	1320	1840	1610	5960	594	852	1080	442	333	849
3	1540	1550	1380	1780	1580	5920	604	1490	1070	444	339	1250
4	1530	1550	1750	1760	817	4990	410	1350	906	467	353	1380
5	1520	1550	1750	1750	631	4360	300	894	834	506	317	1380
6	1530	1540	1560	1750	724	4010	302	913	776	455	320	1390
7	1530	1540	1570	1650	513	3040	205	995	736	421	305	1220
8	1540	1540	1400	1380	313	3540	134	997	742	422	302	976
9	1540	1540	1510	1270	307	5420	133	724	692	407	298	994
10	1540	1540	1760	1580	308	4250	199	593	631	404	298	945
11	1550	1540	1750	1540	322	2100	306	599	618	431	285	1420
12	1550	1530	1750	1500	326	1620	303	562	616	452	293	1570
13	1550	1530	1740	1460	412	1620	305	792	589	402	300	1560
14	1550	1540	1740	1040	410	1620	304	1490	572	392	298	1450
15	1540	1550	1740	1220	326	1620	297	947	600	376	298	982
16	1540	1560	1160	1800	966	1620	294	860	570	375	298	1080
17	1540	1560	727	1840	1610	1120	293	753	560	370	295	1390
18	1530	2050	839	1840	1750	534	292	754	614	368	369	1570
19	1550	2610	943	1850	1620	311	290	903	633	367	527	1570
20	1550	2610	941	1860	1770	295	288	1290	607	366	577	1580
21	1550	2590	933	2330	1760	292	287	1120	539	380	585	1570
22	1550	2110	937	2680	1790	295	282	1380	520	391	577	1570
23	1560	1830	940	2250	1750	295	284	1130	489	375	577	1580
24	1550	1830	944	1850	2350	299	285	1060	497	348	575	1600
25	1550	1820	945	1800	4000	306	283	1040	473	327	576	1590
26	1550	1810	950	1770	4760	310	285	1240	441	321	583	1590
27	1550	1800	950	1780	5720	295	286	1330	468	320	587	1590
28	1550	1790	951	1750	5830	291	440	1220	493	320	588	1590
29	1550	1790	953	1740	---	294	570	1220	459	344	589	1600
30	1550	1810	1230	1710	---	308	607	1220	427	340	589	1600
31	1570	---	1500	1650	---	485	---	1220	---	337	591	---
TOTAL	47890	52730	40403	53870	45915	63360	10056	31737	19462	12083	13137	41026
MEAN	1545	1758	1303	1738	1640	2044	335	1024	649	390	424	1368
MAX	1570	2610	1840	2680	5830	5960	607	1490	1210	506	591	1600
MIN	1520	1530	727	1040	307	291	133	562	427	320	285	590
AC-FT	94990	104600	80140	106900	91070	125700	19950	62950	38600	23970	26060	81380
MEAN†	637	723	1308	2012	3838	1945	1023	1271	645	391	307	504
CFSM†	1.62	1.84	3.34	5.13	9.79	4.96	2.61	3.24	1.65	1.00	0.78	1.28
IN.†	1.87	2.06	3.85	5.92	10.20	5.72	2.91	3.74	1.84	1.15	0.90	1.43
AC-FT†	39190	43000	80440	123700	213200	119600	60850	78150	38400	24070	18860	29980

CAL YR 1985 TOTAL 341606 MEAN 936 MAX 2610 MIN 194 AC-FT 677600 MEAN† 940 CFSM† 2.40 IN.† 32.57 AC-FT† 680800
WTR YR 1986 TOTAL 431669 MEAN 1183 MAX 5960 MIN 133 AC-FT 856200 MEAN† 1201 CFSM† 3.06 IN.† 41.59 AC-FT† 869300

† Adjusted for change in contents in Hills Creek Lake.

MIDDLE FORK WILLAMETTE RIVER BASIN

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14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960.

REMARKS.--Water-temperature recorder malfunction Mar. 27 to July 10.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.0°C Sept. 4, 1960; minimum, 1.5°C Jan. 4, 1961.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 14.5°C several days in October and September; minimum, 4.0°C Jan. 6-8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	14.0	14.0	12.0	12.0	12.0	5.5	5.5	5.5	4.5	4.5	4.5
2	14.5	14.0	14.5	12.0	11.5	12.0	5.5	5.5	5.5	4.5	4.5	4.5
3	14.5	14.0	14.5	12.0	12.0	12.0	5.5	5.5	5.5	4.5	4.5	4.5
4	14.5	14.0	14.5	12.0	11.5	12.0	5.5	5.5	5.5	4.5	4.5	4.5
5	14.5	14.0	14.5	12.0	11.5	11.5	5.5	5.5	5.5	4.5	4.5	4.5
6	14.5	14.0	14.5	11.5	11.5	11.5	6.0	5.5	5.5	4.5	4.0	4.0
7	14.5	14.5	14.5	11.5	11.5	11.5	5.5	5.5	5.5	4.5	4.0	4.0
8	14.5	14.5	14.5	11.5	11.0	11.5	5.5	5.5	5.5	4.5	4.0	4.5
9	14.5	14.0	14.5	11.0	11.0	11.0	5.5	5.5	5.5	4.5	4.5	4.5
10	14.5	14.0	14.5	11.0	10.5	11.0	5.5	5.5	5.5	4.5	4.5	4.5
11	14.5	14.0	14.0	10.5	10.5	10.5	5.5	5.0	5.0	5.0	4.5	4.5
12	14.5	14.0	14.0	10.5	10.0	10.0	5.0	5.0	5.0	5.0	4.5	5.0
13	14.5	14.0	14.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	4.5	5.0
14	14.0	14.0	14.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	4.5	5.0
15	14.0	14.0	14.0	10.0	9.5	9.5	5.0	5.0	5.0	5.0	4.5	5.0
16	14.0	13.5	14.0	9.5	9.0	9.5	5.0	5.0	5.0	5.0	5.0	5.0
17	14.0	13.5	14.0	9.0	9.0	9.0	5.0	5.0	5.0	5.0	5.0	5.0
18	14.0	13.5	14.0	9.0	9.0	9.0	5.0	5.0	5.0	5.5	5.0	5.0
19	14.0	13.5	13.5	9.0	8.5	9.0	5.0	5.0	5.0	5.0	4.5	5.0
20	14.0	13.0	13.5	8.5	8.5	8.5	5.0	5.0	5.0	5.0	5.0	5.0
21	13.5	13.5	13.5	8.5	8.0	8.0	5.0	4.5	5.0	5.0	5.0	5.0
22	13.5	13.5	13.5	8.0	7.5	8.0	5.0	4.5	4.5	5.5	5.5	5.5
23	13.5	13.0	13.0	7.5	7.5	7.5	5.0	4.5	4.5	5.5	5.5	5.5
24	13.0	12.5	13.0	7.5	7.0	7.5	5.0	4.5	4.5	5.5	5.5	5.5
25	13.0	12.5	13.0	7.0	6.5	6.5	5.0	4.5	4.5	5.5	5.5	5.5
26	13.0	12.5	12.5	7.0	6.5	6.5	4.5	4.5	4.5	5.5	5.5	5.5
27	12.5	12.0	12.5	6.5	6.5	6.5	4.5	4.5	4.5	5.5	5.5	5.5
28	12.5	12.0	12.5	6.5	6.5	6.5	4.5	4.5	4.5	5.5	5.5	5.5
29	12.5	12.0	12.5	6.5	5.5	6.0	4.5	4.5	4.5	5.5	5.5	5.5
30	12.0	12.0	12.0	5.5	5.5	5.5	4.5	4.5	4.5	6.0	5.5	5.5
31	12.0	12.0	12.0	---	---	---	4.5	4.5	4.5	6.0	6.0	6.0
MONTH	14.5	12.0	13.5	12.0	5.5	9.5	6.0	4.5	5.0	6.0	4.0	5.0

MIDDLE FORK WILLAMETTE RIVER BASIN

14145500 MIDDLE FORK WILLAMETTE RIVER ABOVE SALT CREEK, NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.0	6.0	6.0	6.5	6.0	6.0	6.5	5.5	6.0	7.0	6.0	6.5
2	6.0	6.0	6.0	7.0	6.0	6.5	7.0	6.0	6.0	7.5	6.5	7.0
3	6.0	6.0	6.0	7.0	6.5	7.0	6.5	6.0	6.0	7.5	6.5	7.0
4	6.5	6.0	6.0	7.0	6.5	7.0	6.5	6.0	6.0	7.5	7.0	7.0
5	6.0	6.0	6.0	7.5	6.5	7.0	7.5	5.5	6.0	7.0	6.5	6.5
6	6.0	5.5	5.5	7.0	6.5	7.0	7.5	5.5	6.5	7.0	6.5	7.0
7	6.0	5.5	5.5	7.5	6.0	6.5	9.0	5.5	7.0	7.5	6.5	7.0
8	6.0	5.5	5.5	7.5	6.0	7.0	7.0	6.0	6.5	7.5	6.5	7.0
9	6.0	5.5	5.5	7.5	7.5	7.5	7.5	6.0	6.5	7.0	6.5	6.5
10	6.0	5.5	5.5	7.5	6.5	7.0	8.5	5.5	6.5	7.0	6.0	6.5
11	5.5	5.5	5.5	7.5	6.0	6.5	6.5	6.0	6.0	7.0	6.5	6.5
12	5.5	5.5	5.5	6.5	6.0	6.0	6.5	5.5	6.0	7.5	6.5	7.0
13	6.0	5.5	5.5	6.5	6.0	6.5	6.5	5.5	6.0	8.0	6.5	7.0
14	6.0	5.5	6.0	6.5	6.0	6.0	6.5	5.5	6.0	8.0	7.0	7.5
15	6.5	6.0	6.0	6.5	6.0	6.0	7.0	6.0	6.0	8.0	7.0	7.0
16	6.0	6.0	6.0	7.0	6.0	6.5	6.5	6.0	6.0	8.0	6.5	7.0
17	6.0	6.0	6.0	6.5	5.5	6.0	7.0	6.0	6.0	8.0	6.5	7.0
18	6.0	5.5	5.5	6.5	5.5	6.0	7.5	6.0	6.5	7.5	6.5	7.0
19	5.5	5.5	5.5	6.5	5.5	6.0	7.5	5.5	6.5	8.0	6.5	7.0
20	5.5	5.5	5.5	6.5	5.5	6.0	7.5	5.5	6.5	8.0	6.5	7.5
21	5.5	5.5	5.5	6.5	5.5	6.0	8.0	5.5	6.5	8.0	7.0	7.5
22	5.5	5.5	5.5	7.0	5.5	6.0	6.5	6.0	6.0	8.0	7.0	7.5
23	6.0	5.5	6.0	6.5	5.5	6.0	7.5	5.5	6.5	8.0	7.0	7.5
24	6.0	5.5	6.0	6.5	5.5	6.0	6.5	5.5	6.0	8.0	7.0	7.5
25	6.0	6.0	6.0	6.5	5.5	6.0	6.5	6.0	6.0	8.0	7.0	7.5
26	6.5	6.0	6.0	7.0	5.5	6.0	7.0	6.0	6.5	8.5	7.0	7.5
27	6.5	6.0	6.0	7.0	5.5	6.0	6.5	6.0	6.0	8.5	7.0	7.5
28	7.0	5.5	6.0	7.0	5.5	6.0	7.0	6.0	6.0	8.0	7.0	7.5
29	---	---	---	6.5	5.5	6.0	7.0	6.5	6.5	8.5	7.0	7.5
30	---	---	---	6.5	5.5	6.0	7.0	6.0	6.5	8.5	7.0	7.5
31	---	---	---	6.5	5.5	6.0	---	---	---	8.5	7.5	8.0
MONTH	7.0	5.5	6.0	7.5	5.5	6.5	9.0	5.5	6.0	8.5	6.0	7.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	8.0	7.5	8.0	---	---	---	9.5	7.5	8.5	9.5	8.5	9.0
2	8.5	7.0	7.5	---	---	---	9.5	7.5	8.5	10.0	9.0	9.5
3	8.5	7.5	8.0	---	---	---	9.5	7.5	8.5	10.0	9.5	10.0
4	8.0	7.0	7.5	---	---	---	9.5	7.5	8.5	10.5	10.0	10.0
5	8.0	7.0	7.5	---	---	---	9.5	7.5	8.5	10.5	10.0	10.5
6	---	---	---	---	---	---	9.5	7.5	8.5	11.0	10.0	10.5
7	---	---	---	---	---	---	9.5	7.5	8.5	11.5	9.0	10.5
8	---	---	---	---	---	---	9.5	8.0	8.5	11.0	9.0	10.0
9	---	---	---	---	---	---	9.5	7.5	8.5	11.0	9.0	10.0
10	---	---	---	---	---	---	9.5	7.5	8.5	10.5	9.5	10.0
11	---	---	---	---	---	---	9.5	7.5	8.5	11.5	10.5	11.0
12	---	---	---	---	---	---	9.5	8.0	8.5	11.5	11.0	11.0
13	---	---	---	---	---	---	9.5	8.0	8.5	12.0	11.0	11.5
14	---	---	---	---	---	---	10.0	8.0	8.5	12.0	10.5	11.5
15	---	---	---	---	---	---	9.5	7.5	8.5	11.0	9.5	10.5
16	---	---	---	---	---	---	9.5	8.0	8.0	11.5	10.0	11.0
17	---	---	---	---	---	---	9.5	8.0	8.5	11.5	11.5	11.5
18	---	---	---	8.5	7.5	8.0	9.5	7.5	8.5	12.0	12.0	12.0
19	---	---	---	9.0	7.5	8.0	9.5	8.0	8.5	12.5	12.0	12.5
20	---	---	---	9.0	7.5	8.0	9.5	8.0	8.5	12.5	12.5	12.5
21	---	---	---	9.0	7.5	8.0	9.5	8.0	8.5	13.0	12.5	12.5
22	---	---	---	9.0	7.5	8.0	9.0	8.5	8.5	13.0	12.5	13.0
23	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	13.0	12.5	13.0
24	---	---	---	9.0	7.5	8.0	9.5	8.5	8.5	13.5	13.0	13.0
25	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	14.5	13.5	13.5
26	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	14.0	13.0	13.5
27	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	13.5	13.0	13.0
28	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	13.5	13.0	13.0
29	---	---	---	9.0	7.5	8.0	9.5	8.0	9.0	13.5	13.5	13.5
30	---	---	---	9.0	7.5	8.0	9.0	8.5	9.0	13.5	13.0	13.5
31	---	---	---	9.0	7.5	8.0	9.5	8.5	9.0	---	---	---
MONTH	---	---	---	---	---	---	10.0	7.5	8.5	14.5	8.5	11.5

MIDDLE FORK WILLAMETTE RIVER BASIN

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14146700 GRAY CREEK NEAR OAKRIDGE, OR

LOCATION.--Lat 43°43'48", long 122°30'38", in NE¼SE¼ sec.24, T.21 S., R.2 E., Lane County, Hydrologic Unit 17090001, Willamette National Forest, on left bank 0.9 mi upstream from La Duke Road bridge, and 1.5 mi southwest of Oakridge.

DRAINAGE AREA.--5.06 mi².

PERIOD OF RECORD.--July 1978 to September 1986 (station discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,300 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 8-29. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--8 years, 14.3 ft³/s, 38.38 in/yr, 10,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s Dec. 6, 1981, gage height, 7.05 ft, from rating curve extended above 160 ft³/s on basis of slope-area measurement of peak flow, result of release of water from bursting logjam; minimum discharge, 0.14 ft³/s Sept. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0430	*411	*4.08	No other peak greater than base discharge.			
Minimum discharge, 0.23 ft ³ /s Oct. 5-7.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	.35	13	10	25	13	13	3.3	14	1.8	.63	.42	.35		
2	.33	12	30	25	13	11	3.0	15	1.7	.63	.41	.35		
3	.32	11	58	27	15	9.1	2.8	19	1.6	.62	.40	.34		
4	.28	11	40	20	20	5.8	2.7	16	1.5	1.8	.40	.34		
5	.26	12	39	22	23	4.8	2.6	16	1.5	1.9	.39	.33		
6	.24	11	61	24	20	4.4	2.4	16	1.4	1.2	.39	.32		
7	.27	11	70	19	16	31	2.2	14	1.4	.99	.39	.32		
8	.28	17	40	18	13	32	2.1	12	1.3	.79	.39	.33		
9	.25	21	26	40	11	40	2.1	9.3	1.3	.72	.38	.33		
10	.25	17	19	31	10	26	2.0	11	1.2	.67	.38	.33		
11	1.2	15	16	22	8.8	19	1.9	16	1.2	.63	.38	.32		
12	2.6	13	13	18	9.3	20	2.6	17	1.0	.60	.38	.33		
13	1.4	11	11	15	28	21	4.6	16	.99	.57	.38	.33		
14	.83	11	10	12	31	19	6.5	13	.99	.54	.38	.32		
15	.68	26	9.4	12	33	16	8.5	9.8	.99	.52	.37	.42		
16	.59	42	11	37	42	13	8.9	6.7	1.0	.50	.37	.50		
17	.61	30	14	58	47	11	13	4.1	1.0	.49	.36	.94		
18	.53	23	17	31	69	9.5	14	3.4	1.4	.49	.37	1.3		
19	.48	19	18	31	41	8.2	12	2.8	1.4	.48	.37	.91		
20	.46	17	17	33	37	6.6	11	3.0	1.0	.48	.37	.63		
21	1.0	16	15	25	53	5.1	8.0	5.0	.92	.48	.36	.52		
22	11	15	14	33	253	4.4	4.8	12	.88	.47	.36	.45		
23	54	13	13	47	256	6.1	3.8	10	.82	.47	.35	.86		
24	37	13	13	33	73	19	3.2	6.5	.77	.47	.34	12		
25	30	12	13	24	39	16	3.8	4.0	.73	.46	.35	14		
26	25	11	11	19	27	12	5.7	3.2	.71	.46	.34	26		
27	18	11	9.9	17	21	9.7	33	2.8	.69	.46	.34	15		
28	21	11	8.7	15	17	6.0	37	2.5	.67	.45	.35	9.2		
29	17	11	7.9	15	---	4.5	23	2.2	.67	.45	.36	5.7		
30	15	10	7.2	16	---	3.8	17	2.0	.65	.44	.35	6.0		
31	15	---	7.1	14	---	3.4	---	1.9	---	.42	.35	---		
TOTAL	256.21	466	649.2	778	1239.1	410.4	247.5	286.2	33.18	20.28	11.53	99.07		
MEAN	8.26	15.5	20.9	25.1	44.3	13.2	8.25	9.23	1.11	.65	.37	3.30		
MAX	54	42	70	58	256	40	37	19	1.8	1.9	.42	26		
MIN	.24	10	7.1	12	8.8	3.4	1.9	1.9	.65	.42	.34	.32		
CFSM	1.63	3.06	4.13	4.96	8.75	2.61	1.63	1.82	.22	.13	.07	.65		
IN.	1.88	3.43	4.77	5.72	9.11	3.02	1.82	2.10	.24	.15	.08	.73		
AC-FT	508	924	1290	1540	2460	814	491	568	66	40	23	197		
CAL YR 1985	TOTAL	3346.73	MEAN	9.17	MAX	70	MIN	.21	CFSM	1.81	IN.	24.60	AC-FT	6640
WTR YR 1986	TOTAL	4496.67	MEAN	12.3	MAX	256	MIN	.24	CFSM	2.43	IN.	33.06	AC-FT	8920

MIDDLE FORK WILLAMETTE RIVER BASIN

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°48'05", long 122°33'35", in SW¼ sec.27, T.20 S., R.2 E., Lane County, Hydrologic Unit 17090001, on left bank 0.5 mi downstream from Whitehead Creek, 4.2 mi downstream from North Fork of Middle Fork Willamette River, 7.0 mi northwest of Oakridge, and at mile 220.2.

DRAINAGE AREA.--924 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1911 to September 1912, July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near Hazeldell" 1911-12 and as "at Eula" 1923-50.

REVISED RECORDS.--WSP 694: 1925-28. WSP 814: Drainage area at Eula. WSP 1248: 1924, 1925(M), 1926-28, 1929(M), 1930, 1933, 1946(M). WSP 1398: 1927(M). WSP 1638: 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 934.76 ft above National Geodetic Vertical Datum of 1929. Mar. 22, 1911, to Sept. 30, 1912, nonrecording gage at site 4.0 mi upstream, just downstream from North Fork at different datum. July 1, 1923, to Aug. 11, 1935, nonrecording gage and Aug. 12, 1935, to Sept. 30, 1950, water-stage recorder at site 4.0 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (see sta 14145100); slight regulation at times by logponds upstream from station. No diversion upstream from station.

AVERAGE DISCHARGE.--64 years, 2,794 ft³/s, 2,024,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft³/s Dec. 28, 1945, gage height, 18.8 ft, from floodmark, site and datum then in use, from rating curve extended above 39,000 ft³/s; minimum discharge, 322 ft³/s Aug. 30, 1961, caused by closing outlet gates at Hills Creek Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1861 and prior to beginning of record, 17.0 ft in February 1890 at site used 1923-50, from information by local resident, discharge, about 55,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,300 ft³/s Feb. 23, gage height, 9.52 ft; minimum discharge, 666 ft³/s Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	2570	2780	3870	3810	10100	2280	3180	2850	1010	753	1020
2	2010	2510	2520	4040	3630	9470	2220	3210	2650	1030	764	1250
3	2000	2460	3710	3940	3540	8920	2130	4140	2560	1040	772	1660
4	1980	2440	3910	3650	2950	7830	1910	3870	2290	1210	794	1820
5	1970	2470	3870	3680	2750	7050	1700	3460	2090	1260	753	1820
6	1980	2440	4990	3900	2690	6580	1650	3380	1970	1110	744	1830
7	2000	2610	6110	3550	2380	6990	1560	3290	1860	1030	730	1660
8	2030	2930	5200	3260	2010	7270	1460	3120	1790	1020	717	1410
9	2010	3080	4370	4180	1880	9200	1460	2750	1700	989	707	1430
10	2010	2910	4120	4700	1780	7880	1480	2670	1590	996	707	1380
11	2080	2730	3750	4300	1710	5480	1570	2690	1550	1030	688	1840
12	2130	2610	3510	3880	1760	4800	1640	2600	1520	1030	695	2020
13	2070	2520	3330	3600	2620	4680	1690	2760	1470	965	713	2020
14	2030	2480	3190	2990	3030	4480	1660	3560	1430	936	705	1950
15	2020	2800	3090	3030	3130	4260	1660	2920	1450	912	699	1470
16	2010	3920	2540	4430	4460	4040	1690	2680	1390	924	697	1560
17	2020	3860	1970	6270	6970	3420	1890	2460	1380	923	692	1960
18	2010	3850	2150	5520	9340	2630	1900	2450	1520	891	754	2160
19	2000	4270	2380	5470	7540	2230	1840	2570	1510	880	924	2120
20	2010	4160	2470	5420	6720	2130	1860	3170	1420	863	991	2280
21	2060	4010	2500	5320	6940	2110	1980	3210	1310	870	996	2160
22	2290	3530	2480	5830	17300	2050	2070	3440	1270	874	995	2100
23	4670	3050	2500	6230	29300	2070	1980	3030	1220	858	996	2120
24	4980	2980	2570	5350	19300	2580	1840	2840	1190	821	993	2770
25	4150	2920	2630	4810	14500	2450	1870	2790	1170	800	993	2920
26	3720	2830	2580	4390	12200	2340	1870	3060	1110	791	1000	3750
27	3150	2790	2490	4170	11700	2250	3100	3200	1110	785	1020	3240
28	3080	2790	2380	4110	10800	2210	4250	3050	1130	777	1020	2920
29	2840	2750	2280	4100	---	2190	3720	3010	1110	796	1030	2690
30	2690	2720	2430	4230	---	2160	3250	2990	1050	789	1030	2730
31	2640	---	2670	3980	---	2210	---	2920	---	783	1030	---
TOTAL	76660	89990	97470	136200	196740	144060	61180	94470	47660	28993	26102	62060
MEAN	2473	3000	3144	4394	7026	4647	2039	3047	1589	935	842	2069
MAX	4980	4270	6110	6270	29300	10100	4250	4140	2850	1260	1030	3750
MIN	1970	2440	1970	2990	1710	2050	1460	2450	1050	777	688	1020
AC-FT	152100	178500	193300	270200	390200	285700	121400	187400	94530	57510	51770	123100
CAL YR 1985	TOTAL	857527	MEAN	2349	MAX	6160	MIN	753	AC-FT	1701000		
WTR YR 1986	TOTAL	1061585	MEAN	2908	MAX	29300	MIN	688	AC-FT	2106000		

MIDDLE FORK WILLAMETTE RIVER BASIN

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14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1950 to October 1960, June 1961 to current year.

INSTRUMENTATION.--Temperature recorder since September 1950.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 3, 1961; minimum, 0.0°C Jan. 20-22, 1962, Feb. 2, 1979, Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 19.5°C Aug. 8-9; minimum, 2.5°C Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	12.0	13.0	11.0	9.5	10.0	4.5	3.5	4.0	5.0	4.5	4.5
2	15.0	12.5	13.5	12.0	10.5	11.0	5.0	3.5	4.0	4.5	4.0	4.5
3	15.0	12.5	13.5	12.0	10.5	11.0	5.0	3.5	4.5	4.5	4.0	4.5
4	15.0	12.0	13.5	11.0	9.5	10.5	5.5	4.0	5.0	4.5	3.5	4.0
5	15.0	12.5	13.5	10.0	9.0	9.5	5.5	5.0	5.0	5.0	4.5	5.0
6	14.0	12.5	13.5	10.5	9.0	10.0	5.5	5.0	5.5	5.0	4.5	4.5
7	13.5	12.5	13.0	10.0	9.5	10.0	6.0	5.5	5.5	4.5	4.0	4.0
8	13.5	11.5	12.5	10.0	8.5	9.0	5.5	5.0	5.5	5.5	4.0	5.0
9	13.5	11.0	12.0	8.5	7.0	7.5	5.5	4.5	5.0	6.0	5.0	5.5
10	13.5	11.0	12.0	8.0	6.5	7.5	5.0	4.0	4.5	5.5	5.0	5.5
11	13.5	12.0	12.5	7.5	6.5	7.0	4.0	3.5	3.5	5.5	5.0	5.0
12	13.5	11.5	12.5	7.0	6.0	6.5	4.0	3.0	3.5	5.0	4.0	5.0
13	13.5	11.5	12.0	7.5	6.0	6.5	4.0	3.0	3.5	5.0	4.0	5.0
14	13.5	11.0	12.0	7.5	6.0	6.5	4.5	3.5	4.0	5.0	4.0	5.0
15	13.5	11.5	12.5	7.5	6.5	7.0	4.5	4.0	4.0	5.5	5.0	5.0
16	13.0	11.5	12.5	7.0	6.0	6.5	4.0	3.0	4.0	5.5	4.5	5.5
17	13.5	12.0	12.5	7.0	6.0	6.5	4.0	3.0	3.5	6.0	5.0	5.5
18	13.5	11.5	12.5	7.0	5.5	6.5	4.0	3.0	3.5	6.0	5.5	6.0
19	13.0	11.5	12.5	7.5	6.5	7.0	4.0	3.0	3.5	6.5	5.5	6.0
20	13.5	11.5	12.5	7.0	6.0	6.5	4.0	3.0	3.5	5.5	5.0	5.0
21	13.0	11.5	12.0	6.5	6.0	6.0	4.0	3.0	3.5	5.0	4.5	4.5
22	12.0	10.5	11.5	6.0	5.0	5.5	4.0	3.0	3.5	5.5	4.5	5.0
23	10.5	9.5	10.0	5.5	4.5	5.0	4.0	3.0	3.5	6.0	5.0	5.5
24	11.0	9.5	10.5	5.5	4.5	5.0	4.5	3.0	4.0	5.5	5.0	5.0
25	11.0	10.0	10.5	5.5	4.0	5.0	4.0	3.0	3.5	5.5	4.5	5.0
26	11.5	10.0	10.5	5.0	4.5	5.0	4.0	3.0	3.5	5.5	4.5	5.0
27	11.0	9.5	10.5	5.5	4.0	5.0	4.0	3.0	3.5	6.0	5.5	6.0
28	10.5	10.0	10.0	5.0	4.0	4.5	4.0	3.0	3.5	6.0	6.0	6.0
29	10.0	9.0	9.5	5.0	4.0	4.5	4.0	3.0	3.5	6.5	6.0	6.5
30	10.0	9.0	9.5	4.5	4.0	4.0	4.0	3.0	3.5	7.0	6.5	6.5
31	10.0	9.5	9.5	---	---	---	4.5	3.5	4.0	6.5	6.0	6.5
MONTH	15.0	9.0	12.0	12.0	4.0	7.0	6.0	3.0	4.0	7.0	3.5	5.0

MIDDLE FORK WILLAMETTE RIVER BASIN

14148000 MIDDLE FORK WILLAMETTE RIVER BELOW NORTH FORK, NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	6.5	6.0	6.0	---	---	---	6.0	4.5	5.0	9.0	6.5	8.0
2	6.5	6.0	6.0	---	---	---	6.5	4.0	5.0	9.0	7.5	8.0
3	6.0	5.5	6.0	---	---	---	6.5	4.0	5.0	9.0	7.0	8.0
4	6.0	5.5	6.0	---	---	---	7.0	5.0	6.0	8.5	7.0	8.0
5	6.0	5.0	5.5	---	---	---	8.0	5.0	6.5	8.0	7.0	7.5
6	5.5	4.5	5.0	---	---	---	8.5	5.5	7.0	9.0	6.0	7.5
7	4.5	3.5	4.0	---	---	---	9.5	6.0	7.5	8.5	7.0	8.0
8	4.0	2.5	3.5	---	---	---	8.5	7.0	7.5	10.0	7.5	8.5
9	4.5	2.5	3.5	---	---	---	8.0	6.5	7.0	8.5	7.0	8.0
10	4.5	3.0	4.0	---	---	---	8.5	5.5	7.0	8.0	6.5	7.5
11	5.0	4.0	4.5	---	---	---	6.0	5.0	5.5	8.5	6.0	7.0
12	5.0	4.5	4.5	---	---	---	6.0	4.5	5.5	10.5	6.5	8.5
13	6.0	4.5	5.5	---	---	---	7.0	4.5	5.5	11.0	8.0	9.0
14	6.0	5.0	5.5	---	---	---	7.0	4.5	6.0	10.0	7.0	8.5
15	7.0	6.0	6.5	---	---	---	7.5	5.5	6.5	10.5	7.0	8.5
16	---	---	---	---	---	---	6.5	5.5	6.0	11.0	7.0	9.0
17	---	---	---	---	---	---	7.0	5.0	6.0	11.5	7.5	9.5
18	---	---	---	---	---	---	8.5	5.5	7.0	11.0	8.0	9.5
19	---	---	---	---	---	---	9.5	6.0	7.5	11.0	8.5	10.0
20	---	---	---	---	---	---	11.0	6.5	8.5	9.5	8.0	9.0
21	---	---	---	---	---	---	11.0	7.5	9.5	8.5	7.0	7.5
22	---	---	---	10.0	6.0	7.5	10.0	7.5	8.5	10.0	6.5	8.0
23	---	---	---	9.5	7.0	8.0	9.0	6.0	7.5	10.5	7.5	9.0
24	---	---	---	9.5	6.5	8.0	7.0	5.5	6.5	11.5	8.5	10.0
25	---	---	---	10.0	5.5	8.0	7.5	6.0	6.5	13.5	9.0	11.0
26	---	---	---	9.5	7.0	8.5	7.0	5.5	6.5	12.0	10.0	11.0
27	---	---	---	9.0	6.5	7.5	7.5	6.5	7.0	12.0	9.5	10.5
28	---	---	---	9.0	6.0	7.5	7.5	6.0	7.0	13.5	10.0	11.5
29	---	---	---	8.0	6.0	7.0	7.5	5.5	6.5	13.5	10.0	12.0
30	---	---	---	6.5	5.5	6.0	9.0	5.0	7.0	14.0	10.5	12.0
31	---	---	---	7.0	4.0	5.5	---	---	---	14.5	10.5	12.5
MONTH	---	---	---	---	---	---	11.0	4.0	6.5	14.5	6.0	9.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	14.5	11.0	12.5	17.0	12.0	14.5	18.0	12.5	15.0	15.0	11.0	13.0
2	12.5	11.0	12.0	14.5	13.0	14.0	18.0	13.0	15.5	15.0	11.5	13.0
3	14.0	10.5	12.0	15.0	12.0	13.5	18.5	13.5	15.5	14.5	11.5	12.5
4	14.0	11.0	12.5	13.0	11.5	12.0	17.5	12.5	15.0	14.5	11.0	12.5
5	14.0	11.0	12.0	15.0	10.0	12.5	17.5	12.5	15.0	14.0	11.0	12.5
6	12.0	10.5	11.5	16.5	11.0	13.5	18.0	13.0	15.5	14.5	11.5	12.5
7	11.5	10.0	10.5	15.5	12.0	13.5	18.5	13.5	16.0	14.5	11.5	12.5
8	13.5	9.5	11.0	17.0	12.0	14.5	19.5	14.5	16.5	13.5	11.5	12.5
9	13.5	9.0	11.0	15.0	13.0	14.0	19.5	14.5	17.0	13.0	11.0	12.0
10	14.5	10.0	12.0	13.5	12.5	13.0	19.0	14.5	16.5	13.5	10.0	11.5
11	15.0	11.0	13.0	17.0	12.0	14.0	18.5	13.5	16.0	13.5	11.0	12.0
12	15.0	11.0	12.5	17.0	12.5	14.5	18.5	13.5	16.0	13.0	10.5	11.5
13	15.0	10.5	13.0	17.0	12.0	14.0	18.5	13.5	16.0	12.5	11.0	11.5
14	13.0	9.0	11.0	16.5	12.0	14.0	19.0	13.5	16.5	13.0	10.5	11.5
15	15.0	9.5	12.0	15.0	11.5	13.0	18.5	14.0	16.0	13.0	11.0	11.5
16	12.0	11.0	11.5	13.5	11.5	12.5	16.5	13.0	15.0	12.5	10.5	11.5
17	12.5	10.5	11.0	16.0	11.0	13.5	17.5	12.5	15.0	12.0	11.5	11.5
18	12.0	10.0	11.0	15.0	11.5	13.5	16.5	13.0	15.0	13.0	11.5	12.0
19	14.0	9.5	11.5	17.0	11.5	14.0	16.5	12.5	14.0	14.0	12.0	12.5
20	14.0	10.0	11.5	18.0	12.5	15.0	16.0	12.0	13.5	13.0	12.0	12.5
21	15.0	9.5	12.0	18.0	13.0	15.0	16.5	12.0	14.0	14.5	12.0	12.5
22	16.0	11.0	13.5	17.5	12.5	15.0	14.5	11.5	13.0	14.5	12.0	13.0
23	16.5	12.0	14.0	17.0	13.0	14.5	16.0	11.5	13.5	12.5	11.5	12.0
24	17.0	12.5	14.5	17.5	12.5	15.0	15.5	11.5	13.5	12.5	11.5	12.0
25	17.0	12.5	14.5	17.0	12.5	14.5	16.0	11.5	13.5	12.5	11.5	12.0
26	17.0	13.0	14.5	17.0	12.5	14.5	15.5	12.0	13.5	12.0	11.0	11.5
27	16.5	12.5	14.5	16.5	12.0	14.0	15.5	12.5	13.5	12.5	11.0	11.5
28	14.0	12.0	13.0	16.5	11.5	14.0	16.0	12.5	14.0	13.5	11.5	12.5
29	16.0	11.0	13.0	17.0	12.0	14.0	14.0	12.5	13.0	12.5	11.5	12.0
30	16.5	11.5	14.0	16.5	12.0	14.0	14.5	12.0	13.0	13.5	11.5	12.5
31	---	---	---	17.5	12.0	14.5	15.5	11.5	13.0	---	---	---
MONTH	17.0	9.0	12.5	18.0	10.0	14.0	19.5	11.5	15.0	15.0	10.0	12.0

MIDDLE FORK WILLAMETTE RIVER BASIN

97

14149000 LOOKOUT POINT LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°45'00", in SE¼ sec.13, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in elevator house at right end of spillway section of dam on Middle Fork Willamette River, 1.5 mi east of Lowell, and at mile 206.9.

DRAINAGE AREA.--991 mi².

PERIOD OF RECORD.--November 1953 to current year. Prior to October 1971, published as Lookout Point Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Nov. 7, 1953, to Dec. 4, 1954, approximate elevations obtained from reference marks and Dec. 5, 1954, to Feb. 4, 1955, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1954 by Corps of Engineers. Planned storage began in November 1953. Total capacity is 455,800 acre-ft at elevation 929 ft, and usable capacity is 349,200 acre-ft between elevations 819 ft and 929 ft, top of spillway gates. Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 464,900 acre-ft Dec. 26, 1964, elevation, 931.09 ft; minimum contents observed since first filling, 91,450 acre-ft Dec. 1, 1954, elevation, 811.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 445,200 acre-ft June 20, elevation, 926.52 ft; minimum contents, 118,100 acre-ft Jan. 15, elevation, 824.69 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

820	108,600	860	205,500	900	338,900
830	129,500	870	235,500	910	377,400
840	152,500	880	267,800	920	417,800
850	177,700	890	302,300	930	460,200

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	884.66	865.98	830.26	826.37	832.40	903.43	898.79	913.65	924.68	925.79	922.90	909.34
2	884.00	864.94	829.11	826.58	832.13	901.71	899.30	914.83	924.47	925.75	922.69	908.52
3	882.84	863.83	829.47	826.58	833.13	899.88	899.74	916.44	924.45	925.77	922.43	907.77
4	881.90	862.96	829.63	826.11	834.75	897.68	900.14	917.87	924.73	925.90	922.07	906.78
5	881.58	861.95	829.73	825.62	836.19	895.61	900.48	919.17	925.13	925.97	921.60	905.80
6	881.74	860.85	830.47	825.47	837.51	893.03	900.71	920.41	925.47	925.95	921.18	904.79
7	882.26	860.24	831.34	824.96	838.57	890.50	900.92	921.58	925.66	925.90	920.71	903.77
8	882.92	859.48	831.00	825.30	839.32	887.97	901.08	922.59	925.75	925.83	920.26	902.46
9	883.29	858.96	829.70	826.65	839.92	886.89	901.24	923.31	925.87	925.79	919.84	901.26
10	883.19	858.18	829.33	827.54	840.44	887.21	901.41	924.03	925.94	925.74	919.29	899.98
11	882.65	857.34	829.13	827.65	840.85	888.05	901.65	924.73	926.02	925.70	918.81	898.91
12	881.72	856.35	830.59	827.47	841.53	888.57	901.91	925.38	926.09	925.68	918.34	898.19
13	880.50	855.23	830.23	827.23	843.04	889.06	902.19	925.76	926.11	925.63	917.89	897.46
14	879.10	854.08	829.38	825.79	844.80	889.36	902.43	925.83	926.13	925.56	917.36	896.73
15	877.88	853.25	828.56	824.98	846.44	889.42	902.69	925.57	926.13	925.46	916.84	895.79
16	876.66	853.33	827.39	825.69	849.41	889.47	902.99	925.21	926.11	925.39	916.31	894.92
17	875.47	853.37	826.72	828.40	854.56	889.88	903.43	925.29	926.14	925.29	915.79	894.23
18	874.22	852.91	826.13	828.59	861.76	890.57	903.87	925.38	926.23	925.18	915.28	893.64
19	872.88	851.61	826.20	828.78	865.78	891.06	904.26	925.58	926.26	925.05	914.82	893.02
20	871.61	849.61	826.42	828.73	868.05	891.62	904.61	925.82	926.26	924.91	914.43	892.49
21	870.35	847.34	826.31	828.36	870.71	892.19	905.04	925.68	926.19	924.76	914.04	891.85
22	869.14	844.73	826.20	827.38	881.92	892.65	905.54	925.49	926.12	924.54	913.65	891.18
23	869.83	842.37	826.19	828.57	897.24	893.16	905.97	925.15	925.99	924.37	913.23	890.77
24	870.60	839.59	826.31	830.09	905.24	894.01	906.34	925.00	925.91	924.17	912.82	890.78
25	870.71	837.41	826.44	830.98	906.46	894.72	906.75	924.81	925.86	924.02	912.40	890.90
26	870.57	835.96	826.56	831.44	906.40	895.38	907.20	924.91	925.89	923.88	911.99	891.16
27	870.01	834.76	826.58	831.80	905.92	895.98	908.30	925.05	925.79	923.71	911.61	890.76
28	869.50	833.78	826.54	831.96	904.79	896.54	910.02	925.13	925.87	923.53	911.22	890.10
29	868.74	832.75	826.48	832.13	---	897.11	911.42	925.04	925.86	923.38	910.83	889.36
30	867.83	831.36	826.45	832.43	---	897.64	912.47	924.95	925.85	923.22	910.35	888.54
31	866.93	---	826.08	832.52	---	898.17	---	924.83	---	923.08	909.88	---
MAX	884.66	865.98	831.34	832.52	906.46	903.43	912.47	925.83	926.26	925.97	922.90	909.34
MIN	866.93	831.36	826.08	824.96	832.13	886.89	898.79	913.65	924.45	923.08	909.88	888.54
(†)	226100	132500	121000	135100	357100	332000	387200	438000	442300	430700	377000	297200
(‡)	-60500	-93600	-11500	+14100	+222000	-25100	+55200	+50800	+4300	-11600	-53700	-79800
CAL YR 1985	MAX 927.62	MIN 825.64	AC-FT†	-100								
WTR YR 1986	MAX 926.26	MIN 824.96	AC-FT†	+10600								

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

MIDDLE FORK WILLAMETTE RIVER BASIN

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR

LOCATION.--Lat 43°56'45", long 122°50'10", in SE¼NW¼ sec.5, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 0.6 mi upstream from Lost Creek, 2.0 mi northwest of Dexter, 2.6 mi downstream from Dexter Dam, and at mile 201.2.

DRAINAGE AREA.--1,001 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to September 1954 (published as "at Lowell"), June 1955 to current year. Monthly discharge only for October 1954 to June 1955, published in WSP 1738.

REVISED RECORDS.--WSP 1638: 1948(P).

GAGE.--Water-stage recorder. Datum of gage is 592.30 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Aug. 23, 1950, nonrecording gage and Aug. 23, 1950, to Sept. 30, 1954, at site 4.0 mi upstream at different datum, and June 9, 1955, to Feb. 18, 1977, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1953 by Lookout Point Lake (see station 14149000), since 1955 by Dexter Lake (re-regulating), and since 1961 by Hills Creek Lake (see station 14145100).

AVERAGE DISCHARGE.--40 years, 3,181 ft³/s, 2,305,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,600 ft³/s Jan. 18, 1953, gage height, 12.46 ft, site and datum then in use, from rating curve extended above 33,000 ft³/s; minimum daily discharge, 100 ft³/s Nov. 25, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 13.9 ft Dec. 28, 1945, former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s Feb. 27, Mar. 3, gage height, 10.22 ft; minimum discharge, 866 ft³/s Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3620	4260	4070	3580	3960	13000	1210	1210	3150	1200	1200	1870
2	3650	4240	4100	3910	3880	13000	1210	1220	3150	1190	1300	2240
3	3640	4210	4060	4230	2450	12500	1210	1210	2660	1200	1390	3020
4	3670	4200	4050	4170	1290	12000	1210	1210	1720	1200	1610	3600
5	2590	4190	3850	4120	1360	11200	1210	1210	1320	1200	1730	3640
6	1800	4170	4790	4120	1360	10800	1210	1210	1320	1190	1730	3610
7	1250	4130	6100	4130	1360	12000	1210	1210	1580	1190	1710	3620
8	1160	4200	6100	3030	1240	12000	1210	1200	1570	1200	1710	3620
9	1420	4260	6100	2670	1230	11600	1240	1200	1450	1200	1700	3640
10	2220	4270	4480	3970	1240	7900	1260	1320	1390	1200	1710	3660
11	3070	4280	3950	4150	1240	4150	1260	1420	1430	1190	1710	3660
12	4010	4290	2010	4160	1250	4050	1260	1420	1490	1190	1710	3430
13	4250	4280	3830	4170	1300	3990	1250	1940	1510	1200	1710	3150
14	4250	4260	3910	4180	1410	4060	1250	3450	1510	1200	1800	3170
15	4240	4210	3820	4010	1350	4060	1250	3510	1510	1210	1800	3160
16	4200	4280	3880	3850	1360	3930	1250	3450	1510	1210	1830	3150
17	4180	4280	2680	4180	1370	2690	1260	2250	1510	1210	1820	3180
18	4250	4770	2470	5780	1410	1440	1260	2200	1510	1200	1810	3180
19	4260	6110	2270	5960	2610	1370	1260	2270	1510	1190	1800	3160
20	4220	6920	2170	5940	4130	1300	1260	2700	1520	1220	1790	3180
21	4260	7020	2380	5950	4120	1270	1230	3580	1530	1220	1800	3210
22	4350	7180	2400	7110	1670	1230	1210	3860	1520	1220	1800	3210
23	4300	6110	2390	5500	1370	1230	1230	3810	1530	1230	1800	2840
24	4300	6330	2450	4160	3480	1240	1210	3260	1390	1230	1800	2850
25	4300	6600	2440	3940	12100	1240	1210	3170	1250	1230	1800	2860
26	4290	4090	2390	4010	12300	1220	1210	3070	1200	1210	1800	3490
27	4260	3680	2290	4020	13000	1210	1210	2770	1210	1210	1790	4070
28	4260	3690	2230	4010	12900	1210	1180	2750	1200	1220	1780	4080
29	4280	3940	2230	4000	---	1200	1180	3250	1200	1210	1780	4090
30	4290	3970	2290	3990	---	1220	1190	3100	1200	1200	1980	4070
31	4260	---	2990	3990	---	1220	---	3160	---	1200	1900	---
TOTAL	113100	142420	105170	134990	97740	160530	36800	72590	47550	37370	53600	99710
MEAN	3648	4747	3393	4355	3491	5178	1227	2342	1585	1205	1729	3324
MAX	4350	7180	6100	7110	13000	13000	1260	3860	3150	1230	1980	4090
MIN	1160	3680	2010	2670	1230	1200	1180	1200	1200	1190	1200	1870
AC-FT	224300	282500	208600	267800	193900	318400	72990	144000	94320	74120	106300	197800
CAL YR 1985	TOTAL	886620	MEAN	2429	MAX	7180	MIN	1160	AC-FT	1759000		
WTR YR 1986	TOTAL	1101570	MEAN	3018	MAX	13000	MIN	1160	AC-FT	2185000		

MIDDLE FORK WILLAMETTE RIVER BASIN

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14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1955 to current year.

INSTRUMENTATION.--Temperature recorder since August 1955.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 18.5°C Sept. 17, 21, 22, 24, 25, 1961; minimum, 3.0°C Jan. 2, 7-9, Feb. 2-4, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.5°C Oct. 5; minimum, 3.5°C Dec. 26-31.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.5	14.5	15.0	13.0	12.5	13.0	6.0	5.5	6.0	4.5	4.0	4.0
2	16.0	15.0	15.5	13.5	13.0	13.0	6.0	5.5	6.0	4.5	4.0	4.0
3	16.0	15.0	15.5	13.5	12.5	13.0	6.0	6.0	6.0	4.5	4.0	4.0
4	16.0	15.0	15.5	13.0	12.5	13.0	6.5	6.0	6.0	4.5	4.0	4.0
5	16.5	15.0	15.5	13.0	12.0	12.5	6.5	6.0	6.5	4.5	4.0	4.0
6	16.0	15.0	15.5	12.5	12.0	12.5	6.5	6.0	6.0	4.5	4.0	4.0
7	16.0	14.5	15.0	12.5	12.0	12.5	6.5	6.0	6.0	4.5	4.0	4.0
8	16.0	14.0	14.5	12.5	11.5	12.0	6.5	6.0	6.0	4.5	4.0	4.0
9	15.5	14.0	14.5	12.0	11.5	11.5	6.0	5.5	6.0	4.5	4.0	4.5
10	15.0	13.5	14.5	11.5	11.0	11.5	6.0	5.5	5.5	5.0	4.5	4.5
11	15.0	13.5	14.5	11.5	11.0	11.0	5.5	5.0	5.5	5.0	4.5	4.5
12	15.0	14.0	14.5	11.5	10.5	11.0	5.5	4.5	5.0	5.0	4.5	4.5
13	15.0	13.5	14.5	11.0	10.0	10.5	5.5	5.0	5.0	5.0	4.5	4.5
14	15.0	13.5	14.5	10.5	10.0	10.0	5.0	5.0	5.0	5.0	4.5	4.5
15	15.0	14.0	14.5	10.5	10.0	10.0	5.0	4.5	5.0	5.0	4.5	5.0
16	15.0	14.5	14.5	10.5	10.0	10.0	5.0	4.5	5.0	5.0	5.0	5.0
17	15.0	14.0	14.5	10.5	9.5	10.0	5.0	4.5	4.5	5.5	5.0	5.0
18	15.0	14.0	14.5	10.0	9.5	9.5	4.5	4.5	4.5	5.5	5.0	5.5
19	14.5	14.0	14.5	9.5	9.0	9.5	4.5	4.5	4.5	5.5	5.0	5.5
20	15.0	14.0	14.5	9.5	9.0	9.0	4.5	4.5	4.5	5.5	5.0	5.0
21	14.5	14.0	14.0	9.0	8.5	9.0	4.5	4.0	4.0	5.5	5.0	5.0
22	14.5	13.5	14.0	9.0	8.0	8.5	4.5	4.0	4.0	5.5	5.0	5.5
23	14.5	14.0	14.0	8.5	7.5	8.0	4.5	4.0	4.0	6.0	5.5	5.5
24	14.5	14.0	14.0	8.0	7.5	8.0	4.5	4.0	4.0	6.0	5.5	5.5
25	14.5	13.5	14.0	7.5	7.5	7.5	4.0	4.0	4.0	5.5	5.5	5.5
26	14.5	13.5	14.0	7.5	7.0	7.5	4.5	3.5	4.0	5.5	5.5	5.5
27	14.5	13.5	14.0	7.5	7.0	7.0	4.5	3.5	4.0	6.0	5.5	5.5
28	14.0	13.0	13.5	7.0	6.5	7.0	4.0	3.5	4.0	6.0	5.5	5.5
29	13.5	12.5	13.0	7.0	6.0	6.5	4.0	3.5	4.0	6.0	5.5	6.0
30	13.5	12.0	13.0	7.0	6.0	6.5	4.0	3.5	3.5	6.0	5.5	6.0
31	13.0	12.0	13.0	---	---	---	4.0	3.5	4.0	6.5	6.0	6.0
MONTH	16.5	12.0	14.5	13.5	6.0	10.0	6.5	3.5	5.0	6.5	4.0	5.0

MIDDLE FORK WILLAMETTE RIVER BASIN

14150000 MIDDLE FORK WILLAMETTE RIVER NEAR DEXTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.5	6.0	6.0	7.0	6.5	6.5	10.0	8.5	9.0	10.5	9.0	9.5
2	6.5	6.0	6.5	7.0	6.5	6.5	10.5	8.5	9.0	10.5	9.0	9.5
3	6.5	6.0	6.5	7.0	6.5	7.0	10.0	8.5	9.0	11.0	9.0	10.0
4	6.5	6.0	6.5	7.0	6.5	7.0	10.0	8.5	9.5	11.5	9.5	10.0
5	7.0	6.0	6.5	7.5	6.5	7.0	11.0	8.5	9.5	10.5	9.5	10.0
6	7.0	6.0	6.0	7.5	6.5	7.0	11.0	8.5	9.5	12.0	9.5	10.0
7	7.0	5.5	6.0	7.0	7.0	7.0	11.0	9.0	9.5	10.5	9.5	10.0
8	7.0	5.5	6.0	7.5	6.5	7.0	10.0	9.0	9.5	11.5	9.5	10.0
9	7.0	5.5	6.0	7.5	6.5	7.0	9.5	9.0	9.5	10.0	9.5	10.0
10	6.0	5.5	6.0	7.5	7.0	7.5	11.5	8.5	9.5	10.5	9.5	10.0
11	6.5	6.0	6.0	8.0	7.0	7.5	10.0	8.5	9.0	11.0	9.5	10.0
12	6.0	5.5	6.0	7.5	7.0	7.5	10.0	8.0	9.5	11.5	9.0	10.0
13	7.0	5.5	6.0	7.5	7.0	7.5	10.5	8.5	9.5	11.0	9.5	10.0
14	6.0	5.5	6.0	8.0	7.0	7.5	10.5	8.5	9.5	11.0	9.5	10.0
15	7.0	6.0	6.5	8.0	7.5	7.5	10.5	9.0	9.5	10.5	9.5	10.0
16	7.0	6.5	6.5	8.5	7.5	8.0	10.5	9.0	9.5	10.5	9.5	10.0
17	6.5	6.0	6.5	8.5	7.5	8.0	10.5	8.5	9.5	11.0	9.5	10.0
18	6.0	6.0	6.0	9.0	7.5	8.0	11.0	8.5	9.5	11.0	9.5	10.0
19	6.5	6.0	6.0	9.5	7.5	8.0	11.5	8.5	10.0	11.0	9.5	10.0
20	6.5	6.0	6.0	9.5	7.5	8.5	11.5	9.0	10.0	10.5	9.5	10.0
21	6.0	6.0	6.0	9.5	8.0	8.5	12.0	9.0	10.0	10.5	9.5	10.0
22	7.0	6.0	6.5	9.5	8.0	8.5	10.5	9.0	10.0	11.0	9.0	9.5
23	7.0	6.5	7.0	9.5	8.0	9.0	11.0	9.0	10.0	10.5	9.5	9.5
24	8.5	6.5	7.0	9.5	8.0	8.5	10.5	9.0	9.5	11.5	9.5	10.0
25	7.0	6.5	6.5	10.0	8.0	9.0	11.0	9.0	9.5	11.0	9.5	10.0
26	6.5	6.5	6.5	10.5	8.5	9.0	10.5	9.0	10.0	11.0	9.5	10.5
27	6.5	6.0	6.5	10.5	8.5	9.0	10.5	9.5	10.0	11.5	10.0	10.5
28	6.5	6.5	6.5	10.5	8.5	9.0	10.5	9.0	9.5	11.5	10.0	10.5
29	---	---	---	10.5	8.5	9.5	11.0	9.0	9.5	11.5	10.0	10.5
30	---	---	---	9.5	8.0	9.0	11.5	8.5	10.0	11.5	10.5	11.0
31	---	---	---	10.5	8.5	9.0	---	---	---	11.5	10.5	11.0
MONTH	8.5	5.5	6.5	10.5	6.5	8.0	12.0	8.0	9.5	12.0	9.0	10.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.0	10.5	11.0	13.5	11.0	12.0	15.0	12.0	13.0	---	---	---
2	12.0	10.5	11.0	12.5	11.5	12.0	15.0	12.0	13.0	---	---	---
3	12.0	10.5	11.0	13.5	11.5	12.0	15.0	12.0	13.5	---	---	---
4	11.5	10.0	11.0	13.0	11.5	12.0	15.0	12.0	13.5	15.0	14.0	14.5
5	11.5	10.0	11.0	14.0	11.5	12.5	15.0	12.0	13.5	15.0	14.0	14.5
6	11.0	10.0	10.5	14.5	11.5	12.5	---	---	---	15.0	14.0	14.5
7	11.5	10.0	11.0	12.5	11.5	12.0	---	---	---	15.0	13.5	14.5
8	12.5	10.0	11.0	14.0	11.5	12.0	---	---	---	15.0	13.5	14.5
9	12.5	10.5	11.5	12.5	11.5	12.0	---	---	---	14.5	14.0	14.0
10	13.5	10.0	11.5	12.5	11.5	12.0	---	---	---	15.0	13.5	14.5
11	13.0	10.0	11.5	14.0	11.5	12.5	---	---	---	15.0	14.0	14.0
12	13.0	10.0	11.5	14.0	11.5	12.5	---	---	---	15.0	13.5	14.5
13	13.0	10.5	11.5	14.0	11.0	12.5	---	---	---	15.0	14.0	14.0
14	11.5	10.5	11.0	14.0	11.0	12.5	---	---	---	15.0	13.5	14.0
15	13.0	10.5	11.5	13.0	11.5	12.0	---	---	---	15.0	14.0	14.5
16	11.5	11.0	11.0	13.0	11.5	12.0	---	---	---	15.0	14.0	14.5
17	11.5	11.0	11.0	14.0	11.5	12.5	---	---	---	14.5	14.0	14.5
18	12.5	11.0	11.5	13.5	11.0	12.5	---	---	---	14.5	14.0	14.5
19	13.0	11.0	11.5	14.5	11.5	12.5	---	---	---	15.0	14.0	14.5
20	13.0	10.5	11.5	14.5	11.5	12.5	---	---	---	15.0	14.5	14.5
21	13.5	11.0	12.0	14.5	11.5	12.5	---	---	---	15.0	14.0	14.5
22	13.5	11.0	12.0	14.5	11.5	12.5	---	---	---	15.0	14.5	14.5
23	13.5	11.0	12.0	14.0	12.0	12.5	---	---	---	15.0	14.5	14.5
24	13.5	11.0	12.0	14.5	11.5	12.5	---	---	---	15.0	14.5	14.5
25	14.0	11.0	12.0	14.5	11.5	12.5	---	---	---	14.5	14.5	14.5
26	13.0	11.0	12.0	14.0	12.0	12.5	---	---	---	14.5	14.0	14.5
27	13.5	11.0	12.0	14.5	12.0	13.0	---	---	---	14.5	14.0	14.5
28	12.0	11.5	11.5	14.5	11.5	13.0	---	---	---	15.0	14.0	14.5
29	13.5	11.5	12.0	14.5	12.0	13.0	---	---	---	14.5	14.0	14.5
30	14.0	11.0	12.0	14.5	12.0	13.0	---	---	---	14.5	14.0	14.5
31	---	---	---	15.0	12.0	13.0	---	---	---	---	---	---
MONTH	14.0	10.0	11.5	15.0	11.0	12.5	---	---	---	---	---	---

MIDDLE FORK WILLAMETTE RIVER BASIN

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14150300 FALL CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°58'15", long 122°38'15", in SW¼ sec.25, T.18 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.1 mi downstream from North Fork, 8.0 mi northeast of Lowell, and at mile 14.4.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Apr. 21 to May 13. Water-discharge records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--23 years, 418 ft³/s, 48.11 in/yr, 302,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s Jan. 21, 1972, which may have been caused by release from breakup of temporary logjam 12 mi upstream, gage height, 11.84 ft; minimum discharge, 16 ft³/s Oct. 3, 4, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0430	4,620	7.24	Feb. 23	0800	*10,200	*11.05

Minimum discharge, 21 ft³/s Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	32	247	182	554	423	625	234	550	151	66	38	25		
2	32	217	592	549	377	520	231	584	144	65	38	24		
3	31	191	1220	656	376	444	213	637	139	66	37	24		
4	31	199	972	502	540	388	200	569	132	108	35	24		
5	30	242	990	481	648	348	193	692	128	92	35	23		
6	30	214	2250	495	581	320	181	739	124	73	34	22		
7	36	430	2410	401	495	619	173	600	121	66	34	21		
8	45	764	1690	375	420	651	166	502	116	65	33	21		
9	34	804	1060	660	362	1090	169	428	111	63	32	23		
10	32	617	750	649	319	767	163	457	107	69	31	24		
11	92	445	570	520	288	648	157	559	102	75	31	23		
12	114	341	460	425	373	676	217	521	98	64	31	22		
13	63	277	386	361	1070	692	337	479	94	59	31	22		
14	49	241	335	312	1010	684	326	418	94	56	30	22		
15	44	705	301	298	948	601	311	360	100	54	29	38		
16	42	1590	291	805	1640	508	336	312	93	56	29	43		
17	44	1180	292	1250	3850	466	538	279	100	58	29	87		
18	40	793	306	771	3420	424	503	254	158	53	28	117		
19	38	597	302	952	2010	380	406	235	128	51	28	68		
20	39	514	287	1160	1800	346	354	245	101	50	28	149		
21	90	437	265	877	2430	329	305	303	92	48	27	90		
22	315	380	248	989	7230	299	280	468	87	46	27	53		
23	2510	310	238	1360	8120	318	245	370	83	46	26	77		
24	1540	276	237	1060	3580	612	221	301	80	45	25	728		
25	1270	246	233	778	1900	523	294	259	76	44	24	869		
26	777	217	216	599	1350	433	423	233	74	43	24	1290		
27	471	200	197	508	1020	370	1160	216	72	43	24	706		
28	618	199	182	477	781	320	1320	199	72	41	24	439		
29	448	189	170	478	---	284	896	184	74	40	24	299		
30	337	173	161	571	---	262	692	172	71	39	27	268		
31	299	---	158	487	---	240	---	161	---	39	27	---		
TOTAL	9573	13235	17951	20360	47361	15187	11244	12286	3122	1783	920	5641		
MEAN	309	441	579	657	1691	490	375	396	104	57.5	29.7	188		
MAX	2510	1590	2410	1360	8120	1090	1320	739	158	108	38	1290		
MIN	30	173	158	298	288	240	157	161	71	39	24	21		
CFSM	2.62	3.74	4.91	5.57	14.3	4.15	3.18	3.36	.88	.49	.25	1.59		
IN.	3.02	4.17	5.66	6.42	14.93	4.79	3.54	3.87	.98	.56	.29	1.78		
AC-FT	18990	26250	35610	40380	93940	30120	22300	24370	6190	3540	1820	11190		
CAL YR 1985	TOTAL	113467	MEAN	311	MAX	2510	MIN	26	CFSM	2.64	IN.	35.77	AC-FT	225100
WTR YR 1986	TOTAL	158663	MEAN	435	MAX	8120	MIN	21	CFSM	3.69	IN.	50.02	AC-FT	314700

MIDDLE FORK WILLAMETTE RIVER BASIN
14150300 FALL CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1963 to current year.

INSTRUMENTATION.-- Temperature recorder since August 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 25.0°C Aug. 1, 1979; minimum, 0.0°C at times in 1972, 1976-80.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C Aug. 9; minimum, 0.5°C Dec. 1.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	9.0	7.5	8.0	2.0	.5	1.5	5.5	4.0	5.0
2	---	---	---	9.5	9.0	9.5	4.0	2.0	3.0	5.0	4.5	5.0
3	---	---	---	10.0	9.5	10.0	5.5	4.5	5.0	5.5	4.5	5.0
4	---	---	---	10.0	8.5	9.5	5.5	5.0	5.5	5.5	4.0	4.5
5	---	---	---	8.0	7.0	7.5	6.0	5.5	5.5	6.5	5.5	6.0
6	---	---	---	8.5	7.5	8.0	6.5	6.0	6.0	6.5	5.0	5.5
7	---	---	---	9.0	8.5	8.5	6.5	6.5	6.5	5.5	4.5	5.0
8	---	---	---	8.5	7.0	7.5	6.5	6.0	6.5	6.5	5.5	6.0
9	---	---	---	7.0	6.0	6.5	6.0	5.5	6.0	7.5	6.5	7.0
10	---	---	---	6.0	5.5	6.0	5.5	4.0	4.5	7.0	6.0	6.5
11	---	---	---	5.5	4.5	4.5	4.0	3.0	3.5	7.0	6.0	6.5
12	---	---	---	4.0	3.0	3.5	3.0	2.5	3.0	6.5	5.5	6.0
13	---	---	---	3.5	3.0	3.5	3.5	3.0	3.0	6.5	6.0	6.5
14	---	---	---	4.0	3.0	3.5	3.5	3.0	3.5	6.5	6.0	6.0
15	---	---	---	6.0	4.0	4.5	4.0	3.5	3.5	6.5	6.5	6.5
16	---	---	---	7.0	6.0	6.5	4.0	3.5	3.5	7.0	6.5	7.0
17	---	---	---	6.5	5.5	6.0	3.5	3.5	3.5	7.5	7.0	7.0
18	---	---	---	6.0	5.5	5.5	3.5	3.5	3.5	8.0	7.5	8.0
19	---	---	---	5.5	4.5	5.5	3.5	3.0	3.5	8.0	7.0	7.5
20	---	---	---	5.0	4.5	4.5	3.5	3.0	3.0	7.0	6.0	6.5
21	---	---	---	4.5	4.0	4.5	3.5	3.0	3.0	6.5	5.5	6.0
22	---	---	---	4.0	3.0	3.5	3.5	3.0	3.5	7.0	6.0	6.5
23	---	---	---	3.0	2.5	2.5	3.5	3.0	3.0	7.0	6.5	7.0
24	---	---	---	2.5	2.5	2.5	3.5	3.0	3.5	6.5	6.0	6.0
25	10.0	10.0	10.0	3.0	2.5	2.5	3.5	3.0	3.0	6.0	5.5	6.0
26	10.0	9.0	9.5	3.0	2.0	2.5	3.0	2.5	3.0	7.0	5.5	6.0
27	10.0	9.0	9.5	2.5	2.0	2.5	3.0	2.5	2.5	8.0	7.0	7.5
28	9.5	8.0	8.5	3.0	2.5	3.0	3.0	2.5	2.5	8.0	7.5	7.5
29	7.5	6.5	7.0	3.0	1.5	2.0	3.0	2.5	2.5	8.0	7.5	7.5
30	7.5	6.5	7.0	2.0	1.0	1.5	2.5	2.0	2.0	8.5	8.0	8.0
31	7.5	7.0	7.5	---	---	---	4.0	2.5	3.0	8.0	7.5	7.5
MONTH	---	---	---	10.0	1.0	5.0	6.5	.5	3.5	8.5	4.0	6.5

14150300 FALL CREEK NEAR LOWELL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.5	7.5	9.5	9.0	9.0	8.5	7.0	7.5	9.5	7.5	8.5
2	7.5	7.5	7.5	9.0	7.5	8.5	8.0	6.5	7.0	9.0	8.0	8.5
3	7.5	6.5	7.0	9.0	7.5	8.5	8.0	6.0	7.0	9.0	7.5	8.0
4	7.0	7.0	7.0	9.5	8.0	8.5	8.5	7.5	8.0	9.5	7.5	8.5
5	7.0	5.5	6.0	10.0	8.0	9.0	9.0	7.5	8.5	8.5	7.0	7.5
6	5.5	5.0	5.5	10.0	9.5	9.5	9.5	7.0	8.5	8.0	6.5	7.5
7	5.5	4.5	4.5	10.0	9.0	9.5	10.0	8.0	9.5	8.5	7.5	8.0
8	4.5	3.5	4.0	9.0	8.0	8.0	10.0	9.5	9.5	10.0	7.5	8.5
9	4.0	3.5	3.5	8.0	7.0	7.5	9.5	9.0	9.5	8.5	7.5	8.0
10	4.5	3.5	4.0	8.5	7.5	8.0	9.5	8.0	8.5	8.0	7.0	7.5
11	5.5	4.5	5.0	8.5	8.0	8.0	8.5	7.0	7.5	8.0	6.5	7.0
12	5.5	4.5	4.5	8.0	7.0	7.5	7.0	6.5	7.0	10.0	6.5	8.0
13	7.0	5.0	6.0	7.5	6.5	7.0	8.0	6.5	7.0	10.0	8.5	9.5
14	7.0	6.0	6.5	7.0	5.5	6.0	8.5	6.0	7.5	10.0	7.0	8.5
15	7.5	6.5	7.0	7.5	6.5	7.0	8.5	7.5	8.0	10.5	7.5	9.0
16	7.5	7.5	7.5	7.5	6.0	6.5	8.0	7.0	7.5	11.0	7.5	9.5
17	8.0	7.5	7.5	7.5	6.5	7.0	8.0	6.5	7.5	12.5	9.0	10.5
18	7.5	5.5	6.0	8.0	6.5	7.0	9.0	6.5	7.5	12.0	10.0	11.5
19	6.0	5.5	6.0	8.0	6.0	7.0	10.5	7.0	8.5	12.5	10.5	11.5
20	6.5	6.0	6.0	9.0	7.0	8.0	11.5	8.5	10.0	12.0	10.0	11.0
21	6.5	6.0	6.5	9.0	8.0	8.5	12.5	10.0	11.0	10.0	8.0	9.0
22	7.5	6.5	7.0	8.0	6.5	7.5	12.0	8.5	10.0	10.5	7.0	8.5
23	8.0	7.5	7.5	8.5	7.5	8.0	8.5	7.0	8.0	11.0	8.5	9.5
24	9.0	7.5	8.0	8.0	7.5	7.5	8.0	6.0	7.0	13.0	10.0	11.5
25	8.5	8.0	8.5	8.5	6.5	7.5	7.5	7.0	7.0	15.0	11.0	13.0
26	9.0	8.0	8.5	9.5	7.5	8.5	7.5	6.5	7.0	14.5	13.0	14.0
27	9.5	8.5	9.0	10.0	8.5	9.5	8.0	7.5	7.5	14.0	12.5	13.5
28	9.5	9.0	9.0	10.5	9.0	9.5	8.0	7.0	7.5	15.0	12.5	14.0
29	---	---	---	10.5	8.5	9.5	8.0	6.5	7.0	16.0	13.0	15.0
30	---	---	---	10.0	8.0	9.0	9.0	5.5	7.5	17.5	14.5	16.0
31	---	---	---	8.5	6.5	7.5	---	---	---	18.5	15.5	17.0
MONTH	9.5	3.5	6.5	10.5	5.5	8.0	12.5	5.5	8.0	18.5	6.5	10.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.0	16.5	17.5	18.5	15.0	16.5	19.0	15.5	17.5	17.5	14.5	16.0
2	18.5	16.5	17.5	17.0	16.0	16.5	20.0	17.0	18.5	18.0	15.0	16.5
3	16.5	15.0	16.0	16.5	15.0	15.5	21.0	17.5	19.0	18.5	15.5	16.5
4	16.0	15.0	15.5	15.0	13.0	14.0	20.5	16.5	18.5	18.5	15.5	17.0
5	15.0	14.0	15.0	15.5	11.5	13.5	20.0	16.0	18.0	18.0	15.0	16.5
6	14.5	13.0	13.5	17.0	13.0	15.0	20.0	16.5	18.0	18.0	15.0	16.5
7	13.5	12.5	13.0	15.5	15.0	15.0	21.0	17.0	19.0	17.0	15.0	16.0
8	15.0	11.5	13.5	18.0	14.5	16.0	21.5	18.0	19.5	15.5	14.0	15.0
9	16.0	12.0	14.0	16.5	15.5	16.0	22.0	18.0	20.0	15.0	14.0	14.5
10	17.5	13.5	15.5	15.5	15.0	15.0	21.0	18.0	19.5	14.5	12.5	13.5
11	18.5	15.0	16.5	17.5	14.5	16.0	20.5	17.0	18.5	15.0	12.5	13.5
12	19.0	15.5	17.0	18.5	15.5	17.0	20.5	16.5	18.5	13.5	11.0	12.5
13	19.0	15.0	17.0	18.5	14.5	16.5	20.5	16.5	18.5	---	---	---
14	17.0	14.5	15.5	18.0	14.5	16.0	21.0	17.0	18.5	---	---	---
15	16.5	13.0	14.5	15.5	14.0	15.0	20.5	17.0	19.0	---	---	---
16	15.5	13.5	14.5	15.0	13.5	14.5	19.0	16.5	17.5	---	---	---
17	13.5	13.0	13.5	17.0	13.5	15.0	19.0	15.5	17.0	---	---	---
18	13.0	12.5	12.5	17.0	14.0	15.5	18.5	15.5	17.0	---	---	---
19	15.0	11.5	13.0	18.5	14.0	16.0	19.0	15.5	17.0	---	---	---
20	15.5	12.5	14.0	19.5	15.5	17.5	18.5	15.5	17.0	---	---	---
21	16.5	12.5	14.5	20.0	16.0	18.0	19.5	16.0	17.5	---	---	---
22	18.0	14.5	16.0	19.5	16.0	17.5	18.0	16.0	17.0	---	---	---
23	18.5	15.5	17.0	19.0	16.5	17.5	19.0	15.5	17.0	---	---	---
24	19.5	16.5	18.0	19.0	15.5	17.5	18.5	15.0	16.5	---	---	---
25	19.5	16.0	18.0	19.0	15.5	17.0	18.5	15.0	17.0	---	---	---
26	18.5	16.5	17.5	18.5	15.5	17.0	19.0	16.0	17.5	---	---	---
27	19.0	16.5	17.5	18.5	15.0	16.5	19.0	17.0	18.0	---	---	---
28	17.5	14.5	16.0	18.5	14.5	16.5	19.0	17.0	18.0	---	---	---
29	16.5	14.0	15.0	18.5	15.0	17.0	17.5	16.5	17.0	---	---	---
30	17.5	14.0	15.5	18.5	14.5	16.5	17.5	16.0	16.5	---	---	---
31	---	---	---	19.0	15.0	16.5	18.0	15.5	16.5	---	---	---
MONTH	19.5	11.5	15.5	20.0	11.5	16.0	22.0	15.0	18.0	---	---	---

MIDDLE FORK WILLAMETTE RIVER BASIN

14150900 FALL CREEK LAKE NEAR LOWELL, OR

LOCATION.--Lat 43°56'40", long 122°45'20", in SW¼ sec.1, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, in regulating tower near the center of Fall Creek Dam on Fall Creek, 2.2 mi northeast of Lowell, and at mile 7.2.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--January 1966 to current year. Prior to October 1971, published as Fall Creek Reservoir near Lowell.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1965 by Corps of Engineers; storage began January 1966. Total capacity is 125,100 acre-ft at elevation 834 ft and usable capacity is 115,500 acre-ft between elevation 728 ft and 834 ft. Reservoir used for flood control, conservation, and recreation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 123,200 acre-ft May 30, 31, 1972; maximum elevation, 832.98 ft May 31, 1972; minimum contents, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970, Nov. 18-25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 118,300 acre-ft May 22, elevation, 830.26 ft; minimum contents, 1,120 acre-ft Dec. 23, elevation, 692.71 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

670.4	0	725	8,340	785	53,120
679	59	735	13,270	795	64,590
685	366	745	19,480	805	77,880
695	1,400	755	26,130	815	97,750
705	2,850	765	33,770	825	109,200
715	5,200	775	42,580	833	123,200

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	801.78	751.10	704.71	703.22	731.39	798.19	808.13	825.53	830.06	829.41	829.95	829.65
2	799.93	747.56	704.58	706.89	731.59	795.34	808.41	825.94	830.05	829.44	829.95	829.64
3	798.17	743.68	703.22	709.85	732.87	794.44	808.69	826.43	830.07	829.47	829.95	829.61
4	796.41	740.41	702.68	711.43	735.53	794.17	808.95	826.89	830.07	829.57	829.95	829.53
5	794.60	738.30	701.56	712.60	738.48	794.17	809.21	827.64	830.19	829.67	829.95	829.48
6	792.73	736.00	708.51	713.79	740.89	794.05	809.39	828.24	830.19	829.69	829.95	829.42
7	790.83	734.69	706.16	714.15	742.97	794.79	809.60	828.53	830.19	829.75	829.95	829.34
8	789.12	735.12	698.79	714.44	744.67	795.58	809.89	828.64	830.19	829.78	829.95	829.28
9	787.72	736.03	693.82	716.92	746.06	796.93	810.13	828.74	830.19	829.82	829.94	829.22
10	786.46	735.72	693.02	719.28	747.26	797.53	810.39	829.03	830.16	829.90	829.93	828.94
11	785.31	734.29	692.96	720.49	748.34	797.83	810.64	829.39	830.15	829.93	829.92	828.31
12	784.19	732.30	693.13	721.09	749.88	798.15	811.04	829.64	830.11	829.92	829.91	827.51
13	782.94	730.56	693.05	721.27	753.95	798.45	811.63	829.74	830.07	829.90	829.90	826.52
14	781.62	729.41	692.91	721.38	757.72	798.72	812.18	829.83	830.03	829.91	829.89	825.53
15	780.30	730.23	693.11	721.66	761.12	798.79	812.68	829.93	830.00	829.91	829.87	824.64
16	778.95	734.11	692.96	724.39	765.46	798.89	813.10	829.95	829.96	829.93	829.86	823.70
17	778.18	733.98	693.02	726.90	775.89	799.35	813.79	829.98	829.95	829.84	829.84	822.83
18	776.75	730.65	693.42	726.75	784.87	799.95	814.63	829.99	830.05	829.96	829.83	821.92
19	775.26	727.04	693.05	728.92	786.45	800.59	---	829.99	830.06	829.99	829.82	820.61
20	773.79	724.53	692.84	729.34	785.62	801.14	---	830.05	830.05	830.00	829.82	819.32
21	772.42	723.36	693.14	728.71	785.05	801.74	---	830.16	830.02	830.00	829.80	817.88
22	771.43	722.83	692.77	729.48	798.95	802.24	---	830.10	829.97	830.00	829.78	816.39
23	775.27	721.54	693.06	728.55	813.51	802.85	817.85	830.02	829.92	830.00	829.77	814.99
24	774.71	719.92	693.09	727.87	816.94	803.93	818.25	830.00	829.85	830.00	829.75	814.43
25	771.96	717.33	692.98	728.19	814.86	804.83	818.72	829.99	829.78	830.00	829.74	813.62
26	767.70	713.77	693.04	728.37	811.32	805.50	819.42	829.99	829.71	829.99	829.72	812.51
27	764.01	712.47	693.11	729.07	807.14	806.11	821.43	829.94	829.63	829.99	829.71	809.77
28	762.04	710.80	693.02	729.75	802.81	806.61	823.63	829.97	829.59	829.98	829.69	807.78
29	759.84	708.96	693.24	730.60	---	807.04	824.74	830.04	829.53	829.97	829.68	806.27
30	757.21	706.87	694.06	731.51	---	807.39	825.23	830.06	829.44	829.97	829.67	804.68
31	754.36	---	696.20	731.39	---	807.77	---	830.07	---	829.96	829.66	---
MAX	801.78	751.10	708.51	731.51	816.94	807.77	---	830.16	830.19	830.00	829.95	829.65
MIN	754.36	706.87	692.77	703.22	731.39	794.05	---	825.53	829.44	829.41	829.66	804.68
(+)	25680	3220	1550	11300	74820	81840	109600	118000	116800	117800	117200	77430
(+)	-50450	-22460	-1670	+9750	+63520	+7020	+27760	+8400	-1200	+1000	-600	-39770

CAL YR 1985 AC-FT# -8130
WTR YR 1986 AC-FT# +1300

+ Contents, in acre-feet, at 2400, on last day of month.
+ Change in contents, in acre-feet.

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR

LOCATION.--Lat 43°56'40", long 122°46'25", in NW¼SE¼ sec.2, T.19 S., R.1 W., Lane County, Hydrologic Unit 17090001, on right bank 10 ft upstream from highway bridge, 1.1 mi downstream from Fall Creek Dam, 2.3 mi southeast of town of Fall Creek, and at mile 6.1.

DRAINAGE AREA.--186 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October to December 1911 (published as Big Fall Creek near Fall Creek; gage heights and discharge measurements only), September 1935 to current year.

REVISED RECORDS.--WSP 1094: 1946(M). WSP 1248: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 637.81 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mi downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1966 by Fall Creek Lake (see sta 14150900). No diversion upstream from station.

AVERAGE DISCHARGE.--51 years, 586 ft³/s, 42.78 in/yr, 424,600 acre-ft/yr, adjusted for storage in Fall Creek Lake since January 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft³/s Dec. 11, 1956, gage height, 18.80 ft, from rating curve extended above 9,700 ft³/s; minimum discharge, 1.5 ft³/s Oct. 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,510 ft³/s Mar. 1, gage height, 8.00 ft; minimum daily discharge, 32 ft³/s Aug. 1 to Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1360	1460	495	80	583	4400	91	574	215	89	36	32
2	1260	1450	843	322	476	2950	91	574	173	42	32	32
3	1170	1440	2010	496	211	1320	91	552	142	42	32	52
4	1160	1250	1530	472	37	715	91	482	142	42	32	68
5	1160	949	1570	475	50	568	91	460	142	42	32	68
6	1160	930	2220	480	62	509	91	576	142	42	32	68
7	1170	916	3380	484	53	430	61	655	142	42	32	68
8	1060	916	2900	477	53	527	42	655	142	42	32	68
9	831	954	1750	474	53	769	42	531	142	42	32	68
10	748	995	1050	486	53	768	42	464	142	41	32	252
11	747	986	773	493	53	768	42	464	142	73	32	552
12	744	973	612	480	59	768	42	555	142	79	32	766
13	742	812	528	468	69	765	42	596	142	76	32	846
14	735	610	461	409	66	763	42	531	142	42	32	840
15	731	684	393	364	68	763	42	468	142	50	32	840
16	730	1200	387	457	427	639	42	424	140	51	32	853
17	422	1790	368	1120	532	324	42	372	139	44	32	863
18	767	2000	369	1100	596	189	42	372	139	44	32	916
19	752	1740	414	885	2090	125	42	324	139	44	32	1140
20	752	1320	391	1600	3030	87	42	305	139	44	32	1260
21	750	914	332	1410	3600	87	42	344	139	44	32	1250
22	749	675	346	1140	1040	87	42	717	139	44	32	1240
23	1080	710	298	1980	251	87	43	606	139	44	32	1240
24	2270	703	309	1550	1660	87	45	447	139	44	32	1280
25	2920	812	312	961	3830	87	45	366	139	44	32	1600
26	2880	871	280	778	4140	87	45	335	139	44	32	2450
27	2160	472	258	541	4350	87	45	335	139	44	32	2910
28	1650	520	239	498	4370	87	45	216	139	44	32	2050
29	1460	508	214	473	---	87	346	215	139	44	32	1460
30	1430	498	164	563	---	87	577	215	139	44	32	1460
31	1410	---	79	725	---	87	---	215	---	44	32	---
TOTAL	36960	30058	25275	22241	31862	19104	2428	13945	4320	1497	996	26592
MEAN	1192	1002	815	717	1138	616	80.9	450	144	48.3	32.1	886
MAX	2920	2000	3380	1980	4370	4400	577	717	215	89	36	2910
MIN	422	472	79	80	37	87	42	215	139	41	32	32
AC-FT	73310	59620	50130	44120	63200	37890	4820	27660	8570	2970	1980	52750
MEAN†	372	624	788	876	2282	730	548	586	124	64.6	22.4	218
CFSM†	2.00	3.36	4.24	4.71	12.27	3.93	2.94	3.15	0.67	0.35	0.12	1.17
IN.†	2.30	3.75	4.89	5.43	12.78	4.53	3.28	3.64	0.74	0.40	0.14	1.31
AC-FT†	22860	37160	48460	53870	126700	44910	32580	36060	7370	3970	1380	12980

CAL YR 1985 TOTAL 162539 MEAN 445 MAX 3380 MIN 24 AC-FT 322400 MEAN† 434 CFSM† 2.33 IN.† 31.69 AC-FT† 314300
WTR YR 1986 TOTAL 215278 MEAN 590 MAX 4400 MIN 32 AC-FT 427000 MEAN† 592 CFSM† 3.18 IN.† 43.19 AC-FT† 428300

† Adjusted for change in contents in Fall Creek Lake.

MIDDLE FORK WILLAMETTE RIVER BASIN

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1950 to current year.

INSTRUMENTATION.--Temperature recorder since August 1950.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C July 28, 1958; minimum recorded, 0.5°C on several days in 1962 and 1965.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.0°C Sept. 4-6; minimum, 1.0°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.5	9.5	9.5	11.5	11.0	11.0	1.5	1.0	1.5	3.0	2.0	2.5
2	10.0	9.5	10.0	11.5	11.5	11.5	1.5	1.0	1.0	4.0	3.0	3.5
3	10.5	10.0	10.5	12.0	11.5	11.5	4.5	1.5	3.0	4.5	4.0	4.0
4	11.0	10.5	11.0	12.0	12.0	12.0	5.0	4.5	4.5	4.5	4.0	4.5
5	12.0	11.0	11.5	12.0	11.5	12.0	5.5	5.0	5.0	4.5	4.0	4.0
6	12.5	12.0	12.5	11.5	11.0	11.5	6.0	5.5	5.5	4.5	4.0	4.5
7	13.0	12.5	13.0	11.0	11.0	11.0	6.0	6.0	6.0	4.5	4.5	4.5
8	14.0	13.0	13.5	11.0	10.0	10.5	6.0	6.0	6.0	5.0	4.5	5.0
9	14.0	13.5	14.0	10.0	9.0	9.5	6.0	5.0	5.5	5.5	5.0	5.5
10	14.5	14.0	14.5	9.0	8.0	8.5	5.0	3.5	4.5	6.0	5.5	5.5
11	14.5	14.5	14.5	8.5	7.5	8.0	3.5	2.5	3.0	6.0	6.0	6.0
12	14.5	14.5	14.5	8.0	7.0	7.5	2.5	2.0	2.0	6.0	6.0	6.0
13	14.5	14.0	14.0	7.5	6.5	7.5	2.5	1.5	2.0	6.0	6.0	6.0
14	14.5	14.0	14.0	7.5	6.5	7.0	2.5	2.0	2.0	6.0	6.0	6.0
15	14.5	14.0	14.0	7.0	6.5	6.5	3.0	2.0	2.5	6.0	6.0	6.0
16	14.0	14.0	14.0	6.5	6.0	6.0	3.0	2.0	2.5	6.0	6.0	6.0
17	14.5	13.5	14.0	6.5	6.5	6.5	3.0	2.0	2.5	6.5	6.0	6.0
18	14.5	14.5	14.5	6.5	6.0	6.5	3.0	2.0	2.5	6.5	6.5	6.5
19	14.5	14.5	14.5	6.5	6.0	6.5	2.5	2.5	2.5	7.0	6.5	6.5
20	14.5	14.5	14.5	6.0	5.5	6.0	2.5	2.0	2.0	7.0	7.0	7.0
21	14.5	14.5	14.5	5.5	5.0	5.0	2.5	1.5	2.0	7.0	7.0	7.0
22	14.0	14.0	14.0	5.0	4.5	5.0	2.5	2.0	2.0	7.0	6.5	6.5
23	14.0	12.5	13.5	4.5	4.5	4.5	2.5	2.0	2.5	6.5	6.5	6.5
24	12.5	12.0	12.0	4.5	4.0	4.0	3.0	2.0	2.5	6.5	6.5	6.5
25	12.0	12.0	12.0	4.0	3.0	3.5	3.0	2.0	2.5	6.5	6.5	6.5
26	12.0	12.0	12.0	3.0	2.5	2.5	2.5	2.0	2.0	6.5	6.5	6.5
27	12.0	12.0	12.0	2.5	2.0	2.5	2.5	2.0	2.0	6.5	6.5	6.5
28	12.0	11.5	12.0	2.5	2.0	2.5	2.5	2.0	2.0	6.5	6.5	6.5
29	11.5	11.5	11.5	2.5	2.0	2.5	2.5	2.0	2.0	7.0	6.5	6.5
30	11.5	11.0	11.0	2.0	1.5	1.5	2.0	2.0	2.0	7.0	7.0	7.0
31	11.0	11.0	11.0	---	---	---	2.0	2.0	2.0	7.5	7.0	7.0
MONTH	14.5	9.5	13.0	12.0	1.5	7.0	6.0	1.0	3.0	7.5	2.0	6.0

14151000 FALL CREEK BELOW WINBERRY CREEK, NEAR FALL CREEK, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.0	---	---	---	---	---	---	---	---	---
2	7.5	7.0	7.5	---	---	---	---	---	---	---	---	---
3	7.5	7.0	7.5	---	---	---	---	---	---	---	---	---
4	7.5	7.0	7.0	---	---	---	---	---	---	---	---	---
5	7.5	6.5	7.0	---	---	---	---	---	---	---	---	---
6	7.5	7.0	7.0	---	---	---	---	---	---	---	---	---
7	7.5	6.5	7.5	---	---	---	---	---	---	---	---	---
8	7.0	6.0	6.5	---	---	---	---	---	---	---	---	---
9	7.0	6.0	6.5	---	---	---	---	---	---	---	---	---
10	6.5	6.0	6.5	---	---	---	---	---	---	---	---	---
11	7.0	6.5	6.5	---	---	---	---	---	---	---	---	---
12	6.5	6.0	6.0	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	9.5	8.5	8.5	---
16	---	---	---	---	---	---	---	---	9.5	8.5	9.0	---
17	---	---	---	---	---	---	---	---	10.0	9.0	9.0	---
18	---	---	---	---	---	---	---	---	9.5	9.0	9.0	---
19	---	---	---	---	---	---	---	---	10.0	9.0	9.5	---
20	---	---	---	---	---	---	---	---	9.5	9.0	9.5	---
21	---	---	---	9.5	8.5	9.0	---	---	9.5	9.0	9.0	---
22	---	---	---	10.0	8.5	9.0	---	---	9.5	8.0	8.5	---
23	---	---	---	10.0	8.5	9.5	---	---	9.0	8.0	8.5	---
24	---	---	---	9.5	8.5	9.0	---	---	9.5	8.5	9.0	---
25	---	---	---	10.5	8.5	9.5	---	---	10.0	9.0	9.5	---
26	---	---	---	10.0	8.5	9.0	---	---	10.0	9.0	9.5	---
27	---	---	---	10.0	8.5	9.0	---	---	10.0	9.5	9.5	---
28	---	---	---	---	---	---	---	---	11.5	10.0	11.0	---
29	---	---	---	---	---	---	---	---	11.5	10.5	11.0	---
30	---	---	---	---	---	---	---	---	11.5	10.5	11.0	---
31	---	---	---	---	---	---	---	---	12.0	10.0	11.0	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	12.0	10.5	11.0	15.0	13.0	14.0	12.5	8.0	9.5	12.5	8.5	10.0
2	12.5	10.5	11.0	14.5	13.0	13.5	12.5	8.0	9.5	13.0	8.5	10.5
3	12.0	10.0	11.0	16.0	12.5	13.5	13.0	8.0	9.5	19.5	8.5	13.5
4	11.5	10.5	11.0	14.5	11.5	13.0	12.5	7.5	9.5	20.0	18.0	19.0
5	11.5	10.5	11.0	15.5	12.5	14.0	12.5	7.5	9.5	20.0	18.0	19.0
6	11.5	10.5	11.0	16.0	12.5	14.0	12.5	8.0	9.5	20.0	18.0	19.0
7	11.5	10.5	11.0	13.5	13.0	13.5	13.0	8.0	10.0	19.5	18.0	18.5
8	12.0	10.5	11.0	16.0	13.0	14.0	13.0	8.0	10.0	19.5	18.0	18.5
9	12.0	10.5	11.5	14.5	13.0	14.0	13.0	8.0	10.0	19.5	18.0	18.5
10	12.5	11.0	11.5	14.5	13.0	13.5	12.5	8.0	9.5	19.0	14.0	16.0
11	12.5	10.5	11.5	14.5	11.0	13.0	12.5	8.0	9.5	14.5	12.0	13.0
12	12.5	11.0	11.5	15.0	11.0	13.0	12.5	8.0	9.5	12.0	11.5	11.5
13	12.5	11.0	11.5	14.5	11.5	13.5	13.0	8.0	9.5	11.5	11.5	11.5
14	13.0	11.5	12.0	17.0	14.5	15.5	13.0	8.0	10.0	11.5	11.5	11.5
15	14.0	12.5	13.5	15.5	9.5	12.5	12.5	8.0	9.5	11.5	11.5	11.5
16	14.0	13.5	13.5	11.0	9.5	10.0	10.5	8.0	9.0	11.5	11.5	11.5
17	14.5	13.5	14.0	12.5	9.0	10.0	12.5	8.0	9.5	11.5	11.5	11.5
18	14.5	13.5	14.0	11.5	8.5	9.5	12.0	8.0	9.5	11.0	11.0	11.0
19	15.0	13.0	14.0	12.5	8.5	10.0	12.5	8.0	9.5	11.0	9.0	9.5
20	15.0	13.5	14.5	12.5	8.5	10.0	12.5	8.0	9.5	9.0	9.0	9.0
21	14.5	14.0	14.0	12.0	8.5	10.0	12.5	8.0	10.0	9.0	9.0	9.0
22	15.0	14.0	14.5	12.0	8.0	9.5	10.5	8.0	9.0	9.0	9.0	9.0
23	15.0	14.0	14.5	11.0	8.5	9.5	12.5	8.0	9.5	9.0	9.0	9.0
24	15.0	13.5	14.0	12.0	8.0	9.5	11.5	8.0	9.5	9.0	9.0	9.0
25	15.0	13.5	14.0	12.0	8.0	9.5	12.5	8.0	10.0	9.0	9.0	9.0
26	14.5	13.5	14.0	11.5	8.0	9.0	12.5	8.5	9.5	9.5	9.0	9.0
27	14.5	13.0	13.5	11.5	8.0	9.5	12.5	8.5	10.0	9.5	9.5	9.5
28	13.5	13.0	13.5	11.5	8.0	9.5	12.5	9.0	10.0	10.0	9.5	9.5
29	14.5	12.5	13.5	11.5	8.0	9.0	10.0	8.5	9.0	10.0	9.5	10.0
30	14.0	13.0	13.5	11.5	8.0	9.0	11.5	9.0	10.0	10.5	10.0	10.0
31	---	---	---	11.5	7.5	9.0	12.5	8.5	10.0	---	---	---
MONTH	15.0	10.0	12.5	17.0	7.5	11.5	13.0	7.5	9.5	20.0	8.5	12.0

MIDDLE FORK WILLAMETTE RIVER BASIN

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR

LOCATION.--Lat 43°59'55", long 122°54'20", in SW¼SW¼ sec.14, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090001, on right bank 25 ft downstream from highway bridge at Jasper, 0.1 mi downstream from Hills Creek, and at mile 195.0.

DRAINAGE AREA.--1,340 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to February 1912, July 1913 to March 1917, October 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1907-8, 1910-12, 1914-16, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 513.45 ft above National Geodetic Vertical Datum of 1929. September 1905 to February 1912 and July 1913 to March 1917, nonrecording gage at approximately same site at datum about 1.5 ft higher Oct. 22, 1952, to Sept. 30, 1953, nonrecording gage at site 25 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 4. Water-discharge records excellent. Flow regulated since 1953 by Lookout Point Lake (see station 14149000), since 1961 by Hills Creek Lake (see station 14145100), and since 1966 by Fall Creek Lake (see station 14150900).

AVERAGE DISCHARGE.--43 years (water years 1906-11, 1914-16, 1953-86), 4,136 ft³/s, 2,997,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,000 ft³/s Nov. 23, 1909, gage height, 17.4 ft, datum then in use, from graph based on gage readings, from rating curve extended above 42,000 ft³/s; minimum discharge, 366 ft³/s Dec. 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,500 ft³/s Feb. 26, gage height, 9.70 ft, from peak indicator in well; minimum discharge, 1,190 ft³/s Aug. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5060	5920	5000	4260	5330	20000	1550	1720	3620	1340	1210	1960
2	5020	5880	5570	4840	5080	18100	1530	1720	3590	1250	1300	2310
3	4920	5840	7520	5590	3520	15100	1510	1720	3080	1250	1400	3150
4	4940	5680	6820	5380	1920	13700	1510	1720	2110	1290	1640	3770
5	3940	5420	6610	5330	2100	12700	1490	1720	1580	1290	1800	3840
6	3030	5330	8790	5320	2070	12000	1480	2100	1570	1260	1810	3820
7	2450	5340	12000	5250	1990	13600	1440	2590	1840	1250	1790	3820
8	2220	5650	11200	4340	1810	13800	1400	2440	1810	1260	1780	3830
9	2230	5960	9340	4060	1730	14200	1420	2240	1670	1260	1770	3850
10	3000	5840	6710	5250	1700	10200	1430	2250	1600	1260	1780	4010
11	3910	5670	5640	5370	1670	5850	1420	2370	1630	1300	1780	4320
12	4830	5590	3280	5290	1910	5650	1470	2390	1690	1290	1780	4330
13	5060	5380	5060	5230	2650	5610	1510	2970	1720	1300	1790	4170
14	5050	5120	5000	5140	2720	5630	1500	4390	1720	1250	1880	4160
15	5020	5370	4800	4950	2630	5550	1480	4430	1730	1260	1890	4170
16	4970	6690	4810	5250	3510	5210	1490	4280	1730	1270	1920	4180
17	4650	7210	3640	6620	5670	3740	1590	3070	1740	1260	1900	4220
18	5050	7670	3360	7800	5980	2100	1600	2910	1770	1250	1900	4290
19	5070	8750	3170	8210	7030	1900	1560	2920	1740	1230	1880	4440
20	5040	9190	3020	8850	9450	1740	1510	3360	1730	1260	1870	4630
21	5130	8770	3160	8530	11200	1680	1470	4210	1740	1260	1880	4650
22	5210	8640	3190	9360	10300	1610	1430	4940	1730	1260	1880	4620
23	6100	7430	3130	9190	9120	1660	1430	4810	1730	1260	1880	4310
24	7220	7550	3190	7280	8420	1820	1400	4120	1600	1260	1880	4540
25	7820	8070	3180	6070	20100	1750	1430	3900	1430	1260	1880	4960
26	7670	5480	3080	5770	20200	1690	1480	3760	1370	1240	1870	6570
27	6780	4690	2940	5410	20900	1650	1660	3400	1380	1240	1860	7510
28	6360	4680	2850	5330	20400	1600	1720	3310	1380	1250	1850	6590
29	6030	4910	2800	5310	---	1580	1720	3720	1380	1240	1860	5760
30	5970	4900	2820	5450	---	1580	1720	3600	1370	1230	2080	5720
31	5900	---	3390	5530	---	1560	---	3650	---	1220	2000	---
TOTAL	155650	188620	155070	185560	191110	204560	45350	96730	54780	39100	55790	132500
MEAN	5021	6287	5002	5986	6825	6599	1512	3120	1826	1261	1800	4417
MAX	7820	9190	12000	9360	20900	20000	1720	4940	3620	1340	2080	7510
MIN	2220	4680	2800	4060	1670	1560	1400	1720	1370	1220	1210	1960
AC-FT	308700	374100	307600	368100	379100	405700	89950	191900	108700	77550	110700	262800
CAL YR 1985	TOTAL	1198740	MEAN	3284	MAX	12000	MIN	1300	AC-FT	2378000		
WTR YR 1986	TOTAL	1504820	MEAN	4123	MAX	20900	MIN	1210	AC-FT	2985000		

MIDDLE FORK WILLAMETTE RIVER BASIN

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14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1953 to December 1962, October 1963 to current year.

INSTRUMENTATION.--Temperature recorder October 1953 to December 1962, October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 21.0°C June 1, 2, 1978; minimum, 1.5°C Jan. 25-27, 1969.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 17.5°C several days in July and August; minimum recorded, 5.5°C Nov. 17, 18.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.5	12.0	13.0	12.0	11.0	12.0						
2	14.5	12.5	13.0	12.5	12.0	12.0						
3	14.5	12.5	13.5	12.5	12.0	12.0						
4	15.0	13.5	14.0	12.0	11.5	12.0						
5	15.0	13.0	14.0	11.5	11.5	11.5						
6	14.5	13.5	14.0	11.5	10.0	11.0						
7	14.5	13.5	13.5	11.0	11.0	11.0						
8	15.0	12.5	13.5	11.0	10.0	10.5						
9	15.0	12.5	13.5	10.0	9.0	9.5						
10	15.0	13.0	14.0	---	---	---						
11	15.0	14.0	14.0	8.5	8.0	8.0						
12	15.0	14.0	14.5	8.5	8.0	8.0						
13	15.0	13.5	14.0	9.0	7.0	8.0						
14	15.0	13.5	14.0	8.5	7.0	8.0						
15	15.0	13.5	14.0	---	---	---						
16	15.0	14.0	14.5	7.0	6.0	6.0						
17	15.0	14.0	14.0	6.0	5.5	5.5						
18	15.0	14.0	14.0	6.0	5.5	5.5						
19	14.5	14.0	14.0	---	---	---						
20	14.5	14.0	14.0	---	---	---						
21	14.0	13.5	14.0	---	---	---						
22	14.0	13.0	13.5	---	---	---						
23	13.5	12.5	12.5	---	---	---						
24	12.5	12.0	12.5	---	---	---						
25	12.5	12.5	12.5	---	---	---						
26	13.0	12.5	12.5	---	---	---						
27	13.0	12.0	12.5	---	---	---						
28	12.5	12.0	12.0	---	---	---						
29	12.0	11.5	12.0	---	---	---						
30	12.0	11.5	11.5	---	---	---						
31	---	---	---	---	---	---						
MONTH	15.0	11.5	13.5	---	---	---						

MIDDLE FORK WILLAMETTE RIVER BASIN

14152000 MIDDLE FORK WILLAMETTE RIVER AT JASPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1				---	---	---	10.0	8.5	9.0	10.5	9.5	9.5
2				---	---	---	10.5	8.0	9.0	10.0	9.5	10.0
3				---	---	---	10.0	7.5	9.0	11.0	9.0	10.0
4				---	---	---	10.5	8.5	9.5	12.0	9.0	10.0
5				---	---	---	11.5	8.0	9.5	10.0	9.0	9.5
6				---	---	---	12.0	8.0	10.0	11.5	8.5	10.0
7				---	---	---	12.5	9.0	10.5	10.0	9.0	9.5
8				---	---	---	10.0	9.5	10.0	12.0	9.5	10.0
9				---	---	---	9.5	9.0	9.5	10.0	9.0	9.5
10				---	---	---	12.0	8.5	10.0	10.0	9.0	9.5
11				---	---	---	9.0	8.5	9.0	11.0	9.0	10.0
12				---	---	---	10.0	8.5	9.0	12.0	9.0	10.5
13				---	---	---	11.0	8.5	9.5	12.0	10.0	10.5
14				---	---	---	11.0	8.5	9.5	12.0	9.5	10.5
15				---	---	---	11.0	9.0	10.0	12.0	10.0	11.0
16				---	---	---	10.5	9.0	9.5	12.0	10.0	11.0
17				---	---	---	10.5	8.5	9.5	13.0	10.0	11.0
18				---	---	---	12.0	8.5	10.0	12.5	10.5	11.0
19				---	---	---	13.0	9.0	10.5	12.5	10.5	11.5
20				---	---	---	14.0	9.5	11.5	11.5	10.5	11.0
21				---	---	---	14.5	10.0	12.0	10.5	10.0	10.5
22				---	---	---	11.5	10.0	10.5	12.0	9.5	10.5
23				---	---	---	12.0	8.5	10.0	11.5	9.5	10.5
24				---	---	---	10.0	8.5	9.5	13.0	10.0	11.5
25				---	---	---	11.0	9.0	10.0	13.5	10.5	12.0
26				---	---	---	10.0	9.0	9.5	13.0	11.0	11.5
27				---	---	---	10.5	9.5	10.0	13.0	11.0	12.0
28				12.0	9.0	10.0	10.5	9.0	9.5	14.0	11.5	12.0
29				12.0	9.0	10.0	11.0	8.5	9.5	13.5	11.5	12.0
30				10.5	8.0	9.0	11.0	8.0	9.5	14.0	11.5	12.5
31				11.0	7.5	9.0	---	---	---	14.5	11.5	13.0
MONTH				---	---	---	14.5	7.5	10.0	14.5	8.5	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	12.0	13.0	17.0	12.5	14.5	17.5	12.5	15.0	17.0	13.5	15.0
2	14.0	12.0	12.5	15.0	13.0	13.5	17.5	13.0	15.0	16.5	14.0	15.0
3	13.5	11.5	12.0	16.0	12.5	14.0	17.5	13.0	15.0	16.5	14.5	15.0
4	14.0	11.5	12.5	14.0	12.5	13.0	17.0	13.0	14.5	16.0	14.5	15.0
5	13.5	12.0	12.5	17.0	12.0	14.0	17.0	13.0	14.5	16.0	14.5	15.0
6	13.0	11.5	12.0	17.5	12.0	14.5	16.5	13.0	14.5	16.0	14.5	15.0
7	13.5	11.5	12.5	13.5	13.0	13.0	17.0	13.0	14.5	15.5	14.5	15.0
8	14.5	11.0	12.5	16.5	12.5	14.0	17.0	13.0	14.5	15.0	14.0	14.5
9	15.5	11.0	13.0	14.0	12.0	13.5	17.0	13.0	15.0	15.0	14.0	14.5
10	16.5	11.5	13.5	13.5	12.5	13.0	17.0	13.0	14.5	15.5	14.0	14.5
11	16.5	11.5	14.0	17.0	12.5	14.5	17.0	13.0	14.5	15.0	13.5	14.0
12	16.5	11.5	14.0	17.0	12.5	14.0	17.0	13.0	14.5	14.5	13.0	13.5
13	16.5	11.5	14.0	17.0	12.0	14.0	17.0	13.0	14.5	13.5	13.0	13.5
14	13.0	12.0	12.5	16.0	12.0	14.0	17.0	13.0	14.5	14.5	13.0	13.5
15	15.5	11.5	13.0	14.5	12.0	13.0	16.5	13.0	14.5	14.0	13.5	13.5
16	12.5	12.0	12.0	13.5	12.0	13.0	14.5	13.0	13.5	14.0	13.5	13.5
17	12.0	12.0	12.0	16.5	12.0	14.0	16.0	12.5	14.0	13.5	13.5	13.5
18	14.0	11.5	12.5	16.0	12.0	13.5	16.0	13.0	14.0	13.5	13.0	13.5
19	15.5	11.5	13.0	17.5	12.0	14.5	16.5	13.0	14.0	13.0	12.0	13.0
20	15.5	11.5	13.5	17.5	12.5	14.5	16.5	13.0	14.5	12.5	12.0	12.0
21	16.0	11.5	13.5	17.5	12.5	14.5	16.5	13.0	14.5	13.0	12.0	12.5
22	16.5	12.0	14.0	17.0	12.5	14.5	15.0	13.0	14.0	13.5	12.0	12.5
23	17.0	12.0	14.5	16.0	13.0	14.0	16.5	13.0	14.0	12.0	12.0	12.0
24	17.0	12.0	14.5	17.0	12.0	14.0	15.5	13.0	14.0	12.5	12.0	12.0
25	17.0	12.0	14.5	17.0	12.5	14.0	16.5	13.0	14.5	12.0	11.5	12.0
26	16.0	12.5	14.0	16.0	12.5	13.5	16.5	13.0	14.5	11.5	11.0	11.5
27	17.0	12.5	14.5	17.0	12.0	14.0	16.5	13.5	14.5	11.5	11.0	11.5
28	14.0	12.5	12.5	17.0	12.0	14.5	16.0	14.0	14.5	12.5	11.5	12.0
29	16.5	12.5	14.0	17.0	12.5	14.5	14.5	14.0	14.0	12.5	12.5	12.5
30	17.0	12.0	14.0	17.0	12.5	14.5	16.0	14.0	14.5	12.5	12.5	12.5
31	---	---	---	17.5	12.5	14.5	16.5	14.0	14.5	---	---	---
MONTH	17.0	11.0	13.0	17.5	12.0	14.0	17.5	12.5	14.5	17.0	11.0	13.5

COAST FORK WILLAMETTE RIVER BASIN

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14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR

LOCATION.--Lat 43°38'30", long 123°05'05", in SW¼ sec.20, T.22 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank 0.6 mi north of London, 11.0 mi south of Cottage Grove, and at mile 35.9.

DRAINAGE AREA.--72.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 852.58 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Sept. 18 to Oct. 17, 1935, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. No regulation. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--51 years, 202 ft³/s, 38.05 in/yr, 146,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s Dec. 22, 1964, gage height, 13.37 ft, from rating curve extended above 3,200 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 6.8 ft³/s Aug. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0730	2,380	6.20	Feb. 23	0500	3,940	8.36
Feb. 22	0700	*4,030	*8.46				

Minimum discharge, 9.9 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	12	50	100	142	166	288	122	180	61	30	17	12		
2	12	43	534	166	167	246	113	298	61	29	15	12		
3	12	39	845	236	236	215	105	434	60	30	15	11		
4	12	42	480	175	260	191	101	343	58	54	14	11		
5	12	63	402	171	293	174	97	390	59	44	14	11		
6	12	48	647	179	251	164	92	678	58	35	15	10		
7	12	42	868	150	210	356	87	493	58	32	14	10		
8	12	77	659	148	178	381	84	358	52	32	14	10		
9	12	188	415	212	155	561	82	283	49	31	14	11		
10	13	140	296	214	139	397	79	263	48	32	13	11		
11	19	92	226	182	127	354	77	262	44	33	13	11		
12	22	70	183	154	137	546	104	228	43	28	14	11		
13	16	59	153	133	286	524	126	205	40	27	13	11		
14	14	55	133	118	344	446	117	180	42	26	13	12		
15	14	146	118	117	388	362	113	161	47	25	13	12		
16	14	342	106	369	630	296	132	144	42	25	12	14		
17	15	304	97	575	679	247	199	130	44	26	13	19		
18	14	216	92	328	1920	212	186	121	61	24	12	32		
19	14	158	87	587	1230	191	159	115	51	24	13	35		
20	17	153	82	569	952	176	140	121	44	22	13	24		
21	66	141	76	381	1180	168	126	127	39	21	12	21		
22	91	137	71	425	3190	154	115	128	38	20	11	18		
23	323	106	67	744	3010	175	103	111	37	20	11	19		
24	247	88	66	508	1330	314	94	101	34	20	11	93		
25	150	76	64	362	784	248	130	90	32	20	11	201		
26	123	66	62	278	558	205	139	84	32	19	11	353		
27	83	60	59	230	427	179	219	84	32	19	11	215		
28	157	113	56	200	342	158	300	78	34	18	11	115		
29	95	131	53	195	---	142	259	71	34	17	12	79		
30	69	99	51	203	---	132	213	67	32	17	14	72		
31	60	---	50	179	---	122	---	63	---	17	13	---		
TOTAL	1744	3344	7198	8630	19569	8324	4013	6391	1366	817	402	1476		
MEAN	56.3	111	232	278	699	269	134	206	45.5	26.4	13.0	49.2		
MAX	323	342	868	744	3190	561	300	678	61	54	17	353		
MIN	12	39	50	117	127	122	77	63	32	17	11	10		
CFSM	.78	1.54	3.22	3.86	9.69	3.73	1.86	2.86	.63	.37	.18	.68		
IN.	.90	1.73	3.71	4.45	10.10	4.29	2.07	3.30	.70	.42	.21	.76		
AC-FT	3460	6630	14280	17120	38820	16510	7960	12680	2710	1620	797	2930		
CAL YR 1985	TOTAL	43896	MEAN	120	MAX	1130	MIN	11	CFSM	1.66	IN.	22.65	AC-FT	87070
WTR YR 1986	TOTAL	63274	MEAN	173	MAX	3190	MIN	10	CFSM	2.40	IN.	32.65	AC-FT	125500

COAST FORK WILLAMETTE RIVER BASIN

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1960 to September 1965, June 1967 to current year.

INSTRUMENTATION.--Temperature recorder July 1960 to September 1965 and since June 1967.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C July 7, 1968, Aug. 11, 1971; minimum, 0.0°C Jan. 9, 1974, and several days each winter 1976 through 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.0°C Aug. 8, 9; minimum, 1.5°C Dec. 1, 24-27.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.5	8.5	10.5	9.0	7.5	8.0	4.0	1.5	3.0	5.5	4.0	5.0
2	13.0	9.5	11.0	10.5	9.0	9.5	6.0	2.5	4.0	5.5	4.5	5.0
3	13.0	10.5	12.0	11.0	10.0	10.0	6.5	6.0	6.5	5.5	4.5	5.0
4	13.0	10.0	11.5	10.0	9.0	10.0	6.5	6.0	6.5	5.5	4.5	5.0
5	13.0	10.0	11.5	9.0	7.0	7.5	6.5	6.0	6.5	6.5	5.0	6.0
6	12.5	10.5	11.5	8.5	7.5	8.0	7.0	6.5	6.5	6.5	5.0	5.5
7	12.0	11.0	11.5	9.0	8.5	9.0	7.0	7.0	7.0	6.0	5.0	5.5
8	11.5	8.0	9.5	9.0	7.5	8.5	7.0	6.5	6.5	6.5	5.5	6.0
9	11.0	5.5	8.0	7.5	6.5	7.0	7.0	6.5	6.5	7.5	6.5	7.0
10	8.5	5.5	7.5	6.5	6.0	6.5	7.0	5.0	6.0	7.5	6.5	7.0
11	10.0	8.5	9.0	6.5	5.5	6.0	---	3.5	---	7.0	6.0	6.5
12	10.0	8.5	9.0	6.0	4.5	5.0	---	3.0	---	6.5	5.5	6.0
13	9.5	8.0	8.5	---	---	---	6.5	3.0	4.5	6.5	6.0	6.0
14	9.5	6.5	8.5	---	---	---	6.0	3.5	4.5	6.5	6.0	6.0
15	10.0	7.5	8.5	6.0	4.0	5.0	5.0	4.0	4.5	7.0	6.5	6.5
16	10.0	8.5	9.0	6.5	6.0	6.5	5.5	3.0	4.5	7.0	6.5	7.0
17	10.0	9.0	9.5	6.5	6.0	6.5	5.0	3.5	4.0	7.5	7.0	7.0
18	9.5	8.0	9.0	6.5	5.5	6.0	4.5	2.5	3.5	8.5	7.5	8.0
19	9.5	8.5	9.0	6.0	5.5	6.0	4.0	3.5	4.0	8.5	7.5	8.0
20	10.5	9.0	10.0	6.0	5.5	6.0	4.0	2.0	3.0	7.5	6.0	7.0
21	10.0	8.5	9.0	5.5	5.5	5.5	4.0	2.5	3.5	7.0	6.5	6.5
22	9.0	8.5	8.5	5.5	5.0	5.0	3.5	2.5	3.5	7.0	6.5	7.0
23	10.0	9.0	9.5	5.0	4.0	4.5	4.5	2.0	3.5	7.5	7.0	7.0
24	10.5	9.5	10.0	5.0	3.5	4.0	---	1.5	---	7.0	6.0	6.5
25	10.5	10.0	10.0	5.5	3.0	4.0	---	1.5	---	7.0	6.0	6.5
26	10.0	9.5	10.0	---	---	---	---	1.5	---	7.0	6.0	6.5
27	10.5	9.0	10.0	4.5	3.0	3.5	3.5	1.5	2.5	7.5	7.0	7.0
28	10.0	8.5	9.0	4.0	3.5	3.5	3.5	2.0	2.5	7.5	7.5	7.5
29	9.0	7.0	7.5	5.0	4.0	---	3.5	3.0	3.0	7.5	7.5	7.5
30	8.0	6.5	7.0	---	2.5	---	3.5	3.0	3.5	8.5	7.5	8.0
31	7.5	7.0	7.0	---	---	---	4.0	3.0	3.5	8.5	7.5	7.5
MONTH	13.0	5.5	9.5	---	---	---	---	1.5	---	8.5	4.0	6.5

14152500 COAST FORK WILLAMETTE RIVER AT LONDON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.5	7.5	9.5	9.0	9.0	9.5	8.0	8.5	9.5	8.0	9.0
2	7.5	7.5	7.5	9.5	8.5	9.0	9.0	7.0	8.0	9.0	8.5	9.0
3	7.5	7.0	7.0	9.5	8.0	9.0	9.0	6.5	8.0	9.0	8.0	8.5
4	7.5	7.0	7.0	10.0	8.5	9.0	9.0	8.0	8.5	9.0	7.5	8.5
5	7.0	6.0	6.5	10.0	8.0	9.5	10.0	7.5	9.0	9.0	8.0	8.5
6	6.5	6.0	6.0	10.0	9.0	9.5	11.0	7.5	9.5	8.5	7.5	8.0
7	6.0	5.5	6.0	10.0	9.5	9.5	11.5	8.5	10.0	8.5	8.0	8.5
8	5.5	4.5	5.0	9.5	8.5	8.5	10.5	10.0	10.0	9.5	8.0	9.0
9	6.0	4.0	5.0	8.5	7.5	8.0	10.0	9.0	9.5	9.0	8.0	8.5
10	5.5	4.5	5.0	8.5	7.5	8.0	10.5	8.0	9.0	9.0	8.0	8.0
11	6.0	5.5	5.5	8.5	8.0	8.5	9.5	7.0	8.0	8.5	7.5	8.0
12	6.0	6.0	6.0	8.0	7.5	8.0	8.0	7.0	7.5	10.0	7.5	9.0
13	7.5	6.0	6.5	8.0	7.5	8.0	9.0	7.0	8.0	10.5	9.0	10.0
14	7.0	6.5	7.0	7.5	6.0	7.0	9.0	7.0	8.0	10.0	8.0	9.5
15	7.5	6.5	7.0	8.0	7.0	7.5	9.5	8.5	9.0	10.5	8.0	9.5
16	7.5	7.5	7.5	8.0	7.0	7.5	9.0	8.0	8.5	11.0	8.5	10.0
17	7.5	7.5	7.5	8.5	7.0	7.5	8.5	7.5	8.0	12.0	9.5	11.0
18	7.5	6.5	7.0	8.5	6.5	7.5	9.5	7.0	8.5	12.5	10.0	11.5
19	7.0	7.0	7.0	9.0	6.5	8.0	11.0	7.5	9.5	12.5	11.0	12.0
20	7.0	7.0	7.0	9.5	7.5	9.0	12.0	8.5	11.0	12.0	10.5	11.0
21	7.0	7.0	7.0	9.5	8.5	9.0	13.0	10.0	12.0	10.5	9.5	9.5
22	7.5	7.0	7.5	9.0	7.0	8.5	12.5	9.5	10.5	11.0	8.5	9.5
23	8.5	7.5	8.0	9.0	8.0	8.5	9.5	7.5	8.5	11.5	9.5	10.5
24	9.0	7.5	8.5	9.0	8.0	8.5	9.0	6.5	7.5	14.0	10.5	12.5
25	8.5	8.5	8.5	9.0	6.5	8.0	8.5	7.5	8.0	16.0	12.0	14.0
26	9.0	8.5	8.5	10.0	8.0	9.0	8.0	7.5	7.5	15.5	13.5	14.5
27	9.5	8.5	9.0	10.5	9.0	10.0	9.0	8.0	8.5	15.0	12.5	13.5
28	9.0	9.0	9.0	11.5	9.0	10.5	8.5	7.5	8.0	16.0	12.5	14.0
29	---	---	---	11.0	9.5	10.5	8.5	7.0	8.0	17.0	13.0	15.0
30	---	---	---	11.0	9.0	9.5	9.5	7.0	8.0	19.0	14.0	16.5
31	---	---	---	9.5	7.5	8.5	---	---	---	20.0	16.0	17.5
MONTH	9.5	4.0	7.0	11.5	6.0	8.5	13.0	6.5	9.0	20.0	7.5	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	19.5	16.0	18.0	19.0	14.5	16.5	20.5	15.0	17.5	18.5	14.5	16.5
2	20.0	16.0	17.5	17.0	15.5	16.0	21.5	16.0	19.0	19.5	14.5	17.0
3	17.0	15.0	16.0	18.0	14.5	16.0	21.5	16.5	19.0	20.0	15.5	17.5
4	16.5	14.0	15.0	15.5	13.5	14.5	21.0	15.5	18.5	20.0	15.5	18.0
5	15.5	14.0	14.5	16.5	12.5	14.5	20.5	15.5	18.0	19.0	15.0	17.0
6	14.0	13.0	13.5	17.5	12.5	15.0	21.0	15.5	18.5	19.5	15.0	17.5
7	14.5	12.5	13.0	15.0	14.0	14.5	22.0	16.5	19.5	18.5	15.0	17.0
8	15.5	12.0	13.5	18.0	13.5	15.5	23.0	17.0	20.0	17.0	13.5	15.0
9	16.0	12.0	14.0	16.5	14.5	15.5	23.0	17.5	20.5	15.0	13.0	14.0
10	18.0	13.0	15.5	15.5	14.5	15.0	22.0	17.0	19.5	15.0	12.0	14.0
11	19.0	14.0	16.5	19.5	14.5	16.5	21.0	16.0	18.5	15.0	12.0	13.5
12	19.5	15.0	17.0	19.5	14.5	17.0	21.0	16.0	18.5	14.0	11.0	13.0
13	19.5	14.5	17.0	18.5	14.0	16.5	21.5	16.0	18.5	13.0	11.0	12.0
14	16.5	14.0	15.5	17.5	14.0	15.5	22.0	16.5	19.0	13.5	10.5	12.5
15	17.0	13.0	15.0	16.5	13.0	15.0	22.0	16.5	19.5	13.0	11.5	12.0
16	14.5	13.5	14.0	15.5	13.5	14.5	19.0	16.0	17.5	12.5	11.0	12.0
17	13.5	13.0	13.0	17.5	13.0	15.0	19.5	15.0	17.5	12.0	11.5	11.5
18	14.0	12.0	13.0	16.5	13.0	15.0	19.0	15.0	17.5	12.0	11.0	11.5
19	15.5	11.5	13.0	18.5	13.5	16.0	19.5	15.0	17.0	12.0	11.0	11.5
20	16.0	12.5	14.0	20.0	14.5	17.0	20.0	15.0	17.5	11.5	11.0	11.0
21	17.5	13.0	15.0	20.5	15.0	18.0	20.5	15.5	18.0	13.5	11.0	12.0
22	19.0	13.5	16.0	20.0	15.5	17.5	18.5	15.0	17.5	13.0	10.5	12.0
23	20.0	14.5	17.0	18.0	15.5	17.0	19.5	14.5	17.0	12.5	10.5	11.0
24	20.0	15.5	17.5	19.0	14.5	16.5	19.0	14.5	17.0	10.5	10.5	10.5
25	20.0	15.0	17.5	19.5	14.5	17.0	20.0	14.5	17.5	10.5	10.0	10.0
26	19.0	15.5	17.0	18.5	14.5	16.5	20.0	15.5	18.0	10.0	9.5	10.0
27	20.0	15.5	17.5	18.5	14.0	16.5	21.0	17.0	19.0	10.5	9.5	10.0
28	17.0	14.0	15.5	18.5	13.5	16.5	20.0	17.0	18.5	10.5	9.5	10.0
29	17.5	13.5	15.0	19.5	14.5	17.0	18.0	16.0	16.5	10.5	9.5	9.5
30	18.5	13.5	16.0	19.0	14.5	16.5	19.0	15.5	17.0	10.5	10.0	10.5
31	---	---	---	19.5	14.0	17.0	18.5	15.0	17.0	---	---	---
MONTH	20.0	11.5	15.5	20.5	12.5	16.0	23.0	14.5	18.0	20.0	9.5	13.0

COAST FORK WILLAMETTE RIVER BASIN

14153000 COTTAGE GROVE LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°43'00", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, in east abutment of dam on Coast Fork Willamette River 5.8 mi south of Cottage Grove, and at mile 29.7.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1971, published as Cottage Grove Reservoir near Cottage Grove.

REVISED RECORDS.--WSP 1218: 1950.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earthfill dam with concrete spillway completed by Corps of Engineers in 1942; storage began Oct. 31, 1942. Capacity, 32,930 acre-ft between elevation 719.0 ft, outlet conduit, and 791.0 ft, crest of spillway. Dead storage negligible. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 36,750 acre-ft Dec. 24, 1964, elevation, 794.23 ft; minimum contents since first filling, no contents Sept. 26 to Oct. 19, 1966, and Nov. 14, 15, Nov. 20 to Dec. 8, 1969.

EXTREMES FOR CURRENT YEAR.-- Maximum contents, 31,970 acre-ft May 22, 23, elevation, 790.16 ft; minimum contents, 2,810 acre-ft Dec. 8, elevation, 748.84 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

710.9	0	755	4,860	780	21,460
730	151	760	7,150	785	26,370
740	926	765	9,970	790	31,780
745	1,840	770	13,260	793	35,270
750	3,140	775	17,070		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	768.36	750.32	750.86	750.18	753.13	768.86	776.93	783.54	790.11	788.89	787.25	784.51
2	768.14	750.13	752.39	750.29	752.96	768.98	777.11	784.23	790.11	788.84	787.17	784.41
3	767.93	750.08	752.61	750.97	752.79	769.03	777.25	785.29	790.09	788.78	787.08	784.32
4	767.70	750.15	750.27	749.92	753.54	769.02	777.42	786.10	790.08	788.84	786.99	784.23
5	767.48	750.41	749.95	750.30	754.11	768.95	777.56	787.17	790.06	788.84	786.91	784.14
6	767.26	750.34	750.32	750.57	754.37	768.83	777.67	788.53	790.05	788.80	786.82	784.05
7	767.03	750.13	749.80	750.59	755.08	769.60	777.78	788.75	790.04	788.77	786.75	783.95
8	766.78	750.27	749.30	750.45	755.98	769.62	777.89	788.77	790.02	788.73	786.66	783.73
9	766.55	750.95	749.93	750.42	756.72	769.66	777.97	789.79	790.00	788.70	786.58	783.29
10	766.34	750.41	750.05	750.19	757.29	772.34	778.06	789.84	789.97	788.67	786.49	782.78
11	766.15	750.14	750.06	749.66	757.81	772.58	778.16	789.85	789.93	788.63	786.40	782.26
12	765.97	749.90	749.92	749.76	758.49	772.83	778.30	789.77	789.90	788.58	786.31	781.74
13	765.75	749.60	749.76	750.06	759.22	772.55	778.51	789.72	789.84	788.53	786.22	781.22
14	765.54	749.54	749.78	750.15	759.49	772.03	778.68	789.76	789.81	788.47	786.14	780.69
15	765.32	750.09	749.74	750.12	760.10	771.34	778.84	789.76	789.77	788.41	786.04	780.19
16	764.86	750.87	749.80	750.21	760.37	771.26	779.07	789.84	789.73	788.36	785.95	779.68
17	764.05	750.71	750.06	753.06	761.41	771.62	779.48	789.95	789.72	788.30	785.86	779.21
18	763.13	749.99	750.22	752.25	769.13	772.07	779.81	790.04	789.74	788.24	785.77	778.78
19	762.19	749.89	750.21	750.12	768.55	772.56	780.08	790.09	789.72	788.18	785.68	778.30
20	761.31	750.62	750.14	750.92	766.23	773.03	780.31	790.12	789.68	788.12	785.59	777.80
21	760.32	750.65	750.10	749.98	765.12	773.47	780.48	790.14	789.63	788.05	785.51	777.29
22	759.27	750.30	750.21	749.72	775.42	773.83	780.63	790.16	789.58	787.98	785.42	776.75
23	759.28	750.08	750.25	751.82	784.59	774.34	780.73	790.15	789.52	787.92	785.32	776.28
24	758.48	750.22	750.21	753.14	785.97	774.89	780.87	790.10	789.46	787.85	785.22	775.99
25	756.99	750.22	750.15	752.45	782.42	775.05	781.07	790.07	789.39	787.78	785.14	776.02
26	755.12	750.07	750.07	751.97	777.83	775.24	781.29	790.05	789.30	787.71	785.04	776.12
27	753.51	749.88	749.96	751.74	772.10	775.64	781.72	790.06	789.21	787.63	784.96	775.51
28	753.24	750.14	749.84	752.21	768.71	775.98	782.33	790.10	789.12	787.56	784.86	774.57
29	752.82	750.53	749.79	752.59	---	776.26	782.83	790.10	789.04	787.48	784.77	773.79
30	752.11	750.65	749.84	752.97	---	776.52	783.21	790.11	788.95	787.41	784.69	773.11
31	751.06	---	749.88	753.19	---	776.73	---	790.11	---	787.33	784.60	---
MAX	768.36	750.95	752.61	753.19	785.97	776.73	783.21	790.16	790.11	788.89	787.25	784.51
MIN	751.06	749.54	749.30	749.66	752.79	768.83	776.93	783.54	788.95	787.33	784.60	773.11
(†)	3460	3340	3100	4180	12360	18530	24560	31910	30600	28830	25960	15560
(‡)	-8810	-120	-240	+1080	+8180	+6170	+6030	+7350	-1310	-1770	-2870	-10400

CAL YR 1985 MAX 787.87 MIN 748.92 AC-FT‡ -120
WTR YR 1986 MAX 790.16 MIN 749.30 AC-FT‡ +3290

† Contents, in acre-feet, at 2400, on last day of month.
‡ Change in contents, in acre-feet.

COAST FORK WILLAMETTE RIVER BASIN

115

14153500 COAST FORK WILLAMETTE RIVER BELOW COTTAGE GROVE DAM, OR

LOCATION.--Lat 43°43'15", long 123°02'55", in NE¼ sec.28, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank at bridge 0.3 mi downstream from Cottage Grove Dam, 5.5 mi south of Cottage Grove, and at mile 29.4.

DRAINAGE AREA.--104 mi².

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1944, published as "near Cottage Grove."

REVISED RECORDS.--WSP 1448: 1949(M).

GAGE.--Water-stage recorder. Datum of gage is 711.00 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Jan. 1 to Oct. 12, 1939, nonrecording gage and Oct. 13, 1939, to Sept. 30, 1944, water-stage recorder at several sites and datums 0.8 mi downstream.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000). Small diversions for irrigation upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 275 ft³/s, 35.91 in/yr, 199,200 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft³/s Dec. 24, 1964, gage height, 11.83 ft; no flow July 5-7, 1945, and for part of Aug. 24, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,090 ft³/s Feb. 24, gage height, 8.80 ft; minimum discharge, 52 ft³/s Nov. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	181	126	133	290	378	89	84	78	64	57	55
2	81	83	426	193	289	325	90	86	78	57	57	55
3	81	58	1140	348	289	300	86	89	77	57	57	55
4	80	52	1080	294	292	287	83	91	76	58	57	55
5	79	52	612	217	293	274	83	92	76	57	57	55
6	79	76	815	245	295	277	83	247	71	57	57	55
7	79	88	1210	243	179	217	83	359	68	57	57	55
8	79	88	951	243	84	274	83	357	68	57	57	117
9	79	214	507	314	84	414	83	356	68	57	57	221
10	79	301	415	376	84	348	82	356	68	57	57	252
11	79	174	322	285	85	439	81	356	68	57	57	252
12	79	134	289	198	86	676	81	356	68	57	57	249
13	79	124	233	185	289	835	81	283	68	57	57	249
14	79	84	190	183	472	802	81	235	68	57	57	246
15	79	103	183	183	459	756	81	211	68	57	57	246
16	149	328	136	245	877	459	81	129	68	57	57	246
17	256	480	112	730	868	233	81	106	68	57	57	245
18	286	433	124	829	530	152	81	106	67	57	57	243
19	282	255	136	839	1940	101	81	133	67	57	57	242
20	280	136	136	926	2180	86	81	146	67	57	57	241
21	333	241	109	655	2020	83	83	149	67	57	57	241
22	372	292	96	414	761	83	83	153	66	57	57	239
23	419	209	102	768	84	84	83	153	65	57	57	238
24	506	125	106	848	1120	200	83	153	65	57	57	238
25	526	125	106	630	2960	269	83	136	69	57	57	238
26	536	124	106	462	2920	211	83	121	76	57	57	394
27	431	123	106	289	2930	87	83	98	76	57	57	509
28	254	124	97	251	1750	88	83	81	76	57	57	502
29	191	125	81	246	---	88	84	79	76	57	57	408
30	214	125	73	277	---	88	84	79	76	57	57	343
31	249	---	73	292	---	89	---	78	---	57	57	---
TOTAL	6476	5057	10198	12341	24510	9003	2487	5458	2117	1775	1758	6784
MEAN	209	169	329	398	875	290	82.9	176	70.6	57.3	56.7	226
MAX	536	480	1210	926	2960	835	90	359	78	64	57	509
MIN	79	52	73	133	84	83	81	78	65	57	55	55
AC-FT	12850	10030	20230	24480	48620	17860	4930	10830	4200	3520	3490	13460
MEAN†	65.7	167	325	416	1023	391	184	296	48.6	28.5	10.1	51.4
CFSM†	0.63	1.61	3.12	4.00	9.84	3.76	1.77	2.85	0.47	0.27	0.10	0.49
IN.†	0.73	1.79	3.60	4.61	10.24	4.33	1.98	3.28	0.52	0.32	0.11	0.55
AC-FT†	4040	9910	19990	25560	56800	24030	10960	18180	2890	1750	620	3060

CAL YR 1985 TOTAL 58214 MEAN 159 MAX 1210 MIN 50 AC-FT 115500 MEAN† 416 CFSM† 1.53 IN.† 20.80 AC-FT† 115380
WTR YR 1986 TOTAL 87964 MEAN 241 MAX 2960 MIN 52 AC-FT 174500 MEAN† 246 CFSM† 2.37 IN.† 32.05 AC-FT† 177790

† Adjusted for change in contents in Cottage Grove Lake.

COAST FORK WILLAMETTE RIVER BASIN

14154500 ROW RIVER ABOVE PITCHER CREEK, NEAR DORENA, OR

LOCATION.--Lat 43°44'10", long 122°52'20", in NE¼ sec.24, T.21 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank 0.5 mi upstream from Pitcher Creek, 1.2 mi northwest of Dorena, and at mile 13.2.

DRAINAGE AREA.--211 mi².

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1949, published as "at Star."

GAGE.--Water-stage recorder. Datum of gage is 856.16 ft above National Geodetic Vertical Datum of 1929. Sept. 16, 1935, to Oct. 17, 1938, nonrecording gage at site 450 ft upstream at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Slight regulation caused by upstream logponds. No diversion upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 604 ft³/s, 38.87 in/yr, 437,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft³/s Dec. 22, 1964, gage height, 18.19 ft, from rating curve extended above 12,000 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 10 ft³/s Sept. 24, 25, 1951, Oct. 7, 8, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 22	0630	14,300	12.01	Feb. 23	0600	*14,600	*12.10

Minimum discharge, 23 ft³/s Sept. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	30	235	295	548	533	795	310	761	165	62	36	27		
2	31	203	2210	628	495	647	288	861	154	60	35	26		
3	30	177	3340	800	651	540	259	1180	145	61	34	25		
4	30	169	1870	576	767	469	245	1010	137	109	33	25		
5	30	230	1590	600	900	419	235	1070	130	132	32	24		
6	30	199	2490	752	767	388	216	1320	126	87	32	24		
7	29	202	3140	562	620	1230	204	1140	123	74	32	23		
8	30	367	2110	535	517	1380	197	888	117	70	31	23		
9	29	600	1270	1320	442	2090	199	726	110	64	30	24		
10	29	456	884	1130	388	1340	195	732	105	66	30	24		
11	41	332	660	791	345	1070	188	952	98	71	29	25		
12	88	267	527	605	355	1390	239	951	94	64	29	24		
13	60	226	438	493	962	1400	392	854	88	58	29	24		
14	46	203	376	417	1240	1190	440	734	87	54	28	25		
15	40	623	339	382	1410	976	449	592	94	53	28	26		
16	38	1690	345	1420	2440	782	464	488	89	54	27	33		
17	39	1230	379	2800	2670	653	738	418	94	59	27	42		
18	38	765	454	1450	5090	562	805	374	176	53	27	71		
19	36	549	474	1700	3680	505	686	338	152	50	27	72		
20	37	477	458	1990	3050	487	653	344	113	48	27	56		
21	145	412	415	1320	3480	472	590	361	97	47	27	48		
22	358	374	376	1420	10900	427	481	456	89	44	27	40		
23	2220	305	371	2280	11500	450	389	417	82	43	27	39		
24	1530	273	377	1670	4920	1040	328	359	77	43	26	289		
25	942	251	371	1130	2750	848	357	316	73	42	25	590		
26	753	221	327	871	1810	665	401	287	70	40	25	1230		
27	427	201	284	743	1330	553	1170	264	67	40	25	781		
28	565	260	248	670	1010	476	1800	239	66	39	25	491		
29	418	373	221	637	---	412	1250	215	72	38	25	317		
30	307	290	199	720	---	366	961	198	68	38	27	459		
31	279	---	188	601	---	325	---	183	---	36	28	---		
TOTAL	8705	12160	27026	31561	65022	24347	15129	19028	3158	1799	890	4927		
MEAN	281	405	872	1018	2322	785	504	614	105	58.0	28.7	164		
MAX	2220	1690	3340	2800	11500	2090	1800	1320	176	132	36	1230		
MIN	29	169	188	382	345	325	188	183	66	36	25	23		
CFSM	1.33	1.92	4.13	4.82	11.0	3.72	2.39	2.91	.50	.27	.14	.78		
IN.	1.53	2.14	4.76	5.56	11.46	4.29	2.67	3.35	.56	.32	.16	.87		
AC-FT	17270	24120	53610	62600	129000	48290	30010	37740	6260	3570	1770	9770		
CAL YR 1985	TOTAL	151832	MEAN	416	MAX	3340	MIN	19	CFSM	1.97	IN.	26.77	AC-FT	301200
WTR YR 1986	TOTAL	213752	MEAN	586	MAX	11500	MIN	23	CFSM	2.78	IN.	37.69	AC-FT	424000

COAST FORK WILLAMETTE RIVER BASIN

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14155000 DORENA LAKE NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'10", long 122°57'15", in SE¼ sec.32, T.20 S., R.2 W., Lane County, Hydrologic Unit 17090002, on left end of Dorena Dam on Row River, 5.0 mi east of Cottage Grove, and at mile 7.61.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1971, published as Dorena Reservoir near Cottage Grove.

REVISED RECORDS.--WRD OR-78-1: 1969.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete outlet and spillway, completed in 1949 by Corps of Engineers; controlled storage began Oct. 11, 1949. Capacity, 77,580 acre-ft between elevations 739.0 ft, sill of outlet gates, and 835.0 ft, crest of spillway. Dead storage, 18 acre-ft below elevation 739.0 ft. Reservoir used for flood control and improvement of navigation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 95,550 acre-ft Dec. 23, 1964, elevation, 844.03 ft; minimum contents observed since first filling, 159 acre-ft Dec. 14, 1970, elevation, 743.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 79,800 acre-ft Feb. 24, elevation, 836.16 ft; minimum contents, 5,130 acre-ft Dec. 9, elevation, 766.36 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

760	2,810	785	15,850	810	39,380	835	77,600
765	4,560	790	19,580	815	45,620	840	87,320
770	6,840	795	23,780	820	52,480		
775	9,540	800	28,490	825	60,060		
780	12,530	805	33,700	830	68,470		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804.08	770.35	771.50	771.88	772.90	818.44	812.78	827.40	833.43	831.97	830.34	826.93
2	803.38	770.18	777.28	772.70	773.16	812.55	813.07	827.78	833.45	831.86	830.25	826.81
3	802.69	770.15	780.44	772.93	773.97	806.81	813.29	828.21	833.45	831.77	830.15	826.66
4	801.98	770.49	776.18	771.53	775.12	801.30	813.51	828.26	833.46	831.71	830.05	826.37
5	801.28	771.20	773.63	771.18	776.65	798.32	813.69	828.03	833.46	831.68	829.92	825.65
6	800.56	771.54	774.17	772.33	777.60	798.26	813.84	828.36	833.45	831.65	829.79	824.70
7	799.83	771.56	773.90	772.17	778.65	800.83	813.97	828.47	833.45	831.63	829.67	824.01
8	799.09	772.25	769.01	771.85	780.08	802.25	814.08	828.37	833.45	831.61	829.56	823.33
9	798.35	772.73	770.06	773.23	781.17	803.88	814.19	828.26	833.44	831.59	829.46	822.58
10	797.61	771.03	771.42	772.51	782.03	803.87	814.29	828.46	833.43	831.57	829.35	821.84
11	796.94	770.61	770.71	770.83	782.74	803.23	814.38	829.03	833.40	831.54	829.24	821.10
12	796.35	770.87	770.95	770.45	783.62	803.21	814.59	829.42	833.37	831.52	829.13	820.35
13	795.68	770.81	771.15	770.42	785.43	803.26	815.09	829.61	833.34	831.49	829.01	819.60
14	794.97	770.53	770.84	770.45	786.61	803.00	815.64	829.73	833.30	831.45	828.91	818.85
15	794.23	772.52	770.49	770.46	787.46	803.47	816.18	829.75	833.24	831.41	828.79	818.10
16	793.48	776.18	770.68	775.27	790.35	804.38	816.74	830.02	833.17	831.36	828.69	817.37
17	792.34	775.31	770.86	779.23	795.58	804.97	817.75	830.40	833.10	831.32	828.58	816.67
18	790.98	771.66	770.96	775.22	806.87	805.53	818.86	830.71	833.04	831.28	828.46	816.00
19	789.60	770.54	770.57	775.01	808.47	806.23	819.75	830.99	832.99	831.23	828.36	815.34
20	788.27	770.85	770.38	774.33	806.48	806.95	820.54	831.28	832.94	831.17	828.24	814.67
21	787.21	770.68	770.48	771.92	805.46	807.66	821.22	831.65	832.90	831.12	828.13	813.96
22	786.64	770.44	770.44	773.28	821.88	808.25	821.74	832.10	832.85	831.05	828.03	813.21
23	789.92	770.43	770.54	776.44	834.99	808.88	822.10	832.44	832.78	830.98	827.92	812.49
24	788.40	770.54	770.65	776.24	836.09	809.95	822.37	832.63	832.72	830.91	827.80	812.12
25	784.28	770.49	770.61	775.89	834.49	810.24	822.73	832.74	832.64	830.84	827.68	812.26
26	779.82	770.27	770.30	776.00	831.64	810.39	823.14	832.85	832.56	830.77	827.57	813.04
27	774.50	769.93	769.74	775.88	828.00	810.63	824.59	833.02	832.46	830.71	827.47	812.13
28	772.26	770.10	769.76	775.55	823.59	811.10	826.52	833.16	832.35	830.65	827.36	810.67
29	771.49	770.85	769.94	775.20	---	811.62	827.09	833.26	832.22	830.58	827.25	809.10
30	770.60	771.17	770.08	774.65	---	812.07	827.25	833.34	832.10	830.52	827.14	807.93
31	770.35	---	770.27	773.34	---	812.42	---	833.39	---	830.44	827.02	---
MAX	804.08	776.18	780.44	779.23	836.09	818.44	827.25	833.39	833.46	831.97	830.34	826.93
MIN	770.35	769.93	769.01	770.42	772.90	798.26	812.78	827.40	832.10	830.44	827.02	807.93
(+)	7020	7440	6970	8610	57840	42320	63740	74600	72240	69250	63360	36970
(+)	-26430	+420	-470	+1640	+49230	-15520	+21420	+10860	-2360	-2990	-5890	-26390

CAL YR 1985 MAX 833.63 MIN 758.01 AC-FT# -1060
WTR YR 1986 MAX 836.09 MIN 769.01 AC-FT# +3520

+ Contents, in acre-feet, at 2400, on last day of month.
+ Change in contents, in acre-feet.

COAST FORK WILLAMETTE RIVER BASIN

14155500 ROW RIVER NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°47'35", long 122°59'25", in NE¼ sec.36, T.20 S., R.3 W., Lane County, Hydrologic Unit 17090002, on right bank 1.7 mi upstream from Mosby Creek, 2.1 mi downstream from Dorena Dam, 3.5 mi east of Cottage Grove, and at mile 5.5.

DRAINAGE AREA.--270 mi².

PERIOD OF RECORD.--January 1939 to current year. Prior to October 1947, published as "near Dorena."

GAGE.--Water-stage recorder. Datum of gage is 685.24 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft upstream at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since October 1949 by Dorena Lake (see station 14155000). No diversion upstream from station.

AVERAGE DISCHARGE.--47 years, 759 ft³/s, 38.17 in/yr, 549,900 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s Dec. 28, 1945, gage height, 18.20 ft; minimum discharge, 0.20 ft³/s Sept. 25 to Oct. 7, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,490 ft³/s Feb. 23, gage height, 8.40 ft; minimum discharge, 78 ft³/s July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	384	266	297	326	788	4950	166	771	176	125	99	99
2	384	266	1040	580	564	4940	166	769	176	94	99	149
3	379	208	3010	926	564	4310	166	1130	176	101	99	241
4	379	147	3800	1060	582	3690	166	1430	176	119	99	333
5	374	135	2890	867	606	2000	166	1640	176	117	99	442
6	374	164	2870	646	606	519	166	1490	176	105	99	484
7	371	243	4000	709	438	207	166	1470	176	102	99	484
8	370	305	3930	749	185	1010	166	1350	176	102	99	508
9	365	693	1630	1190	190	1720	166	889	176	102	99	528
10	364	961	831	1560	190	1730	166	689	176	102	99	528
11	362	531	1010	1380	190	1730	166	689	176	102	99	528
12	361	267	674	860	193	1710	166	813	176	102	99	528
13	357	281	501	621	566	1710	168	840	176	102	99	528
14	356	301	533	513	1090	1610	169	771	176	102	99	528
15	353	302	501	484	1370	925	169	664	176	102	99	528
16	351	984	393	573	1760	489	169	325	176	102	99	526
17	505	1830	403	1890	1280	489	171	179	176	102	99	523
18	588	1950	489	2980	849	385	172	179	176	102	99	521
19	581	1010	602	2380	3710	236	172	179	176	102	99	518
20	572	571	566	2640	5200	176	172	179	176	102	99	515
21	565	593	453	2350	5140	176	172	179	176	102	99	513
22	560	544	442	1500	2070	176	172	179	174	102	99	509
23	1040	397	409	1840	2100	176	172	221	172	102	99	508
24	2400	319	402	2140	5030	539	172	279	172	102	99	505
25	2740	319	424	1570	5000	791	176	288	178	102	99	504
26	2450	315	437	1080	4980	664	176	237	182	102	99	990
27	2130	314	437	975	4970	484	176	176	182	102	99	1510
28	1280	285	300	928	4960	262	483	176	182	102	99	1510
29	651	270	228	902	---	166	968	176	182	100	99	1330
30	539	270	212	1030	---	166	990	176	182	99	99	1210
31	372	---	201	1090	---	166	---	176	---	99	99	---
TOTAL	22857	15041	33915	38339	55171	38302	7011	18709	5302	3203	3069	18128
MEAN	737	501	1094	1237	1970	1236	234	604	177	103	99.0	604
MAX	2740	1950	4000	2980	5200	4950	990	1640	182	125	99	1510
MIN	351	135	201	326	185	166	166	176	172	94	99	99
AC-FT	45340	29830	67270	76050	109400	75970	13910	37110	10520	6350	6090	35960
MEAN†	308	508	1086	1263	2856	983	594	780	137	54.6	3.25	161
CFSM†	1.14	1.88	4.02	4.68	10.58	3.64	2.20	2.89	0.51	0.20	0.01	0.60
IN.†	1.31	2.10	4.64	5.39	11.01	4.20	2.45	3.33	0.57	0.23	0.01	0.66
AC-FT†	18910	30250	66800	77690	158630	60450	35330	47970	8160	3360	200	9570

CAL YR 1985 TOTAL 182868 MEAN 501 MAX 4000 MIN 94 AC-FT 362700 MEAN† 500 CFSM† 1.85 IN.† 25.12 AC-FT† 361640
WTR YR 1986 TOTAL 259047 MEAN 710 MAX 5200 MIN 94 AC-FT 513800 MEAN† 715 CFSM† 2.65 IN.† 35.93 AC-FT† 517320

† Adjusted for change in contents in Dorena Lake.

COAST FORK WILLAMETTE RIVER BASIN

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14157500 COAST FORK WILLAMETTE RIVER NEAR GOSHEN, OR

LOCATION.--Lat 43°58'50", long 122°57'55", in NW¼ sec.29, T.18 S., R.2 W., Lane County, Hydrologic Unit 17090002, on right bank at downstream side of bridge on State Highway 58, 2.5 mi southeast of Goshen, and at mile 6.4.

DRAINAGE AREA.--642 mi².

PERIOD OF RECORD.--August 1905 to February 1912, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1248: 1905-12. WSP 1935: 1956.

GAGE.--Water-stage recorder. Datum of gage is 473.80 ft above National Geodetic Vertical Datum of 1929. Aug. 23, 1905, to Feb. 7, 1912, nonrecording gage at site 600 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000) and since 1949 by Dorena Lake (see station 14155000). Several small diversions for logponds and irrigation upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--42 years (water years 1906-11, 1951-86), 1,654 ft³/s, 1,198,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft³/s Nov. 22, 1909, gage height, 19.5 ft, site and datum then in use, from rating curve extended above 15,000 ft³/s; minimum discharge, 36 ft³/s Sept. 29, 30, Oct. 11, 12, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,400 ft³/s Feb. 22, gage height, 14.52 ft; minimum discharge, 137 ft³/s Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	504	672	703	681	1990	6070	558	1330	344	259	146	148
2	500	505	1630	1330	1610	5760	538	1560	337	167	148	152
3	500	427	6320	2180	1830	5290	501	2320	328	162	146	238
4	497	321	6640	2240	1770	4530	487	2510	325	203	147	344
5	493	361	5100	2030	1890	3400	474	2900	321	225	145	453
6	489	347	4970	1810	1820	1640	447	3300	317	205	146	551
7	487	433	7340	1660	1590	1840	428	3110	309	178	146	554
8	481	576	7070	1830	882	2560	420	2740	303	173	143	586
9	480	1190	4220	2340	793	4350	417	2170	298	170	141	753
10	476	1900	2180	2960	727	3570	409	1780	292	171	144	836
11	487	1320	2140	2690	684	3320	398	1810	285	175	148	835
12	484	689	1730	1920	1290	3850	428	1800	280	170	147	835
13	479	625	1280	1510	2630	4080	489	1810	277	163	146	831
14	475	598	1190	1270	3370	3810	500	1530	274	165	144	830
15	468	637	1100	1290	3900	3070	484	1390	280	161	142	835
16	497	1860	924	1990	5040	2230	486	984	277	165	145	837
17	696	3230	805	4670	7850	1660	594	588	281	169	146	845
18	941	3250	881	5290	7260	1360	700	539	311	164	148	843
19	940	2270	990	5470	8710	1030	635	520	304	161	148	847
20	939	1380	1020	5610	10200	827	562	582	288	159	148	845
21	999	1390	847	4790	11300	769	518	606	276	159	147	833
22	1110	1590	768	3660	14000	711	486	665	272	155	145	823
23	1840	1220	732	4820	10800	773	463	614	266	155	145	829
24	3170	860	696	4870	9390	1450	437	661	261	157	144	877
25	3620	788	718	3760	10000	1910	463	650	259	157	146	1010
26	3280	732	728	2700	9460	1690	490	592	270	154	145	1700
27	2930	695	711	2200	8900	1220	594	456	271	152	141	2430
28	2220	714	623	2130	8110	908	1040	408	268	155	144	2280
29	1220	743	448	2030	---	660	1530	388	270	150	147	2070
30	1010	696	415	2260	---	624	1620	371	271	148	145	1770
31	898	---	386	2220	---	587	---	358	---	147	145	---
TOTAL	33610	32019	65305	86211	147796	75549	17596	41042	8715	5254	4508	27620
MEAN	1084	1067	2107	2781	5278	2437	587	1324	291	169	145	921
MAX	3620	3250	7340	5610	14000	6070	1620	3300	344	259	148	2430
MIN	468	321	386	681	684	587	398	358	259	147	141	148
AC-FT	66670	63510	129500	171000	293200	149900	34900	81410	17290	10420	8940	54780
CAL YR 1985	TOTAL	366450	MEAN	1004	MAX	7340	MIN	132	AC-FT	726900		
WTR YR 1986	TOTAL	545225	MEAN	1494	MAX	14000	MIN	141	AC-FT	1081000		

14158500 MCKENZIE RIVER AT OUTLET OF CLEAR LAKE, OR

LOCATION.--Lat 44°21'40", long 121°59'40", in SE $\frac{1}{4}$ sec.8, T.14 S., R.7 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, on west bank of Clear Lake in narrow channel, 150 ft upstream from outlet and at mile 89.6.

DRAINAGE AREA.--92.4 mi², hydrologic drainage boundary uncertain owing to ground-water exchange.

PERIOD OF RECORD.--June 1912 to September 1915, October 1947 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1949. WSP 1318: 1915(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,015.32 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). June 20, 1912, to July 31, 1915, nonrecording gage at site 1.0 mi north at different datum.

REMARKS.--Estimated daily discharges: Nov. 25 to Dec. 10. Records good except for estimated daily discharges, which are fair. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake upstream from station.

AVERAGE DISCHARGE.--42 years, 470 ft³/s, 69.08 in/yr, 340,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft³/s Dec. 23, 1964, gage height, 8.15 ft; minimum discharge, 137 ft³/s Sept. 23, 1977, Nov. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,090 ft³/s Feb. 23, gage height, 6.43 ft; minimum discharge, 196 ft³/s Sept. 19, 21-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	222	353	320	315	532	1230	620	501	425	289	245	208		
2	219	356	320	315	526	1160	604	513	417	286	244	207		
3	218	353	320	315	526	1100	586	531	410	285	243	207		
4	215	354	320	311	521	1050	572	531	404	289	242	206		
5	214	353	320	319	515	1000	556	536	401	284	241	205		
6	212	353	320	327	495	976	542	530	397	281	238	204		
7	213	357	320	325	477	1090	531	518	393	280	237	203		
8	210	364	320	332	464	1140	520	509	389	279	236	202		
9	208	367	320	347	453	1040	511	505	384	278	235	203		
10	207	367	320	352	442	973	499	508	380	278	234	201		
11	209	379	319	357	430	946	491	503	375	277	233	200		
12	208	382	319	362	424	925	490	491	369	275	231	199		
13	207	383	317	368	410	891	480	492	364	273	230	199		
14	207	379	313	372	401	856	470	498	360	272	228	198		
15	207	387	310	385	401	824	465	492	355	271	227	200		
16	207	388	306	430	453	791	465	480	349	269	226	199		
17	206	368	300	506	694	761	461	472	344	268	225	200		
18	205	338	294	587	778	729	452	468	341	265	223	199		
19	205	327	288	636	668	700	446	467	334	264	222	199		
20	204	323	283	631	604	674	445	478	328	262	221	202		
21	204	329	280	586	592	655	455	480	322	261	219	198		
22	215	329	278	583	917	635	468	473	317	260	218	196		
23	227	322	277	627	1750	629	468	462	312	258	218	199		
24	234	321	278	611	1840	681	459	455	308	256	217	204		
25	270	320	279	583	1430	663	458	451	305	255	215	206		
26	299	320	281	559	1420	639	454	448	302	254	214	215		
27	320	320	285	542	1340	638	468	448	299	252	213	218		
28	334	320	289	543	1290	643	512	447	296	250	213	225		
29	339	320	291	542	---	644	520	444	294	249	213	234		
30	346	320	293	550	---	640	507	438	290	248	211	242		
31	351	---	295	544	---	630	---	432	---	246	209	---		
TOTAL	7342	10452	9375	14162	20793	25953	14975	15001	10564	8314	7021	6178		
MEAN	237	348	302	457	743	837	499	484	352	268	226	206		
MAX	351	388	320	636	1840	1230	620	536	425	289	245	242		
MIN	204	320	277	311	401	629	445	432	290	246	209	196		
CFSM	2.56	3.77	3.27	4.95	8.04	9.06	5.40	5.24	3.81	2.90	2.45	2.23		
IN.	2.96	4.21	3.77	5.70	8.37	10.45	6.03	6.04	4.25	3.35	2.83	2.49		
AC-FT	14560	20730	18600	28090	41240	51480	29700	29750	20950	16490	13930	12250		
CAL YR 1985	TOTAL	136412	MEAN	374	MAX	898	MIN	204	CFSM	4.05	IN.	54.92	AC-FT	270600
WTR YR 1986	TOTAL	150130	MEAN	411	MAX	1840	MIN	196	CFSM	4.45	IN.	60.44	AC-FT	297800

MCKENZIE RIVER BASIN

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14158790 SMITH RIVER ABOVE SMITH RIVER RESERVOIR, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°20'05", long 122°02'45", in SW¼SW¼ sec.24, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 200 ft upstream from Smith River Reservoir, 0.7 mi downstream from Browder Creek, 10 mi north of town of Belknap Springs, and at mile 4.4.

DRAINAGE AREA.--16.2 mi².

PERIOD OF RECORD.--October 1960 to current year.

REVISED RECORDS.--WDR OR 80-2: 1978(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,610.00 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Sept. 10, 1964, at datum 1.56 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1-9, July 5 to Sept. 5. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--26 years, 91.9 ft³/s, 77.04 in/yr, 66,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft³/s Dec. 22, 1964, gage height, 11.9 ft, from floodmark, from rating curve extended above 560 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 2.5 ft³/s Sept. 15-18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0830	*1,430	*8.27	No other peak greater than base discharge.			
Minimum discharge, 3.0 ft ³ /s Sept. 6-8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	53	31	164	149	259	89	106	37	7.4	4.8	3.5
2	4.7	49	43	147	138	216	79	115	33	7.4	4.8	3.4
3	4.6	55	128	120	136	185	70	117	29	7.4	4.7	3.3
4	4.5	49	75	103	129	171	64	108	26	15	4.6	3.2
5	4.5	51	68	132	117	162	57	109	23	10	4.5	3.1
6	4.5	49	82	167	101	166	54	99	21	9.1	4.4	3.0
7	4.5	68	158	129	89	380	53	90	20	8.5	4.3	3.0
8	4.8	189	162	136	79	320	54	82	18	8.1	4.3	3.0
9	4.5	205	119	235	70	260	53	78	17	7.8	4.2	5.1
10	4.5	139	98	226	62	214	49	82	16	8.0	4.1	3.8
11	8.1	106	83	195	57	211	47	79	15	8.0	4.1	3.4
12	8.7	86	72	153	56	189	46	82	14	7.6	4.0	3.3
13	6.8	73	63	129	52	167	43	98	13	7.2	4.0	3.1
14	6.1	61	56	116	61	142	42	93	13	6.8	3.9	3.2
15	5.7	55	50	129	120	122	46	84	12	6.6	3.9	6.5
16	5.7	147	47	331	544	107	53	77	12	7.2	3.8	7.1
17	6.5	211	47	357	660	95	57	73	13	7.8	3.7	9.3
18	5.7	152	55	298	393	85	56	73	16	7.1	3.7	11
19	5.5	116	72	317	248	80	60	71	13	6.6	3.7	6.0
20	8.6	99	81	232	180	82	74	78	12	6.3	3.6	11
21	6.9	86	90	174	159	89	85	75	11	6.1	3.6	6.6
22	19	77	96	187	760	84	85	72	10	5.9	3.6	5.4
23	147	64	108	229	1200	127	72	66	9.5	5.8	3.5	8.9
24	230	57	116	170	781	190	62	61	9.0	5.7	3.5	32
25	162	51	120	135	553	146	58	64	8.9	5.6	3.5	48
26	184	45	115	117	454	132	58	65	8.7	5.5	3.5	91
27	122	41	107	122	357	131	148	60	8.4	5.4	3.4	61
28	88	38	97	145	303	131	164	55	8.2	5.2	3.4	49
29	88	35	86	156	---	123	126	52	8.1	5.1	3.5	41
30	69	33	76	180	---	114	111	47	7.7	5.0	3.7	36
31	59	---	70	158	---	100	---	42	---	4.9	3.7	---
TOTAL	1288.2	2540	2671	5589	8008	4980	2115	2453	462.5	220.1	122.0	477.2
MEAN	41.6	84.7	86.2	180	286	161	70.5	79.1	15.4	7.10	3.94	15.9
MAX	230	211	162	357	1200	380	164	117	37	15	4.8	91
MIN	4.5	33	31	103	52	80	42	42	7.7	4.9	3.4	3.0
CFSM	2.57	5.23	5.32	11.1	17.7	9.94	4.35	4.88	.95	.44	.24	.98
IN.	2.96	5.83	6.13	12.83	18.39	11.44	4.86	5.63	1.06	.51	.28	1.10
AC-FT	2560	5040	5300	11090	15880	9880	4200	4870	917	437	242	947
CAL YR 1985	TOTAL	26199.4	MEAN	71.8	MAX	355	MIN	3.9	CFSM	4.43	IN.	60.16
WTR YR 1986	TOTAL	30926.0	MEAN	84.7	MAX	1200	MIN	3.0	CFSM	5.23	IN.	71.02
											AC-FT	51970
											AC-FT	61340

MCKENZIE RIVER BASIN

14158795 SMITH RIVER RESERVOIR NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°18'20", long 122°02'40", in SW¼SW¼ sec.36, T.14 S., R.6 E., Linn County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Smith River Dam on Smith River, 800 ft upstream from Bunchgrass Creek, 8 mi north of town of Belknap Springs, and at mile 2.1.

DRAINAGE AREA.--18.2 mi².

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway completed in 1963 by Eugene Water and Electric Board; storage began Mar. 18, 1963. Total capacity is 15,000 acre-ft at elevation 2,605.0 ft, top of spillway gates, and usable capacity is 9,900 acre-ft between elevations 2,525.0 ft, minimum power pool, and 2,605.0 ft. Storage of 5,100 acre-ft, below elevation 2,525.0 ft, not normally available for release. Water used for power generation. Figures herein represent total contents.

COOPERATION.--Elevations and area-volume curves furnished by Eugene Water and Electric Board.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 15,200 acre-ft Dec. 22, 1964, elevation, 2,606.5 ft; minimum contents, 5,700 acre-ft Apr. 11, 14, 1964, elevation, 2,532.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,760 acre-ft June 22, elevation, 2,603.89 ft; minimum contents, 13,000 acre-ft Jan. 30, elevation, 2,593.13 ft.

REVISIONS.--The figures published for the 1985 water year were incorrect. The correct figures are as follows:

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 15,200 acre-ft Dec. 22, 1964, elevation, 2,606.5 ft.

EXTREMES FOR 1985 WATER YEAR.--Maximum contents, 14,790 acre-ft July 17, elevation, 2,604.07 ft; minimum contents, 11,990 acre-ft Feb. 12, elevation, 2,586.35 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	2,602.75	14,570	-
Oct. 31.....	2,601.87	14,420	-150
Nov. 30.....	2,595.90	13,440	-980
Dec. 31.....	2,591.96	12,810	-630
CAL YR 1984.....	-	-	-270
Jan. 31.....	2,594.63	13,240	+430
Feb. 28.....	2,589.50	12,430	-810
Mar. 31.....	2,589.30	12,400	-30
Apr. 30.....	2,599.28	13,990	+1,590
May 31.....	2,601.74	14,400	+410
June 30.....	2,602.02	14,440	+40
July 31.....	2,602.01	14,440	0
Aug. 31.....	2,602.05	14,450	+10
Sept.30.....	2,602.31	14,490	+40
WTR YR 1985.....	-	-	-80

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	2,602.31	14,490	-
Oct. 31.....	2,600.77	14,230	-260
Nov. 30.....	2,595.48	13,380	-850
Dec. 31.....	2,596.26	13,500	+120
CAL YR 1985.....	-	-	+690
Jan. 31.....	2,594.74	13,260	-240
Feb. 28.....	2,595.75	13,420	+160
Mar. 31.....	2,596.50	13,540	+120
Apr. 30.....	2,598.80	13,910	+370
May 31.....	2,599.92	14,090	+180
June 30.....	2,601.45	14,350	+260
July 31.....	2,601.54	14,360	+10
Aug. 31.....	2,601.42	14,340	-20
Sept.30.....	2,600.15	14,130	-210
WTR YR 1986.....	-	-	-360

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°16'05", long 122°02'55", in T.15 S., R.6 E., (unsurveyed), Linn County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.4 mi downstream from Trail Bridge Dam, 0.5 mi upstream from Anderson Creek, 5 mi north of town of Belknap Springs, and at mile 81.5.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1963 by Smith River Reservoir (station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge reregulating reservoir upstream. Water is diverted from McKenzie River in SW $\frac{1}{4}$ sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river upstream from station.

AVERAGE DISCHARGE.--27 years, 1,031 ft³/s, 76.09 in/yr, 747,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s Dec. 22, 1964, gage height, 12.45 ft, from rating curve extended above 3,700 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 185 ft³/s Feb. 3, 1963; minimum daily, 425 ft³/s Nov. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,190 ft³/s Feb. 23, gage height, 10.05 ft; minimum discharge, 536 ft³/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	614	751	797	867	1160	2040	1250	1100	915	766	678	651
2	612	796	791	968	1120	1910	1230	1100	889	701	679	669
3	588	788	849	878	1120	1840	1210	1140	890	730	678	660
4	610	775	797	869	1110	1760	1190	1080	862	757	663	672
5	600	764	824	893	1080	1640	1150	1140	865	712	662	672
6	582	790	857	929	1080	1610	1120	1070	873	725	671	661
7	599	1010	1010	883	974	1990	1090	1090	846	728	679	661
8	587	1040	910	907	981	2020	1060	1050	830	698	678	669
9	583	1060	820	1070	972	1860	1090	1070	872	728	665	677
10	585	1000	859	980	953	1750	1060	1060	815	740	659	669
11	624	890	831	1030	916	1720	1090	1070	796	708	661	672
12	593	849	799	907	997	1710	1020	1040	835	700	664	672
13	575	761	808	949	876	1620	1020	1070	800	731	667	672
14	570	839	777	905	913	1610	1070	1060	765	700	656	672
15	589	902	760	996	996	1530	1030	1030	740	703	673	677
16	592	1010	764	1250	1580	1480	1020	1030	769	714	661	689
17	580	971	762	1290	2020	1460	1040	1020	795	717	658	693
18	562	894	759	1310	1580	1420	978	992	801	708	663	713
19	628	884	760	1300	1480	1390	985	1020	782	704	662	674
20	583	887	799	1210	1430	1360	1040	1000	761	691	660	701
21	596	876	790	1250	1390	1320	997	970	750	691	663	680
22	795	853	789	1250	2430	1310	1010	946	758	701	662	678
23	953	810	789	1280	4420	1320	1040	946	771	707	671	699
24	849	799	797	1260	3720	1430	1020	980	747	685	672	782
25	866	874	837	1210	2850	1330	980	957	736	678	675	831
26	792	815	817	1190	2630	1350	1020	956	742	682	682	932
27	763	784	801	1170	2350	1330	1120	960	749	689	664	859
28	831	760	798	1180	2180	1310	1160	941	737	691	655	786
29	750	779	792	1170	---	1320	1110	962	712	685	659	778
30	802	801	768	1220	---	1270	1090	939	730	680	688	805
31	772	---	729	1130	---	1270	---	921	---	679	665	---
TOTAL	20625	25812	25040	33701	45308	48280	32290	31710	23933	21929	20693	21326
MEAN	665	860	808	1087	1618	1557	1076	1023	798	707	668	711
MAX	953	1060	1010	1310	4420	2040	1250	1140	915	766	688	932
MIN	562	751	729	867	876	1270	978	921	712	678	655	651
AC-FT	40910	51200	49670	66850	89870	95760	64050	62900	47470	43500	41040	42300
MEAN†	661	846	810	1083	1621	1559	1083	1026	802	708	667	707
CFSM†	3.59	4.60	4.40	5.89	8.81	8.47	5.89	5.58	4.36	3.85	3.62	3.84
IN.†	4.14	5.13	5.07	6.79	9.18	9.77	6.57	6.43	4.87	4.43	4.18	4.29
AC-FT†	40650	50350	49790	66610	90030	95880	64420	63080	47730	43510	41020	42090

CAL YR 1985 TOTAL 325087 MEAN 891 MAX 1630 MIN 562 AC-FT 644800 MEAN† 892 CFSM† 4.85 IN.† 65.79 AC-FT† 645500
WTR YR 1986 TOTAL 350647 MEAN 961 MAX 4420 MIN 562 AC-FT 695500 MEAN† 960 CFSM† 5.22 IN.† 70.85 AC-FT† 695100

† Adjusted for change in contents in Smith River Reservoir.

MCKENZIE RIVER BASIN

14158930 BUDWORM CREEK NEAR BELKNAP SPRINGS, OR

LOCATION.--Lat 44°15'29", long 122°03'40", T.15 S., R.6 E., (unsurveyed), Linn County, Hydrologic Unit 17090004, Willamette National Forest, on right bank 0.1 mi upstream from Deer Creek, 4.8 mi north of town of Belknap Springs.

DRAINAGE AREA.--3.00 mi².

PERIOD OF RECORD.--July 1978 to March 1983, October 1983 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,040 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--7 years (water years 1979-82, 1984-86) 13.9 ft³/s, 62.92 in/yr, 10,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 688 ft³/s Dec. 25, 1980, gage height, 3.78 ft, from rating curve extended above 180 ft³/s; maximum gage height, 4.03 ft Feb. 23, 1986; minimum discharge, 0.45 ft³/s Oct. 8-10, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*), from rating curve extended above 100 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	2330	357	3.51	Feb. 23	0830	*563	*4.03

Minimum discharge, 0.67 ft³/s Oct. 5-7, 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	.78	7.5	5.1	26	18	21	9.1	14	4.8	1.7	1.2	.98		
2	.74	7.2	7.9	23	16	17	8.4	15	4.4	1.6	1.2	.98		
3	.73	7.1	15	21	15	15	7.8	17	4.1	1.6	1.2	.97		
4	.70	7.4	13	17	16	14	7.5	15	3.9	3.4	1.2	.93		
5	.68	7.4	13	22	16	13	7.2	15	3.5	2.5	1.2	.93		
6	.67	10	31	27	14	13	6.7	14	3.3	2.0	1.2	.91		
7	.86	43	47	20	13	24	6.4	13	3.3	1.8	1.2	.88		
8	.78	53	29	18	11	23	6.2	11	3.0	1.7	1.1	.88		
9	.67	25	19	30	9.8	22	6.1	11	3.0	1.7	1.1	1.0		
10	.67	16	15	27	9.0	19	5.9	11	2.8	1.9	1.1	1.0		
11	1.7	12	12	21	8.3	20	5.8	11	2.7	1.9	1.1	.98		
12	1.5	10	11	17	8.4	21	5.9	11	2.6	1.7	1.0	.97		
13	1.2	8.8	9.5	14	9.2	18	5.9	13	2.4	1.7	1.0	.93		
14	.98	7.8	8.6	13	14	16	5.9	13	2.4	1.6	1.0	.97		
15	.91	18	7.9	14	26	14	6.5	12	2.3	1.5	1.0	1.4		
16	.89	58	7.9	53	178	13	8.3	10	2.3	1.6	1.0	1.6		
17	.90	34	9.5	61	266	12	10	9.5	2.3	1.7	1.0	4.2		
18	.87	20	14	38	82	10	9.9	9.0	2.9	1.5	1.0	3.8		
19	.88	15	16	32	37	9.7	9.9	8.7	2.6	1.5	1.0	1.9		
20	.94	12	16	25	24	9.4	12	9.0	2.3	1.5	1.0	2.6		
21	.95	11	17	19	27	9.9	13	9.1	2.2	1.5	.99	1.9		
22	11	9.4	16	26	277	9.6	12	9.0	2.1	1.5	.98	1.6		
23	45	8.4	17	43	439	13	9.5	8.8	2.1	1.4	.98	2.7		
24	37	7.7	16	30	143	24	8.5	8.1	2.0	1.4	.98	11		
25	34	7.0	16	21	59	18	8.6	7.8	1.9	1.3	.98	16		
26	20	6.4	14	17	47	16	9.0	7.6	1.8	1.3	.98	27		
27	13	6.0	13	18	32	14	29	7.0	1.7	1.3	.98	17		
28	14	5.7	11	24	26	13	29	6.4	1.7	1.3	.98	12		
29	11	5.4	10	24	---	12	19	5.9	1.7	1.3	.98	9.4		
30	9.4	5.1	9.1	27	---	11	16	5.6	1.7	1.3	.98	8.3		
31	8.5	---	8.8	22	---	10	---	5.1	---	1.2	.99	---		
TOTAL	221.90	451.3	455.3	790	1840.7	474.6	305.0	322.6	79.8	50.9	32.60	135.71		
MEAN	7.16	15.0	14.7	25.5	65.7	15.3	10.2	10.4	2.66	1.64	1.05	4.52		
MAX	45	58	47	61	439	24	29	17	4.8	3.4	1.2	27		
MIN	.67	5.1	5.1	13	8.3	9.4	5.8	5.1	1.7	1.2	.98	.88		
CFSM	2.39	5.00	4.90	8.50	21.9	5.10	3.40	3.47	.89	.55	.35	1.51		
IN.	2.75	5.60	5.65	9.80	22.82	5.89	3.78	4.00	.99	.63	.40	1.68		
AC-FT	440	895	903	1570	3650	941	605	640	158	101	65	269		
CAL YR 1985	TOTAL	3846.72	MEAN	10.5	MAX	64	MIN	.60	CFSM	3.50	IN.	47.70	AC-FT	7630
WTR YR 1986	TOTAL	5160.41	MEAN	14.1	MAX	439	MIN	.67	CFSM	4.70	IN.	63.99	AC-FT	10240

MCKENZIE RIVER BASIN

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14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR

LOCATION.--Lat 44°10'45", long 122°07'45", on line between NE¼ and NW¼ sec.18, T.16 S., R.6 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, on left bank 1.0 mi upstream from Glen Creek, 1.7 mi east of town of McKenzie Bridge, and at mile 69.9.

DRAINAGE AREA.--348 mi² at cableway 1.2 mi upstream, where all discharge measurements are made.

PERIOD OF RECORD.--August 1910 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "near McKenzie Bridge" August 1910 to September 1911 and October 1914 to September 1916.

REVISED RECORDS.--WSP 1248: 1911-16, 1920-25. WSP 1448: 1919. WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,419.04 ft above National Geodetic Vertical Datum of 1929. Prior to June 2, 1932, nonrecording gage at several sites within 2 mi of present site at various datums.

REMARKS.--Estimated daily discharges: Oct. 20 to Dec. 10. Water-discharge records excellent. Flow regulated since March 1963 by Smith River Reservoir (Carmen-Smith Project) 12 mi upstream (see station 14158795). No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--76 years, 1,689 ft³/s, 1,224,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s Dec. 22, 1964, gage height, 10.36 ft, from rating curve extended above 7,100 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 805 ft³/s Oct. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,600 ft³/s Feb. 23, gage height, 6.73 ft; minimum discharge, 1,010 ft³/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1110	1310	1280	1600	2040	3470	2000	1860	1470	1300	1150	1040
2	1110	1360	1300	1710	2000	3230	1960	1870	1440	1250	1140	1050
3	1080	1350	1430	1620	1970	3050	1920	1930	1440	1260	1140	1040
4	1100	1330	1360	1550	1980	2910	1890	1840	1400	1330	1120	1060
5	1100	1320	1390	1600	1930	2700	1830	1900	1400	1260	1120	1060
6	1080	1360	1590	1730	1900	2630	1780	1810	1410	1260	1130	1040
7	1100	1900	1910	1610	1770	3270	1750	1810	1380	1260	1140	1030
8	1090	2040	1850	1640	1740	3270	1700	1760	1360	1230	1130	1040
9	1080	1900	1530	1950	1710	3080	1740	1760	1400	1250	1120	1060
10	1080	1730	1530	1890	1670	2900	1690	1760	1350	1270	1110	1050
11	1140	1530	1470	1890	1620	2870	1730	1770	1310	1240	1110	1040
12	1100	1500	1410	1680	1720	2830	1660	1730	1360	1210	1110	1040
13	1080	1350	1400	1700	1630	2700	1640	1780	1330	1250	1100	1040
14	1070	1410	1350	1630	1690	2650	1690	1760	1300	1210	1090	1040
15	1080	1600	1310	1740	1890	2500	1660	1700	1270	1210	1100	1060
16	1090	2040	1300	2310	3400	2410	1660	1690	1300	1220	1090	1060
17	1080	1870	1300	2590	5300	2360	1710	1670	1340	1220	1090	1080
18	1060	1640	1310	2460	3880	2280	1630	1620	1350	1210	1080	1110
19	1110	1590	1320	2430	3140	2240	1630	1650	1340	1200	1080	1050
20	1090	1560	1360	2240	2820	2180	1710	1650	1310	1190	1080	1080
21	1080	1520	1360	2190	2700	2130	1670	1620	1310	1190	1080	1040
22	1390	1470	1360	2260	6530	2100	1680	1580	1310	1190	1080	1030
23	1970	1410	1370	2480	10900	2150	1680	1560	1330	1200	1080	1060
24	1750	1380	1380	2370	7730	2420	1650	1590	1300	1170	1080	1260
25	1730	1440	1430	2210	5600	2230	1610	1570	1290	1160	1080	1330
26	1520	1360	1420	2140	4850	2220	1650	1560	1290	1160	1080	1620
27	1410	1310	1370	2080	4220	2190	2010	1560	1300	1170	1070	1420
28	1500	1270	1360	2140	3800	2140	2120	1520	1290	1170	1050	1280
29	1360	1280	1340	2100	---	2140	1960	1540	1260	1160	1060	1230
30	1380	1290	1310	2200	---	2060	1890	1520	1270	1150	1080	1230
31	1350	---	1260	2040	---	2040	---	1490	---	1150	1060	---
TOTAL	38270	45420	43660	61780	92130	79350	52900	52430	40210	37700	34030	33570
MEAN	1235	1514	1408	1993	3290	2560	1763	1691	1340	1216	1098	1119
MAX	1970	2040	1910	2590	10900	3470	2120	1930	1470	1330	1150	1620
MIN	1060	1270	1260	1550	1620	2040	1610	1490	1260	1150	1050	1030
AC-FT	75910	90090	86600	122500	182700	157400	104900	104000	79760	74780	67500	66590
CAL YR 1985	TOTAL	573570	MEAN	1571	MAX	2830	MIN	1060	AC-FT	1138000		
WTR YR 1986	TOTAL	611450	MEAN	1675	MAX	10900	MIN	1030	AC-FT	1213000		

MCKENZIE RIVER BASIN

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR

LOCATION.--Lat 44°02'50", long 122°13'00", in T.17 S., R.5 E., (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 100 ft upstream from Tipsoo Creek, 8.0 mi south of Rainbow, 9.0 mi southeast of town of Blue River, and at mile 10.4.

DRAINAGE AREA.--160 mi² at cableway 0.2 mi downstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as South Fork McKenzie River above Cougar Reservoir.

REVISED RECORDS.--WSP 1638: Drainage area. WSP 1935: 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 1,709.51 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Apr. 27 to May 5. Water-discharge records good. No regulation or diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--29 years, 643 ft³/s, 54.57 in/yr, 465,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s Dec. 22, 1964, gage height, 20.06 ft, from floodmark, from rating curve extended above 7,600 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 171 ft³/s Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	2230	3,140	8.54	Feb. 23	1000	*8,490	*13.16

Minimum discharge, 193 ft³/s Sept. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	224	402	320	732	789	1570	611	650	585	267	227	202		
2	222	394	374	784	738	1350	579	720	541	266	225	199		
3	221	375	614	758	706	1170	548	820	508	264	223	199		
4	220	372	545	669	696	1050	529	790	470	311	220	197		
5	219	364	557	659	692	973	506	820	442	293	220	196		
6	219	375	960	771	642	946	494	809	419	273	219	195		
7	232	495	1270	681	599	1480	489	753	401	265	217	195		
8	228	632	973	648	560	1460	497	706	382	259	215	195		
9	222	587	747	894	530	1330	496	676	364	256	213	199		
10	221	509	634	1060	502	1150	485	690	351	260	213	198		
11	250	451	557	957	481	1060	480	673	339	264	211	197		
12	258	411	505	838	509	1010	490	673	330	256	211	197		
13	239	384	467	757	777	952	479	716	322	251	210	197		
14	229	366	438	700	886	884	466	708	320	249	210	199		
15	227	561	419	661	923	830	475	670	319	247	208	216		
16	227	934	415	747	1610	771	498	642	311	250	207	216		
17	227	792	437	1680	3010	722	548	629	309	252	207	240		
18	224	639	509	1360	2650	670	550	634	337	248	206	256		
19	222	558	577	1230	1860	638	553	639	328	245	205	236		
20	221	508	611	1120	1470	626	588	718	307	243	204	253		
21	228	464	623	947	1540	638	638	735	299	242	204	234		
22	443	438	616	1170	5000	612	653	719	293	242	204	222		
23	1610	406	624	1360	7400	650	603	700	287	240	203	227		
24	1270	391	643	1120	4570	825	563	671	283	240	201	424		
25	993	372	655	944	3190	763	576	674	279	239	200	549		
26	785	352	641	832	2560	729	572	694	279	239	199	789		
27	605	341	608	806	2170	714	750	690	277	235	199	569		
28	593	339	568	857	1840	710	900	669	275	234	201	460		
29	499	329	525	881	---	696	800	647	272	232	202	412		
30	452	320	486	912	---	675	700	632	268	230	204	417		
31	426	---	458	843	---	638	---	606	---	229	204	---		
TOTAL	12456	13861	18376	28378	48900	28292	17116	21573	10497	7821	6492	8485		
MEAN	402	462	593	915	1746	913	571	696	350	252	209	283		
MAX	1610	934	1270	1680	7400	1570	900	820	585	311	227	789		
MIN	219	320	320	648	481	612	466	606	268	229	199	195		
CFSM	2.51	2.89	3.71	5.72	10.9	5.71	3.57	4.35	2.19	1.57	1.31	1.77		
IN.	2.90	3.22	4.27	6.60	11.37	6.58	3.98	5.02	2.44	1.82	1.51	1.97		
AC-FT	24710	27490	36450	56290	96990	56120	33950	42790	20820	15510	12880	16830		
CAL YR 1985	TOTAL	196869	MEAN	539	MAX	1610	MIN	219	CFSM	3.37	IN.	45.77	AC-FT	390500
WTR YR 1986	TOTAL	222247	MEAN	609	MAX	7400	MIN	195	CFSM	3.81	IN.	51.67	AC-FT	440800

MCKENZIE RIVER BASIN

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14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1957 to current year.

INSTRUMENTATION.--Temperature recorder since November 1957.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 17.0°C July 8, 1968, July 19, 20, 1979; minimum, 0.0°C Dec. 7-11, 1972, Dec. 30, 1978, Jan. 1, 1979, Jan. 4, 1982, Dec. 24, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 15.0°C July 20-22, Aug. 3, 6-9; minimum recorded, 2.0°C Dec. 14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	9.0	6.5	8.0				---	---	---	4.5	4.0	4.5
2	10.0	7.5	8.5				---	---	---	4.5	4.0	4.0
3	9.5	7.5	8.5				---	---	---	4.0	3.5	4.0
4	9.5	7.0	8.0				---	---	---	4.5	3.5	4.0
5	9.5	7.0	8.0				---	---	---	4.5	4.0	4.5
6	9.0	7.5	8.0				---	---	---	4.5	4.0	4.0
7	8.5	7.5	8.0				---	---	---	4.5	4.0	4.0
8	7.0	5.0	6.5				---	---	---	5.0	4.0	4.5
9	6.5	4.0	5.0				---	---	---	5.5	5.0	5.0
10	7.5	5.0	6.0				---	---	---	5.0	4.5	5.0
11	---	---	---				---	---	---	5.0	4.5	4.5
12	---	---	---				---	---	---	5.0	4.5	4.5
13	---	---	---				3.0	---	---	5.5	4.5	5.0
14	---	---	---				3.0	2.0	2.5	5.5	4.5	5.0
15	---	---	---				3.5	3.0	3.0	5.0	4.5	5.0
16	---	---	---				3.5	3.0	3.0	5.5	5.0	5.0
17	---	---	---				3.5	3.0	3.0	5.5	5.0	5.0
18	---	---	---				3.5	3.0	3.5	6.0	5.0	5.5
19	---	---	---				3.5	3.0	3.5	5.5	5.0	5.5
20	---	---	---				3.5	3.0	3.5	5.0	4.0	4.5
21	---	---	---				3.5	3.0	3.5	4.5	4.0	4.0
22	---	---	---				4.0	3.0	3.5	5.0	4.5	4.5
23	---	---	---				4.0	3.5	3.5	5.0	4.5	5.0
24	---	---	---				4.0	3.5	4.0	4.5	4.5	4.5
25	---	---	---				4.0	3.5	3.5	5.0	4.0	4.5
26	---	---	---				4.0	3.5	3.5	5.0	4.0	4.5
27	---	---	---				4.0	3.0	3.5	5.5	5.0	5.5
28	---	---	---				4.0	3.0	3.5	5.5	5.0	5.5
29	---	---	---				4.0	3.0	3.5	6.0	5.5	5.5
30	---	---	---				3.5	2.5	3.0	6.0	5.5	5.5
31	---	---	---				4.5	3.5	4.0	6.0	5.0	5.5
MONTH	---	---	---				---	---	---	6.0	3.5	5.0

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.0	5.5	5.5	6.5	5.5	5.5	6.0	4.5	5.5			
2	6.0	5.5	5.5	6.0	4.5	5.5	5.0	4.5	4.5			
3	5.5	5.0	5.0	6.5	5.0	5.5	7.0	4.0	5.5			
4	5.5	5.0	5.5	6.5	5.0	6.0	7.0	5.5	6.0			
5	5.0	4.0	4.5	7.0	5.0	6.0	8.0	5.0	6.5			
6	4.5	4.0	4.0	6.5	6.0	6.0	8.5	5.0	6.5			
7	4.0	3.0	3.5	6.5	5.5	6.0	9.0	5.5	7.0			
8	3.5	2.5	3.0	5.5	5.0	5.0	8.0	7.0	7.0			
9	4.0	2.5	3.0	5.5	4.5	5.0	7.5	6.5	7.0			
10	3.5	3.0	3.5	6.0	5.0	5.5	8.5	6.0	7.0			
11	4.5	3.5	4.0	6.0	5.0	5.5	6.5	5.0	5.5			
12	4.0	3.5	3.5	5.5	4.5	5.0	6.0	5.0	5.5			
13	5.0	4.0	4.5	6.0	4.5	5.0	7.0	4.5	5.5			
14	5.0	4.0	4.5	5.5	4.0	4.5	7.5	4.5	6.0			
15	5.5	4.5	5.0	6.0	4.5	5.0	7.0	5.5	6.0			
16	5.5	5.5	5.5	6.0	4.5	5.0	6.5	5.5	6.0			
17	5.5	5.0	5.5	6.0	5.0	5.0	6.5	5.0	5.5			
18	4.5	3.5	4.0	7.0	5.0	5.5	8.0	5.0	6.5			
19	4.5	4.0	4.5	7.0	4.5	5.5	9.0	5.5	7.0			
20	4.5	4.5	4.5	7.5	5.0	6.0	10.0	6.0	8.0			
21	5.0	4.5	4.5	7.0	5.5	6.0	10.5	7.0	8.5			
22	5.5	4.5	5.0	7.5	4.5	6.0	8.5	6.0	7.5			
23	5.5	5.0	5.0	6.5	5.5	6.0	---	---	---			
24	6.0	5.0	5.5	6.0	5.5	5.5	---	---	---			
25	5.5	5.0	5.5	7.0	4.5	5.5	---	---	---			
26	6.0	5.0	5.5	7.5	5.5	6.5	---	---	---			
27	6.5	5.5	5.5	8.5	6.0	7.0	---	---	---			
28	6.0	5.0	5.5	8.5	6.0	7.0	---	---	---			
29	---	---	---	8.0	6.0	7.0	---	---	---			
30	---	---	---	7.0	5.5	6.5	---	---	---			
31	---	---	---	7.5	4.5	6.0	---	---	---			
MONTH	6.5	2.5	4.5	8.5	4.0	5.5	---	---	---			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1				---	---	---	14.5	9.5	12.0	12.5	9.0	10.5
2				---	---	---	14.0	10.0	12.0	13.0	9.0	11.0
3				---	---	---	15.0	10.0	12.5	13.0	9.0	11.0
4				---	---	---	14.5	9.5	12.0	13.0	9.5	11.0
5				---	---	---	14.5	9.5	11.5	13.0	9.0	10.5
6				---	---	---	15.0	9.5	12.0	13.0	9.0	10.5
7				---	---	---	15.0	10.0	12.5	12.5	9.0	10.5
8				---	---	---	15.0	10.0	12.5	10.5	9.0	10.0
9				12.5	---	---	15.0	10.0	12.5	10.0	9.0	9.5
10				11.0	9.5	10.5	14.5	10.0	12.0	11.0	8.0	9.5
11				13.5	9.5	11.5	14.0	9.5	11.5	11.5	8.5	10.0
12				14.5	9.5	11.5	14.0	9.5	11.5	10.5	7.5	9.0
13				14.0	9.0	11.5	14.5	9.5	12.0	9.5	7.5	8.5
14				13.5	9.0	11.0	14.5	10.0	12.0	9.0	7.0	8.0
15				12.5	8.5	10.5	14.0	10.0	12.0	9.5	8.0	8.5
16				11.0	9.0	10.0	13.5	9.5	11.5	9.5	7.5	8.5
17				13.5	8.5	10.5	13.5	9.5	11.5	9.0	8.0	8.5
18				13.0	9.0	11.0	14.0	9.5	11.5	9.5	8.0	8.5
19				14.5	9.0	11.5	14.0	9.5	11.5	10.0	7.5	8.5
20				15.0	9.5	12.0	13.0	9.5	11.0	8.5	8.0	8.5
21				15.0	10.0	12.0	14.0	9.5	11.5	10.0	7.5	8.5
22				15.0	9.5	12.0	12.5	9.5	11.0	9.5	7.0	8.0
23				14.5	9.5	12.0	13.5	9.5	11.0	8.5	7.0	8.0
24				14.5	9.5	12.0	13.0	9.0	11.0	9.0	8.0	8.5
25				14.0	9.5	11.5	13.5	9.0	11.0	8.5	7.5	8.0
26				13.5	9.5	11.5	14.0	9.5	11.5	8.5	7.5	8.0
27				14.0	9.5	11.5	12.0	10.0	11.0	8.5	7.5	8.0
28				14.0	8.5	11.0	14.0	9.5	11.5	9.0	7.5	8.0
29				14.0	9.5	11.5	11.5	10.0	10.5	8.5	7.5	8.0
30				14.0	8.5	11.0	11.5	9.5	10.5	8.5	7.5	8.0
31				14.5	9.0	11.5	12.5	9.0	10.5	---	---	---
MONTH				---	---	---	15.0	9.0	11.5	13.0	7.0	9.0

MCKENZIE RIVER BASIN

129

14159400 COUGAR LAKE NEAR RAINBOW, OR

LOCATION.--Lat 44°07'40", long 122°14'25", in SE¼ sec. 31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, Willamette National Forest, in intake tower near left end of Cougar Dam on South Fork McKenzie River, 2.7 mi south of Rainbow, and at mile 4.5.

DRAINAGE AREA.--207 mi².

PERIOD OF RECORD.--October 1963 to current year. Prior to October 1971, published as Cougar Reservoir near Rainbow.

GAGE.--Water-stage recorder. Datum gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Elevations for Feb. 16 to Mar. 31 provided by the Corps of Engineers, North Pacific Division, Reservoir Control Center. Lake is formed by earthfill dam with concrete spillway completed in 1963 by the Corps of Engineers; storage began September 1963. Total capacity is 219,100 acre-ft at elevation 1,699 ft, maximum pool, and usable capacity is 164,800 acre-ft between elevations 1,516 ft, minimum power pool, and 1,699 ft. Lake used for flood control and power generation. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 214,100 acre-ft June 29, 1977, elevation, 1,695.06 ft; minimum contents, 33,690 acre-ft Oct. 31 to Nov. 2, 1965, elevation, 1,475.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 208,200 acre-ft May 23, elevation, 1,690.35 ft; minimum contents, 63,900 acre-ft Jan. 5, elevation, 1,532.00 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,510	50,920	1,650	162,300
1,550	75,940	1,696	215,300
1,600	114,800		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1606.13	1583.56	1538.38	1532.89	1542.23	1632.58	1649.99	1678.98	1689.95	1689.84	1682.73	1645.83
2	1604.81	1582.38	1536.35	1532.93	1541.80	1626.61	1650.83	1680.05	1689.91	1689.86	1681.70	1644.42
3	1603.52	1581.08	1536.23	1532.79	1542.62	1624.93	1651.58	1680.71	1689.83	1689.84	1680.68	1643.00
4	1602.20	1579.78	1535.44	1532.22	1544.16	1624.10	1652.28	1681.28	1689.78	1690.03	1679.61	1641.58
5	1600.91	1578.40	1534.87	1532.51	1545.70	1623.63	1652.93	1682.39	1689.80	1690.09	1678.55	1640.13
6	1599.56	1577.14	1536.81	1533.91	1547.37	1623.03	1653.53	1683.58	1689.86	1690.12	1677.49	1638.67
7	1598.31	1576.59	1540.23	1535.24	1548.99	1625.40	1654.12	1684.70	1689.95	1690.12	1676.40	1637.19
8	1596.99	1576.77	1541.85	1536.44	1550.42	1626.55	1654.71	1685.75	1690.00	1690.12	1675.34	1635.69
9	1595.65	1576.67	1542.19	1538.45	1551.67	1625.94	1655.30	1686.32	1690.02	1690.12	1674.25	1634.16
10	1594.30	1575.99	1541.95	1539.54	1552.79	1626.15	1655.87	1686.49	1690.02	1690.14	1673.16	1632.62
11	1593.12	1575.01	1541.21	1539.97	1553.85	1627.26	1656.46	1686.58	1690.02	1690.16	1672.06	1631.07
12	1591.93	1573.82	1540.21	1539.81	1555.12	1628.32	1657.05	1687.09	1690.02	1690.16	1670.94	1629.49
13	1590.64	1572.47	1538.98	1540.56	1557.79	1629.10	1657.62	1688.06	1689.98	1690.16	1669.81	1627.91
14	1589.31	1571.01	1537.61	1541.68	1560.89	1629.74	1658.14	1688.98	1690.00	1690.14	1668.69	1626.32
15	1587.95	1570.66	1536.10	1542.80	1564.10	1630.12	1658.73	1689.08	1690.04	1690.11	1667.57	1624.78
16	1586.57	1572.15	1535.56	1545.66	1569.30	1630.26	1659.44	1689.10	1690.03	1690.10	1666.40	1623.34
17	1585.18	1572.83	1535.75	1547.28	1583.30	1631.04	1660.29	1689.10	1690.04	1690.02	1665.21	1621.93
18	1583.76	1571.30	1536.32	1546.14	1593.05	1632.35	1661.12	1689.09	1690.17	1689.81	1664.01	1620.44
19	1582.31	1567.84	1537.21	1544.98	1597.08	1633.42	1661.93	1689.06	1690.17	1689.60	1662.79	1618.87
20	1580.87	1564.10	1538.30	1543.22	1599.45	1634.50	1662.84	1689.21	1690.13	1689.37	1661.56	1617.35
21	1579.45	1560.70	1539.40	1540.71	1602.08	1635.64	1663.90	1689.46	1690.03	1689.14	1660.30	1615.73
22	1579.05	1558.28	1540.41	1539.08	1621.00	1636.64	1664.97	1690.34	1689.93	1688.90	1659.06	1614.01
23	1583.55	1555.99	1540.68	1539.55	1645.82	1637.76	1665.83	1690.22	1689.82	1688.66	1657.80	1612.42
24	1586.08	1553.61	1539.94	1540.34	1655.95	1639.78	1666.62	1690.07	1689.77	1688.41	1656.52	1611.72
25	1587.51	1551.48	1539.19	1540.99	1659.76	1641.36	1667.49	1690.08	1689.78	1688.03	1655.22	1611.38
26	1587.95	1549.45	1538.27	1541.10	1656.52	1642.80	1668.39	1689.99	1689.81	1687.60	1653.91	1611.92
27	1587.71	1547.31	1537.13	1541.04	1649.45	1644.16	1671.05	1689.92	1689.82	1687.03	1652.62	1611.65
28	1587.42	1545.17	1535.74	1541.19	1641.58	1645.52	1673.97	1689.85	1689.84	1686.45	1651.29	1610.82
29	1586.67	1542.95	1534.15	1541.86	---	1646.80	1676.04	1689.83	1689.84	1685.70	1649.94	1609.79
30	1585.78	1540.63	1533.01	1542.30	---	1648.00	1677.66	1689.91	1689.84	1684.75	1648.58	1608.69
31	1584.73	---	1532.38	1542.39	---	1649.00	---	1689.95	---	1683.74	1647.22	---
MAX	1606.13	1583.56	1542.19	1547.28	1659.76	1649.00	1677.66	1690.34	1690.17	1690.16	1682.73	1645.83
MIN	1579.05	1540.63	1532.38	1532.22	1541.80	1623.03	1649.99	1678.98	1689.77	1683.74	1647.22	1608.69
(+)	102000	69540	64150	70720	153700	161300	192900	207700	207600	200100	159400	122400
(+)	-19400	-32460	-5390	+6570	+82980	+7600	+31600	+14800	-100	-7500	-40700	-37000
CAL YR 1985	MAX	1692.84	MIN	1532.38	AC-FT†	-2740						
WTR YR 1986	MAX	1690.34	MIN	1532.22	AC-FT†	+1000						

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

MCKENZIE RIVER BASIN

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR

LOCATION.--Lat 44°08'10", long 122°14'50", in NE¼ sec.31, T.16 S., R.5 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on right bank 0.2 mi upstream from Cougar Creek, 0.6 mi downstream from Cougar Dam, 2.1 mi south of Rainbow, and at mile 3.9.

DRAINAGE AREA.--208 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1638: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,236.42 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft upstream at datum 0.80 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since 1963 by Cougar Lake (station 14159400), usable capacity, 165,000 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--39 years, 868 ft³/s, 56.67 in/yr, 628,900 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s Dec. 11, 1956, gage height, 8.66 ft, from rating curve extended above 8,100 ft³/s; maximum gage height, 8.90 ft Dec. 22, 1955 (backwater from debris); minimum discharge, 17 ft³/s Nov. 18, 1965; minimum daily, 85 ft³/s Apr. 26-28, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s Dec. 28, 1945, gage height, 8.8 ft, from floodmarks, at Corps of Engineers gage at site 40 ft upstream at datum 0.80 ft higher; gage height at present site and datum, about 9.3 ft, computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,220 ft³/s Feb. 26, gage height, 5.35 ft; minimum discharge, 150 ft³/s Apr. 22; minimum daily, 252 ft³/s Mar. 18, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	909	1030	926	1050	5830	284	332	597	266	700	819
2	801	912	1020	1020	1060	3910	282	532	567	264	699	819
3	775	913	825	1020	645	1970	279	742	553	266	703	827
4	767	924	901	1020	443	1460	278	740	484	266	707	831
5	761	925	901	839	445	1290	280	494	444	267	709	830
6	760	907	937	588	329	1280	282	371	403	270	705	840
7	761	905	945	511	269	879	280	320	378	270	716	847
8	757	916	928	508	272	1070	282	282	381	267	709	852
9	737	916	935	764	277	1810	281	495	381	265	694	868
10	725	919	935	999	284	1190	278	732	379	260	705	875
11	729	918	937	1050	285	781	282	729	368	258	704	879
12	726	914	933	1080	284	780	286	538	354	260	710	886
13	720	918	928	706	286	782	282	356	356	262	724	891
14	715	924	935	522	281	783	281	356	309	260	708	898
15	726	938	931	519	286	782	285	493	314	258	708	900
16	731	955	655	683	293	781	284	722	334	259	733	881
17	730	954	476	1510	296	433	282	723	315	297	744	939
18	726	1360	477	1950	539	252	283	725	319	353	746	943
19	736	1890	478	1960	927	254	279	726	354	349	755	949
20	735	1880	477	1960	921	255	280	729	352	344	760	951
21	734	1720	484	1950	926	255	281	731	353	345	764	955
22	745	1340	508	1940	477	256	278	652	353	346	765	965
23	863	1210	737	1750	284	256	287	908	353	348	770	980
24	921	1200	1050	1320	1210	261	286	835	300	348	775	982
25	916	1100	1060	1060	2670	259	286	740	266	415	784	991
26	913	996	1070	1050	4560	252	289	834	265	442	780	998
27	910	1010	1070	1050	5830	257	287	794	264	501	785	988
28	910	1020	1070	1050	5820	268	286	736	263	507	801	988
29	912	1020	1080	940	---	281	289	668	266	583	804	988
30	911	1030	889	1050	---	285	288	587	266	682	810	972
31	910	---	730	1050	---	287	---	601	---	705	818	---
TOTAL	24608	32443	26332	34345	31249	29489	8487	19223	10891	10783	22995	27332
MEAN	794	1081	849	1108	1116	951	283	620	363	348	742	911
MAX	921	1890	1080	1960	5830	5830	289	908	597	705	818	998
MIN	715	905	476	508	269	252	278	282	263	258	694	819
AC-FT	48810	64350	52230	68120	61980	58490	16830	38130	21600	21390	45610	54210
MEAN†	478	536	762	1215	2610	1075	814	861	361	226	79.8	289
CFSM†	2.30	2.58	3.66	5.84	12.5	5.17	3.91	4.14	1.74	1.09	0.38	1.39
IN.†	2.65	2.88	4.22	6.74	13.07	5.96	4.37	4.77	1.94	1.25	0.44	1.55
AC-FT†	29410	31890	46840	74690	145000	66090	48430	52930	21500	13890	4910	17210

CAL YR 1985 TOTAL 247787 MEAN 679 MAX 1980 MIN 267 AC-FT 491500 MEAN† 675 CFSM† 3.24 IN.† 44.07 AC-FT† 488800
WTR YR 1986 TOTAL 278177 MEAN 762 MAX 5830 MIN 252 AC-FT 551800 MEAN† 764 CFSM† 3.67 IN.† 49.84 AC-FT† 552800

† Adjusted for change in contents in Cougar Lake.

MCKENZIE RIVER BASIN

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14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1955 to current year.

INSTRUMENTATION.--Temperature recorder since July 1955.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.0°C July 28, 1958; minimum, 0.5°C Jan. 20-23, 1962.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 13.5°C Oct. 11, Sept. 19-28, 30; minimum recorded, 3.0°C Dec. 27, 28, 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.5	12.0	12.5	10.0	10.0	10.0	4.5	4.0	4.0	3.5	3.5	3.5
2	12.5	12.0	12.5	10.0	10.0	10.0	4.5	4.0	4.0	3.5	3.5	3.5
3	12.5	12.0	12.5	10.5	9.5	10.0	4.5	4.0	4.5	3.5	3.5	3.5
4	12.5	12.0	12.5	10.0	9.5	10.0	4.5	3.5	4.0	3.5	3.5	3.5
5	12.5	12.0	12.5	10.0	9.5	10.0	4.5	4.0	4.5	3.5	3.5	3.5
6	12.5	12.0	12.5	10.0	9.5	10.0	4.5	4.0	4.5	4.0	3.5	3.5
7	12.5	12.0	12.5	10.0	9.5	9.5	4.5	4.0	4.5	3.5	3.5	3.5
8	12.5	11.5	12.5	9.5	9.5	9.5	4.5	4.0	4.5	4.0	3.5	3.5
9	13.0	11.5	12.5	9.5	9.0	9.5	4.5	4.0	4.0	4.0	4.0	4.0
10	13.0	11.5	12.0	9.0	8.5	9.0	4.0	4.0	4.0	4.0	4.0	4.0
11	13.5	12.0	12.5	9.0	8.5	8.5	4.0	4.0	4.0	4.0	4.0	4.0
12	12.5	12.5	12.5	8.5	8.0	8.5	4.0	4.0	4.0	4.0	4.0	4.0
13	12.5	12.0	12.5	8.5	8.0	8.5	4.0	4.0	4.0	4.5	4.0	4.0
14	12.5	12.5	12.5	8.5	8.0	8.0	4.0	4.0	4.0	4.5	4.0	4.5
15	13.0	12.0	12.5	8.0	7.0	7.5	4.0	4.0	4.0	4.5	4.0	4.0
16	12.5	11.5	12.0	7.5	7.5	7.5	4.0	3.5	3.5	4.5	4.5	4.5
17	12.5	11.5	12.0	7.5	7.0	7.0	4.0	3.5	3.5	4.5	4.5	4.5
18	13.0	11.5	12.0	7.0	6.5	7.0	3.5	3.5	3.5	4.5	4.5	4.5
19	12.0	12.0	12.0	7.0	6.5	6.5	3.5	3.5	3.5	4.5	4.5	4.5
20	12.0	11.5	12.0	7.0	6.5	6.5	3.5	3.5	3.5	5.0	4.5	4.5
21	12.0	11.5	12.0	6.5	6.5	6.5	3.5	3.5	3.5	5.0	4.5	5.0
22	12.5	11.5	12.0	6.5	5.5	6.0	3.5	3.5	3.5	5.0	4.5	5.0
23	11.5	11.5	11.5	6.0	5.5	6.0	3.5	3.5	3.5	5.0	4.5	4.5
24	---	---	---	5.5	5.0	5.5	3.5	3.5	3.5	5.0	4.5	4.5
25	11.0	10.5	11.0	5.0	5.0	5.0	3.5	3.5	3.5	5.0	4.5	4.5
26	11.0	10.5	10.5	5.5	5.0	5.0	3.5	3.5	3.5	5.0	4.5	4.5
27	10.5	10.0	10.5	5.0	5.0	5.0	3.5	3.0	3.5	5.0	4.5	4.5
28	10.5	10.0	10.5	5.0	4.5	5.0	3.5	3.0	3.5	5.0	4.5	4.5
29	10.5	10.0	10.0	4.5	4.5	4.5	3.5	3.5	3.5	5.0	4.5	5.0
30	10.5	10.0	10.0	4.5	4.5	4.5	3.5	3.0	3.0	5.0	5.0	5.0
31	10.0	9.5	10.0	---	---	---	3.5	3.5	3.5	5.0	4.5	5.0
MONTH	---	---	---	10.5	4.5	7.5	4.5	3.0	4.0	5.0	3.5	4.0

MCKENZIE RIVER BASIN

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.5	5.0	---	---	---	---	---	---	6.5	5.0	6.0
2	5.0	5.0	5.0	---	---	---	---	---	---	6.0	5.5	5.5
3	5.5	5.0	5.0	---	---	---	---	---	---	6.0	5.5	6.0
4	5.5	5.0	5.5	---	---	---	---	---	---	6.0	5.5	6.0
5	5.5	5.0	5.0	---	---	---	---	---	---	6.0	5.5	6.0
6	5.5	5.0	5.0	4.5	3.5	4.0	---	---	---	6.5	5.5	6.0
7	5.5	5.0	5.0	4.5	4.0	4.0	---	---	---	6.5	5.5	6.0
8	5.0	4.5	5.0	---	---	---	---	---	---	7.0	5.5	6.0
9	5.0	4.5	4.5	5.0	---	---	---	---	---	6.5	5.5	6.0
10	5.0	4.5	5.0	5.0	4.5	4.5	---	---	---	6.5	5.5	6.0
11	5.0	4.5	4.5	5.0	5.0	5.0	---	---	---	6.0	6.0	6.0
12	---	---	---	5.0	4.5	4.5	---	---	---	7.0	5.5	6.5
13	---	---	---	5.0	4.5	5.0	---	---	---	7.0	5.5	6.0
14	---	---	---	5.0	4.5	5.0	---	---	---	7.5	6.0	6.5
15	---	---	---	5.0	4.5	5.0	---	---	---	7.5	6.0	6.5
16	---	---	---	5.0	5.0	5.0	---	---	---	7.0	6.0	6.5
17	5.5	5.0	5.5	5.0	4.5	5.0	---	---	---	7.0	6.0	6.5
18	5.0	4.5	5.0	---	---	---	---	---	---	7.0	6.0	6.5
19	4.5	4.5	4.5	---	---	---	---	---	---	7.0	6.5	6.5
20	4.5	4.5	4.5	---	---	---	---	---	---	7.0	6.0	6.5
21	5.0	4.5	4.5	---	---	---	---	---	---	7.0	6.5	6.5
22	5.5	5.0	5.0	---	---	---	---	---	---	8.0	6.5	7.0
23	5.5	5.0	5.5	---	---	---	---	---	---	7.0	6.0	6.5
24	---	---	---	---	---	---	6.0	5.0	5.5	7.5	6.5	7.0
25	---	---	---	---	---	---	6.5	5.0	5.5	7.5	6.5	7.0
26	---	---	---	---	---	---	6.0	5.5	5.5	---	---	---
27	---	---	---	---	---	---	7.0	5.5	6.5	---	---	---
28	---	---	---	---	---	---	7.0	6.5	6.5	---	---	---
29	---	---	---	---	---	---	6.5	5.5	6.0	---	---	---
30	---	---	---	---	---	---	7.0	5.5	6.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	---	---	---	8.5	7.5	8.0	10.5	9.0	10.0
2	---	---	---	---	---	---	8.5	7.5	8.0	11.0	9.0	10.0
3	---	---	---	---	---	---	8.5	7.5	8.0	11.0	9.5	10.0
4	---	---	---	---	---	---	8.5	7.5	8.0	11.0	10.0	10.5
5	---	---	---	---	---	---	8.5	7.5	8.0	11.0	10.0	10.5
6	---	---	---	---	---	---	8.5	7.5	8.0	11.5	10.0	11.0
7	---	---	---	---	---	---	8.5	7.5	8.0	11.5	9.5	11.0
8	---	---	---	---	---	---	8.5	8.0	8.0	11.5	10.5	11.0
9	---	---	---	---	---	---	9.0	7.5	8.0	11.5	11.0	11.5
10	---	---	---	8.0	7.0	7.5	9.0	8.0	8.0	12.0	10.5	11.5
11	---	---	---	9.0	7.0	7.5	8.5	8.0	8.0	12.0	10.5	11.5
12	---	---	---	9.0	7.0	8.0	9.0	7.5	8.5	12.5	11.0	12.0
13	---	---	---	9.0	7.0	7.5	9.0	8.0	8.5	12.0	11.5	12.0
14	---	---	---	8.5	7.0	7.5	9.0	8.0	8.5	12.5	11.5	12.0
15	---	---	---	8.0	7.0	7.5	9.0	8.0	8.5	12.5	12.0	12.0
16	---	---	---	8.0	7.0	7.5	9.0	8.0	8.5	13.0	12.0	12.5
17	---	---	---	8.5	7.5	8.0	9.0	8.0	8.5	13.0	12.5	12.5
18	---	---	---	8.5	7.5	8.0	9.0	8.0	8.5	13.0	12.5	13.0
19	---	---	---	8.5	7.5	8.0	9.0	8.0	8.5	13.5	12.5	13.0
20	---	---	---	9.0	7.5	8.0	9.0	8.0	8.5	13.5	12.5	13.0
21	---	---	---	9.0	7.5	8.0	9.5	8.0	8.5	13.5	13.0	13.5
22	---	---	---	9.0	7.5	8.0	9.5	8.0	8.5	13.5	13.0	13.5
23	---	---	---	9.0	7.0	8.0	9.5	8.5	9.0	13.5	13.0	13.5
24	---	---	---	9.0	7.0	8.0	9.5	8.0	9.0	13.5	13.0	13.5
25	---	---	---	8.5	7.5	8.0	9.5	8.5	9.0	13.5	13.0	13.5
26	---	---	---	8.5	7.5	8.0	10.0	8.5	9.0	13.5	13.0	13.0
27	---	---	---	8.5	7.0	8.0	9.5	8.5	9.0	13.5	13.0	13.0
28	---	---	---	8.5	7.5	8.0	10.0	8.5	9.0	13.5	13.0	13.0
29	---	---	---	8.5	7.5	8.0	10.0	9.0	9.5	13.0	13.0	13.0
30	---	---	---	8.5	7.5	8.0	10.0	9.0	9.5	13.5	13.0	13.0
31	---	---	---	8.5	7.5	8.0	10.5	9.0	10.0	---	---	---
MONTH	---	---	---	---	---	---	10.5	7.5	8.5	13.5	9.0	12.0

MCKENZIE RIVER BASIN

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14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR

LOCATION.--Lat 44°13'05", long 122°15'50", in SE¼NE¼ sec.36, T.15 S., R.4 E., Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 0.2 mi downstream from Tidbits Creek, 5.5 mi northeast of town of Blue River, and at mile 8.5.

DRAINAGE AREA.--45.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,386.90 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Feb. 2-4, July 4, Sept. 15-27. Water-discharge records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--23 years, 260 ft³/s, 77.09 in/yr, 188,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s Dec. 22, 1964, gage height, 15.32 ft, from floodmarks, from rating curve extended above 2,800 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 8.2 ft³/s Sept. 28, 29, Oct. 2-4, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1900	2,800	7.70	Feb. 23	0830	*5,960	*9.85

Minimum discharge, 12 ft³/s Sept. 4-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	15	116	93	520	318	439	165	317	88	31	19	13		
2	14	124	182	430	285	359	160	345	85	30	19	13		
3	14	124	443	440	300	310	152	370	80	30	18	13		
4	13	125	320	330	330	276	144	323	76	58	18	12		
5	13	130	325	430	360	251	135	365	73	48	18	12		
6	13	189	760	506	307	238	128	359	72	38	18	12		
7	17	632	1100	360	260	578	121	316	69	33	17	12		
8	16	730	615	357	224	517	119	279	65	32	16	12		
9	14	421	388	594	197	530	115	250	61	30	15	12		
10	13	279	292	510	177	459	109	257	60	35	15	12		
11	36	207	230	382	166	499	107	277	57	35	15	12		
12	42	173	198	305	185	502	124	295	53	32	15	12		
13	31	147	173	260	315	495	138	321	52	28	15	12		
14	24	132	156	220	446	452	145	299	51	27	15	12		
15	21	538	141	272	711	385	162	252	49	26	15	17		
16	20	993	139	940	2070	327	207	217	49	27	15	20		
17	21	566	175	944	2420	292	267	193	51	28	15	26		
18	18	360	242	606	1310	257	251	177	56	27	15	43		
19	22	274	272	602	753	233	233	164	56	25	14	23		
20	28	227	277	496	535	222	245	160	48	23	14	30		
21	38	194	267	394	682	218	232	169	45	22	14	23		
22	297	166	267	582	3530	201	200	180	42	21	14	17		
23	955	146	277	850	4530	247	172	165	40	20	14	30		
24	546	134	284	615	2140	386	155	148	38	20	14	160		
25	528	122	272	440	1300	324	165	138	37	20	13	200		
26	310	112	240	354	1010	280	180	130	35	20	13	435		
27	200	105	204	357	737	250	537	122	33	20	13	310		
28	223	102	177	380	557	226	548	113	32	20	13	211		
29	166	97	156	385	---	205	404	105	32	20	13	151		
30	137	91	141	437	---	188	350	99	32	20	13	144		
31	124	---	139	363	---	171	---	94	---	20	14	---		
TOTAL	3929	7756	8945	14661	26155	10317	6170	6999	1617	866	469	2011		
MEAN	127	259	289	473	934	333	206	226	53.9	27.9	15.1	67.0		
MAX	955	993	1100	944	4530	578	548	370	88	58	19	435		
MIN	13	91	93	220	166	171	107	94	32	20	13	12		
CFSM	2.77	5.66	6.31	10.3	20.4	7.27	4.50	4.93	1.18	.61	.33	1.46		
IN.	3.19	6.30	7.27	11.91	21.24	8.38	5.01	5.68	1.31	.70	.38	1.63		
AC-FT	7790	15380	17740	29080	51880	20460	12240	13880	3210	1720	930	3990		
CAL YR 1985	TOTAL	70462	MEAN	193	MAX	1120	MIN	13	CFSM	4.21	IN.	57.23	AC-FT	139800
WTR YR 1986	TOTAL	89895	MEAN	246	MAX	4530	MIN	12	CFSM	5.37	IN.	73.02	AC-FT	178300

MCKENZIE RIVER BASIN

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1963 to current year.

INSTRUMENTATION.--Temperature recorder since September 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 4, 1974, July 20, 1979; minimum, 0.0°C on several days in 1969, 1971-74, 1976, 1979-80, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.5°C Aug. 8, 9; minimum recorded, 4.5°C several days during April and May, but was probably lower during period of missing record Nov. 3 to Apr. 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	---	---	---	7.5	6.5	7.0						
2	---	---	---	8.5	7.5	8.0						
3	---	---	---	---	---	---						
4	---	---	---	---	---	---						
5	---	---	---	---	---	---						
6	---	---	---	---	---	---						
7	---	---	---	---	---	---						
8	---	---	---	---	---	---						
9	---	---	---	---	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	---	---						
12	---	---	---	---	---	---						
13	---	---	---	---	---	---						
14	---	---	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	---	---	---	---	---	---						
18	---	---	---	---	---	---						
19	8.0	7.5	7.5	---	---	---						
20	9.0	7.5	8.0	---	---	---						
21	8.0	7.5	7.5	---	---	---						
22	8.0	7.0	7.5	---	---	---						
23	8.5	8.0	8.5	---	---	---						
24	9.0	8.5	9.0	---	---	---						
25	9.0	8.5	8.5	---	---	---						
26	9.0	8.0	8.5	---	---	---						
27	8.5	7.5	8.0	---	---	---						
28	7.5	6.0	7.0	---	---	---						
29	6.5	5.5	6.0	---	---	---						
30	7.0	6.0	6.5	---	---	---						
31	6.5	6.0	6.5	---	---	---						
MONTH	---	---	---	---	---	---						

MCKENZIE RIVER BASIN

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14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1							---	---	---	8.0	6.0	7.0
2							---	---	---	8.0	6.5	7.0
3							7.5	4.5	6.0	7.5	6.0	7.0
4							7.0	6.0	6.5	8.0	6.5	7.0
5							8.5	5.0	6.5	6.5	5.5	6.0
6							9.5	5.5	7.5	7.0	5.0	6.0
7							10.0	6.0	8.0	7.0	6.0	6.5
8							9.0	8.0	8.5	9.0	6.0	7.5
9							8.0	8.0	8.0	7.0	6.0	6.5
10							9.0	6.5	7.5	6.5	5.0	6.0
11							6.5	5.5	6.0	6.5	4.5	5.5
12							6.5	4.5	5.5	9.0	6.0	7.0
13							6.5	4.5	5.5	8.5	6.5	7.5
14							7.5	4.5	6.0	9.0	5.5	7.0
15							7.5	5.5	6.5	9.0	6.0	7.5
16							6.5	5.5	6.0	10.0	6.0	8.0
17							6.5	5.5	6.0	11.5	7.0	9.0
18							8.5	5.5	6.5	11.5	8.5	10.0
19							9.5	5.5	7.5	11.5	8.5	10.0
20							11.0	6.5	8.5	10.0	8.5	9.5
21							11.5	8.0	9.5	8.5	7.0	7.5
22							9.5	7.0	8.5	10.0	6.0	8.0
23							8.0	5.5	6.5	10.0	7.0	8.5
24							6.5	4.5	5.5	12.0	8.5	10.5
25							6.0	5.5	5.5	14.0	9.5	11.5
26							6.5	5.0	6.0	14.5	11.5	13.0
27							6.5	6.0	6.0	15.0	11.5	13.0
28							6.5	5.5	6.0	15.5	11.5	13.5
29							6.5	4.5	5.5	16.5	12.0	14.0
30							8.0	4.5	6.0	17.5	13.0	15.0
31							---	---	---	18.5	14.0	16.0
MONTH							---	---	---	18.5	4.5	9.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	14.5	16.5	17.5	14.0	16.0	19.0	14.5	16.5	17.0	14.5	15.5
2	16.5	15.0	15.5	16.5	15.0	15.5	18.5	16.0	17.0	17.5	14.5	16.0
3	17.0	13.5	15.5	16.5	14.0	15.0	19.5	16.0	17.5	18.0	14.5	16.0
4	16.0	14.0	15.0	15.0	12.5	13.0	18.5	15.0	17.0	18.0	15.0	16.5
5	16.0	13.5	14.5	15.0	11.0	13.0	18.5	14.5	16.5	17.0	14.0	16.0
6	14.0	12.5	13.5	16.0	12.0	14.0	19.5	15.5	17.5	17.5	14.5	16.0
7	12.5	11.5	12.0	16.5	13.5	15.0	20.0	16.5	18.0	16.5	14.0	15.5
8	14.5	10.5	12.5	18.0	14.5	16.0	20.5	16.5	18.5	15.5	14.0	14.5
9	15.0	10.5	13.0	16.0	14.5	15.0	20.5	17.0	18.5	14.5	13.5	14.0
10	16.5	12.0	14.5	15.0	14.0	14.5	20.0	17.0	18.5	14.0	12.5	13.5
11	17.5	13.5	15.5	17.0	14.0	15.0	19.0	16.0	17.5	14.5	12.5	13.5
12	17.5	13.5	15.5	17.5	14.0	15.5	19.0	15.5	17.0	13.5	11.5	12.5
13	17.5	13.0	15.5	17.5	13.0	15.5	19.0	15.5	17.5	13.0	11.5	12.0
14	16.0	13.5	14.5	16.5	13.0	15.0	20.0	16.0	18.0	12.0	10.0	11.0
15	15.0	12.5	13.5	14.5	12.5	13.5	19.5	16.5	18.0	12.5	11.5	12.0
16	14.0	12.5	13.0	14.0	12.5	13.0	17.5	15.5	16.5	12.5	11.0	11.5
17	13.0	12.5	12.5	16.0	12.0	14.0	18.0	15.0	16.5	12.0	11.0	11.5
18	12.5	11.5	12.0	16.0	12.5	14.5	18.5	15.0	16.5	11.5	10.5	11.0
19	14.5	10.5	12.5	17.5	13.5	15.5	18.5	15.0	17.0	12.5	11.0	11.5
20	13.5	11.0	12.0	18.5	14.0	16.5	18.0	15.5	17.0	11.5	11.0	11.0
21	15.0	11.0	13.0	19.0	15.0	17.0	19.0	15.5	17.0	12.0	10.5	11.0
22	16.5	12.5	14.5	18.5	14.5	16.5	17.5	15.0	16.5	12.0	9.5	10.5
23	18.0	13.5	16.0	18.5	15.0	16.5	18.0	15.0	16.5	11.0	10.0	10.5
24	18.5	14.5	16.5	18.5	14.5	16.5	17.0	14.5	16.0	10.5	9.5	10.0
25	18.5	14.5	16.5	18.0	14.5	16.5	18.0	14.0	16.0	9.5	9.0	9.0
26	17.5	15.0	16.0	17.5	14.5	16.0	18.5	15.0	17.0	9.0	8.0	8.5
27	18.0	15.0	16.5	17.5	14.0	15.5	18.0	16.5	17.5	9.0	8.5	8.5
28	17.0	14.0	15.0	17.5	13.0	15.5	19.0	16.0	17.5	9.5	8.5	9.0
29	17.0	13.5	15.0	18.0	14.5	16.0	17.5	16.5	17.0	9.0	9.0	9.0
30	17.0	13.0	15.0	17.5	13.5	15.5	16.5	15.5	16.0	9.5	9.0	9.5
31	---	---	---	18.0	14.0	16.0	17.0	14.0	15.5	---	---	---
MONTH	18.5	10.5	14.5	19.0	11.0	15.0	20.5	14.0	17.0	18.0	8.0	12.0

MCKENZIE RIVER BASIN

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR

LOCATION.--Lat 44°12'35", long 122°15'20", in T.15 or 16 S., R.5 E. (unsurveyed), Lane County, Hydrologic Unit 17090004, in Willamette National Forest, on left bank 6.0 mi northeast of town of Blue River, and at mile 0.5.

DRAINAGE AREA.--24.1 mi².

PERIOD OF RECORD.--August 1949 to September 1955, September 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,377.76 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Estimated daily discharges: Feb. 1-4, Mar. 1 to Apr. 2. Water-discharge records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--29 years, 127 ft³/s, 71.56 in/yr, 92,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s Dec. 22, 1964, gage height, 8.88 ft, from rating curve extended above 1,300 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 4.8 ft³/s Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0730	1,240	5.45	Feb. 23	0730	*2,700	*6.82

Minimum discharge, 8.7 ft³/s Oct. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	9.8	64	61	176	170	250	85	155	46	20	13	11		
2	9.6	69	72	161	160	170	80	165	44	19	13	10		
3	9.6	68	127	169	155	150	76	168	42	20	13	10		
4	9.5	70	116	145	150	130	73	151	41	33	13	10		
5	9.1	72	123	158	147	120	68	176	39	25	12	9.8		
6	8.9	81	304	179	138	120	64	169	38	21	13	9.6		
7	12	188	416	150	127	220	61	151	36	20	12	9.6		
8	11	285	303	146	116	210	60	135	35	19	12	9.7		
9	9.2	193	210	229	105	200	58	122	34	19	12	11		
10	9.5	140	157	218	97	180	56	123	32	20	12	11		
11	23	113	130	179	92	190	54	126	31	20	12	11		
12	22	95	113	151	102	200	59	125	30	19	12	10		
13	16	83	99	138	163	180	62	139	28	18	12	9.9		
14	13	74	89	128	225	160	59	132	28	17	12	10		
15	12	170	82	133	272	140	62	117	28	17	11	14		
16	11	370	79	297	636	120	77	106	27	17	11	16		
17	11	276	79	380	1100	110	94	98	28	18	11	23		
18	11	189	91	288	669	100	94	92	32	17	11	29		
19	12	147	103	279	417	90	91	85	28	16	11	16		
20	13	127	110	246	315	90	100	89	26	16	11	22		
21	16	111	112	200	413	95	105	92	25	15	11	16		
22	103	99	113	252	1700	100	97	90	24	15	11	14		
23	290	87	117	381	2100	150	83	84	23	15	11	23		
24	230	81	121	320	1050	220	75	76	23	15	11	76		
25	230	74	121	246	665	180	83	71	22	14	10	136		
26	145	69	115	196	539	160	88	67	21	14	10	245		
27	102	65	105	182	424	140	236	63	21	14	10	146		
28	106	63	95	190	328	120	260	58	20	14	10	89		
29	83	59	87	190	---	110	203	55	20	14	10	67		
30	72	57	80	202	---	100	172	52	20	13	11	60		
31	67	---	77	179	---	90	---	49	---	13	11	---		
TOTAL	1686.2	3639	4007	6488	12575	4595	2835	3381	892	547	355	1134.6		
MEAN	54.4	121	129	209	449	148	94.5	109	29.7	17.6	11.5	37.8		
MAX	290	370	416	381	2100	250	260	176	46	33	13	245		
MIN	8.9	57	61	128	92	90	54	49	20	13	10	9.6		
CFSM	2.26	5.02	5.35	8.67	18.6	6.14	3.92	4.52	1.23	.73	.48	1.57		
IN.	2.60	5.62	6.19	10.01	19.41	7.09	4.38	5.22	1.38	.84	.55	1.75		
AC-FT	3340	7220	7950	12870	24940	9110	5620	6710	1770	1080	704	2250		
CAL YR 1985	TOTAL	33706.9	MEAN	92.3	MAX	416	MIN	7.9	CFSM	3.83	IN.	52.03	AC-FT	66860
WTR YR 1986	TOTAL	42134.8	MEAN	115	MAX	2100	MIN	8.9	CFSM	4.77	IN.	65.04	AC-FT	83570

MCKENZIE RIVER BASIN

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14162100 BLUE RIVER LAKE NEAR BLUE RIVER, OR

LOCATION.--Lat 44°10'20", long 122°19'40", in SE¼SE¼ sec.16, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, in intake tower near left end of Blue River Dam on Blue River, 1.4 mi north of town of Blue River, and at mile 1.7.

DRAOMAGE AREA.--87.3 mi².

PERIOD OF RECORD.--October 1968 to current year. Prior to October 1971, published as Blue River Reservoir near Blue River.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam with concrete gate and spillway section, completed in 1968 by Corps of Engineers; storage began October 1968. Total capacity is 89,520 acre-ft at elevation 1,357 ft, maximum pool, and usable capacity is 85,550 acre-ft between elevations 1,180 ft, minimum flood control pool, and 1,357 ft, maximum pool. Reservoir used for flood control. Figures given herein represent total contents.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 85,680 acre-ft June 12, 13, 1977, elevation, 1,353.02 ft; minimum contents observed since first filling in 1968, 305 acre-ft Dec. 7, 1973, elevation, 1,125.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 83,370 acre-ft June 18, 19, elevation, 1,350.58 ft; minimum contents, 3,810 acre-ft Jan. 11, elevation, 1,178.77 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,120	136	1,160	1,880	1,250	19,260
1,130	437	1,180	3,970	1,290	36,960
1,140	764	1,200	7,030	1,340	73,710
1,150	1,210	1,220	11,040	1,354	86,620

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1241.78	1215.90	1180.71	1182.75	1192.31	1308.10	1319.36	1342.86	1349.83	1349.33	1317.40	1250.98
2	1241.61	1212.98	1182.34	1181.43	1193.64	1301.72	1319.97	1343.70	1349.85	1348.72	1315.85	1247.74
3	1241.44	1209.45	1186.58	1180.75	1198.59	1299.03	1320.50	1344.51	1349.84	1347.98	1314.25	1244.42
4	1241.27	1205.59	1183.56	1179.27	1206.75	1298.35	1321.01	1345.15	1349.86	1347.45	1312.66	1240.98
5	1241.09	1201.91	1182.07	1182.62	1214.27	1298.03	1321.47	1346.10	1349.89	1346.77	1311.03	1237.37
6	1240.89	1199.32	1187.29	1182.18	1219.73	1297.65	1321.90	1346.90	1349.91	1346.05	1309.42	1233.43
7	1240.83	1207.34	1194.52	1180.63	1223.80	1299.59	1322.28	1347.51	1349.93	1345.42	1307.78	1228.90
8	1240.67	1212.19	1187.86	1180.94	1226.99	1300.79	1322.66	1348.03	1349.93	1344.89	1306.05	1224.03
9	1240.49	1204.03	1180.76	1181.21	1229.60	1300.91	1323.03	1348.57	1349.98	1344.35	1304.26	1219.72
10	1240.32	1191.51	1179.63	1179.71	1231.78	1300.95	1323.36	1349.25	1350.07	1343.86	1302.45	1217.11
11	1240.36	1184.28	1179.98	1180.06	1233.76	1301.52	1323.72	1349.76	1350.15	1343.36	1301.08	1216.19
12	1240.43	1183.08	1180.23	1180.25	1236.35	1302.12	1324.18	1349.92	1350.23	1342.82	1298.75	1215.86
13	1240.41	1181.87	---	1180.34	1241.13	1302.62	1324.68	1350.03	1350.28	1342.27	1296.88	1215.53
14	1240.31	1180.88	1180.36	1180.22	1246.52	1303.07	1325.17	1349.99	1350.34	1341.48	1294.99	1215.22
15	1240.19	1186.88	1180.26	1181.14	1253.24	1303.43	1325.70	1349.88	1350.38	1340.46	1293.05	1215.10
16	1239.80	1195.85	1180.72	1193.29	1265.46	1303.44	1326.46	1349.83	1350.43	1339.38	1291.09	1215.05
17	1238.75	1190.14	1181.27	1191.97	1280.89	1304.21	1327.51	1349.82	1350.51	1338.22	1289.09	1215.39
18	1237.23	1184.05	1181.84	1182.33	1289.80	1305.23	1328.43	1349.91	1350.58	1337.04	1287.07	1215.94
19	1235.61	1183.85	1181.34	1180.58	1288.68	1306.24	1329.26	1350.03	1350.57	1335.85	1285.00	1215.95
20	1233.92	1181.98	1180.96	1180.38	1284.07	1307.19	1330.14	1350.13	1350.54	1334.66	1282.78	1216.16
21	1232.25	1180.91	1180.70	1179.97	1281.37	1308.13	1330.97	1350.20	1350.49	1333.46	1280.46	1216.18
22	1234.11	1180.43	1180.43	1182.61	1303.71	1308.95	1331.68	1350.20	1350.44	1332.24	1278.12	1216.03
23	1242.48	1180.27	1180.38	1185.66	1328.08	1310.14	1332.25	1350.14	1350.38	1331.01	1275.75	1216.33
24	1243.46	1180.41	1180.29	1185.60	1334.45	1311.92	1332.77	1350.05	1350.31	1329.60	1273.33	1219.86
25	1243.34	1180.43	1179.88	1186.25	1332.23	1313.34	1333.39	1349.99	1350.27	1328.13	1270.87	1225.89
26	1240.62	1180.55	1179.43	1185.85	1328.04	1314.54	1334.09	1349.90	1350.29	1326.62	1268.26	1232.98
27	1236.41	1180.55	1180.17	1186.63	1322.41	1315.59	1336.51	1349.89	1350.31	1325.11	1265.58	1234.10
28	1232.05	1180.34	1180.40	1188.77	1315.77	1316.50	1338.89	1349.90	1350.25	1323.60	1262.87	1233.07
29	1226.58	1180.88	1180.40	1190.43	---	1317.31	1340.56	1349.91	1350.03	1322.07	1260.07	1231.24
30	1222.12	1180.91	1180.34	1191.76	---	1318.06	1341.91	1349.89	1349.74	1320.52	1257.24	1229.63
31	1219.16	---	1180.42	1191.19	---	1318.72	---	1349.84	---	1318.97	1254.17	---
MAX	1243.46	1215.90	---	1193.29	1334.45	1318.72	1341.91	1350.20	1350.58	1349.33	1317.40	1250.98
MIN	1219.16	1180.27	---	1179.27	1192.31	1297.65	1319.36	1342.86	1349.74	1318.97	1254.17	1215.05
(+)	10850	4090	4030	5580	54060	56270	75400	82670	82580	56460	20670	13370
(+)	-5900	-6760	-60	+1550	+48480	+2210	+19130	+7270	-190	-26120	-35790	-7300

CAL YR 1985 AC-FT# +130

WTR YR 1986 AC-FT# -3380

+ Contents in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

MCKENZIE RIVER BASIN

14162200 BLUE RIVER AT BLUE RIVER, OR

LOCATION.--Lat 44°09'45", long 122°19'55", in NW¼SE¼ sec.21, T.16 S., R.4 E., Lane County, Hydrologic Unit 17090004, on right bank 0.3 mi upstream from Simmonds Creek, 0.7 mi north of town of Blue River, 0.8 mi downstream from Blue River Dam, and at mile 0.9.

DRAINAGE AREA.--87.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since October 1968 by Blue River Lake (see sta 14162100). No diversion upstream from station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--20 years, 472 ft³/s, 342,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft³/s Feb. 23, 1968, gage height, 8.93 ft; minimum discharge, 0.80 ft³/s Oct. 8, 10, 11, 1968; minimum daily, 3.7 ft³/s Oct. 8, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft³/s Feb. 25, gage height, 8.05 ft; minimum discharge, 14 ft³/s June 12; minimum daily, 46 ft³/s June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	478	163	724	491	3470	53	134	139	213	542	561
2	57	468	163	787	409	2720	53	237	127	288	541	549
3	56	487	457	789	215	1330	53	263	127	330	536	542
4	56	495	688	635	50	642	53	263	107	331	536	533
5	56	483	650	537	55	480	53	266	99	331	535	525
6	56	469	1030	827	57	479	53	266	99	331	532	515
7	56	484	1580	672	57	328	53	266	99	291	531	525
8	56	979	1610	563	57	458	53	227	99	255	546	522
9	56	1450	1180	918	57	836	53	185	71	255	561	440
10	55	1320	616	916	58	724	53	167	53	255	557	264
11	56	788	433	660	58	640	53	273	53	253	549	110
12	56	360	357	528	61	640	53	408	50	253	548	53
13	56	299	302	448	57	643	53	470	57	253	545	51
14	56	265	285	396	47	585	53	483	57	341	542	50
15	55	474	262	395	48	499	53	422	57	418	540	50
16	92	1230	240	698	880	499	53	348	57	448	536	50
17	177	1450	274	1760	988	275	54	302	56	479	532	52
18	240	1120	366	1540	346	96	54	240	71	477	528	53
19	252	504	461	1090	1850	58	54	221	90	475	524	52
20	250	509	463	917	2410	58	53	221	90	475	539	53
21	248	398	444	728	2390	58	53	264	90	475	546	53
22	256	325	438	825	798	59	53	279	90	474	542	53
23	463	264	446	1400	59	60	53	279	90	471	537	54
24	850	231	455	1210	1450	61	53	264	90	527	534	59
25	956	214	454	798	3210	61	53	243	70	561	529	65
26	943	193	404	668	3490	61	53	234	46	558	540	276
27	924	179	317	573	3480	61	58	192	47	557	545	503
28	908	179	294	559	3460	61	58	167	87	549	540	487
29	881	154	268	572	---	61	51	167	145	549	534	475
30	719	151	245	685	---	55	51	167	163	545	527	412
31	490	---	233	679	---	52	---	167	---	545	551	---
TOTAL	9488	16400	15578	24497	26588	16110	1599	8085	2576	12563	16725	7987
MEAN	306	547	503	790	950	520	53.3	261	85.9	405	540	266
MAX	956	1450	1610	1760	3490	3470	58	483	163	561	561	561
MIN	55	151	163	395	47	52	51	134	46	213	524	50
AC-FT	18820	32530	30900	48590	52740	31950	3170	16040	5110	24920	33170	15840
CAL YR 1985	TOTAL	123079	MEAN	337	MAX	1980	MIN	39	AC-FT	244100		
WTR YR 1986	TOTAL	158196	MEAN	433	MAX	3490	MIN	46	AC-FT	313800		

MCKENZIE RIVER BASIN

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14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1966 to current year.

INSTRUMENTATION.--Temperature recorder since August 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974, Dec. 23, 24, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C Sept. 3-6; minimum, 2.0°C Nov. 25, 26, Dec. 1, 3.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	15.5	15.5	10.0	10.0	10.0	2.5	2.0	2.5	4.5	3.5	4.0
2	16.5	15.5	15.5	10.0	10.0	10.0	2.5	2.5	2.5	5.0	4.5	5.0
3	16.5	15.0	15.5	10.5	10.0	10.0	2.5	2.0	2.0	5.0	5.0	5.0
4	16.5	15.5	15.5	10.5	10.5	10.5	3.5	2.5	3.0	5.0	5.0	5.0
5	16.5	15.5	15.5	10.5	10.0	10.5	4.5	3.5	4.0	5.0	4.5	5.0
6	16.0	15.5	15.5	10.0	9.5	10.0	5.5	4.5	5.0	5.5	5.0	5.5
7	16.0	15.5	15.5	9.5	9.0	9.5	6.0	5.5	5.5	5.5	5.0	5.5
8	16.0	15.0	15.5	9.0	8.5	9.0	6.0	5.5	6.0	5.5	5.0	5.0
9	16.0	14.5	15.5	8.5	7.5	8.0	5.5	5.0	5.5	6.5	5.5	6.0
10	15.5	14.5	15.0	7.0	7.0	7.0	5.0	4.0	4.5	6.5	6.0	6.0
11	15.0	14.5	14.5	7.0	5.5	6.0	4.0	3.5	3.5	6.0	6.0	6.0
12	14.5	14.0	14.0	5.5	4.0	5.0	3.0	2.5	3.0	6.0	5.5	5.5
13	14.5	13.5	14.0	4.0	3.0	3.5	2.5	2.5	2.5	6.0	5.5	5.5
14	14.5	13.5	14.0	3.5	3.0	3.0	3.0	2.5	2.5	6.0	5.5	6.0
15	14.5	13.5	14.0	4.0	3.0	3.5	3.0	2.5	3.0	6.0	6.0	6.0
16	14.0	13.5	13.5	6.0	4.0	5.0	3.0	3.0	3.0	6.0	6.0	6.0
17	14.0	13.5	14.0	6.0	5.5	6.0	3.5	3.0	3.0	6.5	6.0	6.5
18	14.0	14.0	14.0	5.5	5.0	5.5	3.5	3.5	3.5	6.5	6.5	6.5
19	14.0	14.0	14.0	5.0	5.0	5.0	3.5	3.5	3.5	7.0	7.0	7.0
20	14.0	13.5	14.0	5.0	4.5	5.0	4.0	3.5	3.5	7.0	6.0	6.5
21	14.0	14.0	14.0	4.5	4.0	4.0	4.0	3.5	3.5	6.0	5.5	5.5
22	14.0	13.0	13.5	4.0	3.0	3.5	4.0	3.5	3.5	5.5	5.0	5.5
23	12.5	11.5	12.0	3.0	2.5	2.5	4.0	3.5	4.0	6.0	5.5	6.0
24	11.5	11.0	11.0	2.5	2.5	2.5	4.5	4.0	4.0	6.0	6.0	6.0
25	11.0	11.0	11.0	2.5	2.0	2.0	4.5	4.0	4.0	6.0	5.5	5.5
26	11.0	11.0	11.0	2.5	2.0	2.0	4.5	4.0	4.0	5.5	5.5	5.5
27	11.0	11.0	11.0	2.5	2.5	2.5	4.0	4.0	4.0	6.0	5.5	5.5
28	11.0	10.5	11.0	2.5	2.5	2.5	4.0	4.0	4.0	6.5	6.0	6.0
29	10.5	10.5	10.5	3.0	2.5	2.5	4.0	3.5	3.5	6.5	6.5	6.5
30	10.5	10.0	10.0	3.0	2.5	3.0	3.5	3.5	3.5	7.0	7.0	7.0
31	10.0	10.0	10.0	---	---	---	4.0	3.5	3.5	7.0	7.0	7.0
MONTH	16.5	10.0	13.5	10.5	2.0	5.5	6.0	2.0	3.5	7.0	3.5	6.0

MCKENZIE RIVER BASIN

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.0	7.0	7.0	6.0	6.0	6.0	7.0	6.5	7.0	7.5	7.0	7.0
2	7.0	7.0	7.0	6.5	6.0	6.5	7.5	6.5	7.0	7.0	7.0	7.0
3	7.5	7.0	7.0	6.5	6.0	6.0	7.5	6.5	7.0	7.5	7.0	7.0
4	7.0	6.5	7.0	6.5	6.0	6.0	8.0	6.5	7.0	7.0	7.0	7.0
5	7.0	6.5	7.0	6.5	6.0	6.0	8.0	6.5	7.0	7.0	7.0	7.0
6	7.0	6.0	6.5	6.5	6.0	6.5	8.0	6.5	7.0	7.5	7.0	7.0
7	6.5	6.0	6.0	6.5	6.5	6.5	8.5	6.5	7.0	7.0	7.0	7.0
8	6.5	5.5	6.0	6.5	6.5	6.5	7.5	7.0	7.0	7.5	7.0	7.0
9	6.0	5.0	5.5	6.5	6.5	6.5	7.5	7.0	7.0	7.0	7.0	7.0
10	5.5	5.0	5.0	6.5	6.5	6.5	8.0	6.5	7.0	7.0	7.0	7.0
11	5.0	5.0	5.0	6.5	6.5	6.5	7.0	6.5	7.0	7.0	7.0	7.0
12	5.0	5.0	5.0	6.5	6.5	6.5	7.5	7.0	7.0	7.5	7.0	7.0
13	6.0	5.0	5.5	7.0	6.5	6.5	7.5	7.0	7.0	7.5	7.0	7.0
14	5.5	5.5	5.5	7.0	6.5	7.0	7.5	6.5	7.0	7.5	7.0	7.0
15	6.0	5.5	5.5	7.0	7.0	7.0	7.5	7.0	7.0	7.5	7.0	7.0
16	5.5	5.0	5.5	7.0	7.0	7.0	7.5	7.0	7.0	7.5	7.0	7.0
17	6.5	5.5	6.0	7.0	6.5	7.0	8.0	7.0	7.0	7.5	7.0	7.5
18	6.5	5.5	6.0	7.0	6.5	7.0	8.0	7.0	7.0	7.5	7.0	7.5
19	6.0	5.5	5.5	8.0	6.5	7.0	8.5	7.0	7.5	7.5	7.0	7.5
20	6.0	5.5	5.5	7.5	6.5	7.0	8.5	7.0	7.5	7.5	7.0	7.0
21	5.5	5.5	5.5	7.5	6.5	7.0	8.5	7.0	7.5	7.5	7.0	7.0
22	7.5	5.5	6.5	7.5	6.5	7.0	7.5	7.0	7.0	7.5	7.0	7.5
23	8.0	7.5	7.5	7.0	6.5	7.0	8.0	6.5	7.0	7.5	7.0	7.5
24	7.5	6.0	6.5	7.5	6.5	7.0	7.5	6.5	7.0	8.0	7.0	7.5
25	6.0	6.0	6.0	7.5	6.5	7.0	7.5	7.0	7.0	8.0	7.0	7.5
26	6.0	6.0	6.0	8.0	6.5	7.0	7.5	7.0	7.0	8.0	7.5	7.5
27	6.0	6.0	6.0	8.0	6.5	7.0	7.5	7.0	7.0	8.0	7.5	7.5
28	6.0	6.0	6.0	8.0	7.0	7.0	7.5	7.0	7.0	8.0	7.5	7.5
29	---	---	---	8.0	6.5	7.0	8.0	7.0	7.0	8.0	7.5	7.5
30	---	---	---	7.5	6.5	7.0	8.0	7.0	7.5	8.0	7.5	7.5
31	---	---	---	8.0	6.5	7.0	---	---	---	8.0	7.5	7.5
MONTH	8.0	5.0	6.0	8.0	6.0	6.5	8.5	6.5	7.0	8.0	7.0	7.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.5	7.5	7.5	---	---	---	---	---	---	22.0	21.5	22.0
2	8.0	7.5	7.5	---	---	---	---	---	---	22.0	21.5	22.0
3	8.5	7.5	7.5	---	---	---	---	---	---	22.5	21.5	22.0
4	8.5	7.5	7.5	---	---	---	---	---	---	22.5	21.5	22.0
5	8.5	7.5	7.5	---	---	---	---	---	---	22.5	22.0	22.0
6	8.0	7.5	7.5	---	---	---	9.5	---	---	22.5	22.0	22.0
7	8.0	7.5	7.5	---	---	---	10.0	9.5	9.5	22.0	21.5	22.0
8	8.5	7.5	7.5	---	---	---	10.0	9.5	9.5	22.0	22.0	22.0
9	9.5	7.5	8.0	---	---	---	10.0	9.5	10.0	22.0	21.5	21.5
10	---	7.5	---	---	---	---	10.5	10.0	10.0	21.5	20.5	21.0
11	---	---	---	---	---	---	10.5	10.0	10.5	21.0	20.0	20.5
12	---	---	---	---	---	---	11.0	10.5	10.5	20.5	19.5	20.0
13	---	---	---	---	---	---	11.0	10.5	11.0	20.5	19.5	19.5
14	---	---	---	---	---	---	11.5	11.0	11.0	20.0	19.0	19.5
15	---	---	---	---	---	---	11.5	11.5	11.5	20.0	19.0	19.0
16	---	---	---	---	---	---	12.0	12.0	12.0	19.5	18.5	19.0
17	---	---	---	---	---	---	13.0	12.5	12.5	18.5	18.0	18.0
18	---	---	---	---	---	---	13.5	13.0	13.5	18.0	16.5	17.5
19	---	---	---	---	---	---	14.0	13.5	14.0	17.0	16.0	16.5
20	---	---	---	---	---	---	15.0	14.5	14.5	17.0	16.5	16.5
21	---	---	---	---	---	---	16.0	15.0	15.5	17.0	16.0	16.5
22	---	---	---	---	---	---	16.5	16.0	16.5	17.0	16.0	16.0
23	---	---	---	---	---	---	17.5	16.5	17.0	16.5	16.0	16.0
24	---	---	---	---	---	---	18.0	17.5	18.0	16.0	14.0	15.5
25	---	---	---	---	---	---	19.0	18.0	18.5	14.0	13.0	13.5
26	---	---	---	---	---	---	19.5	18.5	19.0	13.0	12.0	12.5
27	---	---	---	---	---	---	20.0	19.5	19.5	12.0	11.5	11.5
28	---	---	---	---	---	---	20.5	20.0	20.5	11.5	11.0	11.5
29	---	---	---	---	---	---	21.0	20.5	20.5	11.5	11.5	11.5
30	---	---	---	---	---	---	21.5	21.0	21.0	11.5	11.5	11.5
31	---	---	---	---	---	---	22.0	21.5	21.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	22.5	11.0	18.0

MCKENZIE RIVER BASIN

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14162500 MCKENZIE RIVER NEAR VIDA, OR

LOCATION.--Lat 44°07'30", long 122°28'10", in NE¼NE¼ sec.5, T.17 S., R.3 E., Lane County, Hydrologic Unit 17090004, on right bank 0.4 mi downstream from Mason Creek, 5.4 mi east of Vida, and at mile 47.7.

DRAINAGE AREA.--930 mi² at cableway 0.4 mi downstream, where all discharge measurement are made.

PERIOD OF RECORD.--July 1910 to March 1911 (published as "at Martins Rapids, near Vida"), September 1924 to current year. Monthly discharge only for some periods, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 855.71 ft above National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). July 1, 1910, to Mar. 31, 1911, nonrecording gage at site 3 mi downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft upstream at datum 0.15 ft lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft lower.

REMARKS.--Estimated daily discharges: Jan. 4-24. Records excellent except those for Jan. 4-24, which are poor. Flow regulated since 1963 by Smith River Reservoir (station 14158795) and Cougar Lake (station 14159400), and since 1968 by Blue River Lake (station 14162100). No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--62 years (water years 1925-86), 4,062 ft³/s, 2,943,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,400 ft³/s Dec. 28, 1945, gage height, 17.70 ft, site and datum then in use, from rating curve extended above 32,000 ft³/s; minimum discharge, 1,260 ft³/s Nov. 7, 1930, Sept. 17, Oct. 4, 8, 9, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January 1923 reached a stage of 17.2 ft, from floodmarks, discharge, 62,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,000 ft³/s Feb. 23, gage height, 9.16 ft; minimum discharge, 2,040 ft³/s Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2300	3480	3360	4450	5110	15500	3270	3610	3270	2270	3020	3000
2	2260	3520	3420	4930	4870	12900	3220	3970	3150	2350	3030	3010
3	2210	3530	4380	4950	4190	9040	3120	4470	3050	2380	3030	3000
4	2190	3540	4410	4600	3730	7290	3060	4260	2900	2620	3030	2990
5	2180	3560	4500	4500	3830	6420	2970	4230	2740	2530	3020	2970
6	2180	3570	6550	4500	3560	6220	2890	3930	2700	2420	3010	2960
7	2220	4400	8010	4000	3220	7150	2850	3730	2590	2380	3010	2960
8	2220	5860	6930	4000	3070	7130	2800	3470	2510	2280	3020	2960
9	2170	5910	5490	5400	2960	8800	2820	3490	2500	2250	3010	2920
10	2160	5400	4550	5600	2870	7490	2770	3890	2440	2300	3020	2730
11	2290	4420	4090	5200	2790	6570	2770	4050	2360	2310	2990	2510
12	2350	3750	3810	4600	3050	6520	2790	3960	2390	2240	2990	2400
13	2250	3500	3630	4200	3860	6290	2790	3820	2360	2230	2990	2400
14	2210	3450	3500	3800	4000	6040	2810	3810	2290	2310	2970	2400
15	2200	4340	3400	4000	4170	5610	2790	3690	2230	2400	2950	2490
16	2240	6810	3100	5600	7420	5360	2870	3860	2260	2440	2960	2470
17	2330	6340	2870	9500	13300	4640	3160	3770	2320	2540	2980	2590
18	2380	5630	3040	10000	10500	3870	3040	3640	2390	2590	2980	2750
19	2440	5460	3180	9000	9830	3710	2910	3620	2440	2570	2970	2570
20	2460	5340	3230	8500	9470	3590	2970	3720	2340	2570	2990	2640
21	2460	4960	3180	8000	9960	3540	2950	3840	2320	2550	3000	2580
22	3080	4320	3180	8400	18300	3460	2980	3770	2280	2520	2990	2500
23	6120	3920	3360	9000	23600	3550	2880	3910	2290	2540	2990	2540
24	5890	3790	3830	7600	17800	4450	2810	3810	2250	2580	2990	3410
25	5490	3700	3870	6310	16500	4000	2840	3620	2140	2680	2970	3630
26	4850	3470	3810	5740	16800	3800	2930	3690	2110	2740	2990	4930
27	4300	3410	3620	5380	17100	3690	4130	3670	2100	2750	2990	4430
28	4500	3360	3550	5470	16100	3590	4740	3500	2120	2810	2980	3870
29	4130	3300	3470	5290	---	3520	4030	3430	2170	2890	2970	3600
30	3880	3310	3230	5820	---	3420	3690	3360	2190	2970	2980	3520
31	3600	---	2940	5480	---	3320	---	3300	---	3020	3010	---
TOTAL	93540	129350	123490	183820	241960	180480	92650	116890	73200	78030	92830	89730
MEAN	3017	4312	3984	5930	8641	5822	3088	3771	2440	2517	2995	2991
MAX	6120	6810	8010	10000	23600	15500	4740	4470	3270	3020	3030	4930
MIN	2160	3300	2870	3800	2790	3320	2770	3300	2100	2230	2950	2400
AC-FT	185500	256600	244900	364600	479900	358000	183800	231900	145200	154800	184100	178000
CAL YR 1985	TOTAL	1270860	MEAN	3482	MAX	8010	MIN	2160	AC-FT	2521000		
WTR YR 1986	TOTAL	1495970	MEAN	4099	MAX	23600	MIN	2100	AC-FT	2967000		

MCKENZIE RIVER BASIN

14163000 GATE CREEK AT VIDA, OR

LOCATION.--Lat 44°08'45", long 122°34'15", in SW¼ sec.28, T.16 S., R.2 E., Lane County, Hydrologic Unit 17090004, on right bank 300 ft downstream from bridge on State Highway 126, at Vida, and at mile 0.2.

DRAINAGE AREA.--47.6 mi².

PERIOD OF RECORD.--June 1951 to September 1957; annual maximums, water years 1958-65; August 1966 to current year.

REVISED RECORDS.--WDR OR-83-2: 1976(M,P), 1978(M,P), 1979(M,P), 1980(M), 1981(M,P), 1982(M,P).

GAGE.--Water-stage recorder. Datum of gage is 764.56 ft above National Geodetic Vertical Datum of 1929. June 11, 1951, to Sept. 30, 1957, water-stage recorder, and Oct. 1, 1957, to Aug. 1, 1966, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--26 years (water years 1952-57, 1967-86), 214 ft³/s, 61.05 in/yr, 155,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft³/s Dec. 22, 1964, gage height, 12.18 ft, from slope-area measurement of peak flow; minimum discharge, 12 ft³/s Nov. 26, 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0800	*4,250	*8.78	No other peak greater than base discharge.			
Minimum discharge, 13 ft ³ /s Sept. 5-8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	16	93	114	278	269	365	141	216	82	40	23	15		
2	16	110	172	266	252	313	143	243	79	40	22	15		
3	16	113	481	341	267	274	132	253	77	41	22	14		
4	16	110	383	268	314	245	127	229	74	77	21	14		
5	15	128	400	257	396	223	119	315	73	57	21	13		
6	15	136	862	271	350	207	114	333	71	46	21	13		
7	18	426	1040	236	303	295	109	276	70	42	20	13		
8	17	574	744	234	266	296	105	238	67	41	19	13		
9	16	394	493	300	238	457	101	214	65	39	19	15		
10	15	280	376	300	218	348	97	229	63	47	18	16		
11	30	208	309	257	209	337	98	278	61	46	18	15		
12	29	168	263	227	308	345	128	255	59	40	18	14		
13	22	145	231	205	622	355	145	244	57	37	18	14		
14	19	132	208	188	566	346	138	219	59	35	18	14		
15	18	434	191	195	530	305	130	194	60	34	17	25		
16	18	804	182	360	880	266	157	176	58	37	17	26		
17	19	540	180	456	1500	242	212	163	62	40	17	48		
18	17	371	182	335	1240	218	204	153	72	34	16	70		
19	21	286	175	391	820	201	168	145	59	32	17	33		
20	27	244	165	427	704	187	148	145	54	30	17	77		
21	41	214	155	359	1120	179	133	149	51	29	16	46		
22	170	191	148	414	3080	166	123	160	49	28	16	29		
23	644	168	142	714	3330	188	113	139	48	28	15	42		
24	396	155	140	661	1560	256	108	127	46	28	15	197		
25	318	142	137	468	963	216	124	118	45	27	15	351		
26	200	132	131	372	734	192	140	113	45	26	15	529		
27	137	124	126	332	554	175	325	108	44	26	15	358		
28	197	123	121	308	438	161	342	102	45	25	15	195		
29	142	118	116	302	---	150	284	95	46	25	16	132		
30	114	111	112	340	---	145	256	90	43	24	17	106		
31	104	---	114	300	---	134	---	86	---	23	17	---		
TOTAL	2843	7174	8593	10362	22031	7787	4664	5805	1784	1124	551	2462		
MEAN	91.7	239	277	334	787	251	155	187	59.5	36.3	17.8	82.1		
MAX	644	804	1040	714	3330	457	342	333	82	77	23	529		
MIN	15	93	112	188	209	134	97	86	43	23	15	13		
CFSM	1.93	5.02	5.82	7.02	16.5	5.27	3.26	3.93	1.25	.76	.37	1.72		
IN.	2.22	5.61	6.72	8.10	17.22	6.09	3.64	4.54	1.39	.88	.43	1.92		
AC-FT	5640	14230	17040	20550	43700	15450	9250	11510	3540	2230	1090	4880		
CAL YR 1985	TOTAL	53252	MEAN	146	MAX	1040	MIN	15	CFSM	3.07	IN.	41.62	AC-FT	105600
WTR YR 1986	TOTAL	75180	MEAN	206	MAX	3330	MIN	13	CFSM	4.33	IN.	58.75	AC-FT	149100

14165000 MOHAWK RIVER NEAR SPRINGFIELD, OR

LOCATION.--Lat 44°05'34", long 122°57'20", in SE¼NW¼ sec.17, T.17 S., R.2 W., Lane County, Hydrologic Unit 17090004, on left bank 50 ft downstream from bridge, 1.3 mi northeast of Springfield, and at mile 1.59.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--September 1935 to September 1952, October 1963 to current year. Prior to October 1935 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1939. WSP 1738: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 442.47 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Feb. 27 to Mar. 4. Records good. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--40 years, 539 ft³/s, 41.35 in/yr, 390,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s Dec. 22, 1964, gage height, 22.60 ft; minimum discharge, 8.2 ft³/s Sept. 9, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached at stage of 22.9 ft, from floodmark, probably affected by backwater from McKenzie River, discharge, 9,200 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1630	4,660	12.45	Feb. 23	1130	*9,040	*18.17

Minimum discharge, 18 ft³/s Aug. 24, 28, Sept. 5-9.

REVISIONS.--The minimum discharge for water year 1985 has been revised to 19 ft³/s Aug. 27-29, superceding figure published in the report for 1985.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	32	176	255	338	767	1570	423	351	186	70	32	24		
2	32	165	370	361	710	1210	402	468	175	67	31	21		
3	31	160	1100	526	748	980	371	605	169	70	31	21		
4	31	162	978	433	689	840	363	590	167	102	29	19		
5	31	282	888	492	779	739	343	732	163	104	27	18		
6	31	248	1700	572	736	672	322	854	159	76	27	18		
7	31	328	2150	488	672	894	304	730	160	69	27	18		
8	34	694	1860	497	612	887	284	639	149	70	26	18		
9	32	992	1360	567	560	1250	274	564	142	66	24	19		
10	32	818	1080	588	517	1050	260	557	134	70	23	23		
11	45	559	862	534	500	915	248	566	125	84	24	23		
12	65	425	726	477	1360	981	308	503	117	69	23	21		
13	45	347	628	437	2020	1020	334	480	111	61	23	22		
14	39	307	558	405	1800	1000	291	447	109	59	24	23		
15	38	548	504	438	1690	890	276	413	124	57	22	24		
16	37	1370	454	690	2430	807	305	384	112	57	21	33		
17	38	1320	420	1090	4330	718	370	362	122	68	21	40		
18	38	1060	394	991	4250	643	346	339	153	59	21	71		
19	42	785	367	1250	3300	591	317	323	132	53	21	48		
20	115	758	345	1420	2610	549	287	332	112	48	22	43		
21	131	667	322	1140	2920	521	264	343	103	45	21	68		
22	184	657	304	1290	6800	488	248	361	97	44	21	41		
23	605	532	294	2070	8400	533	238	312	89	43	21	45		
24	529	459	278	1790	5640	784	224	287	85	43	20	136		
25	392	410	260	1410	3920	683	244	264	80	42	21	207		
26	326	364	247	1150	3170	606	247	249	78	39	19	406		
27	222	333	233	1030	2630	554	369	242	77	41	19	323		
28	317	315	224	940	2040	507	432	234	77	39	19	178		
29	248	289	215	909	---	468	407	218	87	38	21	113		
30	200	257	207	969	---	446	379	206	77	36	25	108		
31	202	---	204	854	---	420	---	198	---	35	26	---		
TOTAL	4175	15787	19787	26146	66600	24216	9480	13153	3671	1824	732	2172		
MEAN	135	526	638	843	2379	781	316	424	122	58.8	23.6	72.4		
MAX	605	1370	2150	2070	8400	1570	432	854	186	104	32	406		
MIN	31	160	204	338	500	420	224	198	77	35	19	18		
CFSM	.76	2.97	3.60	4.76	13.4	4.41	1.79	2.40	.69	.33	.13	.41		
IN.	.88	3.32	4.16	5.50	14.00	5.09	1.99	2.76	.77	.38	.15	.46		
AC-FT	8280	31310	39250	51860	132100	48030	18800	26090	7280	3620	1450	4310		
CAL YR 1985	TOTAL	127236	MEAN	349	MAX	2460	MIN	19	CFSM	1.97	IN.	26.74	AC-FT	252400
WTR YR 1986	TOTAL	187743	MEAN	514	MAX	8400	MIN	18	CFSM	2.90	IN.	39.46	AC-FT	372400

WILLAMETTE RIVER BASIN

14166000 WILLAMETTE RIVER AT HARRISBURG, OR

LOCATION.--Lat 44°16'14", long 123°10'21", in NW¼NE¼ sec.16, T.15 S., R.4 W., Linn County, Hydrologic Unit 17090003, on right bank 75 ft north of intersection of First Street and Kesling Street in Harrisburg and at mile 161.0.

DRAINAGE AREA.--3,420 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year. Gage-height records collected at same site in 1927-28, 1931, 1934, are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 288.39 ft above National Geodetic Vertical Datum of 1929. Oct 1 to Nov. 14, 1944, nonrecording gage at bridge 1,110 ft upstream at different datum. Nov. 15, 1944, to Aug. 15, 1973, at site 1,100 ft upstream at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Feb. 16, 17, May 4-14. Water-discharge records good. Flow regulated by 8 reservoirs upstream from station. Many small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--42 years, 12,240 ft³/s, 8,868,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft³/s Dec. 29, 1945, gage height, 19.69 ft, from rating curve extended above 115,000 ft³/s; minimum discharge, 1,990 ft³/s Oct. 30, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 20.5 ft was reached in December 1861, and 20.1 ft in February 1890 (information from Corps of Engineers). Flood of Jan. 1, 1943, reached a stage of 19.1 ft from National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66,500 ft³/s Feb. 23, gage height, 14.35 ft; minimum discharge, 3,900 ft³/s July 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7640	10300	9600	8180	15000	47500	6790	8680	7440	4040	4360	4980
2	7790	10100	10000	11400	13700	44600	6750	8790	7340	4010	4360	4960
3	7610	10000	17000	13400	13100	36800	6500	10200	6950	3970	4420	5700
4	7540	9830	20600	13600	9630	31300	6360	11500	6330	4150	4550	6350
5	7070	9720	18800	12900	9850	28300	6230	11500	5270	4470	4710	6700
6	6170	9560	19900	13000	9890	23500	6040	13000	5090	4180	4800	6870
7	5500	9900	30600	12500	9140	25400	5860	13300	5060	4110	4810	6870
8	5110	12200	32100	11600	8010	26300	5710	12000	5080	4020	4810	6900
9	4850	14300	26000	11400	7350	32100	5660	10600	5000	3960	4800	7080
10	5260	15000	18200	15100	7010	29200	5670	10000	4850	4000	4800	7160
11	6260	13300	15000	14900	6750	20700	5540	10100	4690	4080	4800	7280
12	7270	11200	11900	13600	8600	19700	5720	10300	4620	4020	4720	7260
13	7770	10300	11500	12500	12300	20000	5850	10000	4710	3950	4810	7210
14	7640	9740	11200	11300	14500	19500	5860	10200	4760	3940	4840	7110
15	7610	9700	10800	10900	15200	18100	5820	10500	4790	3960	4800	7210
16	7600	15500	10300	11800	19300	16200	5790	9910	4700	3980	4870	7280
17	7430	19100	8980	20600	36100	14300	6160	8790	4770	4130	4890	7380
18	8070	18700	8260	24400	35800	10100	6490	7920	5000	4140	4970	7810
19	8280	18400	8250	24400	34600	8980	6300	7650	4950	4140	4890	7710
20	8430	17200	8180	26300	36500	8200	6030	7980	4850	4110	4870	7880
21	8670	16700	8000	25100	40500	7830	5920	8550	4730	4090	4860	8040
22	8890	16200	7900	22900	51200	7570	5760	9800	4600	4060	4860	7850
23	12200	14400	7770	27000	64000	7440	5680	9740	4510	4040	4860	7660
24	17000	13000	8060	27000	59100	9000	5580	9310	4490	4080	4870	8160
25	17400	13900	8270	21900	54200	9900	5550	8730	4190	4100	4870	9350
26	16900	11000	8270	18200	55300	9110	5680	8400	4050	4160	4850	12700
27	15100	10100	7960	16200	54000	8440	6340	8060	4030	4180	4810	15500
28	13800	9470	7700	15700	51600	7900	8650	7810	4030	4240	4800	14200
29	12100	9590	7360	15000	---	7380	8720	7670	4080	4230	4820	12100
30	11300	9480	7210	15900	---	7160	8820	7680	4080	4270	4970	11400
31	10800	---	7100	16000	---	6990	---	7500	---	4350	5040	---
TOTAL	285060	377890	392770	514680	752230	569500	187830	296170	149040	127160	148490	244660
MEAN	9195	12600	12670	16600	26870	18370	6261	9554	4968	4102	4790	8155
MAX	17400	19100	32100	27000	64000	47500	8820	13300	7440	4470	5040	15500
MIN	4850	9470	7100	8180	6750	6990	5540	7500	4030	3940	4360	4960
AC-FT	565400	749500	779100	1021000	1492000	1130000	372600	587500	295600	252200	294500	485300
CAL YR 1985	TOTAL	3123760		MEAN	8558	MAX	32100	MIN	4000	AC-FT	6196000	
WTR YR 1986	TOTAL	4045480		MEAN	11080	MAX	64000	MIN	3940	AC-FT	8024000	

WILLAMETTE RIVER BASIN

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14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

INSTRUMENTATION.--Temperature recorder since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.0°C Aug. 12, 1973; minimum, 0.0°C Jan. 8, 9, 1973.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 19.5°C several days in June, July, and August; minimum, 2.5°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.0	13.0	13.5	11.5	10.5	11.0	4.0	2.5	3.0	5.0	4.5	5.0
2	15.0	13.5	14.5	12.0	11.5	11.5	4.0	2.5	3.5	5.0	4.5	5.0
3	15.0	14.0	14.5	12.5	12.0	12.0	5.0	4.0	4.5	5.0	4.5	5.0
4	15.0	13.5	14.5	12.5	11.0	12.0	5.5	5.0	5.0	5.0	4.5	4.5
5	15.0	13.5	14.5	11.0	10.5	10.5	6.5	5.5	6.0	5.5	4.5	5.0
6	14.5	14.0	14.5	11.0	10.5	11.0	6.5	6.5	6.5	5.5	5.0	5.5
7	14.0	13.0	14.0	11.0	10.5	11.0	7.0	6.5	6.5	5.5	4.5	5.0
8	13.0	12.0	12.5	10.5	9.5	10.0	7.0	6.5	6.5	6.0	5.0	5.5
9	12.0	10.5	11.5	9.5	8.5	9.0	6.5	6.0	6.0	6.5	6.0	6.5
10	12.5	11.0	11.5	8.5	8.0	8.0	6.0	5.0	5.5	6.5	6.0	6.5
11	13.5	12.5	13.0	8.0	7.0	7.5	5.0	4.5	4.5	6.0	6.0	6.0
12	13.5	12.5	13.0	7.5	6.5	7.0	4.5	4.0	4.0	6.0	5.5	6.0
13	13.0	12.5	13.0	7.5	6.5	7.0	4.5	3.5	4.0	5.5	5.5	5.5
14	13.5	12.0	13.0	7.5	6.5	7.0	4.5	4.0	4.0	6.0	5.5	5.5
15	13.5	13.0	13.0	8.0	7.5	8.0	4.5	4.0	4.0	6.5	6.0	6.0
16	13.5	13.0	13.5	8.0	7.5	8.0	4.5	4.0	4.5	7.0	6.5	6.5
17	13.5	13.0	13.0	8.0	7.0	7.5	4.5	4.0	4.0	7.0	6.5	6.5
18	13.5	12.0	13.0	7.0	7.0	7.0	4.0	4.0	4.0	7.5	7.0	7.0
19	13.0	13.0	13.0	7.5	7.0	7.0	4.0	4.0	4.0	7.5	7.0	7.5
20	13.0	13.0	13.0	7.5	7.0	7.0	4.0	3.5	3.5	7.0	6.5	7.0
21	13.0	12.0	12.5	7.0	6.5	7.0	3.5	3.5	3.5	6.5	6.0	6.0
22	13.0	12.0	12.5	7.0	6.0	6.5	4.0	3.5	3.5	6.5	6.0	6.0
23	12.5	12.0	12.0	6.0	5.0	5.5	4.0	3.5	3.5	7.0	6.0	6.5
24	12.5	12.0	12.0	5.0	4.5	5.0	4.0	3.5	3.5	6.5	6.0	6.5
25	12.5	12.0	12.5	6.0	5.0	5.5	4.0	3.5	3.5	6.5	5.5	6.0
26	13.0	12.0	12.5	5.5	5.0	5.5	3.5	3.0	3.5	6.0	5.5	6.0
27	13.0	12.0	12.5	5.5	5.0	5.5	3.5	3.0	3.0	7.0	6.0	6.5
28	12.5	11.5	12.0	5.5	4.5	5.0	3.5	3.0	3.0	7.0	7.0	7.0
29	11.5	10.5	11.0	4.5	4.0	4.5	4.0	3.5	3.5	7.0	7.0	7.0
30	11.0	10.0	10.5	4.0	4.0	4.0	4.0	3.5	4.0	7.5	7.0	7.0
31	11.0	10.5	10.5	---	---	---	4.5	3.5	4.0	7.5	7.0	7.5
MONTH	15.0	10.0	13.0	12.5	4.0	8.0	7.0	2.5	4.5	7.5	4.5	6.0

WILLAMETTE RIVER BASIN

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.5	8.5	7.5	8.0	10.5	9.5	10.0	---	---	---
2	8.0	7.0	7.5	8.5	7.5	8.0	10.5	9.0	9.5	---	---	---
3	7.5	7.0	7.5	9.0	7.5	8.5	9.5	9.0	9.5	---	---	---
4	7.5	7.0	7.5	9.0	8.0	8.5	10.0	9.0	9.5	---	---	---
5	7.5	7.0	7.0	9.0	8.0	8.5	10.5	9.0	10.0	---	---	---
6	7.0	6.5	6.5	9.0	8.0	8.5	11.5	9.5	10.5	---	---	---
7	6.5	6.0	6.0	9.0	8.5	8.5	11.5	10.5	11.0	---	---	---
8	6.0	5.0	5.5	8.5	8.0	8.5	11.5	11.0	11.5	---	---	---
9	5.5	4.5	5.0	8.5	7.5	8.0	11.0	10.0	10.5	---	---	---
10	5.5	5.0	5.0	9.0	7.5	8.5	11.0	9.0	---	---	---	---
11	5.5	5.0	5.5	9.0	8.0	8.5	---	9.0	9.5	---	---	---
12	5.5	5.5	5.5	8.5	8.0	8.5	9.0	8.5	8.5	---	---	---
13	6.5	5.5	6.0	8.5	8.0	8.5	10.0	8.0	9.0	---	---	---
14	7.0	6.5	6.5	9.0	7.5	8.5	10.5	9.0	10.0	12.5	---	---
15	7.5	6.5	7.0	9.0	8.0	8.5	---	---	---	13.0	10.5	11.5
16	8.0	7.5	8.0	9.0	8.0	8.5	---	---	---	13.0	11.0	12.0
17	8.0	7.5	8.0	9.0	8.0	8.5	11.0	---	---	13.5	10.5	12.5
18	7.5	6.0	7.0	9.5	8.5	9.0	11.5	9.0	10.0	13.5	12.0	13.0
19	6.5	5.5	6.0	9.5	8.5	9.0	12.5	---	---	13.5	12.0	13.0
20	7.0	6.5	6.5	10.5	9.0	10.0	13.5	---	---	13.0	12.0	12.5
21	7.0	7.0	7.0	11.0	10.0	10.5	14.5	12.5	---	12.0	10.5	11.5
22	8.5	7.0	8.0	10.0	9.0	9.5	---	---	---	12.0	10.0	11.0
23	9.0	8.0	8.5	9.5	9.0	9.5	---	---	---	12.5	11.0	11.5
24	9.0	8.5	8.5	10.0	8.5	9.5	---	---	---	13.5	11.5	12.5
25	9.0	8.0	8.5	10.0	9.0	9.5	10.0	9.0	---	15.5	12.5	14.0
26	8.5	8.0	8.0	11.5	9.5	10.5	---	---	---	15.0	14.0	14.5
27	8.5	8.0	8.0	12.0	10.5	11.0	10.5	9.5	10.0	14.5	13.0	14.0
28	8.5	7.5	8.0	12.5	10.5	11.5	10.0	9.0	---	15.5	13.0	14.0
29	---	---	---	12.5	11.0	11.5	---	---	---	16.5	14.0	15.0
30	---	---	---	12.0	10.5	11.5	---	---	---	17.0	14.5	16.0
31	---	---	---	10.5	9.0	10.0	---	---	---	17.5	15.0	16.5
MONTH	9.0	4.5	7.0	12.5	7.5	9.0	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	17.5	15.5	16.5	19.0	17.0	18.0	19.0	16.5	17.5	17.5	15.5	16.5
2	17.5	15.5	16.5	18.0	16.5	17.5	19.0	17.0	18.0	18.0	16.5	17.5
3	16.5	14.5	15.5	17.5	16.0	16.5	19.0	16.5	18.0	18.0	17.0	17.5
4	16.0	14.5	15.0	17.0	15.5	16.0	18.5	16.5	17.5	18.0	16.5	17.5
5	15.5	14.5	15.0	16.5	14.0	15.0	18.0	16.0	17.5	17.5	16.5	17.0
6	15.0	14.0	14.5	18.0	15.0	16.5	18.5	16.5	17.5	17.5	16.0	17.0
7	15.0	13.5	14.5	17.5	16.0	16.5	19.0	16.5	18.0	17.5	16.0	16.5
8	15.5	13.5	---	17.5	15.0	16.0	19.5	17.0	18.5	16.5	15.5	16.0
9	---	---	---	17.5	16.5	17.0	19.5	17.0	18.5	15.5	14.5	15.5
10	18.0	---	---	16.5	15.0	16.0	18.5	17.0	18.0	15.5	14.5	15.0
11	19.0	16.5	---	17.0	14.5	16.0	18.5	16.5	17.5	15.5	14.0	15.0
12	19.5	17.0	18.5	18.0	16.0	17.0	18.5	16.5	17.5	15.0	14.0	14.5
13	19.0	17.0	18.0	18.5	16.5	17.5	18.5	16.5	17.5	14.5	13.5	14.0
14	18.0	15.5	17.0	18.0	16.5	17.5	19.0	17.0	18.0	15.0	13.5	14.0
15	17.0	14.5	15.5	17.0	15.5	16.5	18.5	17.0	18.0	15.0	14.0	14.5
16	16.0	14.5	15.0	16.0	15.0	15.5	17.5	16.0	16.5	14.5	13.5	14.0
17	14.5	13.5	13.5	16.5	14.0	15.5	17.0	15.0	16.0	14.5	13.5	14.0
18	14.5	13.0	13.5	17.0	15.0	16.0	16.5	15.0	16.0	14.5	13.0	13.5
19	16.0	13.0	14.5	18.0	15.5	16.5	17.5	15.0	16.5	14.5	13.5	14.0
20	17.0	14.5	16.0	19.0	16.5	17.5	18.0	16.0	17.0	14.0	13.0	14.0
21	18.0	15.0	16.5	19.5	17.0	18.5	18.0	16.0	17.0	14.5	13.0	13.5
22	18.5	16.0	17.5	19.0	17.0	18.0	17.5	16.5	17.0	14.5	13.5	14.0
23	19.5	17.0	18.5	18.5	17.0	17.5	17.5	15.5	16.5	14.5	13.0	13.5
24	19.5	17.5	18.5	18.0	16.0	17.0	17.5	15.5	16.5	13.5	13.0	13.0
25	19.5	17.5	18.5	19.0	16.5	17.5	17.5	15.5	17.0	13.0	12.5	13.0
26	19.0	17.5	18.5	18.0	16.0	17.0	18.0	16.5	17.5	12.5	12.0	12.0
27	19.0	17.0	18.0	17.5	15.0	16.5	18.0	17.0	17.5	12.5	11.5	12.0
28	18.0	16.0	17.0	18.0	15.5	16.5	17.5	16.0	16.5	13.0	12.0	12.5
29	17.0	15.0	16.0	18.0	16.0	17.0	16.5	16.0	16.0	13.5	12.5	13.0
30	18.0	15.0	16.5	18.0	15.5	17.0	17.0	15.5	16.0	13.0	12.5	13.0
31	---	---	---	18.0	16.0	17.0	17.0	15.5	16.5	---	---	---
MONTH	---	---	---	19.5	14.0	17.0	19.5	15.0	17.0	18.0	11.5	14.5

WILLAMETTE RIVER BASIN

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14166500 LONG TOM RIVER NEAR NOTI, OR

LOCATION.--Lat 44°03'00", long 123°25'30", in sec.33, T.17 S., R.6 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi upstream from Southern Pacific Railroad bridge, 0.8 mi downstream from Noti Creek, 1.3 mi southeast of Noti, and at mile 37.4.

DRAINAGE AREA.--89.3 mi².

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1318: 1936(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.05 ft above National Geodetic Vertical Datum of 1929 (levels by National Weather Service). Prior to Nov. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Mar. 18-31. Records fair. Slight regulation caused by logpond upstream from Noti. No diversion upstream from station.

AVERAGE DISCHARGE.--51 years, 234 ft³/s, 35.58 in/yr, 169,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,990 ft³/s Dec. 22, 1955, gage height, 20.17 ft; minimum discharge, 0.04 ft³/s Aug. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	2200	2,520	14.45	Feb. 23	1700	*3,520	*16.20

Minimum discharge, 6.0 ft³/s Aug. 26-28, Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	12	32	59	91	316	585	189	126	56	28	14	11		
2	13	30	78	111	311	498	181	198	55	28	13	10		
3	13	28	296	195	454	434	172	210	54	29	13	9.2		
4	13	34	311	186	437	388	170	187	53	32	13	8.3		
5	12	63	261	232	391	355	168	177	53	39	12	8.2		
6	13	54	459	357	355	327	159	216	54	31	11	7.2		
7	13	46	767	270	317	428	153	204	52	28	12	10		
8	12	63	756	237	288	454	149	179	50	28	12	8.2		
9	11	171	523	260	262	492	145	158	48	28	11	9.0		
10	12	207	357	267	242	458	139	149	46	27	11	10		
11	15	119	269	246	229	446	134	148	44	31	11	9.1		
12	18	82	212	216	687	492	148	133	38	30	9.8	8.4		
13	18	64	179	194	1060	556	141	123	36	27	8.8	9.7		
14	17	53	155	180	1090	535	131	114	36	25	12	11		
15	16	56	139	212	1070	487	127	107	39	24	21	13		
16	16	137	127	439	1400	431	138	101	38	24	11	14		
17	16	190	116	686	2270	355	144	97	43	25	9.8	21		
18	16	204	108	549	2250	320	131	92	54	23	12	27		
19	18	150	101	610	1520	288	121	90	54	22	9.8	24		
20	41	169	101	666	1050	272	115	92	46	21	8.5	26		
21	62	161	92	490	982	260	111	91	41	20	7.9	34		
22	80	214	80	451	2220	248	108	92	39	19	8.8	25		
23	135	182	80	654	3380	265	103	87	36	21	8.3	22		
24	100	136	88	676	2660	296	102	82	33	20	7.3	44		
25	74	116	77	527	1490	277	112	77	31	19	10	58		
26	69	98	65	410	1060	256	118	73	30	17	7.3	98		
27	48	84	65	353	838	243	131	70	29	18	7.1	86		
28	45	66	66	330	692	221	128	69	29	18	7.9	51		
29	40	65	67	307	---	211	129	65	32	16	11	38		
30	33	62	67	358	---	201	122	62	31	16	12	31		
31	32	---	60	339	---	190	---	58	---	15	13	---		
TOTAL	1033	3136	6181	11099	29321	11269	4119	3727	1280	749	336.3	741.3		
MEAN	33.3	105	199	358	1047	364	137	120	42.7	24.2	10.8	24.7		
MAX	135	214	767	686	3380	585	189	216	56	39	21	98		
MIN	11	28	59	91	229	190	102	58	29	15	7.1	7.2		
CFSM	.37	1.18	2.23	4.01	11.7	4.08	1.53	1.34	.48	.27	.12	.28		
IN.	.43	1.31	2.57	4.62	12.21	4.69	1.72	1.55	.53	.31	.14	.31		
AC-FT	2050	6220	12260	22010	58160	22350	8170	7390	2540	1490	667	1470		
CAL YR 1985	TOTAL	45024	MEAN	123	MAX	808	MIN	11	CFSM	1.38	IN.	18.76	AC-FT	89310
WTR YR 1986	TOTAL	72991.6	MEAN	200	MAX	3380	MIN	7.1	CFSM	2.24	IN.	30.41	AC-FT	144800

WILLAMETTE RIVER BASIN

14167000 COYOTE CREEK NEAR CROW, OR

LOCATION.--Lat 44°01'19", long 123°15'17", in SW¼NE¼ sec.11, T.18 S., R.5 W., Lane County, Hydrologic Unit 17090003, on right bank 1.0 mi downstream from Spencer Creek, 4.3 mi northeast of Crow, and at mile 3.8.

DRAINAGE AREA.--95.1 mi².

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 374.0 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Aug. 31, 1940, nonrecording gage near same site at different datums.

REMARKS.--Estimated daily discharges: Feb. 23 to Mar. 4. Records good except for estimated daily discharges, which are poor. No regulation. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--46 years, 178 ft³/s, 25.42 in/yr, 129,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s Feb. 10, 1961, gage height, 14.43 ft, from rating curve extended above 4,700 ft³/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	2330	2,090	10.84	Feb. 23	unknown	*3,590	*a11.93

No flow Oct. 5-9, Aug. 9 to Sept. 22.

a From inside high-water mark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	.01	4.3	22	43	282	300	74	49	16	3.4	1.3	.00		
2	.01	4.1	31	87	259	240	70	245	14	3.0	.43	.00		
3	.01	5.9	248	171	393	205	65	296	14	2.7	.11	.00		
4	.01	5.9	302	155	342	175	62	209	13	2.8	.05	.00		
5	.00	7.9	248	220	316	158	58	198	12	4.0	.03	.00		
6	.00	11	435	250	276	142	53	254	12	5.1	.01	.00		
7	.00	9.1	576	188	231	361	49	204	12	4.3	.01	.00		
8	.00	9.5	534	179	198	436	47	155	11	4.0	.01	.00		
9	.00	44	354	228	169	522	46	122	9.6	3.9	.00	.00		
10	.01	96	236	211	148	396	46	107	9.0	4.4	.00	.00		
11	.02	51	170	194	143	374	42	100	9.1	4.5	.00	.00		
12	.04	31	131	160	848	383	42	85	8.8	4.3	.00	.00		
13	.05	18	105	140	1330	332	44	73	8.2	4.1	.00	.00		
14	.04	15	87	126	1190	292	41	65	7.6	3.3	.00	.00		
15	.04	14	75	176	1260	253	39	56	7.3	2.5	.00	.00		
16	.08	52	66	382	1560	289	39	50	7.4	2.2	.00	.00		
17	.18	107	59	560	1930	225	43	46	7.6	2.1	.00	.00		
18	.24	117	54	413	1870	187	41	42	9.8	2.0	.00	.00		
19	.32	83	51	495	1560	165	36	39	12	1.6	.00	.00		
20	.48	91	47	561	1110	148	32	40	11	1.8	.00	.00		
21	1.9	95	45	384	1320	138	31	42	8.7	2.0	.00	.00		
22	12	123	41	399	2940	123	30	40	7.7	1.7	.00	.00		
23	23	106	38	702	3200	139	28	36	7.1	1.4	.00	3.2		
24	28	72	41	708	2100	189	27	32	6.3	1.4	.00	2.4		
25	14	56	44	504	1250	144	29	28	5.6	1.7	.00	4.5		
26	9.1	45	32	340	880	122	32	26	4.9	1.5	.00	17		
27	7.8	37	31	274	640	109	35	24	4.3	1.5	.00	22		
28	6.6	34	24	285	400	99	42	23	3.8	1.6	.00	13		
29	6.2	33	23	289	---	92	40	22	3.7	1.2	.00	7.1		
30	6.9	26	23	391	---	83	36	22	3.2	.36	.00	4.8		
31	5.0	---	23	319	---	79	---	21	---	.08	.00	---		
TOTAL	122.04	1403.7	4196	9534	28145	6900	1299	2751	266.7	80.44	1.95	74.00		
MEAN	3.94	46.8	135	308	1005	223	43.3	88.7	8.89	2.59	.06	2.47		
MAX	28	123	576	708	3200	522	74	296	16	5.1	1.3	22		
MIN	.00	4.1	22	43	143	79	27	21	3.2	.08	.00	.00		
CFSM	.04	.49	1.42	3.24	10.6	2.34	.46	.93	.09	.03	.00	.03		
IN.	.05	.55	1.64	3.73	11.01	2.70	.51	1.08	.10	.03	.00	.03		
AC-FT	242	2780	8320	18910	55830	13690	2580	5460	529	160	3.9	147		
CAL YR 1985	TOTAL	27682.75	MEAN	75.8	MAX	1230	MIN	.00	CFSM	.80	IN.	10.83	AC-FT	54910
WTR YR 1986	TOTAL	54773.83	MEAN	150	MAX	3200	MIN	.00	CFSM	1.58	IN.	21.43	AC-FT	108600

WILLAMETTE RIVER BASIN

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14168000 FERN RIDGE LAKE NEAR ELMIRA, OR

LOCATION.--Lat 44°07'15", long 123°18'00", near center of sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, in control house at spillway section of dam across Long Tom River and Coyote Creek, 4.5 mi northeast of Elmira, and at mile 25.7.

DRAINAGE AREA.--252 mi², not including Amazon Creek basin (see REMARKS).

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1971, published as Fern Ridge Reservoir near Elmira.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by earth-fill dam with concrete outlet and spillway, completed in 1941 by Corps of Engineers; storage began Nov. 13, 1941. Total capacity, 116,800 acre-ft at elevation 375.1 ft, maximum pool elevation. Usable capacity, 101,100 acre-ft between elevations 340.0 ft, sill of outlet gate, and 373.5 ft, normal maximum operating pool level. Reservoir used for flood control and improvement of navigation. Since November 1951, most of flow of Amazon Creek has been diverted in SE¼ sec.29, T.17 S., R.4 W., and discharged into Fern Ridge Lake; drainage area at point of diversion, 21.3 mi².

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,500 acre-ft Dec. 27, 1955, elevation, 375.83 ft; minimum contents since first filling in 1942, 163 acre-ft Nov. 11, 1950, elevation, 344.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 97,290 acre-ft May 30, 31, elevation, 373.09 ft; minimum contents, 7,140 acre-ft Nov. 24, elevation, 352.98 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

349	2,270	356	12,440	364	37,490	372	87,720
350	3,250	358	17,020	366	46,940	374	105,800
352	5,730	360	22,670	368	58,320	376	126,300
354	8,760	362	29,460	370	71,900		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	371.01	360.81	353.20	353.15	355.96	367.33	370.37	371.67	373.07	372.64	372.04	371.24
2	370.81	360.22	353.37	353.43	356.42	366.76	370.43	371.86	373.05	372.63	372.02	371.20
3	370.58	359.62	353.95	353.54	357.03	366.68	370.49	372.02	373.04	372.62	371.98	371.19
4	370.36	359.08	354.19	353.45	357.57	366.68	370.56	372.14	373.02	372.60	371.95	371.17
5	370.14	358.42	354.14	353.62	357.97	366.68	370.61	372.30	373.01	372.59	371.92	371.15
6	369.93	357.73	354.73	353.66	358.23	366.67	370.66	372.40	373.00	372.58	371.91	371.13
7	369.69	357.00	355.32	353.21	358.53	367.05	370.71	372.51	372.99	372.56	371.89	371.10
8	369.44	356.32	355.14	353.16	358.99	367.30	370.76	372.60	372.98	372.55	371.85	371.07
9	369.22	355.86	354.30	353.31	359.34	367.31	370.79	372.66	372.97	372.53	371.82	371.05
10	369.02	355.22	353.35	353.28	359.65	367.30	370.83	372.73	372.96	372.52	371.80	371.00
11	368.79	354.30	353.26	353.12	360.17	367.47	370.88	372.78	372.95	372.50	371.77	371.00
12	368.56	353.66	353.22	353.06	361.62	367.70	370.93	372.82	372.94	372.48	371.74	370.98
13	368.33	353.44	353.15	353.08	362.33	367.93	370.97	372.85	372.91	372.46	371.71	370.96
14	368.09	353.33	353.11	353.01	362.48	368.09	371.00	372.88	372.90	372.43	371.69	370.94
15	367.86	353.50	353.13	353.41	362.72	368.23	371.05	372.90	372.88	372.41	371.66	370.94
16	367.62	353.61	353.20	354.23	363.38	368.34	371.09	372.92	372.87	372.40	371.64	370.94
17	367.36	353.74	353.23	354.34	364.62	368.50	371.12	372.95	372.89	372.38	371.61	370.97
18	367.08	353.58	353.22	353.64	365.80	368.64	371.16	372.96	372.89	372.36	371.58	370.96
19	366.86	353.36	353.17	354.24	366.15	368.79	371.19	372.99	372.88	372.34	371.55	370.95
20	366.69	353.33	353.10	354.27	365.86	368.94	371.22	373.00	372.87	372.32	371.54	370.96
21	366.55	353.44	353.10	353.69	365.68	369.08	371.24	373.02	372.86	372.29	371.50	370.94
22	366.54	353.35	353.22	353.61	367.68	369.21	371.26	373.03	372.84	372.27	371.48	370.92
23	366.26	353.11	353.32	354.56	370.18	369.38	371.27	373.04	372.82	372.25	371.45	370.95
24	365.58	353.07	353.42	355.03	371.11	369.58	371.30	373.05	372.80	372.23	371.43	370.94
25	364.80	353.13	353.43	354.86	370.87	369.73	371.34	373.06	372.78	372.21	371.41	370.97
26	364.04	353.13	353.36	354.72	370.28	369.85	371.38	373.06	372.77	372.19	371.39	371.01
27	363.33	353.09	353.27	354.79	369.44	369.96	371.42	373.07	372.74	372.15	371.37	370.98
28	362.78	353.11	353.20	354.99	368.43	370.05	371.45	373.07	372.72	372.14	371.33	370.94
29	362.35	353.21	353.14	355.32	---	370.14	371.49	373.08	372.69	372.11	371.31	370.90
30	361.89	353.23	353.08	355.66	---	370.19	371.52	373.08	372.68	372.09	371.29	370.87
31	361.37	---	353.02	355.72	---	370.30	---	373.07	---	372.06	371.27	---
MAX	371.01	360.81	355.32	355.72	371.11	370.30	371.52	373.08	373.07	372.64	372.04	371.24
MIN	361.37	353.07	353.02	353.01	355.96	366.67	370.37	371.67	372.68	372.06	371.27	370.87
(+)	27190	7520	7200	11870	61050	74130	83720	97110	93610	88230	81690	78510
(#)	-53380	-19670	-320	+4670	+49180	+13080	+9590	+13390	-3500	-5380	-6540	-3180

CAL YR 1985 MAX 373.45 MIN 352.39 AC-FT# +230
WTR YR 1986 MAX 373.08 MIN 353.01 AC-FT# -2060

+ Contents, in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

WILLAMETTE RIVER BASIN

14169000 LONG TOM RIVER NEAR ALVADORE, OR

LOCATION.--Lat 44°07'25", long 123°17'55", in SW¼NE¼ sec.4, T.17 S., R.5 W., Lane County, Hydrologic Unit 17090003, on left bank 0.2 mi downstream from Fern Ridge Dam, 1.7 mi west of Alvadore, and at mile 25.5.

DRAINAGE AREA.--252 mi², not including Amazon Creek basin.

PERIOD OF RECORD.--August 1939 to current year. Prior to October 1943, published as "at Smithfield," and October 1943 to September 1959, as "below Fern Ridge Dam, near Smithfield." Prior to October 1985, published figures included diversion from Fern Ridge Reservoir into Coyote Creek channel (station 14169001).

REVISED RECORDS.--WSP 1248: 1940-41, 1948.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Sept. 21, 1939, nonrecording gage and Sept. 21, 1939, to Sept. 30, 1943, water-stage recorder at site 2.5 mi downstream at datum 11.09 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1941 by Fern Ridge Lake (station 14168000). Several small diversions for irrigation upstream from station. Approximately 7 ft³/s diverted from Fern Ridge Reservoir into Coyote Creek channel. Discharge not adjusted for storage or release from Fern Ridge Lake as evaporation from reservoir at times exceeds natural flow and diversions, and beginning in November 1951, most of flow of Amazon Creek has been diverted into Fern Ridge Lake.

AVERAGE DISCHARGE.--43 years (water years 1944-86), 534 ft³/s, 386,900 acre-ft/yr (river only).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s Jan. 1, 1943, gage height, 15.12 ft, site and datum then in use; minimum daily discharge, 2 ft³/s Aug. 7, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,340 ft³/s Feb. 28; minimum daily, 33 ft³/s Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	994	116	131	665	5020	41	55	44	47	39	39
2	727	979	79	215	488	2950	41	48	45	38	39	39
3	837	957	460	455	490	1100	41	44	44	38	39	39
4	804	978	907	547	498	746	41	44	44	38	39	39
5	800	979	912	587	502	675	41	43	44	38	41	39
6	789	960	921	828	506	608	41	45	44	38	41	39
7	782	964	1460	912	306	354	41	44	44	38	41	39
8	777	993	1830	650	57	602	41	44	44	39	41	40
9	772	979	1830	639	57	1340	41	44	44	39	41	39
10	763	957	1400	697	57	1180	41	44	44	39	41	37
11	757	932	652	694	59	707	41	44	44	39	41	37
12	766	586	466	544	640	602	41	44	44	39	41	37
13	772	239	398	450	2370	521	41	44	44	39	41	37
14	765	157	321	450	3240	521	41	44	44	39	41	36
15	760	157	257	515	3240	521	41	44	44	39	41	36
16	750	263	196	885	3210	527	41	44	44	39	41	37
17	800	420	196	1720	2890	222	41	44	44	39	41	41
18	828	496	196	1920	2920	160	41	44	44	39	40	50
19	810	493	196	1460	3690	86	41	44	44	39	41	50
20	760	368	196	1800	4410	44	42	44	44	39	40	50
21	482	345	151	1670	4290	33	42	44	44	39	40	50
22	369	501	79	1480	1430	34	42	44	44	39	41	86
23	1190	517	78	1520	51	40	42	44	44	39	40	94
24	2130	285	78	1560	2120	40	42	44	44	39	41	111
25	2210	189	109	1570	4920	39	42	44	44	39	41	176
26	1930	189	134	1190	5090	39	42	44	44	39	41	205
27	1660	189	134	871	5260	39	42	44	54	39	41	192
28	1170	132	134	746	5250	39	42	44	60	39	41	192
29	955	60	132	758	---	40	42	44	60	39	40	192
30	947	109	131	843	---	41	42	44	60	39	39	192
31	971	---	131	890	---	41	---	44	---	39	39	---
TOTAL	29236	16367	14280	29197	58706	18911	1241	1379	1379	1211	1254	2290
MEAN	943	546	461	942	2097	610	41.4	44.5	46.0	39.1	40.5	76.3
MAX	2210	994	1830	1920	5260	5020	42	55	60	47	41	205
MIN	369	60	78	131	51	33	41	43	44	38	39	36
AC-FT	57990	32460	28320	57910	116400	37510	2460	2740	2740	2400	2490	4540
CAL YR 1985	TOTAL	89384	MEAN	245	MAX	2210	MIN	22	AC-FT	177300		
WTR YR 1986	TOTAL	175451	MEAN	481	MAX	5260	MIN	33	AC-FT	348000		

WILLAMETTE RIVER BASIN

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14170000 LONG TOM RIVER AT MONROE, OR

LOCATION.--Lat 44°18'50", long 123°17'45", in NE¼ sec.33, T.14 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank in canalized river channel at Monroe, 110 ft upstream from bridge on State Highway 99W, 0.1 mi downstream from Shafer Creek, and at mile 6.8.

DRAINAGE AREA.--391 mi².

PERIOD OF RECORD.--November 1920 to July 1921, October 1921 to April 1926, November 1926 to May 1927, October 1927 to current year. Prior to October 1930, published as "near Monroe."

REVISED RECORDS.--WSP 654: Drainage area. WSP 1248: 1923, 1927, 1928(M). WSP 1288: 1952.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 270.57 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1944, nonrecording gage at various sites ranging from present site to 1.5 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 1-17, May 29 to July 7. Records good. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions upstream from station.

AVERAGE DISCHARGE.--63 years (water years 1922-25, 1928-86), 773 ft³/s, 560,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s Jan. 2, 1943, gage height, 17.14 ft, site and datum then in use, from graph based on gage readings, includes some overflow from Willamette River near Junction City; no flow Oct. 20-22, 1944 (water filling pool at gage); minimum discharge observed prior to regulation, 7 ft³/s Sept. 29, Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,260 ft³/s Feb. 22, gage height, 9.17 ft; minimum discharge, 19 ft³/s July 15, 22, 23, Aug. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	307	983	175	218	1110	5380	167	128	57	40	24	31
2	585	968	173	278	877	4120	162	292	54	27	24	34
3	818	945	441	558	1110	1720	154	318	52	27	29	33
4	770	953	1330	751	925	1130	154	257	52	34	26	30
5	770	980	1310	925	878	964	151	216	52	44	27	30
6	760	966	1670	1080	837	892	143	308	57	37	32	29
7	751	942	2240	1110	724	1250	138	242	54	36	29	32
8	741	992	2700	938	299	1090	134	197	52	30	28	34
9	741	1030	2390	885	261	2030	130	174	47	31	25	33
10	731	1040	1990	979	240	2020	128	167	44	28	25	31
11	731	970	1030	930	243	1160	126	163	37	26	29	30
12	741	747	662	804	2090	1270	134	149	34	26	29	29
13	751	320	603	603	3610	1070	134	141	34	26	28	31
14	741	165	459	586	4280	963	128	135	36	24	30	33
15	741	173	418	765	4870	897	123	130	40	23	29	37
16	731	269	310	1600	5290	895	124	126	40	23	29	42
17	760	471	297	2260	5700	666	125	123	42	22	28	48
18	807	595	290	2760	5450	382	119	122	47	23	31	59
19	801	542	283	2400	4860	335	115	121	49	26	26	63
20	779	470	273	2500	5320	236	113	120	47	31	25	65
21	684	360	260	2270	5360	222	108	124	44	27	25	65
22	188	527	148	2190	5720	196	102	121	44	22	26	70
23	1020	615	140	2560	3610	241	107	112	40	25	26	105
24	1840	410	138	2290	3110	354	106	108	36	25	27	106
25	2270	227	145	2070	5410	294	112	106	32	24	27	161
26	1930	219	187	1720	5690	234	113	103	29	24	23	221
27	1770	215	184	1290	5730	210	122	99	27	25	22	229
28	1300	203	183	1140	5590	195	120	85	42	25	24	215
29	936	96	183	1150	---	187	117	74	49	25	25	203
30	933	93	179	1420	---	178	113	65	47	24	26	198
31	940	---	179	1270	---	170	---	60	---	24	27	---
TOTAL	28368	17486	20970	42300	89194	30951	3822	4686	1317	854	831	2327
MEAN	915	583	676	1365	3186	998	127	151	43.9	27.5	26.8	77.6
MAX	2270	1040	2700	2760	5730	5380	167	318	57	44	32	229
MIN	188	93	138	218	240	170	102	60	27	22	22	29
AC-FT	56270	34680	41590	83900	176900	61390	7580	9290	2610	1690	1650	4620
CAL YR 1985	TOTAL	127941	MEAN	351	MAX	2700	MIN	20	AC-FT	253800		
WTR YR 1986	TOTAL	243106	MEAN	666	MAX	5730	MIN	22	AC-FT	482200		

WILLAMETTE RIVER BASIN

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR

LOCATION.--Lat 44°38'30", long 123°07'00", in NW¼ sec.1, T.11 S., R.4 W., Benton County, Hydrologic Unit 17090003, temperature recorder on left bank, 0.6 mi upstream from gaging station at Albany, 0.4 mi upstream from Calapooia River, and at mile 119.9.

DRAINAGE AREA.--4,460 mi², approximately.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 3, 1977, and July 19, 1985; minimum, 0.5°C Jan. 26, 1969, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 19.0°C Sept. 6, but may have been higher during missing record May 30 to Sept. 5; minimum recorded, 2.0°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.5	13.0	14.0	11.5	10.5	11.0	3.5	2.0	3.0	5.0	4.0	4.5
2	15.5	14.0	14.5	12.5	11.0	11.5	3.0	2.0	2.5	5.0	4.5	5.0
3	16.0	14.5	15.5	12.5	12.0	12.5	4.0	3.0	4.0	5.0	5.0	5.0
4	15.5	14.5	15.0	12.5	12.0	12.5	5.0	4.0	4.5	5.0	4.5	4.5
5	15.5	14.5	15.0	11.5	11.0	11.0	5.5	5.0	5.0	5.0	4.5	4.5
6	15.5	14.5	15.0	11.0	10.5	11.0	6.0	5.5	6.0	5.5	5.0	5.0
7	15.5	14.0	14.5	11.0	11.0	11.0	6.5	6.0	6.5	5.0	5.0	5.0
8	14.0	12.5	13.5	11.0	10.0	10.5	6.5	6.5	6.5	5.5	5.0	5.0
9	12.5	11.5	12.0	10.0	8.5	9.5	6.5	6.0	6.0	6.5	5.5	6.0
10	12.0	11.0	11.5	8.5	8.0	8.0	6.0	5.5	5.5	6.5	6.5	6.5
11	13.5	12.0	12.5	7.5	7.0	7.5	5.5	4.5	5.0	6.5	6.0	6.5
12	13.5	13.0	13.5	7.0	6.5	7.0	4.5	4.0	4.0	6.5	6.0	6.0
13	13.5	12.5	13.0	7.0	6.5	7.0	4.0	3.5	3.5	6.0	5.5	6.0
14	13.5	12.5	13.0	7.5	6.0	7.0	4.0	3.5	4.0	6.0	5.5	5.5
15	14.0	13.0	13.5	8.0	7.0	7.5	4.0	3.5	4.0	6.0	6.0	6.0
16	14.0	13.5	13.5	8.5	8.0	8.5	4.0	4.0	4.0	7.0	6.0	6.5
17	14.0	13.0	13.5	8.0	7.5	8.0	4.0	4.0	4.0	7.0	6.5	6.5
18	13.5	12.5	13.5	8.0	7.0	7.5	4.0	4.0	4.0	7.5	7.0	7.0
19	13.5	13.0	13.5	7.0	6.5	7.0	3.5	3.5	3.5	7.5	7.5	7.5
20	13.5	13.0	13.5	7.5	7.0	7.0	3.5	3.5	3.5	7.5	7.0	7.0
21	13.0	12.5	13.0	7.5	6.5	7.0	3.5	3.0	3.5	7.0	6.5	6.5
22	13.0	12.5	12.5	6.5	6.0	6.5	3.5	3.0	3.5	6.5	6.5	6.5
23	13.0	12.5	12.5	6.0	5.0	5.5	3.5	3.0	3.5	7.0	6.5	6.5
24	12.5	12.5	12.5	4.5	4.0	4.5	3.5	3.0	3.5	6.5	6.5	6.5
25	13.0	12.5	12.5	5.5	4.0	4.5	3.5	3.0	3.5	6.5	6.0	6.5
26	12.5	12.0	12.5	5.5	5.5	5.5	3.5	3.0	3.0	6.5	6.0	6.0
27	13.0	12.5	12.5	5.5	5.0	5.0	3.0	2.5	3.0	6.5	6.0	6.5
28	13.0	12.0	12.5	5.0	4.5	5.0	3.0	2.5	3.0	7.0	7.0	7.0
29	12.0	11.0	11.5	4.5	3.5	4.0	3.5	3.0	3.0	7.0	7.0	7.0
30	11.0	10.5	11.0	3.5	3.5	3.5	3.5	3.0	3.5	7.5	7.0	7.0
31	10.5	10.5	10.5	---	---	---	4.0	3.5	3.5	8.0	7.5	7.5
MONTH	16.0	10.5	13.0	12.5	3.5	8.0	6.5	2.0	4.0	8.0	4.0	6.0

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	FEBRUARY			MARCH			APRIL			MAY		
1	8.0	7.5	7.5	8.5	8.0	8.5	11.5	10.5	11.0	10.5	10.5	10.5
2	8.0	7.5	7.5	8.5	8.5	8.5	11.0	10.5	10.5	10.5	10.0	10.5
3	8.0	7.5	7.5	8.5	8.5	8.5	10.5	10.0	10.5	11.5	10.0	11.0
4	7.5	7.5	7.5	9.0	8.5	8.5	11.0	10.0	10.5	11.5	10.5	11.0
5	7.5	7.0	7.5	9.0	8.5	8.5	11.5	9.5	10.5	11.5	11.0	11.0
6	7.0	6.5	7.0	9.0	8.5	8.5	12.0	10.5	11.5	11.0	10.0	10.5
7	6.5	6.0	6.5	9.0	8.5	8.5	13.0	11.5	12.5	11.5	10.5	11.0
8	6.0	5.5	6.0	9.0	8.5	9.0	13.0	12.5	12.5	11.5	10.5	11.0
9	5.5	5.0	5.5	8.5	8.0	8.5	12.5	11.5	12.0	11.5	11.0	11.0
10	5.5	5.0	5.5	9.0	8.0	8.5	12.0	10.5	11.5	11.0	10.0	10.5
11	5.5	5.0	5.5	9.0	8.5	9.0	11.5	10.5	11.0	10.5	9.5	10.0
12	5.5	5.0	5.0	9.0	8.5	9.0	10.5	10.0	10.5	11.0	9.5	10.5
13	5.5	5.0	5.0	9.0	8.5	8.5	10.5	9.5	10.0	12.5	11.0	12.0
14	6.0	5.5	6.0	8.5	8.5	8.5	11.0	10.0	10.5	12.5	11.5	12.0
15	6.5	5.5	6.0	9.0	8.5	9.0	12.0	10.5	11.0	13.0	11.5	12.5
16	7.5	6.5	7.5	9.0	9.0	9.0	11.0	10.5	11.0	13.5	12.0	12.5
17	7.5	7.0	7.5	9.5	9.0	9.0	11.5	10.5	11.0	14.0	12.0	13.0
18	7.0	6.5	7.0	9.5	9.0	9.5	12.0	10.5	11.0	14.0	12.5	13.5
19	6.5	5.5	6.0	10.0	9.5	9.5	13.0	11.0	12.0	14.5	13.0	14.0
20	6.0	5.5	6.0	10.5	9.5	9.5	14.5	12.5	13.5	14.0	13.0	13.5
21	6.5	6.0	6.5	11.0	10.0	10.5	15.5	13.5	14.5	13.0	12.0	12.5
22	8.0	7.0	7.5	11.0	10.0	10.5	15.0	14.0	14.5	12.5	11.0	12.0
23	9.0	8.0	8.5	10.5	10.0	10.0	13.5	12.5	13.0	13.0	11.5	12.0
24	9.5	9.0	9.0	10.0	9.5	9.5	12.5	11.0	11.5	14.0	12.0	13.0
25	9.5	9.0	9.0	10.0	9.5	9.5	11.5	10.5	11.0	16.0	13.5	14.5
26	9.0	8.5	9.0	11.0	10.0	10.5	11.0	10.5	10.5	16.0	15.0	15.5
27	8.5	8.5	8.5	12.0	11.0	11.5	11.5	10.0	11.0	16.0	14.5	15.0
28	8.5	8.5	8.5	12.5	11.5	12.0	11.0	10.5	10.5	16.5	14.0	15.0
29	---	---	---	13.0	12.0	12.5	11.0	10.0	10.5	17.0	14.5	16.0
30	---	---	---	13.0	12.0	12.5	11.0	10.0	10.5	---	---	---
31	---	---	---	12.0	11.0	11.5	---	---	---	---	---	---
MONTH	9.5	5.0	7.0	13.0	8.0	9.5	15.5	9.5	11.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										19.0	17.5	18.5
7										18.5	17.0	17.5
8										17.5	16.5	16.5
9										16.5	15.5	16.0
10										16.0	15.0	15.0
11										15.5	14.0	15.0
12										16.0	14.5	15.0
13										15.0	13.5	14.0
14										14.5	13.0	14.0
15										14.5	13.5	14.0
16										14.5	13.5	14.0
17										14.0	13.5	14.0
18										14.5	13.5	14.0
19										14.5	13.5	14.0
20										14.0	13.5	14.0
21										14.0	13.0	13.5
22										14.0	13.0	13.5
23										13.5	13.0	13.0
24										13.0	12.5	12.5
25										12.5	12.5	12.5
26										12.0	11.5	12.0
27										11.5	11.5	11.5
28										12.0	11.5	11.5
29										12.5	12.0	12.5
30										12.0	12.0	12.0
31										---	---	---
MONTH										---	---	---

WILLAMETTE RIVER BASIN

14172000 CALAPOOIA RIVER AT HOLLEY, OR

LOCATION.--Lat 44°21'05", long 122°47'10", in SE¼ sec.15, T.14 S., R.1 W., Linn County, Hydrologic Unit 17090003, on right bank 200 ft downstream from bridge on State Highway 228, 0.3 mi southwest of Holley, 5.0 mi upstream from Brush Creek, and at mile 45.4.

DRAINAGE AREA.--105 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Prior to October 1963, published as Calapooya River at Holley.

REVISED RECORDS.--WSP 1044: 1943. WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 527.58 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1963, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 2 to Dec. 13, Aug. 15 to Sept. 13. Water-discharge records good. Slight regulation at times during low-water periods by small dam upstream. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--51 years, 440 ft³/s, 56.91 in/yr, 318,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s Dec. 22, 1964, gage height, 14.60 ft; maximum gage height, 15.30 ft Dec. 22, 1964 (backwater from debris); minimum discharge observed, 13 ft³/s Sept. 8, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0930	3,450	5.88	Feb. 23	0830	*6,590	*8.39

Minimum daily discharge, 18 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	29	209	165	443	531	758	287	446	148	60	32	24		
2	29	210	550	441	492	641	285	534	141	58	32	22		
3	29	190	1270	572	557	547	263	594	136	60	32	21		
4	28	230	940	444	564	477	248	536	131	94	30	21		
5	28	330	820	497	642	423	232	689	128	97	29	20		
6	27	310	1450	619	576	384	218	711	124	72	29	18		
7	30	640	1590	498	508	601	205	600	121	65	28	18		
8	33	1100	1300	486	445	656	196	526	116	63	27	18		
9	30	890	860	576	397	865	191	467	110	60	26	20		
10	29	660	700	580	360	739	180	504	105	65	25	23		
11	44	480	580	507	365	745	175	582	99	72	25	22		
12	66	390	500	433	760	785	213	549	94	62	25	21		
13	48	330	454	382	1160	787	232	561	90	56	25	24		
14	42	280	385	347	1120	750	227	515	91	53	26	24		
15	38	610	347	377	1210	661	230	438	97	51	25	26		
16	36	1300	321	695	2290	571	279	382	90	53	23	38		
17	39	1100	309	1010	3160	510	357	342	96	60	23	39		
18	37	740	318	778	2430	453	335	311	121	53	23	82		
19	45	580	315	933	1620	409	301	288	103	49	23	48		
20	74	500	302	947	1350	375	288	290	88	46	23	69		
21	82	440	282	785	1630	364	276	300	83	44	22	64		
22	250	390	267	935	5200	334	252	313	79	42	22	42		
23	1140	325	260	1420	5530	392	225	280	75	41	22	43		
24	875	290	256	1180	2850	658	207	251	72	40	22	209		
25	716	250	246	934	1810	535	229	230	69	39	22	372		
26	509	240	228	785	1400	456	237	214	68	37	22	706		
27	335	215	210	705	1100	402	530	203	67	37	21	522		
28	440	200	196	677	902	359	659	191	68	37	21	291		
29	322	180	184	622	---	324	550	177	71	36	20	199		
30	261	165	173	668	---	309	501	168	65	34	21	181		
31	242	---	170	584	---	280	---	158	---	33	25	---		
TOTAL	5933	13774	15948	20860	40959	16550	8608	12350	2946	1669	771	3227		
MEAN	191	459	514	673	1463	534	287	398	98.2	53.8	24.9	108		
MAX	1140	1300	1590	1420	5530	865	659	711	148	97	32	706		
MIN	27	165	165	347	360	280	175	158	65	33	20	18		
CFSM	1.82	4.37	4.90	6.41	13.9	5.09	2.73	3.79	.94	.51	.24	1.03		
IN.	2.10	4.88	5.65	7.39	14.51	5.86	3.05	4.38	1.04	.59	.27	1.14		
AC-FT	11770	27320	31630	41380	81240	32830	17070	24500	5840	3310	1530	6400		
CAL YR 1985	TOTAL	106762	MEAN	292	MAX	1590	MIN	22	CFSM	2.78	IN.	37.82	AC-FT	211800
WTR YR 1986	TOTAL	143595	MEAN	393	MAX	5530	MIN	18	CFSM	3.74	IN.	50.87	AC-FT	284800

WILLAMETTE RIVER BASIN

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14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.5°C July 17, Aug, 7, 1972, Aug. 12, 16, 1977; minimum, 0.0°C at times during winter months.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 28.0°C Aug. 8, 9; minimum recorded, 1.5°C Dec. 27, 28, 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	9.5	11.5				---	---	---	5.5	4.5	5.0
2	17.5	12.0	14.5				---	---	---	5.0	4.5	4.5
3	17.5	11.5	14.5				---	---	---	5.5	4.5	5.0
4	16.5	11.0	13.5				---	---	---	5.5	4.0	4.5
5	16.5	11.0	13.5				---	---	---	6.5	5.5	6.0
6	14.5	12.0	13.0				---	---	---	6.0	5.0	5.5
7	14.5	9.5	12.5				---	---	---	5.5	4.5	5.0
8	12.5	6.5	9.5				---	---	---	7.0	5.5	6.0
9	11.0	6.0	8.5				---	---	---	7.5	7.0	7.0
10	11.5	6.5	9.5				5.5	3.5	4.5	7.0	6.0	6.5
11	11.5	9.5	10.5				3.5	3.0	3.5	6.5	5.5	6.0
12	12.0	8.5	10.0				3.5	3.0	3.5	6.0	5.5	6.0
13	11.5	8.0	9.5				4.0	3.0	3.5	6.5	5.5	6.0
14	11.5	7.5	9.5				4.0	3.0	3.5	6.5	6.0	6.0
15	12.5	8.0	10.5				4.5	3.5	4.0	6.5	6.5	6.5
16	12.0	9.0	10.5				4.0	3.5	4.0	7.0	6.5	7.0
17	12.0	8.0	10.0				4.0	3.5	4.0	7.0	6.0	6.5
18	12.0	8.0	10.0				4.0	3.5	4.0	8.5	7.0	8.0
19	10.5	9.5	10.5				4.0	3.5	3.5	8.5	6.5	7.5
20	11.5	9.5	10.5				3.5	3.0	3.0	6.5	6.0	6.5
21	11.0	9.5	10.0				3.5	2.5	3.0	6.0	5.0	5.5
22	---	---	---				3.5	2.5	3.0	6.5	6.0	6.5
23	---	---	---				3.5	3.0	3.5	7.0	6.0	6.5
24	---	---	---				3.5	3.0	3.0	6.0	5.5	6.0
25	---	---	---				3.0	2.5	3.0	6.0	5.5	5.5
26	---	---	---				3.0	2.0	2.5	6.0	5.0	5.5
27	---	---	---				2.5	1.5	2.0	7.5	6.0	7.0
28	---	---	---				3.0	1.5	2.5	7.5	7.0	7.5
29	---	---	---				3.0	2.5	3.0	7.5	7.0	7.5
30	---	---	---				2.5	1.5	2.0	8.0	7.5	8.0
31	---	---	---				4.0	2.5	3.0	7.5	7.0	7.5
MONTH	---	---	---				---	---	---	8.5	4.0	6.5

WILLAMETTE RIVER BASIN

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.5				---	---	---	10.0	8.5	9.5
2	7.5	7.0	7.5				9.5	7.0	8.0	9.5	9.0	9.0
3	7.5	6.5	7.0				9.0	6.5	8.0	10.5	8.0	9.5
4	7.0	6.5	7.0				9.5	8.0	9.0	11.0	8.0	9.5
5	6.5	5.5	6.0				11.0	7.5	9.0	9.5	8.0	9.0
6							11.5	7.5	10.0	10.5	7.5	9.0
7	5.5	4.5	5.0				12.5	8.5	11.0	9.5	8.5	9.0
8	4.5	3.5	4.0				11.5	10.0	11.0	11.5	8.5	10.0
9	---	---	---				10.0	9.0	9.5	9.5	8.5	9.0
10	---	---	---				11.5	7.5	9.5	9.0	8.0	8.5
11	---	---	---				9.0	7.5	8.0	9.5	7.5	8.5
12	---	---	---				8.5	7.0	8.0	11.5	7.5	9.5
13	---	---	---				10.0	7.5	8.5	11.5	9.5	10.5
14	---	---	---				10.0	7.5	9.0	11.5	7.5	10.0
15	---	---	---				10.5	8.5	9.5	13.0	9.0	11.0
16	---	---	---				9.5	8.5	9.0	13.0	9.0	11.0
17	---	---	---				9.5	8.0	8.5	14.0	10.0	12.5
18	---	---	---				10.5	8.0	9.5	13.5	11.5	12.5
19	---	---	---				12.0	8.5	10.5	14.5	11.5	13.0
20	---	---	---				13.5	10.0	12.0	13.5	11.0	12.5
21	---	---	---				14.5	11.0	13.0	11.0	10.0	10.5
22	---	---	---				13.5	9.5	11.5	13.5	8.5	11.0
23	---	---	---				11.0	8.0	9.5	13.5	10.5	12.0
24	---	---	---				9.0	7.5	8.0	16.5	11.5	14.0
25	---	---	---				9.5	8.0	8.5	18.5	13.5	16.0
26	---	---	---				9.0	8.0	8.5	17.5	15.5	16.5
27	---	---	---				9.5	8.0	9.0	16.5	14.5	15.5
28	---	---	---				9.0	7.5	8.0	18.5	14.0	16.0
29	---	---	---				9.5	7.0	8.0	19.5	15.0	17.5
30	---	---	---				10.0	6.5	8.5	21.0	16.5	19.0
31	---	---	---				---	---	---	23.0	18.0	20.5
MONTH	---	---	---				---	---	---	23.0	7.5	12.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	23.0	19.0	21.0	22.5	17.0	19.5	26.0	18.0	21.5	22.0	16.0	19.0
2	22.5	18.0	20.0	20.0	17.5	19.0	25.0	19.5	22.0	22.5	17.5	20.0
3	19.5	17.5	18.5	20.5	16.5	18.5	26.5	19.0	22.5	23.5	17.0	20.0
4	19.0	16.5	17.5	17.5	14.5	16.0	25.5	19.0	22.0	23.5	17.5	20.5
5	17.5	16.0	16.5	19.0	13.0	16.0	25.5	18.0	21.5	23.5	16.5	20.0
6	16.5	15.0	15.5	21.0	14.0	17.5	26.0	18.5	22.0	23.5	16.5	20.0
7	16.5	14.0	15.0	18.0	16.5	17.0	27.0	20.0	23.5	22.0	16.5	19.0
8	18.5	13.5	15.5	20.0	16.0	18.0	28.0	20.5	24.0	18.0	15.5	16.5
9	19.5	13.5	16.5	19.0	17.0	18.0	28.0	21.0	24.0	18.5	15.5	16.5
10	22.0	15.5	18.5	17.5	16.5	17.0	27.0	20.0	23.0	18.0	14.0	16.0
11	23.0	17.0	20.0	21.0	16.0	18.5	25.5	19.0	22.0	18.5	12.5	15.5
12	22.5	17.5	19.5	22.0	17.0	19.0	26.0	18.5	22.0	17.0	12.0	14.5
13	22.5	16.5	19.0	22.5	16.0	19.0	26.0	18.5	22.0	16.5	12.5	14.0
14	18.5	15.0	17.0	20.0	16.5	18.0	27.0	19.0	22.5	17.0	12.0	14.5
15	18.5	14.0	16.0	18.0	14.5	16.5	26.0	19.5	22.5	16.0	13.5	14.5
16	16.0	14.0	15.0	17.5	15.0	16.0	22.5	18.0	20.5	16.5	13.0	14.5
17	14.0	13.5	14.0	20.5	14.5	17.5	24.0	16.5	20.0	15.0	13.5	14.0
18	15.5	13.0	14.0	20.5	15.0	18.0	23.5	17.5	20.0	14.5	13.0	14.0
19	18.0	12.0	15.0	23.0	16.0	19.5	24.0	17.0	20.5	17.0	13.0	15.0
20	19.0	14.0	16.5	24.5	17.5	20.5	24.5	17.5	20.5	15.0	13.5	14.0
21	20.5	14.5	17.5	25.0	18.5	21.5	25.0	18.0	21.0	15.0	13.0	14.0
22	22.0	15.5	19.0	24.5	18.0	21.0	23.0	17.5	20.5	16.5	12.0	14.0
23	23.5	17.0	20.0	22.5	18.5	20.0	23.5	17.0	20.5	13.5	12.5	13.0
24	23.5	18.0	20.5	23.5	16.5	19.5	23.5	17.0	20.0	13.0	12.0	12.5
25	23.5	17.5	20.0	24.0	17.0	20.5	24.0	17.0	20.5	12.0	11.0	11.5
26	21.5	17.5	19.5	22.5	18.0	19.5	24.5	18.5	21.5	11.0	10.0	10.5
27	22.0	17.0	19.5	23.0	16.0	19.5	23.0	20.0	21.5	11.0	10.0	10.5
28	19.0	15.5	17.0	23.5	16.0	19.5	22.5	19.0	21.0	12.0	10.0	11.0
29	20.0	15.0	17.0	23.5	17.5	20.0	19.5	18.5	19.0	11.5	11.0	11.0
30	22.0	14.5	18.5	24.0	16.5	20.0	20.0	17.5	19.0	12.0	11.0	11.5
31	---	---	---	24.5	17.0	20.5	22.0	17.0	19.0	---	---	---
MONTH	23.5	12.0	17.5	25.0	13.0	18.5	28.0	16.5	21.5	23.5	10.0	15.0

WILLAMETTE RIVER BASIN

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14173500 CALAPOOIA RIVER AT ALBANY, OR

LOCATION.--Lat 44°37'15", long 123°07'40", in NW¼ sec.13, T.11 S., R.4 W., Linn County, Hydrologic Unit 17090003, near right bank on downstream side of bridge on Riverside Drive at Albany, 0.6 mi downstream from Oak Creek, and at mile 3.0.

DRAINAGE AREA.--372 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1964 to current year.

INSTRUMENTATION.--Temperature recorder since January 1964.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.0°C July 19, 20, 1985; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 26.0°C June 13; minimum, 0.0°C Dec. 1-3.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	14.0	15.0	9.5	8.5	9.0	1.0	.0	.5			
2	18.0	15.0	16.5	11.0	9.5	10.0	.0	.0	.0			
3	17.5	15.5	16.5	11.5	10.5	11.0	3.0	.0	1.0			
4	17.5	15.0	16.0	12.0	11.5	12.0	---	---	---			
5	17.5	15.0	16.0	11.5	11.0	11.0	---	---	---			
6	16.5	15.5	16.0	11.0	10.0	10.0	---	---	---			
7	16.0	14.5	15.5	10.0	10.0	10.0	---	---	---			
8	14.5	12.5	13.5	10.0	9.0	9.5	---	---	---			
9	13.0	10.5	12.0	9.0	7.5	8.0	---	---	---			
10	12.5	11.0	11.5	7.5	6.5	7.0	---	---	---			
11	13.0	11.5	12.0	6.0	5.0	6.0	---	---	---			
12	13.0	11.5	12.5	5.0	4.5	5.0	---	---	---			
13	13.0	11.0	12.0	4.0	3.5	4.0	---	---	---			
14	13.0	11.0	12.0	4.0	3.0	3.5	---	---	---			
15	13.5	11.5	12.5	5.0	3.5	4.5	---	---	---			
16	13.5	12.5	13.0	7.0	5.0	6.0	---	---	---			
17	13.5	11.5	12.5	7.5	7.0	7.5	---	---	---			
18	13.0	11.5	12.0	7.0	6.0	6.5	---	---	---			
19	12.0	12.0	12.0	6.0	6.0	6.0	---	---	---			
20	12.5	12.0	12.0	6.0	5.5	6.0	---	---	---			
21	12.0	11.0	11.5	5.5	5.0	5.5	---	---	---			
22	12.0	11.0	11.5	5.0	3.5	4.5	---	---	---			
23	12.0	11.0	11.5	3.5	2.5	3.0	---	---	---			
24	11.0	11.0	11.0	2.5	1.0	2.0	---	---	---			
25	12.0	11.0	11.5	2.0	1.0	1.5	---	---	---			
26	12.0	11.5	11.5	2.5	2.0	2.5	---	---	---			
27	12.0	11.0	11.5	3.0	2.5	3.0	---	---	---			
28	12.0	11.0	11.5	3.5	3.0	3.0	---	---	---			
29	11.0	9.5	10.5	2.5	2.0	2.5	---	---	---			
30	9.5	9.0	9.5	2.0	1.0	1.5	---	---	---			
31	8.5	8.5	8.5	---	---	---	---	---	---			
MONTH	18.0	8.5	12.5	12.0	1.0	6.0	---	---	---			

WILLAMETTE RIVER BASIN

14173500 CALAPOOIA RIVER AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	---	---	---	10.5	10.0	10.5	12.0	11.0	11.5	10.5	10.0	10.0
2	---	---	---	11.0	10.0	10.5	12.0	10.5	11.0	11.0	10.5	10.5
3	---	---	---	10.5	10.0	10.0	11.5	10.0	10.5	12.0	10.5	11.0
4	---	---	---	11.0	10.0	10.5	11.5	10.0	10.5	12.0	11.0	11.5
5	---	---	---	11.5	10.5	11.0	12.0	10.0	11.0	11.5	11.0	11.5
6	---	---	---	11.5	11.0	11.0	13.0	10.5	11.5	11.0	10.5	10.5
7	---	---	---	12.0	11.5	11.5	14.0	11.5	12.5	11.5	10.5	11.0
8	---	---	---	12.0	10.5	11.5	14.0	13.0	13.5	12.5	11.0	11.5
9	---	---	---	10.5	9.5	10.0	13.5	12.5	13.0	12.0	11.5	11.5
10	---	---	---	10.0	9.5	9.5	13.5	11.5	12.5	11.5	10.5	11.0
11	---	---	---	10.0	10.0	10.0	12.0	11.0	11.5	10.5	10.0	10.5
12	---	---	---	10.0	9.5	9.5	11.0	10.5	11.0	11.5	10.0	10.5
13	---	---	---	9.5	9.0	9.5	11.0	10.0	10.5	13.0	11.0	12.0
14	---	---	---	9.5	8.5	9.0	11.5	10.0	10.5	13.5	12.0	13.0
15	6.5	5.5	5.5	9.5	8.5	9.0	12.5	10.5	11.5	14.5	12.0	13.0
16	8.0	6.5	8.0	10.0	9.0	9.5	12.0	11.0	11.5	15.0	12.5	13.5
17	8.0	7.0	7.5	10.0	9.5	9.5	13.0	11.0	11.5	16.0	13.0	14.5
18	6.5	5.5	6.0	10.5	9.5	10.0	12.5	10.5	11.5	16.0	14.0	15.0
19	5.5	5.0	5.0	11.0	9.5	10.0	13.5	11.0	12.5	17.0	14.5	16.0
20	6.0	5.0	5.5	11.5	10.0	10.5	15.5	12.0	14.0	16.0	15.0	15.5
21	7.0	6.0	6.5	12.0	10.5	11.5	17.0	13.5	15.5	15.5	14.0	15.0
22	9.5	7.0	8.5	12.0	10.5	11.5	16.0	14.5	15.0	15.0	13.0	14.0
23	11.0	9.5	10.0	11.0	10.5	10.5	14.5	13.5	14.0	14.5	13.0	13.5
24	11.0	11.0	11.0	10.5	10.0	10.5	13.0	11.5	12.0	16.5	13.5	15.0
25	11.0	10.5	11.0	10.5	10.0	10.0	12.0	10.5	11.5	19.5	16.0	17.5
26	10.5	10.0	10.5	11.5	10.0	10.5	11.5	10.5	11.0	19.5	18.5	19.0
27	10.5	10.0	10.0	12.5	11.0	12.0	12.0	10.5	11.0	21.0	18.5	19.5
28	10.5	10.0	10.0	14.0	12.0	13.0	11.5	10.0	11.0	21.0	18.5	19.5
29	---	---	---	14.0	12.5	13.0	11.0	10.0	10.5	21.5	18.5	20.0
30	---	---	---	14.0	12.5	13.0	11.0	10.0	10.5	22.5	19.5	21.0
31	---	---	---	13.0	11.5	12.0	---	---	---	24.5	21.0	22.5
MONTH	---	---	---	14.0	8.5	10.5	17.0	10.0	12.0	24.5	10.0	14.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	24.5	21.5	23.0	23.0	20.5	22.0				---	---	---
2	25.0	22.0	23.5	22.5	21.0	21.5				---	---	---
3	23.5	22.0	22.5	22.0	19.5	21.0				---	---	---
4	22.0	21.0	21.5	20.5	18.5	19.5				---	---	---
5	21.5	20.5	20.5	21.5	18.0	20.0				---	---	---
6	20.0	18.5	19.5	22.5	19.0	21.0				24.5	21.0	22.5
7	19.5	18.0	18.5	22.0	20.0	21.0				23.0	20.0	21.5
8	20.0	17.5	18.5	22.5	19.5	21.0				21.5	19.0	20.0
9	21.5	17.5	19.5	21.5	20.5	21.0				20.0	18.0	19.0
10	23.0	19.5	21.0	20.5	19.5	20.0				19.0	17.0	18.0
11	24.0	20.0	22.0	22.0	19.0	20.5				18.5	16.0	17.5
12	25.0	21.0	23.0	23.0	20.0	21.5				19.0	16.0	17.5
13	26.0	21.5	23.5	23.5	19.5	21.5				18.0	15.5	16.5
14	23.0	20.5	22.0	22.5	20.5	21.5				17.5	14.5	16.0
15	23.0	19.5	21.0	21.0	19.5	20.0				17.0	15.0	16.0
16	21.0	19.5	20.0	19.5	18.5	---				17.0	14.5	15.5
17	19.5	18.5	18.5	---	---	---				16.5	15.0	15.5
18	19.0	17.0	18.0	---	---	---				17.5	15.0	16.0
19	20.0	16.5	18.5	---	---	---				18.0	15.0	16.5
20	20.0	17.5	18.5	---	---	---				16.5	16.0	16.0
21	21.0	17.5	19.0	---	---	---				16.5	15.0	16.0
22	23.5	19.5	21.5	---	---	---				16.5	15.0	15.5
23	25.5	21.0	23.0	---	---	---				15.5	14.5	15.0
24	25.0	21.5	23.5	---	---	---				15.0	13.5	14.5
25	25.5	21.5	23.5	---	---	---				14.5	13.5	14.0
26	25.5	22.0	23.5	---	---	---				13.5	12.5	13.5
27	25.0	22.5	23.5	---	---	---				12.5	11.5	12.0
28	23.5	20.0	21.5	---	---	---				12.5	11.0	12.0
29	22.0	19.5	20.5	---	---	---				12.5	12.0	12.5
30	23.5	19.5	21.5	---	---	---				13.5	12.5	13.0
31	---	---	---	---	---	---				---	---	---
MONTH	26.0	16.5	21.0	---	---	---				---	---	---

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LOCATION.--Lat 44°38'20", long 123°06'20", in SW¼ sec.6, T.11 S., R.3 W., Linn County, Hydrologic Unit 17090003, on right bank 5 ft upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mi downstream from Calapooia River, and at mile 119.31.

PERIOD OF RECORD.--November 1878 to April 1888 (fragmentary), January to June 1892, November 1892 to September 1894, December 1894 to current year. Monthly discharge only for some periods, published in WSP 1318.

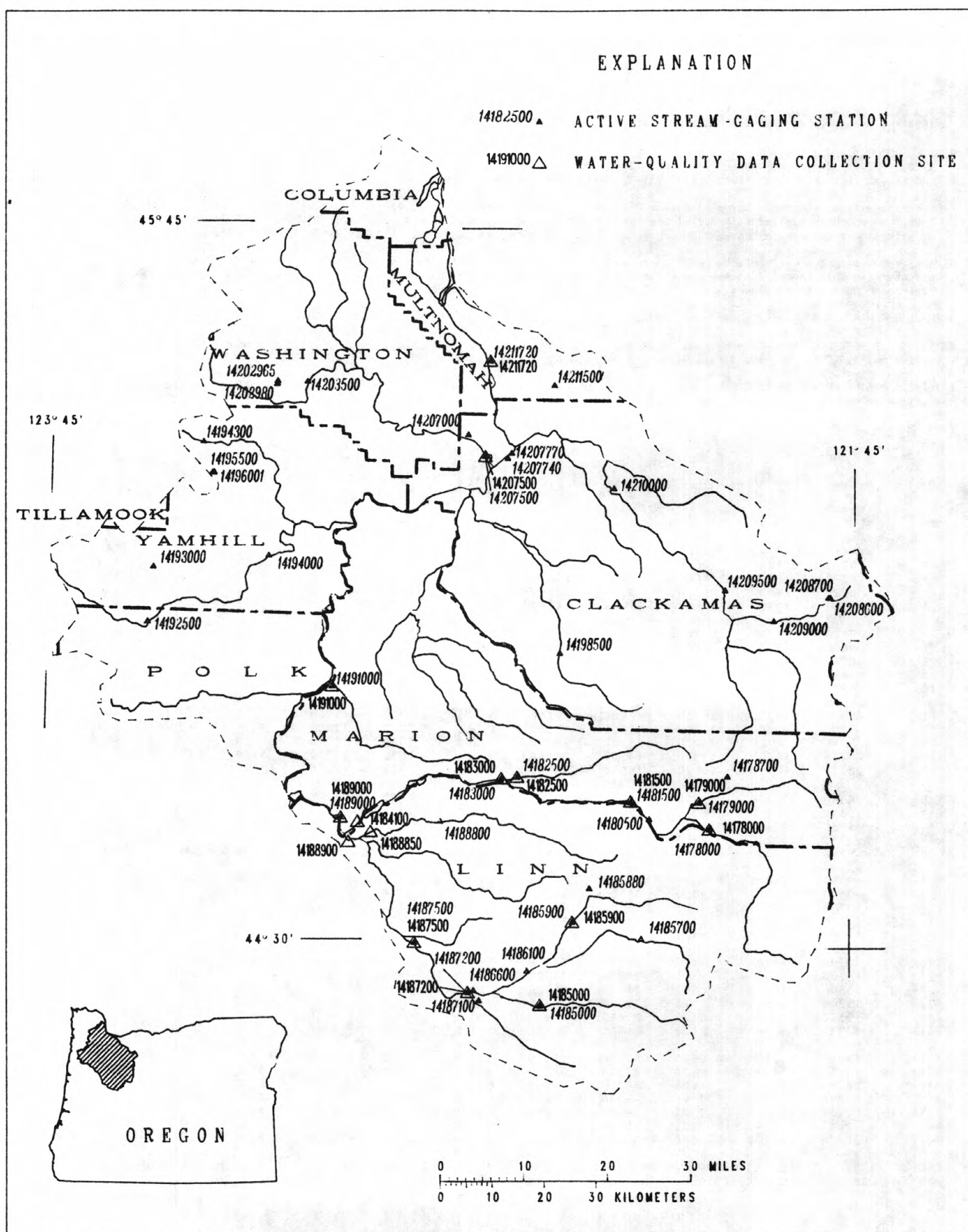
GAGE.--Water-stage recorder. Datum of gage is 167.18 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mi upstream at datum 5.00 ft higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft upstream at datum 5.00 ft higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft higher.

AVERAGE DISCHARGE.--92 years (water years 1894, 1896-86). 14,520 ft³/s. 40.74 in./yr. 10,520,000 acre-ft/yr.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4, 1861, reached a stage of 41.0 ft, discharge, 340,000 ft³/s, from rating curve extended above 220,000 ft³/s. Flood of Feb. 4, 1890, reached a stage of 38.9 ft, discharge, 291,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 90,400 ft³/s Feb. 24, gage height, 25.37 ft; minimum discharge, 4,110 ft³/s July 15.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7490	12200	10400	8500	20300	64000	8470	10100	8290	4340	4480	5190
2	8040	11800	10600	11600	19000	59200	8430	10200	8180	4290	4460	5130
3	8320	11500	14600	14500	18600	53000	8210	11700	7960	4260	4530	5420
4	8220	11500	24200	16500	16500	41800	7950	13000	7430	4390	4660	6140
5	8180	11400	24800	16900	14400	34500	7790	12800	6500	4710	4780	6730
6	7400	11300	25100	18000	14900	29600	7550	14400	5890	4680	4960	6920
7	6660	11400	33800	17300	13800	28000	7310	14800	5800	4470	4990	6980
8	6170	13900	41900	16000	12200	31800	7070	13500	5790	4330	4950	7020
9	5890	17200	39900	15500	10500	34400	6950	12200	5640	4240	4940	7100
10	5840	18600	29900	17500	9720	38400	6850	11100	5450	4180	4930	7260
11	6500	17300	21700	18900	9190	30900	6730	11200	5270	4270	4950	7350
12	7390	14900	17900	17800	13000	25300	6740	11400	5120	4280	4910	7410
13	8240	12700	14400	15900	23500	25800	7010	11100	5120	4210	4910	7370
14	8410	11400	14300	14700	28700	24800	7050	11500	5140	4170	4940	7270
15	8370	10900	13500	14000	30700	23400	6980	12200	5100	4120	5000	7340
16	8330	14100	12700	17400	33600	21300	6920	11600	5030	4130	4940	7500
17	8320	20800	11900	23600	43900	19100	7210	11000	5050	4200	5040	7490
18	8330	22400	10300	31600	61300	15400	7760	9570	5270	4340	5060	7850
19	8940	21200	9990	33500	61400	12600	7690	9110	5360	4320	5040	7970
20	9260	20300	9840	36800	54200	11300	7340	9030	5330	4280	5020	8060
21	9400	19600	9620	35300	51100	10400	7110	9550	5180	4290	4990	8250
22	9550	19000	9360	31300	58700	9920	6920	10500	5100	4220	5000	8160
23	10700	18100	9120	33900	75200	9640	6790	11100	4990	4200	5010	8080
24	17300	15800	9030	38000	89000	10900	6650	10900	4890	4180	5030	8020
25	19900	15100	9400	33400	85100	13000	6560	10100	4710	4220	5020	9220
26	20200	14200	9420	26800	74800	12300	6720	9650	4450	4250	4990	11100
27	18700	12000	9240	22700	70900	11100	7020	9350	4310	4320	4980	15000
28	16500	10800	8900	21000	67300	10200	9010	8970	4290	4350	4960	15400
29	15200	10600	8610	20300	---	9480	10400	8580	4420	4350	4960	13400
30	13500	10500	8320	21400	---	9030	10300	8650	4420	4350	5020	12200
31	12800	---	8110	21600	---	8750	---	8440	---	4410	5210	---
TOTAL	318050	442500	490860	682200	1081510	739320	225490	337300	165480	133350	152660	248330
MEAN	10260	14750	15830	22010	38630	23850	7516	10880	5516	4302	4925	8278
MAX	20200	22400	41900	38000	89000	64000	10400	14800	8290	4710	5210	15400
MIN	5840	10500	8110	8500	9190	8750	6560	8440	4290	4120	4460	5130
CFSM	2.12	3.05	3.27	4.55	7.98	4.93	1.55	2.25	1.14	.89	1.02	1.71
IN.	2.44	3.40	3.77	5.24	8.31	5.68	1.73	2.59	1.27	1.02	1.17	1.91
AC-FT	630900	877700	973600	1353000	2145000	1466000	447300	669000	328200	264500	302800	492600
CAL YR 1985	TOTAL	3655010	MEAN	10010	MAX	41900	MIN	4150	CFSM	2.07	IN.	28.09
WTR YR 1986	TOTAL	5017050	MEAN	13750	MAX	89000	MIN	4120	CFSM	2.84	IN.	38.56
											AC-FT	7250000
											AC-FT	9951000



NORTH SANTIAM RIVER BASIN

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14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°42'25", long 122°06'00", in SE¼NW¼ sec.17, T.10 S., R.6 E., Marion County, Hydrologic Unit 17090005, on right bank 0.5 mi downstream from Boulder Creek, 3.0 mi southeast of Detroit, and at mile 70.7.

DRAINAGE AREA.--216 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1907 to October 1909, October 1928 to current year. Monthly discharge only January 1907, published in WSP 1318. Prior to October 1952, published as "at Detroit."

REVISED RECORDS.--WSP 814: Drainage area at former site. WSP 1248: 1931. WRD OR-85-2: 1982-82(P).

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft above National Geodetic Vertical Datum of 1929. See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Water-discharge records good except for flow above 3,000 ft³/s, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--60 years, 1,010 ft³/s, 63.50 in/yr, 731,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s Dec. 22, 1964, slope-area measurement of peak flow, gage height, 13.76 ft, temporary backwater from debris; minimum discharge, 250 ft³/s Sept. 13, 1909.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0630	4,670	6.70	Feb. 23	1100	*13,100	*9.51

Minimum discharge, 397 ft³/s Sept. 6, 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	424	702	626	1100	1640	2680	1160	1080	1170	540	456	419		
2	424	751	663	1060	1560	2350	1090	1180	1110	550	458	417		
3	426	725	904	1070	1530	2100	1030	1240	997	545	455	415		
4	422	729	794	973	1460	1950	985	1190	928	624	451	413		
5	420	738	774	1120	1400	1860	944	1220	868	580	450	408		
6	422	802	1030	1320	1260	1830	924	1140	819	543	448	405		
7	441	1620	1410	1160	1160	2710	918	1080	768	527	449	405		
8	426	1720	1310	1200	1080	2820	938	1040	728	521	454	405		
9	418	1340	1120	1580	1020	2390	929	1030	708	517	453	431		
10	417	1110	1000	1640	963	2080	896	1050	701	535	451	413		
11	463	949	915	1540	935	2010	874	1020	708	541	446	405		
12	466	847	855	1380	949	1870	875	978	703	523	440	400		
13	445	785	809	1280	919	1750	851	1030	686	511	439	399		
14	431	739	773	1210	946	1630	821	1010	692	504	438	410		
15	425	970	743	1270	1170	1500	831	959	675	497	437	443		
16	427	1840	719	2160	3040	1380	868	924	648	507	433	446		
17	425	1520	705	2690	4210	1300	906	916	643	503	431	441		
18	419	1240	712	2640	3480	1210	876	933	677	491	434	456		
19	458	1090	729	2730	2500	1160	857	937	657	484	431	423		
20	486	1000	743	2210	1990	1130	872	1030	619	486	427	447		
21	457	918	750	1810	1890	1170	942	1020	600	488	424	425		
22	714	869	768	1880	6320	1120	1010	980	593	486	425	410		
23	1780	794	799	2260	10500	1250	932	926	595	480	420	431		
24	1630	767	842	1900	7200	1640	871	902	599	475	419	581		
25	1690	736	870	1640	5220	1440	891	950	591	473	417	581		
26	1220	703	857	1460	4310	1360	889	1030	586	470	418	790		
27	946	677	831	1390	3520	1360	1200	1030	574	463	424	626		
28	953	661	804	1470	3070	1370	1330	1020	566	461	434	577		
29	812	642	776	1550	---	1350	1210	1060	561	460	445	565		
30	754	630	746	1810	---	1310	1120	1160	547	457	437	549		
31	728	---	747	1710	---	1230	---	1190	---	456	427	---		
TOTAL	20369	28614	26124	50213	75242	52310	28840	32255	21317	15698	13571	13936		
MEAN	657	954	843	1620	2687	1687	961	1040	711	506	438	465		
MAX	1780	1840	1410	2730	10500	2820	1330	1240	1170	624	458	790		
MIN	417	630	626	973	919	1120	821	902	547	456	417	399		
CFSM	3.04	4.42	3.90	7.50	12.4	7.81	4.45	4.81	3.29	2.34	2.03	2.15		
IN.	3.51	4.93	4.50	8.65	12.96	9.01	4.97	5.56	3.67	2.70	2.34	2.40		
AC-FT	40400	56760	51820	99600	149200	103800	57200	63980	42280	31140	26920	27640		
CAL YR 1985	TOTAL	333677	MEAN	914	MAX	2910	MIN	417	CFSM	4.23	IN.	57.47	AC-FT	661800
WTR YR 1986	TOTAL	378489	MEAN	1037	MAX	10500	MIN	399	CFSM	4.80	IN.	65.18	AC-FT	750700

NORTH SANTIAM RIVER BASIN

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1951 to current year.

INSTRUMENTATION.--Temperature recorder since April 1951.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 19.0°C July 8, 18, 19, 1970; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 17.0°C Aug. 8, 9; minimum recorded, 0.5°C Feb. 12, but was probably lower in December.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.0	7.0	8.0				---	---	---	4.0	3.5	4.0
2	10.5	8.5	9.5				---	---	---	4.0	3.5	3.5
3	10.0	9.0	9.5				---	---	---	4.0	3.5	3.5
4	9.5	7.5	8.5				---	---	---	3.5	3.0	3.5
5	9.5	8.0	9.0				---	---	---	4.5	3.5	4.0
6	9.5	8.0	9.0				---	---	---	4.5	4.0	4.0
7	9.0	7.0	8.5				---	---	---	4.0	3.5	4.0
8	7.0	5.5	6.0				---	---	---	4.5	4.0	4.5
9	6.0	4.0	5.0				---	---	---	4.5	4.5	4.5
10	7.5	5.0	6.0				---	---	---	4.5	4.0	4.5
11	8.0	7.5	7.5				---	---	---	4.5	4.0	4.0
12	8.0	6.5	7.0				2.0	1.0	1.5	4.5	4.0	4.0
13	7.0	6.0	6.5				2.5	2.0	2.0	5.0	4.0	4.5
14	7.5	5.5	6.5				2.5	2.0	2.0	5.0	4.0	4.5
15	7.5	6.0	7.0				3.0	2.5	2.5	4.5	4.5	4.5
16	8.0	7.0	7.5				3.0	2.5	3.0	4.5	4.0	4.5
17	7.5	6.5	7.0				3.0	2.5	3.0	4.5	4.0	4.5
18	7.0	6.0	6.5				3.0	2.5	3.0	5.5	4.5	5.0
19	7.5	6.5	7.0				3.0	2.5	2.5	5.5	4.5	5.0
20	8.0	7.0	7.5				3.0	2.0	2.5	4.5	4.0	4.5
21	8.0	7.0	7.5				3.0	2.0	2.5	4.5	3.5	4.0
22	7.0	6.5	6.5				3.0	2.5	3.0	4.5	4.0	4.0
23	7.5	6.5	7.0				3.0	3.0	3.0	4.5	4.0	4.5
24	---	---	---				3.5	3.0	3.0	4.5	4.0	4.0
25	---	---	---				3.5	3.0	3.0	4.5	3.5	4.0
26	---	---	---				3.0	2.5	2.5	4.5	3.5	4.0
27	---	---	---				3.0	2.0	2.5	5.0	4.5	4.5
28	---	---	---				3.0	2.5	3.0	5.0	5.0	5.0
29	---	---	---				3.0	3.0	3.0	5.5	5.0	5.0
30	---	---	---				3.0	2.0	2.5	5.5	5.0	5.0
31	---	---	---				4.0	3.0	3.5	5.5	4.5	5.0
MONTH	---	---	---				---	---	---	5.5	3.0	4.5

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.5	5.0	5.0	5.5	4.5	5.0	5.5	4.5	5.0	7.5	5.0	6.0
2	5.5	5.0	5.0	5.5	4.0	5.0	6.5	4.0	5.0	7.5	6.0	6.5
3	5.5	4.5	5.0	6.0	4.0	5.0	7.0	4.5	5.5	7.5	6.0	6.5
4	5.0	4.5	5.0	6.5	4.5	5.5	6.5	5.0	5.5	7.5	5.5	6.5
5	4.5	3.5	4.0	6.0	4.5	5.5	8.0	4.5	6.0	6.0	5.0	6.0
6	4.5	4.0	4.0	5.5	5.0	5.5	8.5	5.0	6.5	6.5	5.0	6.0
7	4.0	3.0	3.5	5.5	5.0	5.5	9.0	5.0	7.0	7.0	5.5	6.0
8	3.0	2.0	3.0	5.0	4.5	4.5	7.5	6.5	7.0	9.5	6.0	7.0
9	3.5	2.5	3.0	5.5	4.5	5.0	7.0	6.5	6.5	6.5	5.5	6.0
10	3.5	2.5	3.0	5.5	4.5	5.0	8.0	5.5	6.5	6.0	5.0	6.0
11	3.5	1.5	3.0	5.5	5.0	5.0	5.5	4.5	5.0	6.5	4.5	5.5
12	2.5	.5	1.5	5.5	4.5	5.0	6.0	4.5	5.0	8.5	5.5	7.0
13	3.0	2.0	2.5	5.5	4.5	5.0	6.0	4.5	5.5	9.0	6.5	7.5
14	3.5	3.0	3.5	5.5	4.0	4.5	7.0	4.5	5.5	8.5	5.0	6.5
15	4.0	3.5	4.0	6.0	4.0	5.0	7.0	5.5	6.0	10.0	5.5	7.5
16	4.0	3.5	3.5	5.5	4.0	5.0	6.0	5.0	5.5	10.0	5.5	7.5
17	4.0	3.0	3.5	5.5	4.5	5.0	6.5	4.5	5.5	11.0	6.5	9.0
18	4.0	3.5	3.5	6.0	5.0	5.5	8.5	5.0	6.5	10.0	7.5	9.0
19	4.5	3.5	4.0	7.0	5.0	6.0	9.0	5.5	7.0	11.0	7.5	9.0
20	4.5	4.0	4.0	7.0	4.5	6.0	10.5	6.0	8.0	9.5	7.5	8.5
21	4.5	4.0	4.0	6.5	5.0	6.0	11.0	7.0	9.0	8.0	6.0	7.0
22	4.0	3.5	4.0	6.5	4.5	5.5	8.5	6.0	7.0	9.5	5.0	7.5
23	4.0	3.5	4.0	6.0	5.0	5.5	7.5	5.0	6.0	9.5	6.5	8.0
24	5.0	4.0	4.5	5.5	5.0	5.0	6.0	4.0	5.0	12.5	8.0	10.0
25	5.0	4.5	4.5	6.5	4.5	5.5	5.5	4.0	5.0	13.5	8.5	11.0
26	5.5	4.5	4.5	8.0	5.5	6.5	6.0	4.0	5.0	12.0	9.5	11.0
27	5.5	4.5	5.0	8.0	5.0	6.5	6.5	5.0	6.0	13.5	9.5	11.0
28	5.5	4.0	5.0	8.0	5.5	7.0	6.0	5.0	5.5	14.0	9.5	11.5
29	---	---	---	8.0	5.0	6.5	6.5	4.0	5.0	14.5	9.5	12.0
30	---	---	---	7.0	5.0	6.0	7.5	4.0	5.5	14.5	10.0	12.0
31	---	---	---	6.5	4.0	5.0	---	---	---	15.0	10.0	12.0
MONTH	5.5	.5	4.0	8.0	4.0	5.5	11.0	4.0	6.0	15.0	4.5	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.5	10.0	12.0	15.0	11.0	13.0	16.0	11.5	14.0	14.0	11.0	12.5
2	13.0	10.5	11.5	13.5	11.5	12.5	14.5	12.0	13.5	14.5	11.0	13.0
3	14.5	10.5	12.0	13.0	10.5	12.0	16.5	12.0	14.0	14.5	11.0	13.0
4	14.0	10.5	12.0	11.5	10.0	10.5	16.0	11.0	13.5	14.5	11.5	13.5
5	14.0	10.0	12.0	13.5	9.0	11.0	15.5	11.0	13.5	14.0	10.5	12.5
6	12.5	9.5	11.0	15.0	9.5	12.0	16.5	11.5	14.0	14.0	11.0	13.0
7	10.5	9.0	10.0	14.0	11.0	12.5	16.5	12.0	14.5	13.5	10.5	12.5
8	13.0	8.5	10.5	16.0	11.5	13.5	17.0	13.0	15.0	12.5	11.0	11.0
9	14.0	8.0	11.0	13.0	11.5	12.0	17.0	12.5	15.0	11.5	10.5	11.0
10	15.0	10.0	12.0	12.0	11.0	11.5	16.5	13.0	14.5	11.0	10.0	10.5
11	15.5	10.5	13.0	14.0	11.0	12.5	15.0	11.5	13.5	12.0	9.5	11.0
12	15.0	10.5	13.0	15.0	11.0	13.0	16.0	11.5	13.5	11.0	9.0	10.0
13	15.5	10.0	12.5	15.0	10.0	12.5	16.0	11.5	14.0	10.5	9.0	9.5
14	13.0	10.5	11.5	14.5	10.5	12.5	16.5	12.0	14.5	9.5	7.5	9.0
15	12.5	9.5	11.0	13.0	10.0	11.5	16.0	12.0	14.0	10.5	9.0	9.5
16	11.0	10.0	10.5	11.0	10.0	10.5	15.0	11.5	13.5	10.5	8.5	9.5
17	11.0	10.0	10.5	14.5	9.5	12.0	15.5	11.5	13.5	9.5	9.0	9.5
18	10.5	9.5	10.0	14.5	10.0	12.5	15.5	11.5	13.5	10.5	8.5	9.5
19	12.5	8.5	10.5	16.0	10.5	13.0	15.5	11.0	13.5	10.5	8.5	9.5
20	12.5	9.0	10.5	16.5	11.0	14.0	15.0	11.5	13.5	9.5	9.0	9.5
21	14.5	8.5	11.5	16.5	12.0	14.0	15.5	11.5	14.0	11.0	9.0	10.0
22	15.0	10.0	12.5	16.0	11.0	13.5	14.0	11.5	13.0	10.0	7.5	9.0
23	16.0	11.0	13.5	16.0	11.5	13.5	15.0	11.5	13.5	9.0	8.5	8.5
24	16.0	11.5	13.5	16.0	11.0	13.5	14.5	11.0	13.0	9.0	8.5	8.5
25	16.0	11.0	13.5	16.0	11.5	13.5	15.0	11.0	13.0	8.5	8.0	8.0
26	14.5	11.5	12.5	15.0	11.5	13.0	15.5	11.5	14.0	8.0	7.5	8.0
27	15.5	11.5	13.0	15.5	11.0	13.0	14.5	13.0	13.5	8.5	7.5	8.5
28	13.5	11.5	12.5	15.0	10.5	13.0	15.5	12.0	14.0	9.0	8.0	8.5
29	15.0	10.5	12.5	15.5	12.0	13.5	14.5	12.5	13.0	9.0	8.5	8.5
30	15.5	10.0	12.5	15.0	10.5	13.0	12.5	11.5	12.0	9.0	8.5	8.5
31	---	---	---	16.0	11.0	13.5	14.5	11.5	13.0	---	---	---
MONTH	16.0	8.0	12.0	16.5	9.0	12.5	17.0	11.0	13.5	14.5	7.5	10.0

NORTH SANTIAM RIVER BASIN

14178700 EAST HUMBUG CREEK NEAR DETROIT, OR

LOCATION.--Lat 44°47'57", long 122°03'28", in NW¼NE¼ sec.15, T.9 S., R.6 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 1.6 mi upstream from confluence with Humbug Creek, and 6.3 mi northeast of Detroit.

DRAINAGE AREA.--7.32 mi².

PERIOD OF RECORD.--August 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,050 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23 to Dec. 3. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--8 years, 39.4 ft³/s, 73.09 in/yr, 28,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s Dec. 25, 1980, gage height, 4.42 ft; minimum discharge, 1.8 ft³/s Sept. 6-9, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1430	455	3.71	Feb. 23	0800	*1,060	*4.27
Minimum discharge, 2.0 ft ³ /s Sept. 6.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	3.2	19	12	64	72	97	30	40	14	5.5	3.1	2.5		
2	3.2	22	20	52	65	81	28	45	12	5.5	3.2	2.4		
3	3.1	22	35	52	66	70	26	45	12	5.4	3.1	2.4		
4	3.1	21	32	42	69	65	24	39	11	8.2	3.0	2.3		
5	3.0	24	33	73	63	62	22	42	11	6.2	3.1	2.2		
6	3.0	46	56	87	53	61	21	40	10	5.5	3.0	2.1		
7	3.4	154	106	58	44	134	21	36	10	5.3	3.0	2.1		
8	3.0	125	69	63	38	126	21	32	9.6	5.1	2.9	2.2		
9	3.0	67	45	100	34	95	21	30	9.1	5.0	2.9	3.6		
10	3.0	44	35	89	30	79	20	30	8.9	5.4	2.9	2.8		
11	5.1	33	29	72	28	81	19	32	8.7	5.1	2.8	2.5		
12	6.8	28	26	57	27	77	20	35	8.4	4.8	2.9	2.4		
13	4.7	24	23	47	25	71	19	37	8.2	4.6	2.8	2.4		
14	3.9	21	22	44	25	66	19	34	8.3	4.4	2.8	3.2		
15	3.7	74	20	49	55	57	20	30	8.1	4.4	2.7	3.8		
16	3.7	128	19	143	308	48	23	27	8.0	4.7	2.7	3.4		
17	3.6	73	23	155	238	42	31	24	8.4	4.5	2.6	3.7		
18	3.4	48	32	162	114	38	31	23	8.9	4.2	2.6	4.2		
19	6.1	38	35	133	74	36	29	21	8.6	4.1	2.6	3.3		
20	8.5	32	30	91	57	36	27	21	7.6	3.9	2.6	5.1		
21	7.1	28	27	68	67	36	26	20	7.4	3.9	2.5	3.4		
22	60	25	30	93	511	33	24	19	7.0	3.8	2.5	3.0		
23	109	21	36	135	813	43	21	18	6.7	3.7	2.5	6.5		
24	67	19	38	90	391	73	20	17	6.5	3.7	2.5	18		
25	131	17	36	68	252	56	21	16	6.2	3.6	2.4	26		
26	49	15	30	55	198	47	23	16	6.1	3.6	2.4	42		
27	30	14	26	52	144	44	52	15	6.0	3.5	2.4	20		
28	31	13	23	61	115	42	60	14	6.0	3.4	2.4	14		
29	24	12	21	66	---	39	44	14	5.8	3.4	2.6	14		
30	21	12	20	93	---	36	40	14	5.6	3.2	2.7	14		
31	19	---	23	80	---	32	---	15	---	3.1	2.7	---		
TOTAL	628.6	1219	1012	2494	3976	1903	803	841	254.1	140.7	84.9	219.5		
MEAN	20.3	40.6	32.6	80.5	142	61.4	26.8	27.1	8.47	4.54	2.74	7.32		
MAX	131	154	106	162	813	134	60	45	14	8.2	3.2	42		
MIN	3.0	12	12	42	25	32	19	14	5.6	3.1	2.4	2.1		
CFSM	2.77	5.55	4.45	11.0	19.4	8.39	3.66	3.70	1.16	.62	.37	1.00		
IN.	3.19	6.19	5.14	12.67	20.21	9.67	4.08	4.27	1.29	.72	.43	1.12		
AC-FT	1250	2420	2010	4950	7890	3770	1590	1670	504	279	168	435		
CAL YR 1985	TOTAL	11545.9	MEAN	31.6	MAX	170	MIN	2.6	CFSM	4.32	IN.	58.68	AC-FT	22900
WTR YR 1986	TOTAL	13575.8	MEAN	37.2	MAX	813	MIN	2.1	CFSM	5.08	IN.	68.99	AC-FT	26930

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR

LOCATION.--Lat 44°45'10", long 122°07'40", in SE¼NE¼ sec.36, T.9 S., R.5 E., Marion County, Hydrologic Unit 17090005, in Willamette National Forest, on left bank 600 ft upstream from Canyon Creek, 1.5 mi northeast of Detroit, and at mile 2.0.

DRAINAGE AREA.--108 mi², at measuring cable 0.2 mi downstream from gage.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to current year. Monthly discharge only June 1932, published in WSP 1318. Published as "above Canyon Creek, near Detroit" from October 1952 to September 1984.

REVISED RECORDS.--WSP 1044: 1943(M). WSP 1248: 1947. WRD OR-85-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, at site 0.2 mi downstream at datum 13.46 ft lower.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion upstream from station. All records given herein are for measuring site 0.2 mi downstream from gage.

AVERAGE DISCHARGE.--54 years, 578 ft³/s, 72.68 in/yr, 418,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s Dec. 22, 1964, gage height, 14.55 ft; minimum discharge, 87 ft³/s Sept. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1000	*11,200	*11.90	No other peak greater than base discharge.			
Minimum discharge, 114 ft ³ /s Sept. 5-8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	130	296	238	690	965	1430	519	526	630	230	145	125		
2	130	394	275	672	884	1210	479	577	575	241	145	122		
3	128	404	485	711	867	1040	444	586	511	229	144	121		
4	126	374	398	618	871	955	419	558	485	284	141	119		
5	126	372	390	782	851	900	394	581	447	235	140	117		
6	125	493	636	970	741	884	378	549	412	217	139	115		
7	131	1590	1060	775	642	1570	370	508	364	213	137	115		
8	126	1510	893	762	574	1590	380	476	331	209	136	116		
9	123	964	682	982	520	1280	381	463	329	210	135	137		
10	124	688	566	1010	484	1100	379	476	336	224	133	129		
11	149	531	478	914	445	1050	382	479	354	225	134	123		
12	165	443	423	797	449	983	384	473	352	210	135	120		
13	146	384	383	713	463	911	366	528	337	197	134	119		
14	138	344	349	661	459	855	353	515	351	190	133	125		
15	135	592	331	704	648	761	356	475	340	186	131	139		
16	134	1360	313	1340	2470	676	378	446	308	187	129	143		
17	133	989	309	1650	2520	615	417	443	306	187	129	144		
18	130	726	340	1610	1790	558	407	474	338	180	128	159		
19	151	599	374	1610	1290	525	394	493	299	175	127	138		
20	184	514	378	1280	1010	507	410	567	270	173	126	149		
21	169	452	378	1030	1030	514	477	530	266	170	125	136		
22	532	403	379	1130	4590	488	536	473	271	168	125	127		
23	1290	352	407	1540	8820	580	464	431	286	165	124	158		
24	1070	326	433	1240	5370	888	408	425	289	162	124	340		
25	1540	308	507	999	3170	745	408	502	280	160	123	357		
26	795	289	478	847	2450	678	410	590	274	158	122	581		
27	523	270	440	782	1980	663	661	601	260	155	121	365		
28	496	260	405	829	1680	671	733	593	252	153	122	302		
29	389	248	375	873	---	658	617	661	245	151	130	292		
30	343	239	349	1110	---	617	552	733	238	150	129	306		
31	315	---	345	1020	---	557	---	684	---	148	129	---		
TOTAL	10196	16714	13797	30651	48033	26459	13256	16416	10336	5942	4075	5539		
MEAN	329	557	445	989	1715	854	442	530	345	192	131	185		
MAX	1540	1590	1060	1650	8820	1590	733	733	630	284	145	581		
MIN	123	239	238	618	445	488	353	425	238	148	121	115		
CFSM	3.05	5.16	4.12	9.16	15.9	7.91	4.09	4.91	3.19	1.78	1.21	1.71		
IN.	3.51	5.76	4.75	10.56	16.54	9.11	4.57	5.65	3.56	2.05	1.40	1.91		
AC-FT	20220	33150	27370	60800	95270	52480	26290	32560	20500	11790	8080	10990		
CAL YR 1985	TOTAL	173924	MEAN	477	MAX	2160	MIN	123	CFSM	4.42	IN.	59.91	AC-FT	345000
WTR YR 1986	TOTAL	201414	MEAN	552	MAX	8820	MIN	115	CFSM	5.11	IN.	69.38	AC-FT	399500

NORTH SANTIAM RIVER BASIN

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1950 to July 1961, January 1962 to current year.

INSTRUMENTATION.--Temperature recorder December 1950 to July 1961 and since January 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 18.0°C July 27, 1973; minimum, 0.0°C on several days in 1972, 1973, 1977-79, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 16.0°C Aug. 14; minimum, 1.0°C Dec. 1-3.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	8.0	8.0	7.0	6.5	6.5	1.5	1.0	1.5	3.5	3.0	3.5
2	9.0	8.0	8.5	7.5	7.0	7.0	1.5	1.0	1.5	3.5	3.5	3.5
3	9.0	9.0	9.0	7.5	7.0	7.5	2.5	1.0	1.5	3.5	3.5	3.5
4	9.0	8.5	8.5	7.5	7.0	7.5	3.0	2.5	3.0	3.5	3.0	3.0
5	8.5	8.5	8.5	7.0	6.5	6.5	3.5	3.0	3.0	4.0	3.5	3.5
6	9.0	8.5	8.5	6.5	6.5	6.5	3.5	3.0	3.5	4.0	3.5	4.0
7	9.0	8.5	8.5	7.0	6.5	6.5	4.0	3.5	3.5	4.0	3.5	3.5
8	8.5	7.0	7.5	6.5	6.0	6.0	4.0	3.5	3.5	4.5	3.5	4.0
9	7.0	6.5	6.5	6.0	5.0	5.5	3.5	3.0	3.5	4.5	4.0	4.0
10	7.0	6.5	6.5	5.0	5.0	5.0	3.0	2.5	2.5	4.5	4.0	4.0
11	7.5	7.0	7.5	5.0	4.5	4.5	2.5	1.5	2.0	4.5	4.0	4.0
12	7.5	7.5	7.5	4.5	3.5	4.0	2.0	1.5	2.0	4.0	4.0	4.0
13	7.5	7.0	7.0	4.0	3.5	3.5	2.0	1.5	2.0	4.0	4.0	4.0
14	7.0	7.0	7.0	4.0	3.5	3.5	2.0	1.5	2.0	4.5	4.0	4.0
15	7.5	7.0	7.5	4.5	4.0	4.0	2.5	2.0	2.0	4.0	4.0	4.0
16	8.0	7.5	7.5	5.0	4.5	4.5	2.5	2.0	2.5	4.5	4.0	4.0
17	8.0	7.5	7.5	5.0	4.0	4.5	2.5	2.0	2.5	4.5	4.0	4.5
18	7.5	7.0	7.0	4.5	4.0	4.0	2.5	2.5	2.5	5.0	4.5	5.0
19	7.5	7.0	7.0	4.5	4.0	4.0	2.5	2.5	2.5	5.0	4.5	4.5
20	7.5	7.5	7.5	4.0	3.5	3.5	2.5	2.0	2.0	4.5	4.0	4.5
21	7.5	7.5	7.5	3.5	3.0	3.5	2.5	2.0	2.0	4.5	4.0	4.0
22	7.5	7.0	7.5	3.0	3.0	3.0	2.5	2.5	2.5	4.5	4.0	4.0
23	7.5	7.0	7.5	3.0	2.0	2.5	3.0	2.5	2.5	4.5	4.0	4.5
24	8.0	7.5	7.5	2.0	1.5	2.0	3.0	2.5	3.0	4.5	4.0	4.5
25	8.0	7.5	7.5	2.5	2.0	2.0	3.0	2.5	2.5	4.5	4.0	4.0
26	7.5	7.0	7.5	3.0	2.5	2.5	2.5	2.5	2.5	4.5	4.0	4.0
27	7.5	7.0	7.5	3.0	3.0	3.0	2.5	2.0	2.0	5.0	4.0	4.5
28	7.5	7.0	7.0	3.0	2.5	3.0	2.5	2.0	2.5	5.0	4.5	4.5
29	7.0	6.5	6.5	2.5	1.5	2.0	2.5	2.5	2.5	5.0	4.5	5.0
30	6.5	6.5	6.5	1.5	1.5	1.5	2.5	2.0	2.0	5.0	5.0	5.0
31	6.5	6.5	6.5	---	---	---	3.0	2.5	3.0	5.0	4.5	5.0
MONTH	9.0	6.5	7.5	7.5	1.5	4.5	4.0	1.0	2.5	5.0	3.0	4.0

14179000 BREITENBUSH RIVER ABOVE FRENCH CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	5.0	5.0	6.0	5.0	5.0	6.0	4.5	5.0	7.5	4.5	6.5
2	5.5	4.5	5.0	6.0	4.0	5.0	6.5	4.5	5.5	7.5	6.0	6.5
3	5.5	4.5	5.0	6.0	4.0	5.0	7.0	4.5	5.5	7.5	6.0	6.5
4	5.0	4.5	5.0	6.0	4.5	5.5	6.5	5.5	6.0	7.5	6.0	6.5
5	4.5	4.0	4.5	6.5	4.5	5.5	7.5	4.5	6.0	6.5	5.5	6.0
6	4.5	4.0	4.5	6.0	5.0	5.5	7.5	4.5	6.5	7.0	5.0	6.0
7	4.0	3.5	3.5	5.5	5.0	5.5	8.5	5.0	6.5	7.0	6.0	6.5
8	3.5	3.0	3.5	5.0	5.0	5.0	7.5	6.5	7.0	8.5	6.0	7.0
9	3.5	3.0	3.5	5.5	4.5	5.0	7.0	6.0	6.5	7.0	5.5	6.5
10	3.5	3.0	3.5	6.0	5.0	5.5	7.5	5.0	6.5	6.5	5.5	6.0
11	3.5	2.0	3.5	6.0	5.0	5.5	6.0	4.5	5.5	7.0	5.0	6.0
12	2.5	1.5	2.0	5.5	5.0	5.5	6.5	4.5	5.5	8.5	5.5	7.0
13	3.0	2.0	2.5	5.5	4.5	5.0	6.5	5.0	5.5	8.0	6.5	7.5
14	3.5	3.0	3.0	5.5	4.0	5.0	7.0	4.5	6.0	8.5	5.0	6.5
15	3.5	3.5	3.5	6.0	4.5	5.0	7.0	6.0	6.5	9.0	5.5	7.0
16	4.0	3.5	4.0	5.5	4.0	5.0	6.5	5.5	6.0	9.5	5.0	7.5
17	4.5	4.0	4.0	6.0	5.0	5.5	7.0	5.0	6.0	11.0	6.5	8.5
18	4.0	4.0	4.0	6.5	5.0	5.5	8.0	5.0	6.5	10.0	7.5	8.5
19	4.0	4.0	4.0	7.0	5.0	6.0	9.0	5.5	7.0	10.0	7.0	8.5
20	4.0	4.0	4.0	7.5	5.0	6.0	10.5	6.0	8.0	9.0	7.5	8.0
21	4.0	4.0	4.0	6.5	5.5	6.0	11.0	7.0	8.5	8.0	6.0	6.5
22	4.5	4.0	4.0	6.5	4.5	5.5	8.5	6.0	7.5	9.5	5.0	7.0
23	4.5	4.0	4.5	6.0	5.5	5.5	6.5	5.0	5.5	9.5	6.0	8.0
24	5.0	4.5	4.5	6.0	5.0	5.5	6.0	4.0	5.0	11.5	7.5	9.5
25	5.0	4.5	5.0	6.5	5.0	5.5	5.5	4.5	5.0	13.0	8.0	10.5
26	5.5	5.0	5.0	8.0	5.5	6.5	6.5	4.5	5.5	11.5	9.0	10.0
27	5.5	4.5	5.0	8.0	5.5	7.0	6.5	5.0	6.0	13.0	8.5	10.5
28	6.0	4.5	5.0	8.5	6.0	7.0	6.0	5.0	5.5	13.0	8.5	10.5
29	---	---	---	8.0	5.5	6.5	6.5	4.5	5.5	13.5	8.5	10.5
30	---	---	---	7.0	5.5	6.0	7.5	4.0	6.0	13.5	8.5	10.5
31	---	---	---	7.0	4.0	5.5	---	---	---	13.5	8.5	10.5
MONTH	6.0	1.5	4.0	8.5	4.0	5.5	11.0	4.0	6.0	13.5	4.5	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.5	9.0	11.0				---	---	---	14.0	11.0	12.5
2	12.5	9.0	10.5				---	---	---	14.5	11.5	13.0
3	13.5	9.0	11.0				---	---	---	14.5	11.5	13.0
4	13.0	9.5	11.0				---	---	---	14.5	11.5	13.0
5	13.5	9.0	11.0				---	---	---	13.5	11.0	12.5
6	11.5	9.0	10.5				---	---	---	14.5	11.5	13.0
7	10.0	9.0	9.5				---	---	---	13.5	11.0	12.0
8	12.5	8.0	10.0				---	---	---	12.5	11.0	11.0
9	13.5	8.0	10.5				---	---	---	11.5	10.5	11.0
10	---	9.0	---				---	---	---	11.5	10.5	11.0
11	---	---	---				13.5	---	---	12.0	9.0	10.5
12	---	---	---				15.0	11.5	13.5	11.0	9.0	10.0
13	---	---	---				15.5	12.0	14.0	10.5	9.0	10.0
14	---	---	---				16.0	12.5	14.5	9.5	8.0	9.0
15	---	---	---				15.5	12.5	14.0	10.5	9.0	9.5
16	---	---	---				14.0	11.5	13.0	10.5	9.0	9.5
17	---	---	---				15.0	11.5	13.5	10.0	9.0	9.5
18	---	---	---				15.0	12.0	13.5	10.0	9.0	9.5
19	---	---	---				15.0	12.0	13.5	10.0	8.0	9.0
20	---	---	---				14.5	12.0	13.5	10.0	9.0	9.5
21	---	---	---				15.5	12.0	13.5	10.5	8.5	9.5
22	---	---	---				14.0	11.5	13.0	10.0	8.0	9.0
23	---	---	---				14.5	11.5	13.0	9.5	8.0	8.5
24	---	---	---				14.5	11.5	13.0	9.0	8.0	8.5
25	---	---	---				14.5	11.5	13.0	8.5	8.0	8.0
26	---	---	---				15.0	12.0	13.5	8.0	7.5	7.5
27	---	---	---				14.5	13.5	14.0	8.5	7.5	8.0
28	---	---	---				15.5	12.5	13.5	9.0	7.5	8.0
29	---	---	---				14.5	12.5	13.5	9.0	8.0	8.5
30	---	---	---				12.5	12.0	12.0	9.0	8.0	8.5
31	---	---	---				14.5	11.5	12.5	---	---	---
MONTH	---	---	---				---	---	---	14.5	7.5	10.0

NORTH SANTIAM RIVER BASIN

14180500 DETROIT LAKE NEAR DETROIT, OR

LOCATION.--Lat 44°43'20", long 122°14'55", In SW¼NW¼ sec.7, T.10 S., R.5 E., Marion County, Hydrologic Unit 17090005, in control house near right abutment of Detroit Dam on North Santiam River, 4.9 mi west of Detroit, and at mile 60.9.

DRAINAGE AREA.--437 mi².

PERIOD OF RECORD.--January 1953 to current year. Prior to October 1971, published as Detroit Reservoir near Detroit.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with six 42-ft by 28-ft control gates. Length of dam is 1,580 ft, built by Corps of Engineers. Storage began in January 1953. Total capacity is 455,100 acre-ft and usable capacity is 340,100 acre-ft between elevations 1,425.0 ft, proposed lower limit of operation, and 1,569.0 ft, top of spillway gates. Reservoir used for flood control, power development, irrigation, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Midnight elevations furnished by Corps of Engineers and reviewed by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 457,900 acre-ft July 13, 1972, elevation, 1,569.79 ft; minimum contents, 115,500 acre-ft Jan. 30, 1969, elevation, 1,425.37 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 439,100 acre-ft June 1, elevation, 1,564.38 ft; minimum contents, 151,200 acre-ft Dec. 2, elevation, 1,448.14 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

1,425	115,000	1,480	210,900	1,530	331,500
1,430	122,200	1,490	232,000	1,540	360,200
1,440	137,700	1,500	254,600	1,550	390,900
1,450	154,400	1,510	278,700	1,560	424,000
1,460	172,200	1,520	304,400	1,570	458,600
1,470	191,100				

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1527.91	1493.90	1448.67	1453.09	1462.44	1538.85	1540.16	1556.27	1564.00	1562.75	1557.84	1550.41
2	1526.71	1492.66	1449.05	1453.42	1462.71	1534.03	1540.77	1557.28	1563.95	1562.67	1557.63	1550.18
3	1525.51	1491.36	1449.54	1453.59	1462.98	1528.68	1541.28	1558.31	1563.85	1562.61	1557.46	1549.89
4	1524.27	1489.96	1448.64	1452.55	1464.38	1524.23	1541.77	1559.27	1563.65	1562.64	1557.19	1549.55
5	1523.01	1488.59	1448.70	1452.31	1465.96	1523.53	1542.19	1560.28	1563.39	1562.55	1556.96	1549.23
6	1521.72	1487.75	1449.76	1453.10	1467.25	1522.90	1542.63	1561.15	1563.38	1562.44	1556.78	1548.64
7	1520.53	1492.02	1451.27	1452.79	1468.67	1523.96	1542.95	1561.87	1563.46	1562.35	1556.56	1548.15
8	1519.36	1493.84	1451.84	1452.48	1469.81	1524.94	1543.35	1562.29	1563.48	1562.16	1556.34	1547.54
9	1518.16	1492.88	1451.44	1453.34	1470.89	1524.13	1543.72	1562.61	1563.42	1561.75	1556.10	1546.91
10	1516.97	1491.05	1450.55	1454.19	1471.71	1523.55	1544.05	1562.81	1563.54	1561.58	1555.86	1546.14
11	1515.48	1488.75	1449.99	1454.54	1472.63	1523.55	1544.39	1562.96	1563.59	1561.49	1555.57	1545.37
12	1513.68	1486.09	1450.01	1454.34	1473.50	1523.40	1544.76	1563.12	1563.60	1561.39	1555.37	1544.62
13	1511.78	1483.20	1450.03	1453.79	1474.18	1523.98	1545.07	1563.14	1563.62	1561.26	1555.14	1543.84
14	1509.90	1480.09	1449.96	1452.98	1474.92	1524.32	1545.33	1563.11	1563.65	1561.08	1554.93	1543.15
15	1507.88	1478.94	1449.76	1452.51	1476.90	1524.36	1545.63	1562.95	1563.62	1560.84	1554.67	1542.42
16	1506.02	1481.18	1449.91	1455.13	1486.57	1524.20	1546.02	1562.70	1563.57	1560.65	1554.41	1541.74
17	1504.10	1482.04	1450.32	1457.88	1496.54	1524.38	1546.54	1562.79	1563.60	1560.47	1554.19	1541.09
18	1502.13	1481.51	1450.84	1458.83	1502.91	1525.05	1547.04	1562.89	1563.28	1560.27	1553.93	1540.41
19	1500.21	1479.24	1451.47	1460.05	1504.79	1525.93	1547.49	1563.03	1563.23	1560.11	1553.68	1539.71
20	1498.45	1476.63	1451.93	1459.80	1504.57	1526.67	1547.90	1563.14	1563.25	1559.95	1553.45	1538.92
21	1496.53	1473.74	1452.55	1458.41	1504.35	1527.58	1548.49	1563.37	1563.19	1559.79	1553.14	1538.13
22	1496.16	1470.55	1453.24	1457.38	1518.11	1528.30	1549.14	1563.33	1563.23	1559.65	1552.95	1537.30
23	1498.81	1467.01	1454.20	1458.18	1540.32	1529.48	1549.63	1563.21	1563.25	1559.48	1552.68	1536.61
24	1499.97	1463.20	1454.70	1458.98	1549.40	1531.44	1550.06	1563.07	1563.24	1559.34	1552.41	1536.25
25	1501.37	1460.27	1454.61	1459.72	1550.37	1532.92	1550.55	1562.89	1563.15	1559.15	1552.16	1535.98
26	1500.87	1458.17	1454.42	1459.78	1549.21	1534.18	1551.09	1562.97	1563.11	1559.00	1551.90	1536.22
27	1500.12	1456.41	1454.09	1459.79	1546.55	1535.37	1552.22	1563.06	1563.05	1558.81	1551.66	1535.66
28	1499.40	1454.26	1453.63	1459.93	1543.12	1536.46	1553.64	1563.31	1563.00	1558.60	1551.38	1534.94
29	1498.15	1452.22	1453.09	1460.22	---	1537.54	1554.75	1563.82	1562.96	1558.40	1551.17	1534.23
30	1496.95	1449.98	1452.44	1461.22	---	1538.56	1555.60	1564.02	1562.88	1558.19	1550.91	1533.01
31	1495.42	---	1451.83	1461.94	---	1539.36	---	1564.11	---	1557.99	1550.69	---
MAX	1527.91	1493.90	1454.70	1461.94	1550.37	1539.36	1555.60	1564.11	1564.00	1562.75	1557.84	1550.41
MIN	1495.42	1449.98	1448.64	1452.31	1462.44	1522.90	1540.16	1556.27	1562.88	1557.99	1550.69	1533.01
(†)	244100	154300	157600	175800	369600	358400	409100	438100	433900	417100	393100	340000
(‡)	-84900	-89800	+3300	+18200	+193800	-11200	+50700	+29000	-4200	-16800	-24000	-53100
CAL YR 1985	MAX	1566.19	MIN	1448.64	AC-FT‡	+2000						
WTR YR 1986	MAX	1564.11	MIN	1448.64	AC-FT‡	+11000						

† Contents, in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR

LOCATION.--Lat 44°45'10", long 122°17'50", in NE¼NE¼ sec.34, T.9 S., R.4 E., Linn County, Hydrologic Unit 17090005, on left bank 0.1 mi downstream from Little Sardine Creek, 0.8 mi downstream from Big Cliff Dam, 2.1 mi east of Niagara, and at mile 57.3.

DRAINAGE AREA.--453 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1908 to January 1920, October 1921 to March 1922, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "North Fork of Santiam River near Niagara" prior to October 1913, and as "above Mayflower Creek, near Detroit" October 1938 to September 1952.

REVISED RECORDS.--WSP 1288: 1914-18, 1920. WSP 1718: 1953-54.

GAGE.--Water-stage recorder. Datum of gage is 1,093.78 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (see sta 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station.

AVERAGE DISCHARGE.--58 years (water years 1910-19, 1939-86), 2,341 ft³/s, 70.18 in/yr, 1,696,000 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft³/s Nov. 22, 1909, gage height, 16.4 ft, from floodmark, site and datum then in use, from rating curve extended above 35,000 ft³/s; minimum discharge, 19 ft³/s Aug. 21, 1963; minimum daily, 395 ft³/s Mar. 25, 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft³/s Mar. 1, gage height, 8.36 ft; minimum discharge, 795 ft³/s Sept. 19; minimum daily, 959 ft³/s Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2280	3230	2580	2070	3040	12200	1020	1040	2110	1030	989	972
2	2310	3190	1060	2700	3090	12000	1040	1030	2030	1020	990	1010
3	2330	3280	1710	3180	3030	12000	1020	1030	1970	1020	1000	971
4	2330	3210	2550	2920	2100	10000	1020	989	2010	1020	997	1080
5	2280	3210	1780	3180	1680	4690	1010	976	1980	997	986	1200
6	2330	3270	2100	3190	1600	4470	1020	991	1470	1000	989	1370
7	2360	2480	3030	3140	1060	4660	1040	985	1120	1020	1000	1360
8	2380	3770	3030	3170	1070	4810	1120	1430	1140	1240	1010	1560
9	2180	4840	3010	3210	1050	6300	1060	1560	1170	1530	1010	1700
10	2180	4800	2950	3180	1050	5310	1030	1900	1120	1060	1000	1800
11	2750	4750	2470	3180	1010	4510	1030	1940	1140	1030	1000	1780
12	2980	4770	1700	3160	1170	4550	1060	1910	1100	1020	988	1750
13	3080	4780	1690	3210	1070	3260	1070	2390	1140	1020	966	1760
14	3100	4820	1670	3150	1090	3000	1130	2460	1130	1030	962	1740
15	3120	3890	1640	3170	1130	3220	1100	2490	1180	1050	973	1750
16	3120	3320	1290	3160	1650	3210	1050	2420	1160	1060	962	1760
17	3130	3110	1050	4180	1420	2410	1100	1780	1630	1030	971	1760
18	3030	3550	1090	5360	1070	1530	1050	1710	1610	1000	959	1750
19	2990	4830	1120	5370	3150	1100	1050	1720	1230	994	959	1720
20	3040	4940	1220	5320	4650	1080	1030	1890	1060	993	984	1840
21	3070	4920	1070	5230	4870	1080	1040	1770	995	990	982	1860
22	3000	4970	1080	5380	2280	1070	1030	2070	1000	985	976	1860
23	3190	4980	1050	5460	2110	1060	1020	2040	997	962	975	1840
24	3230	5060	1500	4020	4720	1050	1030	2080	1010	970	973	2010
25	3720	4150	2070	3130	10700	1050	1030	2160	997	988	978	1980
26	3780	3120	2140	3090	11900	1050	1040	1910	999	987	969	2150
27	3130	3160	2040	3170	12000	1100	1050	1900	1010	990	960	2680
28	3250	2910	2030	3050	12100	1030	1070	1520	1020	998	961	2550
29	3190	2930	2060	3100	---	1040	1080	1080	1020	977	979	2440
30	3180	2980	2070	3070	---	1020	1070	1890	1020	988	985	3090
31	3180	---	2040	3170	---	1030	---	2100	---	993	969	---
TOTAL	89220	117220	57890	111070	96860	115890	31510	53161	38568	31992	30402	53093
MEAN	2878	3907	1867	3583	3459	3738	1050	1715	1286	1032	981	1770
MAX	3780	5060	3030	5460	12100	12200	1130	2490	2110	1530	1010	3090
MIN	2180	2480	1050	2070	1010	1020	1010	976	995	962	959	971
AC-FT	177000	232500	114800	220300	192100	229900	62500	105400	76500	63460	60300	105300
MEAN†	1498	2398	1921	3879	6948	3557	1902	2186	1215	758	590	877
CFSM†	3.31	5.29	4.24	8.56	15.3	7.85	4.20	4.83	2.68	1.67	1.30	1.94
IN.†	3.81	5.91	4.89	9.87	15.98	9.05	4.68	5.56	2.99	1.93	1.50	2.16
AC-FT†	92100	142700	118100	238500	385900	218700	113200	134400	72300	46600	36300	52200

CAL YR 1985 TOTAL 696687 MEAN 1909 MAX 5060 MIN 973 AC-FT 1382000 MEAN† 1912 CFSM† 4.22 IN.† 57.30 AC-FT† 1384000
WTR YR 1986 TOTAL 826876 MEAN 2265 MAX 12200 MIN 959 AC-FT 1640000 MEAN† 2280 CFSM† 5.03 IN.† 68.35 AC-FT† 1651000

† Adjusted for change in contents in Detroit Lake.

NORTH SANTIAM RIVER BASIN

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1953 to current year.

INSTRUMENTATION.--Temperature recorder since January 1953.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 16.5°C July 28, 29, 1958; minimum, 1.0°C Jan. 30 to Feb. 4, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 13.5°C Oct. 9, 12, 13, 15, 17; minimum, 3.0°C Dec. 26 to Jan. 1.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	13.0	12.5	12.5	11.0	11.0	11.0	5.5	5.0	5.5	3.5	3.0	3.5
2	13.0	13.0	13.0	11.0	10.5	10.5	5.0	5.0	5.0	3.5	3.5	3.5
3	13.0	13.0	13.0	11.0	11.0	11.0	5.0	5.0	5.0	3.5	3.5	3.5
4	13.0	13.0	13.0	11.0	10.5	10.5	5.0	5.0	5.0	3.5	3.5	3.5
5	13.0	13.0	13.0	10.5	10.5	10.5	5.0	5.0	5.0	3.5	3.5	3.5
6	13.0	13.0	13.0	10.5	10.5	10.5	5.0	5.0	5.0	3.5	3.5	3.5
7	13.0	13.0	13.0	10.5	9.5	10.0	5.0	5.0	5.0	3.5	3.5	3.5
8	13.0	13.0	13.0	10.0	9.0	9.5	5.0	5.0	5.0	3.5	3.5	3.5
9	13.5	13.5	13.5	10.0	9.5	9.5	5.0	5.0	5.0	3.5	3.5	3.5
10	13.0	13.0	13.0	9.5	9.5	9.5	5.0	4.5	4.5	3.5	3.5	3.5
11	13.0	13.0	13.0	9.5	9.5	9.5	4.5	4.5	4.5	3.5	3.5	3.5
12	13.5	13.0	13.0	9.5	9.0	9.0	4.5	4.0	4.5	3.5	3.5	3.5
13	13.5	13.0	13.0	9.0	9.0	9.0	4.0	4.0	4.0	3.5	3.5	3.5
14	13.0	13.0	13.0	9.0	8.5	9.0	4.0	4.0	4.0	3.5	3.5	3.5
15	13.5	13.0	13.0	9.0	8.5	8.5	4.0	4.0	4.0	3.5	3.5	3.5
16	13.0	13.0	13.0	8.5	8.0	8.0	4.0	4.0	4.0	4.0	3.5	4.0
17	13.5	13.0	13.0	8.0	7.5	8.0	4.0	4.0	4.0	4.0	4.0	4.0
18	13.0	13.0	13.0	7.5	7.5	7.5	4.0	3.5	4.0	4.5	4.0	4.0
19	13.0	12.5	13.0	7.5	7.5	7.5	3.5	3.5	3.5	5.0	4.0	4.0
20	13.0	13.0	13.0	7.5	7.5	7.5	4.0	3.5	3.5	4.5	4.0	4.0
21	13.0	12.5	13.0	7.5	7.0	7.0	3.5	3.5	3.5	4.0	4.0	4.0
22	13.0	12.5	12.5	7.0	7.0	7.0	3.5	3.5	3.5	4.0	4.0	4.0
23	12.5	11.5	12.0	7.0	6.5	6.5	3.5	3.5	3.5	5.0	4.5	4.5
24	12.0	11.5	12.0	6.5	6.5	6.5	3.5	3.5	3.5	4.5	4.5	4.5
25	12.0	11.5	11.5	6.5	6.5	6.5	3.5	3.5	3.5	4.5	4.5	4.5
26	12.0	11.5	11.5	6.5	6.5	6.5	3.5	3.0	3.0	4.5	4.5	4.5
27	12.0	11.5	11.5	6.5	6.0	6.5	3.0	3.0	3.0	4.5	4.5	4.5
28	11.5	10.5	11.0	6.5	6.0	6.0	3.0	3.0	3.0	4.5	4.5	4.5
29	11.5	11.0	11.5	6.0	5.5	6.0	3.0	3.0	3.0	5.0	4.5	5.0
30	11.5	11.0	11.0	6.0	5.5	5.5	3.0	3.0	3.0	5.0	5.0	5.0
31	11.0	10.5	11.0	---	---	---	3.0	3.0	3.0	5.0	5.0	5.0
MONTH	13.5	10.5	12.5	11.0	5.5	8.5	5.5	3.0	4.0	5.0	3.0	4.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.0	5.0	5.0	5.0	4.5	5.0	5.5	5.5	5.5	6.5	6.0	6.5
2	5.0	5.0	5.0	5.0	4.5	5.0	5.5	5.5	5.5	6.5	6.0	6.0
3	5.0	5.0	5.0	5.5	5.0	5.0	5.5	5.5	5.5	6.5	6.0	6.0
4	5.0	5.0	5.0	5.5	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.5
5	5.0	5.0	5.0	5.5	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.5
6	5.0	4.5	5.0	5.5	5.0	5.0	6.0	5.5	6.0	6.5	6.0	6.0
7	4.5	4.5	4.5	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0
8	4.5	4.5	4.5	5.0	4.5	5.0	6.0	5.5	6.0	6.5	6.0	6.0
9	4.5	4.5	4.5	5.0	4.5	5.0	5.5	5.5	5.5	6.5	6.0	6.5
10	4.5	4.5	4.5	5.5	5.0	5.5	6.0	5.5	6.0	6.0	6.0	6.0
11	4.5	4.5	4.5	5.5	5.0	5.0	6.0	5.5	6.0	6.0	5.5	5.5
12	4.5	4.5	4.5	5.0	5.0	5.0	5.5	5.5	5.5	6.5	6.0	6.5
13	4.5	4.5	4.5	5.0	4.5	5.0	5.5	5.5	5.5	6.0	6.0	6.0
14	4.5	4.5	4.5	5.0	5.0	5.0	5.5	5.5	5.5	7.0	6.0	6.0
15	4.5	4.5	4.5	5.5	5.0	5.0	6.5	5.5	6.0	7.0	6.0	6.5
16	5.0	4.5	5.0	5.5	5.5	5.5	6.0	5.5	6.0	6.5	6.0	6.0
17	5.0	5.0	5.0	5.5	5.0	5.0	6.0	5.5	5.5	7.0	6.0	6.5
18	5.0	5.0	5.0	5.0	5.0	5.0	6.0	5.5	6.0	7.0	6.5	6.5
19	5.0	4.5	4.5	5.5	5.0	5.0	6.5	6.0	6.0	6.5	6.5	6.5
20	4.5	4.5	4.5	5.5	5.5	5.5	7.0	6.5	6.5	7.0	6.5	6.5
21	4.5	4.5	4.5	6.0	5.5	6.0	7.0	6.0	6.5	6.5	6.5	6.5
22	5.5	4.5	5.0	6.0	5.5	6.0	6.5	6.0	6.5	6.5	6.5	6.5
23	6.0	5.5	5.5	6.0	5.5	5.5	6.5	6.0	6.0	6.5	6.5	6.5
24	6.5	5.0	6.0	6.0	5.5	5.5	6.5	6.0	6.0	7.0	6.5	6.5
25	5.0	5.0	5.0	5.5	5.5	5.5	6.0	5.5	6.0	7.0	7.0	7.0
26	5.0	5.0	5.0	5.5	5.5	5.5	6.0	5.5	5.5	7.0	7.0	7.0
27	5.0	5.0	5.0	6.0	5.5	6.0	6.0	6.0	6.0	7.0	7.0	7.0
28	5.0	5.0	5.0	6.0	6.0	6.0	6.0	5.5	6.0	7.5	7.0	7.0
29	---	---	---	6.0	5.5	6.0	6.0	5.5	6.0	8.0	7.0	7.5
30	---	---	---	6.0	5.5	6.0	6.5	6.0	6.0	8.5	7.5	8.0
31	---	---	---	6.0	5.5	5.5	---	---	---	8.5	7.0	7.5
MONTH	6.5	4.5	5.0	6.0	4.5	5.5	7.0	5.5	6.0	8.5	5.5	6.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.0	7.0	7.5	8.5	8.0	8.0	9.5	8.5	9.0	10.5	10.0	10.5
2	7.5	7.0	7.5	8.0	8.0	8.0	9.5	8.5	9.0	10.5	10.0	10.5
3	7.5	7.0	7.0	8.0	7.5	8.0	9.0	8.5	9.0	11.0	10.5	10.5
4	7.5	7.5	7.5	8.5	7.5	8.0	9.5	9.0	9.0	11.0	10.5	11.0
5	7.5	7.0	7.0	8.0	7.5	7.5	9.5	9.0	9.0	11.0	10.5	11.0
6	7.0	7.0	7.0	8.5	7.5	8.0	9.5	9.0	9.0	11.0	10.5	11.0
7	7.0	7.0	7.0	8.0	8.0	8.0	10.0	9.0	9.5	10.5	10.5	10.5
8	7.5	7.0	7.0	8.0	8.0	8.0	10.0	9.0	9.5	11.0	10.5	10.5
9	8.0	7.5	7.5	8.0	8.0	8.0	10.0	9.0	9.5	11.0	10.5	10.5
10	8.0	7.0	8.0	8.0	8.0	8.0	9.5	9.0	9.0	11.0	10.5	10.5
11	8.5	7.5	8.0	8.0	7.5	7.5	9.5	9.5	9.5	11.0	10.5	10.5
12	8.5	7.5	8.0	8.5	8.0	8.0	10.0	9.0	9.5	11.0	10.5	11.0
13	8.5	7.5	8.0	8.5	8.0	8.5	10.0	9.0	9.5	11.0	10.5	11.0
14	8.0	7.5	8.0	8.5	8.5	8.5	10.0	9.5	9.5	11.0	10.5	11.0
15	8.0	7.5	7.5	8.5	8.0	8.0	10.0	9.5	9.5	11.0	11.0	11.0
16	7.5	7.5	7.5	8.0	8.0	8.0	10.0	9.0	9.5	11.5	11.0	11.0
17	8.0	7.5	7.5	8.0	8.0	8.0	10.0	9.5	9.5	11.5	11.0	11.5
18	7.5	7.0	7.0	8.5	8.0	8.5	9.5	9.0	9.5	11.5	11.5	11.5
19	7.5	7.0	7.0	8.5	8.0	8.5	9.5	9.5	9.5	11.5	11.5	11.5
20	7.5	7.5	7.5	9.0	8.0	8.5	10.0	9.5	10.0	12.0	11.5	11.5
21	8.0	7.5	8.0	8.5	8.0	8.5	10.0	9.5	9.5	12.0	12.0	12.0
22	8.5	7.5	8.0	8.5	8.5	8.5	10.5	9.5	10.0	12.0	12.0	12.0
23	8.5	7.5	8.0	8.5	8.5	8.5	10.0	9.5	10.0	12.0	12.0	12.0
24	8.5	8.0	8.0	9.0	8.5	8.5	10.0	9.5	10.0	12.0	12.0	12.0
25	8.5	8.0	8.5	9.0	8.5	8.5	10.5	10.0	10.0	12.5	12.0	12.0
26	9.0	8.0	8.5	8.5	8.5	8.5	10.5	10.0	10.0	12.0	12.0	12.0
27	8.0	7.5	8.0	8.5	8.5	8.5	10.0	10.0	10.0	12.0	12.0	12.0
28	8.0	7.5	8.0	9.0	8.5	9.0	10.5	10.0	10.0	12.5	12.0	12.0
29	7.5	7.5	7.5	9.0	8.5	8.5	10.5	10.0	10.0	12.5	12.5	12.5
30	8.5	7.5	8.0	9.5	8.5	9.0	10.0	10.0	10.0	12.5	12.5	12.5
31	---	---	---	9.5	9.0	9.0	10.5	10.0	10.0	---	---	---
MONTH	9.0	7.0	7.5	9.5	7.5	8.5	10.5	8.5	9.5	12.5	10.0	11.5
YEAR	13.5	3.0	7.5									

NORTH SANTIAM RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR

LOCATION.--Lat 44°47'30", long 122°34'40", in NW¼ sec.16, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on left bank 2.0 mi east of Mehama and at mile 2.0.

DRAINAGE AREA.--112 mi² at cableway 1.2 mi downstream where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1931 to current year. Records for July to September 1924 and July to September 1931 at site 4 mi upstream not equivalent owing to difference in drainage areas.

REVISED RECORDS.--WSP 754: 1932. WSP 1218: 1934, 1936, 1949-50. WSP 1935: Maximum only, 1932-34, 1936, 1938, 1943, 1945-49, 1950(M,P), 1951-53(M), 1954(M,P), 1955(M), 1956(M,P), 1957(M), 1958-59(M,P). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 655.41 ft above National Geodetic Vertical Datum of 1929. Prior to June 12, 1948, nonrecording gage at about same site and datum.

REMARKS.--No estimated daily discharges. Records excellent except those below 200 ft³/s, which are good. No regulation or diversion upstream from station. Records herein are for measuring site.

AVERAGE DISCHARGE.--55 years, 768 ft³/s, 93.12 in/yr, 556,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s Dec. 22, 1964, gage height, 16.73 ft, from rating curve extended above 17,000 ft³/s; minimum discharge, 13 ft³/s Aug. 30, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 8,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0730	*20,700	*12.93	No other peak greater than base discharge.			
Minimum discharge, 19 ft ³ /s Sept. 7, 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	57	621	274	1130	1010	1170	451	855	269	74	44	28		
2	55	868	287	1060	859	962	421	990	241	73	41	26		
3	53	876	827	1120	816	812	388	1100	218	73	40	25		
4	50	757	832	847	1100	715	368	965	201	111	39	24		
5	48	832	898	889	1200	650	346	1170	187	114	39	22		
6	47	1520	1770	1210	926	611	323	1060	174	87	38	21		
7	50	5730	2250	895	753	1010	306	855	164	78	38	19		
8	50	3970	1710	851	638	1190	299	742	154	76	37	20		
9	45	2090	1210	985	558	1230	307	676	142	70	36	26		
10	44	1440	918	1010	492	1010	297	798	132	86	34	37		
11	67	1060	745	905	456	1140	288	898	123	103	34	30		
12	152	823	634	748	464	1170	356	939	116	97	33	26		
13	144	676	553	648	573	1080	385	1330	109	82	33	25		
14	113	581	489	590	780	1040	396	1190	109	74	32	26		
15	97	1300	451	578	1300	853	430	899	121	70	31	27		
16	94	3030	449	978	4490	717	545	731	106	79	29	31		
17	94	1860	524	1410	4450	641	967	636	112	107	29	48		
18	86	1290	677	1510	2750	576	922	592	172	87	28	98		
19	113	1010	736	1680	1770	537	771	542	262	77	29	57		
20	371	846	687	1420	1300	509	800	605	182	70	28	80		
21	284	714	644	1060	1390	520	842	633	148	66	28	74		
22	1270	629	631	1230	10100	497	713	643	128	63	27	51		
23	3390	538	676	2220	14800	572	566	569	115	60	26	97		
24	2210	479	678	1720	5920	1500	476	498	105	58	25	1040		
25	3490	435	650	1280	2950	1070	493	463	97	56	25	932		
26	1540	391	582	1030	2270	850	577	446	91	53	24	1640		
27	920	356	508	959	1740	735	1520	404	86	52	23	1070		
28	1180	331	445	1080	1430	655	1750	369	85	50	24	789		
29	855	305	392	1010	---	581	1220	334	86	49	25	631		
30	683	288	352	1400	---	531	967	315	81	46	29	611		
31	676	---	329	1220	---	480	---	295	---	45	31	---		
TOTAL	18328	35646	22808	34673	67285	25614	18490	22542	4316	2286	979	7631		
MEAN	591	1188	736	1118	2403	826	616	727	144	73.7	31.6	254		
MAX	3490	5730	2250	2220	14800	1500	1750	1330	269	114	44	1640		
MIN	44	288	274	578	456	480	288	295	81	45	23	19		
CFSM	5.28	10.6	6.57	9.98	21.5	7.37	5.50	6.49	1.29	.66	.28	2.27		
IN.	6.09	11.84	7.58	11.52	22.35	8.51	6.14	7.49	1.43	.76	.33	2.53		
AC-FT	36350	70700	45240	68770	133500	50810	36670	44710	8560	4530	1940	15140		
CAL YR 1985	TOTAL	210539	MEAN	577	MAX	5730	MIN	24	CFSM	5.15	IN.	69.93	AC-FT	417600
WTR YR 1986	TOTAL	260598	MEAN	714	MAX	14800	MIN	19	CFSM	6.37	IN.	86.56	AC-FT	516900

NORTH SANTIAM RIVER BASIN

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14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: July 1985 to September 1986 (discontinued).

INSTRUMENTATION.--Temperature recorder since July 2, 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 8, 1986; minimum, 1.0°C Dec. 1, 2, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 8; minimum, 1.0°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.5	11.0	12.0	9.0	8.0	8.5	1.5	1.0	1.0	6.0	4.5	5.5
2	15.0	12.0	13.5	9.5	9.0	9.5	3.0	1.0	1.5	5.5	5.0	5.5
3	15.5	12.0	13.5	10.5	9.5	10.0	4.0	2.5	3.5	6.0	5.5	5.5
4	15.5	12.0	13.5	10.0	8.5	9.5	5.5	4.0	4.5	6.0	4.5	5.0
5	15.5	12.0	13.5	8.5	8.0	8.0	6.0	5.0	5.5	6.5	6.0	6.5
6	13.5	12.5	13.0	9.0	8.0	8.5	6.0	5.5	6.0	6.5	5.5	6.0
7	14.0	12.0	13.0	9.0	8.0	9.0	6.5	6.0	6.5	6.0	5.0	5.5
8	12.0	9.0	10.5	8.0	7.5	7.5	6.5	6.0	6.0	7.0	6.0	6.5
9	10.5	7.0	8.5	7.5	6.5	6.5	6.0	5.0	5.5	7.0	7.0	7.0
10	10.5	8.0	9.0	7.0	6.0	6.5	5.0	4.0	4.5	7.0	6.0	6.5
11	11.5	9.5	10.5	6.0	5.0	5.5	4.0	3.5	4.0	6.5	6.0	6.0
12	11.0	9.5	10.0	5.0	4.0	4.5	4.0	3.5	3.5	6.5	5.5	6.0
13	10.5	8.5	9.5	5.5	4.0	5.0	4.0	3.5	4.0	6.5	6.0	6.0
14	10.5	8.5	9.5	5.5	4.0	5.0	4.0	3.5	4.0	6.5	6.0	6.5
15	12.0	9.0	10.0	6.5	5.5	6.0	4.5	4.0	4.5	6.5	6.5	6.5
16	12.5	10.0	11.0	7.0	6.5	7.0	4.5	4.0	4.5	7.0	6.5	7.0
17	11.5	9.0	10.0	6.5	5.5	6.0	5.0	4.0	4.5	6.5	6.0	6.5
18	11.5	8.5	9.5	6.5	5.5	6.0	5.0	4.5	4.5	8.0	6.5	7.5
19	10.5	9.5	10.0	6.0	5.0	5.5	5.0	4.5	4.5	8.0	6.5	7.0
20	10.0	9.5	10.0	5.0	4.5	5.0	4.5	4.0	4.5	6.5	6.0	6.0
21	10.0	9.5	9.5	5.0	4.0	4.5	4.5	4.0	4.0	6.0	5.5	5.5
22	9.5	9.0	9.0	4.0	3.5	4.0	5.0	4.0	4.5	---	---	---
23	9.5	9.0	9.0	3.5	2.0	2.5	5.0	4.5	4.5	---	---	---
24	10.0	9.5	9.5	2.5	1.5	2.0	5.0	4.5	4.5	---	---	---
25	9.5	9.0	9.5	3.5	2.5	3.0	5.0	4.0	4.5	---	---	---
26	9.5	8.5	9.0	4.5	3.5	4.0	4.5	3.5	4.0	---	---	---
27	10.0	9.0	9.5	4.5	4.0	4.0	4.0	3.0	3.5	---	---	---
28	9.5	7.5	8.5	4.5	3.5	4.0	4.0	3.0	3.5	---	---	---
29	8.0	7.0	7.5	3.5	2.0	2.5	4.0	3.0	3.5	---	---	---
30	8.0	7.5	7.5	2.0	1.5	1.5	3.5	2.5	3.0	7.5	7.5	7.5
31	8.0	7.5	7.5	---	---	---	4.5	3.5	4.0	7.5	7.0	7.5
MONTH	15.5	7.0	10.0	10.5	1.5	5.5	6.5	1.0	4.0	---	---	---

NORTH SANTIAM RIVER BASIN

14182500 LITTLE NORTH SANTIAM RIVER NEAR MEHAMA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.5	9.0	8.0	8.0	9.0	7.5	8.0	8.5	7.5	8.0
2	7.5	7.0	7.0	8.5	7.0	8.0	8.5	6.5	7.5	8.5	7.5	8.0
3	7.5	7.0	7.0	8.5	7.0	8.0	8.5	6.0	7.5	9.0	7.0	8.0
4	7.0	6.5	7.0	9.5	7.5	8.5	9.0	7.5	8.5	9.0	7.5	8.0
5	6.5	6.0	6.0	9.5	7.5	8.5	9.5	6.5	8.5	8.0	7.0	7.5
6	6.0	5.5	5.5	9.5	8.5	8.5	10.5	7.5	9.5	8.5	6.5	7.5
7	5.5	4.0	5.0	9.0	8.0	9.0	11.5	8.5	10.5	8.5	7.5	8.0
8	5.0	3.5	4.5	8.0	7.0	7.5	11.5	10.0	10.5	10.0	7.5	8.5
9	5.0	3.5	4.0	7.5	6.5	7.0	10.5	9.5	10.0	9.5	8.0	8.0
10	5.0	3.5	4.0	8.0	7.0	7.5	10.5	8.0	9.5	8.0	7.0	7.5
11	5.0	4.5	4.5	8.0	7.5	7.5	9.5	7.5	8.0	7.5	6.0	6.5
12	4.5	2.0	3.5	7.5	7.0	7.0	8.0	6.5	7.5	9.5	6.5	8.0
13	4.5	4.0	4.5	7.5	6.5	7.0	8.0	7.0	7.5	9.0	8.0	8.5
14	5.5	4.5	5.0	7.5	6.0	7.0	9.0	6.5	8.0	9.5	6.5	7.5
15	6.5	5.5	6.0	8.0	6.0	7.0	9.5	8.0	8.5	10.0	7.0	8.5
16	6.5	6.0	6.0	8.5	6.0	7.5	8.5	7.5	7.5	11.5	7.0	9.0
17	---	---	---	8.0	7.0	7.5	7.5	6.5	7.0	13.0	9.0	11.0
18	---	---	---	8.5	7.0	7.5	9.5	6.5	8.0	12.5	10.0	11.5
19	6.0	5.0	5.5	10.0	7.0	8.5	10.5	7.5	9.0	13.0	10.0	11.5
20	6.0	5.5	6.0	10.0	7.5	9.0	12.0	8.0	10.0	12.5	10.5	11.0
21	6.5	6.0	6.0	10.0	8.5	9.0	12.5	9.0	11.0	10.5	8.5	9.0
22	6.5	6.0	6.5	8.5	6.5	8.0	11.5	9.0	10.0	11.5	7.5	9.0
23	7.0	6.5	6.5	8.5	7.5	8.0	9.0	7.0	8.0	11.0	8.5	10.0
24	8.0	7.0	7.5	7.5	6.5	7.0	8.0	6.0	7.0	14.0	9.5	11.5
25	7.5	7.5	7.5	8.0	6.0	7.0	7.5	6.5	7.0	16.0	11.5	13.5
26	8.0	7.0	7.5	10.0	7.5	8.5	7.5	6.5	7.0	16.0	13.5	14.5
27	9.0	7.5	8.0	10.5	8.0	9.5	8.0	7.0	7.5	15.5	12.5	14.0
28	8.5	7.5	8.0	11.0	8.5	10.0	7.5	6.5	7.0	17.0	12.5	14.5
29	---	---	---	11.0	8.5	10.0	7.5	6.0	6.5	17.5	14.0	16.0
30	---	---	---	10.5	8.5	9.5	9.0	5.5	7.0	19.0	15.0	17.0
31	---	---	---	9.5	6.5	8.0	---	---	---	20.0	17.0	18.5
MONTH	---	---	---	11.0	6.0	8.0	12.5	5.5	8.5	20.0	6.0	10.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.5	18.0	19.5	22.0	17.5	19.5	25.5	19.0	22.0	22.5	17.5	20.0
2	20.0	17.5	19.0	19.5	18.0	19.0	24.5	20.0	22.0	22.5	18.0	20.0
3	18.5	16.5	17.5	20.5	16.5	18.0	26.0	20.0	22.5	23.5	18.0	20.5
4	18.0	16.0	17.0	17.5	15.5	16.5	25.5	19.5	22.0	24.0	18.5	21.0
5	17.0	16.0	16.5	17.5	13.5	15.5	25.0	19.0	22.0	23.0	18.0	20.5
6	16.0	14.5	15.5	20.5	14.5	17.0	26.0	19.5	22.0	23.5	19.0	21.0
7	15.5	14.0	14.5	19.0	16.5	18.0	27.0	20.5	23.5	22.0	18.0	20.0
8	16.5	13.0	14.5	21.5	16.5	18.5	27.5	21.0	23.5	20.0	17.5	18.0
9	18.5	14.0	16.0	19.0	17.5	18.0	27.0	21.0	24.0	18.5	17.0	17.5
10	20.5	15.5	18.0	17.5	16.5	16.5	26.5	20.5	23.5	17.5	15.5	16.5
11	21.5	17.0	19.0	19.5	16.0	17.5	25.5	20.0	22.5	18.5	13.5	16.0
12	21.5	17.5	19.5	20.5	17.0	18.5	25.5	19.5	22.0	18.5	14.0	16.0
13	22.0	17.0	19.5	22.0	16.5	19.0	25.5	19.5	22.5	16.0	14.0	15.0
14	20.0	16.5	18.0	20.5	17.0	18.5	26.5	20.0	23.0	17.5	12.5	14.5
15	18.5	14.0	16.0	18.5	16.0	17.0	26.0	20.0	23.0	16.5	13.5	15.0
16	17.0	15.0	16.0	16.0	14.5	15.0	22.5	19.0	21.0	16.5	13.5	14.5
17	15.0	14.0	14.5	19.0	14.0	16.0	24.0	18.0	20.5	14.5	14.0	14.0
18	14.0	12.5	13.5	20.0	15.5	17.5	23.0	18.5	20.5	15.0	13.5	14.0
19	15.5	11.5	13.0	22.0	16.0	18.5	24.0	18.0	20.5	17.0	12.5	14.5
20	17.0	13.5	15.0	23.5	17.5	20.0	24.5	18.5	21.5	15.5	14.0	14.5
21	18.5	14.0	16.0	24.0	18.5	21.0	25.0	19.5	22.0	16.5	13.0	14.5
22	20.5	15.5	17.5	23.0	18.5	20.5	23.5	19.0	21.5	17.0	13.0	14.5
23	22.5	17.0	19.5	21.5	19.0	20.0	23.5	18.5	21.0	14.0	13.0	13.5
24	22.5	18.0	20.0	23.0	17.0	19.5	23.5	18.0	20.5	13.0	10.5	11.5
25	22.5	18.0	20.0	23.5	18.0	20.5	24.5	18.5	21.0	10.5	10.0	10.5
26	21.5	18.0	19.5	21.5	18.0	20.0	25.0	19.0	22.0	10.0	9.5	9.5
27	21.0	17.5	19.0	22.5	17.5	19.5	23.5	21.0	22.0	10.5	9.5	10.0
28	19.5	16.0	17.5	23.0	17.5	20.0	22.0	20.0	21.0	11.0	10.0	10.5
29	19.5	15.0	16.5	23.5	18.5	20.5	21.0	19.0	20.0	11.0	10.5	10.5
30	21.5	15.0	18.0	23.5	17.5	20.0	19.5	18.0	18.5	11.0	10.5	11.0
31	---	---	---	24.0	18.0	21.0	22.5	17.5	19.5	---	---	---
MONTH	22.5	11.5	17.0	24.0	13.5	18.5	27.5	17.5	21.5	24.0	9.5	15.5

NORTH SANTIAM RIVER BASIN

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14183000 NORTH SANTIAM RIVER AT MEHAMA, OR

LOCATION.--Lat 44°47'20", long 122°37'00", in NW¼ sec.18, T.9 S., R.2 E., Marion County, Hydrologic Unit 17090005, on right bank 300 ft downstream from highway bridge at Mehama, 0.5 mi downstream from Little North Santiam River, and at mile 38.71.

DRAINAGE AREA.--655 mi², at cableway 0.8 mi downstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to September 1914, September 1921 to current year. Monthly discharge only September 1921, published in WSP 1318. Prior to October 1913, published as North Fork of Santiam River at Mehama.

REVISED RECORDS.--WSP 739: 1922-23(M). WSP 1044: 1943. WSP 1248: 1906, 1911-14, 1924(M), 1926, 1934-36(M), 1937, 1938(M), 1942(M). WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 602.49 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1933, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1953 by Detroit Lake (see sta 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft. No diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--70 years (water years 1906, 1911-14, 1922-86), 3,385 ft³/s, 2,452,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft³/s Dec. 28, 1945, gage height, 15.37 ft, from rating curve extended above 36,000 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft Nov. 20, 1921, from graph based on gage readings, and Jan. 6, 1923, from floodmark, at site then in use; minimum discharge, 254 ft³/s Aug. 3, 1970; minimum daily, 420 ft³/s Sept. 18, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29,500 ft³/s Feb. 23, gage height, 10.60 ft; minimum discharge, 936 ft³/s Sept. 3; minimum daily, 1,000 ft³/s Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2340	4050	3320	3550	4550	14600	1650	2180	2320	1140	1040	1020
2	2350	4300	1630	3980	4390	14000	1620	2320	2230	1140	1040	1050
3	2380	4350	2740	4780	4260	13800	1570	2470	2160	1120	1040	1020
4	2340	4230	3990	4150	3780	12000	1530	2250	2150	1220	1030	1090
5	2290	4320	3420	4520	3360	6020	1500	2490	2180	1160	1030	1200
6	2330	5260	4880	4950	2920	5210	1460	2410	1710	1130	1020	1320
7	2350	10800	7140	4470	2260	5940	1470	2140	1410	1130	1040	1330
8	2360	9860	6090	4460	2000	6340	1510	2380	1360	1260	1050	1480
9	2230	8650	5120	4660	1880	7970	1490	2440	1380	1580	1040	1610
10	2210	7310	4560	4600	1780	6980	1440	2880	1300	1230	1040	1730
11	2720	6580	3770	4500	1710	6000	1430	3060	1310	1170	1030	1720
12	3110	6160	2850	4280	1910	6100	1530	3050	1260	1150	1030	1700
13	3240	5930	2590	4180	2200	4870	1590	3900	1270	1130	1030	1700
14	3220	5820	2500	4070	2440	4390	1650	3840	1280	1120	1020	1690
15	3220	6020	2400	4060	3240	4320	1650	3520	1340	1140	1030	1710
16	3230	8340	2110	4650	8670	4110	1730	3240	1310	1160	1020	1720
17	3240	6300	1800	5960	10000	3430	2300	2570	1630	1160	1020	1750
18	3090	5510	1960	7710	7020	2380	2230	2390	1850	1110	1010	1790
19	3130	6620	2120	8310	6140	1960	2020	2310	1560	1100	1010	1720
20	3480	6500	2140	7890	7330	1830	2020	2580	1300	1080	1030	1890
21	3440	6270	1920	7190	7440	1820	2050	2560	1210	1070	1030	1880
22	4580	6140	1900	7570	18100	1770	1890	2850	1180	1060	1030	1830
23	8010	6010	1930	9500	23200	1860	1760	2740	1170	1040	1020	1880
24	6380	5990	2230	7250	14100	2960	1640	2650	1150	1050	1020	3090
25	8250	5240	2800	5400	17000	2470	1670	2690	1140	1060	1020	2920
26	6210	3820	2900	4780	16900	2190	1780	2440	1130	1050	1020	3950
27	4380	3750	2720	4750	15800	2080	2890	2320	1130	1050	1010	3720
28	4920	3530	2590	4700	15200	1930	3320	2050	1140	1060	1000	3390
29	4390	3480	2590	4640	---	1820	2720	1500	1140	1030	1030	3080
30	4130	3510	2570	5080	---	1750	2370	2120	1130	1040	1040	3570
31	4130	---	2510	4940	---	1680	---	2300	---	1040	1020	---
TOTAL	113680	174650	93790	165530	209580	154580	55480	80640	43830	34980	31840	59550
MEAN	3667	5822	3025	5340	7485	4986	1849	2601	1461	1128	1027	1985
MAX	8250	10800	7140	9500	23200	14600	3320	3900	2320	1580	1050	3950
MIN	2210	3480	1630	3550	1710	1680	1430	1500	1130	1030	1000	1020
AC-FT	225500	346400	186000	328300	415700	306600	110000	159900	86940	69380	63150	118100
CAL YR 1985	TOTAL	1018810	MEAN	2791	MAX	10800	MIN	1110	AC-FT	2021000		
WTR YR 1986	TOTAL	1218130	MEAN	3337	MAX	23200	MIN	1000	AC-FT	2416000		

NORTH SANTIAM RIVER BASIN
14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued
WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1985 to September 1986 (discontinued).

INSTRUMENTATION.--Temperature recorder since May 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 18.0°C July 17-20, 1985; minimum, 2.5°C Dec. 27, 28, 30, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum, 17.0°C June 23; minimum, 2.5°C Dec. 27, 28, 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.5	12.0	13.0	---	---	---	4.5	3.5	4.0	5.0	3.5	4.5
2	14.5	13.0	13.5	---	---	---	4.5	3.0	3.5	4.5	4.0	4.5
3	15.0	13.0	13.5	---	---	---	4.5	3.5	4.0	5.0	4.0	4.5
4	14.5	12.5	13.5	---	---	---	5.5	4.5	5.0	4.5	4.0	4.0
5	14.5	12.5	13.5	---	---	---	6.0	5.0	5.5	5.5	4.5	5.0
6	14.0	13.0	13.5	---	---	---	6.0	5.5	5.5	5.0	4.5	5.0
7	14.0	12.5	13.0	---	---	---	6.0	5.5	6.0	5.0	4.0	4.5
8	13.5	12.0	12.5	---	---	---	6.0	5.5	5.5	5.5	4.5	5.0
9	14.0	11.5	12.5	---	---	---	5.5	5.0	5.0	5.5	5.5	5.5
10	13.5	12.0	12.5	---	---	---	5.0	4.0	4.5	5.5	5.0	5.5
11	13.5	12.5	13.0	---	---	---	4.0	3.5	4.0	5.0	5.0	5.0
12	13.5	12.0	12.5	---	---	---	4.0	3.5	4.0	5.0	4.5	5.0
13	13.5	12.0	12.5	---	---	---	4.0	3.5	4.0	5.0	4.5	5.0
14	13.5	12.0	12.5	---	---	---	4.0	3.5	4.0	5.0	4.5	5.0
15	14.0	12.5	13.0	---	---	---	4.5	4.0	4.0	5.0	5.0	5.0
16	13.5	12.5	13.0	---	---	---	4.5	3.5	4.0	6.0	5.0	5.5
17	13.5	12.0	12.5	---	---	---	4.5	3.5	4.0	5.5	5.0	5.5
18	13.5	12.5	13.0	---	---	---	---	---	---	6.5	5.5	6.0
19	13.0	12.5	13.0	---	---	---	---	---	---	6.5	5.5	6.0
20	---	---	---	6.5	6.0	6.5	---	---	---	5.5	5.0	5.5
21	---	---	---	6.5	6.0	6.5	4.0	3.0	3.5	5.0	4.5	5.0
22	---	---	---	6.0	5.5	6.0	4.0	3.0	3.5	5.5	5.0	5.5
23	---	---	---	5.5	5.0	5.0	4.0	3.5	3.5	6.0	5.5	5.5
24	---	---	---	5.5	5.0	5.0	4.0	3.5	3.5	5.5	5.0	5.5
25	---	---	---	6.0	5.5	5.5	4.0	3.0	3.5	5.5	5.0	5.5
26	---	---	---	6.0	5.5	6.0	3.5	3.0	3.0	6.0	5.0	5.5
27	---	---	---	6.0	5.5	6.0	3.5	2.5	3.0	6.0	6.0	6.0
28	---	---	---	6.0	5.0	5.5	3.5	2.5	3.0	6.5	6.0	6.0
29	---	---	---	5.0	4.5	4.5	3.5	3.0	3.0	6.5	6.0	6.0
30	---	---	---	4.5	4.0	4.5	3.0	2.5	3.0	6.5	6.5	6.5
31	---	---	---	---	---	---	3.5	3.0	3.5	6.5	6.0	6.5
MONTH	---	---	---	---	---	---	---	---	---	6.5	3.5	5.5

14183000 NORTH SANTIAM RIVER AT MEHAMA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.5	6.0	6.5	7.0	6.0	6.5	8.0	6.5	7.0	8.5	7.0	7.5
2	6.5	6.0	6.0	7.0	5.5	6.0	8.5	6.0	7.0	8.5	7.5	8.0
3	6.5	6.0	6.0	6.5	6.0	6.0	8.0	5.5	7.0	9.5	6.5	8.0
4	6.0	6.0	6.0	7.0	6.0	6.5	8.5	6.5	7.5	9.0	7.0	8.0
5	6.0	5.5	5.5	7.5	6.0	6.5	10.0	5.5	7.5	8.0	7.0	7.5
6	5.5	5.0	5.5	7.0	6.5	6.5	10.5	6.0	8.5	8.5	6.5	7.5
7	5.0	4.0	4.5	7.5	6.5	7.0	11.0	6.5	9.0	8.0	7.0	7.5
8	5.0	3.5	4.0	6.5	6.0	6.0	9.0	7.5	8.0	9.5	7.0	8.0
9	5.0	3.5	4.0	6.5	6.0	6.0	9.0	7.5	8.0	8.0	7.0	7.5
10	5.0	3.5	4.0	7.0	6.0	6.5	10.0	6.0	8.0	7.5	6.5	7.0
11	5.0	4.5	4.5	7.0	6.5	7.0	7.5	6.0	6.5	7.5	6.0	6.5
12	4.5	3.0	3.5	6.5	6.0	6.5	7.5	6.0	6.5	9.0	6.5	7.5
13	4.5	4.0	4.5	---	---	---	8.0	6.5	7.0	---	---	---
14	5.5	4.5	5.0	---	---	---	8.5	6.0	7.0	---	---	---
15	6.5	5.0	5.5	---	---	---	9.0	6.5	7.5	---	---	---
16	6.0	5.5	6.0	---	---	---	7.5	7.0	7.0	---	---	---
17	5.5	5.0	5.5	---	---	---	8.0	6.0	7.0	---	---	---
18	5.5	5.0	5.5	7.5	---	---	9.5	6.0	7.5	---	---	---
19	5.5	5.0	5.0	9.0	6.0	7.5	10.5	6.5	8.5	---	---	---
20	5.5	5.0	5.0	9.0	6.5	8.0	12.0	7.0	9.5	---	---	---
21	6.0	5.0	5.5	9.0	7.0	8.0	12.5	8.0	10.0	---	---	---
22	6.5	5.5	6.0	9.0	6.0	7.5	10.5	7.5	8.5	---	---	---
23	7.0	6.0	6.5	7.5	6.5	7.0	8.5	6.5	7.5	---	---	---
24	8.0	7.0	7.0	7.5	6.5	7.0	7.5	5.5	6.5	11.5	8.0	10.0
25	7.0	6.5	7.0	8.0	5.5	7.0	7.5	6.5	7.0	13.0	9.0	10.5
26	7.0	6.5	6.5	9.5	6.5	8.0	7.5	6.0	7.0	12.0	10.0	10.5
27	7.0	6.5	7.0	10.0	7.0	8.5	8.0	6.5	7.0	12.0	9.0	10.5
28	7.0	6.5	6.5	10.5	7.5	9.0	7.5	6.0	7.0	13.5	9.0	11.0
29	---	---	---	10.5	7.0	9.0	7.5	5.5	6.5	15.5	10.0	12.5
30	---	---	---	9.0	7.0	8.0	9.0	5.5	7.0	15.0	10.0	12.5
31	---	---	---	9.0	5.5	7.5	---	---	---	15.0	10.5	12.5
MONTH	8.0	3.0	5.5	---	---	---	12.5	5.5	7.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	14.0	10.5	12.0	15.5	10.0	12.5	16.5	10.5	13.5	15.5	11.0	13.5
2	14.0	10.0	11.5	13.5	10.5	11.5	15.0	10.5	13.0	15.5	11.0	13.5
3	12.5	9.5	10.5	13.5	10.0	12.0	16.0	10.5	13.5	16.5	11.0	14.0
4	12.5	9.5	10.5	12.5	10.0	11.0	16.0	10.0	13.5	---	---	---
5	11.5	9.5	10.0	14.5	9.5	12.0	16.0	10.0	13.5	---	---	---
6	11.5	9.0	10.0	16.0	9.0	12.5	16.5	10.5	13.5	---	---	---
7	11.5	9.0	10.5	13.5	10.0	12.0	16.5	11.0	14.0	---	---	---
8	14.0	9.0	11.0	15.0	10.0	12.5	16.5	11.0	14.0	---	---	---
9	15.0	8.5	11.5	11.5	10.0	10.5	16.5	11.0	14.0	---	---	---
10	16.0	9.5	12.5	11.5	10.0	10.5	16.0	10.5	13.5	---	---	---
11	16.0	9.5	13.0	14.5	10.5	12.0	15.5	10.5	13.0	---	---	---
12	16.0	10.0	13.0	15.0	10.5	12.5	16.0	10.5	13.5	---	---	---
13	16.0	9.5	13.0	16.0	10.0	13.0	16.5	11.0	13.5	---	---	---
14	---	---	---	15.0	10.0	12.5	16.5	11.0	14.0	---	---	---
15	---	---	---	12.5	9.5	11.0	16.0	11.0	13.5	---	---	---
16	---	---	---	11.0	9.5	10.5	14.0	10.5	12.5	---	---	---
17	---	---	---	15.0	9.5	12.0	15.5	10.0	13.0	---	---	---
18	---	---	---	14.5	9.5	12.0	14.5	10.5	12.5	---	---	---
19	---	---	---	16.0	10.0	13.0	15.5	10.5	13.0	---	---	---
20	---	---	---	16.5	10.0	13.5	15.5	10.5	13.0	---	---	---
21	---	---	---	16.0	10.5	13.5	16.0	11.0	13.5	---	---	---
22	---	---	---	15.5	10.0	13.0	14.5	10.5	13.0	---	---	---
23	17.0	10.5	13.5	14.0	10.5	12.5	15.5	10.5	13.0	---	---	---
24	16.0	10.5	13.5	16.0	10.0	13.0	15.5	10.5	13.0	---	---	---
25	16.5	10.5	13.5	15.5	10.5	13.0	16.0	10.5	13.5	---	---	---
26	15.0	10.5	13.0	14.5	10.0	12.5	16.5	11.0	14.0	---	---	---
27	15.0	10.5	13.0	15.0	10.0	12.5	14.0	12.0	13.0	---	---	---
28	13.0	10.0	11.0	15.5	10.0	12.5	14.0	11.5	12.5	---	---	---
29	14.0	10.0	11.5	15.0	10.5	13.0	12.5	11.5	12.0	---	---	---
30	16.0	9.5	12.5	15.5	10.0	13.0	12.5	11.5	12.0	---	---	---
31	---	---	---	16.0	10.0	13.0	15.5	11.5	13.0	---	---	---
MONTH	---	---	---	16.5	9.0	12.5	16.5	10.0	13.0	---	---	---

NORTH SANTIAM RIVER BASIN

14184100 NORTH SANTIAM RIVER NEAR JEFFERSON, OR

LOCATION.--Lat 44°42'30", long 122°58'10", in SE¼SE¼ sec.7, T.10 S., R.2 W., Marion County, Hydrologic Unit 17090005, on right bank 300 ft upstream from Green's Bridge, on old bridge abutment at Jefferson Scio Road, and at mile 1.5.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1985 to September 1986 (discontinued).

INSTRUMENTATION.--Temperature recorder since May 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 22.0°C July 19, 1985; minimum, 3.0°C Dec. 26-28, 30, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 20.0°C June 24, but may have been higher during missing record, June 25 to Sept. 2; minimum recorded, 3.0°C Dec. 26-28, 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	12.5	13.5	11.5	10.5	11.0	---	---	---	5.5	4.5	5.0
2	15.5	14.0	14.5	12.0	11.5	12.0	---	---	---	5.5	4.5	5.0
3	15.5	13.5	14.5	12.5	11.5	12.0	---	---	---	6.0	5.0	5.5
4	15.0	13.0	14.5	12.0	10.5	11.5	---	---	---	5.0	4.0	4.5
5	15.5	13.0	14.5	10.5	10.0	10.5	---	---	---	6.0	5.0	5.5
6	15.0	13.5	14.5	10.5	10.0	10.5	---	---	---	6.0	5.5	5.5
7	14.5	13.0	14.0	10.5	9.5	10.0	---	---	---	5.5	5.0	5.0
8	13.5	11.5	12.5	9.5	8.5	9.0	---	---	---	6.5	5.0	6.0
9	13.0	10.5	12.0	9.0	8.5	9.0	---	---	---	6.5	6.0	6.0
10	13.5	12.0	12.5	9.0	8.5	8.5	---	---	---	6.5	6.0	6.0
11	14.0	13.0	13.5	8.5	8.0	8.5	---	---	---	6.0	5.5	5.5
12	14.0	12.5	13.0	8.5	7.5	8.0	---	---	---	5.5	5.0	5.5
13	14.0	12.0	13.0	8.5	7.5	8.0	---	---	---	5.5	5.0	5.5
14	14.0	12.0	13.0	8.5	7.5	8.0	---	---	---	5.5	5.0	5.5
15	14.5	13.0	13.5	9.0	8.5	9.0	---	---	---	6.0	5.5	5.5
16	14.5	13.5	14.0	8.5	8.0	8.5	---	---	---	6.5	6.0	6.0
17	13.5	12.0	13.0	8.0	7.5	8.0	---	---	---	6.0	6.0	6.0
18	14.0	12.0	13.0	---	---	---	---	---	---	7.0	6.0	6.5
19	13.5	13.0	13.0	---	---	---	4.5	3.5	4.0	7.0	6.0	6.5
20	13.5	13.0	13.0	---	---	---	4.0	3.5	4.0	6.5	5.5	6.0
21	13.0	12.5	13.0	---	---	---	4.0	3.5	4.0	6.0	5.0	5.5
22	13.0	12.0	12.5	---	---	---	4.0	3.5	4.0	6.0	5.5	6.0
23	12.0	11.0	11.5	---	---	---	4.5	3.5	4.0	6.5	6.0	6.5
24	12.0	11.0	11.5	---	---	---	4.5	3.5	4.0	6.5	5.5	6.0
25	12.0	11.0	11.5	---	---	---	4.0	3.5	4.0	6.5	5.5	6.0
26	12.0	11.0	11.5	---	---	---	4.0	3.0	3.5	6.5	5.5	6.0
27	12.5	11.5	12.0	---	---	---	3.5	3.0	3.5	7.0	6.5	6.5
28	11.5	10.5	11.0	---	---	---	4.0	3.0	3.5	7.0	6.5	6.5
29	10.5	9.5	10.0	---	---	---	4.0	3.5	4.0	7.0	6.5	6.5
30	11.0	10.5	10.5	---	---	---	3.5	3.0	3.5	7.5	6.5	7.0
31	10.5	10.0	10.5	---	---	---	4.5	3.5	4.0	7.5	6.5	7.0
MONTH	15.5	9.5	12.5	---	---	---	---	---	---	7.5	4.0	6.0

NORTH SANTIAM RIVER BASIN

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14184100 NORTH SANTIAM RIVER NEAR JEFFERSON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.0	7.5	6.5	6.5	10.0	8.5	9.5	9.5	9.0	9.0
2	7.5	6.5	7.0	7.0	6.0	6.5	10.0	8.0	9.0	9.5	9.0	9.0
3	7.5	6.5	7.0	7.0	6.0	6.5	9.0	7.5	8.5	11.5	8.5	10.0
4	7.0	6.5	7.0	7.5	6.0	7.0	10.0	8.5	9.0	10.5	9.0	10.0
5	7.0	6.0	6.5	8.0	6.5	7.0	10.5	7.5	9.0	10.0	9.0	9.5
6	6.5	6.0	6.0	8.0	7.0	7.5	11.5	9.0	10.5	10.5	8.0	9.5
7	6.0	5.0	5.5	8.0	7.5	7.5	12.0	9.5	11.0	10.0	9.0	9.5
8	5.5	4.0	5.0	7.5	6.5	7.0	11.5	9.5	11.0	11.5	9.0	10.0
9	5.5	4.0	5.0	7.0	6.5	7.0	10.5	9.0	9.5	10.5	8.5	9.0
10	5.5	4.0	4.5	8.0	6.5	7.0	11.0	8.0	9.5	9.5	8.0	8.5
11	5.5	5.0	5.5	8.0	7.0	7.5	10.0	8.0	8.5	9.0	7.5	8.0
12	5.0	4.5	4.5	7.5	6.5	7.0	8.5	7.5	8.0	10.0	7.5	9.0
13	6.0	4.5	5.5	7.5	6.5	7.0	10.0	8.0	9.0	10.5	9.0	10.0
14	---	---	---	8.5	6.0	7.0	9.5	8.0	9.0	10.5	7.5	9.0
15	7.5	5.5	6.5	8.5	6.5	7.5	11.0	8.5	9.5	11.5	8.0	10.0
16	7.5	6.5	7.0	8.5	6.5	7.5	9.5	8.5	9.0	11.5	8.5	10.0
17	6.5	6.0	6.5	8.5	7.0	7.5	9.5	8.0	8.5	13.0	9.0	11.0
18	6.0	6.0	6.0	8.5	7.0	8.0	10.5	8.0	9.0	12.5	11.0	11.5
19	6.5	5.0	6.0	10.0	8.0	9.0	12.0	9.0	10.5	13.5	10.5	12.0
20	6.0	5.5	6.0	10.0	8.5	9.5	13.0	10.0	11.5	12.5	10.5	11.0
21	6.5	6.0	6.0	10.5	9.0	10.0	14.0	11.0	12.5	11.0	9.0	10.0
22	7.5	6.5	7.0	9.5	7.5	9.0	13.0	10.0	11.5	12.0	8.0	10.0
23	8.0	7.5	8.0	9.0	8.5	8.5	11.0	8.5	9.5	11.5	9.5	10.5
24	9.0	7.5	8.5	9.0	7.5	8.5	9.5	8.0	8.5	13.0	10.0	11.5
25	8.0	7.0	7.5	9.0	7.5	8.0	9.5	7.5	8.5	15.5	11.0	13.0
26	7.5	6.5	7.0	11.0	8.5	9.5	9.0	8.0	8.5	14.5	12.5	13.5
27	7.5	6.5	7.0	11.0	9.0	10.0	9.5	8.5	9.0	13.0	11.5	12.5
28	7.0	6.5	6.5	11.5	9.5	10.5	9.0	7.5	8.5	15.0	11.5	13.5
29	---	---	---	11.5	9.5	10.5	10.0	7.5	8.5	17.0	13.5	15.0
30	---	---	---	11.0	9.5	10.5	9.5	7.5	8.5	17.0	15.0	16.0
31	---	---	---	10.0	8.0	9.0	---	---	---	17.0	14.5	16.0
MONTH	---	---	---	11.5	6.0	8.0	14.0	7.5	9.5	17.0	7.5	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	16.5	14.0	15.5							---	---	---
2	16.0	13.0	15.0							---	---	---
3	15.5	12.0	13.5							19.0	17.5	18.5
4	13.5	12.0	13.0							19.5	16.0	17.5
5	13.5	12.0	12.5							18.5	16.0	17.5
6	12.5	11.5	12.0							18.5	15.5	17.0
7	13.5	11.5	12.5							17.0	15.0	16.0
8	15.5	12.0	13.5							16.0	13.5	14.5
9	16.5	13.0	14.5							15.0	13.0	14.0
10	18.0	14.5	16.0							14.0	12.5	13.5
11	18.5	15.5	17.0							14.5	12.0	13.5
12	18.5	15.5	17.0							14.5	12.5	13.5
13	19.0	15.5	17.0							13.5	12.5	13.0
14	17.0	14.0	15.5							14.0	11.5	13.0
15	16.0	12.0	14.0							14.0	13.0	13.5
16	15.5	13.0	14.0							14.0	12.5	13.5
17	13.0	12.0	12.0							14.0	13.0	13.0
18	12.5	11.0	11.5							14.5	12.5	13.5
19	15.0	10.0	12.5							14.5	13.0	14.0
20	16.0	13.5	14.5							14.5	13.0	13.5
21	17.5	14.0	15.5							14.5	13.0	13.5
22	19.0	15.0	17.0							14.5	13.0	14.0
23	19.5	16.5	18.0							14.5	13.0	13.5
24	20.0	16.5	18.0							13.5	12.5	13.0
25	---	---	---							12.5	12.0	12.5
26	---	---	---							12.5	11.5	12.0
27	---	---	---							12.5	11.5	12.0
28	---	---	---							13.5	12.0	12.5
29	---	---	---							13.5	12.5	13.0
30	---	---	---							13.5	12.5	13.0
31	---	---	---							---	---	---
MONTH	---	---	---							---	---	---

SOUTH SANTIAM RIVER BASIN

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR

LOCATION.--Lat 44°23'35", long 122°30'35", in SE¼ sec.36, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, on left bank 100 ft downstream from bridge at Cascadia ranger station, 0.5 mi downstream from Mouse Creek, 0.5 mi upstream from Deer Creek, 1.5 mi southwest of Cascadia, and at mile 48.5.

DRAINAGE AREA.--174 mi², at cableway 0.7 mi upstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1935 to current year. Monthly discharge only September 1935, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 759.88 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 1, 1935, nonrecording gage.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. No regulation or diversion upstream from station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--51 years, 826 ft³/s, 64.47 in/yr, 598,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft³/s Dec. 22, 1964, gage height, 19.68 ft, from rating curve extended above 14,000 ft³/s; minimum discharge, 23 ft³/s Dec. 1, 2, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	2030	8,180	10.40	Feb. 23	1000	*21,600	*16.45

Minimum discharge, 38 ft³/s Sept. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	68	539	327	1100	954	1420	558	1070	282	111	67	47		
2	65	618	576	1080	892	1170	556	1160	266	107	65	44		
3	63	606	1820	1180	948	993	514	1250	253	107	65	44		
4	63	597	1400	910	982	885	488	1080	241	166	63	43		
5	62	664	1380	1050	1110	796	458	1190	230	166	61	41		
6	61	812	2610	1300	985	741	435	1140	223	132	60	38		
7	67	2710	3340	996	862	1280	412	969	216	119	59	38		
8	72	3450	2330	970	749	1360	401	854	207	114	58	38		
9	64	2170	1550	1300	666	1730	400	769	196	107	56	42		
10	62	1440	1140	1280	598	1420	379	865	189	113	52	51		
11	112	1010	911	1090	566	1400	370	996	176	124	51	50		
12	165	786	765	896	771	1350	445	995	166	113	51	45		
13	121	648	662	786	1710	1260	551	1090	161	104	51	43		
14	100	556	582	698	1790	1160	558	1030	159	100	51	43		
15	89	1320	527	719	2310	1020	567	869	168	94	51	52		
16	85	3590	506	1490	5370	894	629	748	160	101	48	68		
17	85	2350	526	2100	6930	821	821	664	168	122	47	86		
18	82	1540	588	1600	4660	734	843	607	220	108	47	148		
19	97	1150	622	1970	2810	675	768	559	204	98	47	95		
20	142	947	626	1840	2110	639	757	583	168	93	47	125		
21	179	792	609	1410	2490	648	761	585	155	89	44	112		
22	531	697	599	1540	9770	610	704	614	147	86	44	85		
23	3320	586	611	2310	15000	729	606	546	140	83	44	104		
24	2470	526	635	1860	6280	1370	538	494	135	82	44	569		
25	2480	475	649	1410	3960	1120	557	456	129	79	44	639		
26	1500	435	606	1150	3150	958	612	428	126	77	44	1440		
27	938	399	548	1050	2350	850	1730	401	122	76	43	1070		
28	1100	381	496	1080	1780	767	1930	371	118	74	43	736		
29	805	358	452	1050	---	691	1490	344	119	72	41	541		
30	662	330	414	1160	---	643	1250	321	117	71	44	474		
31	617	---	399	1020	---	578	---	304	---	69	46	---		
TOTAL	16327	32482	28806	39395	82553	30712	21088	23352	5361	3157	1578	6951		
MEAN	527	1083	929	1271	2948	991	703	753	179	102	50.9	232		
MAX	3320	3590	3340	2310	15000	1730	1930	1250	282	166	67	1440		
MIN	61	330	327	698	566	578	370	304	117	69	41	38		
CFSM	3.03	6.22	5.34	7.30	16.9	5.70	4.04	4.33	1.03	.59	.29	1.33		
IN.	3.49	6.94	6.16	8.42	17.65	6.57	4.51	4.99	1.15	.67	.34	1.49		
AC-FT	32380	64430	57140	78140	163700	60920	41830	46320	10630	6260	3130	13790		
CAL YR 1985	TOTAL	225941	MEAN	619	MAX	3590	MIN	54	CFSM	3.56	IN.	48.30	AC-FT	448200
WTR YR 1986	TOTAL	291762	MEAN	799	MAX	15000	MIN	38	CFSM	4.59	IN.	62.38	AC-FT	578700

SOUTH SANTIAM RIVER BASIN

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14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR --Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1962 to July 1967, February 1969 to current year.

INSTRUMENTATION.--Temperature recorder June 1962 to July 1967, February 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.0°C July 30, Aug. 7, 1965; minimum, 0.0°C at times during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C Aug. 9; minimum recorded, 1.0°C Nov. 23, 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.5	9.5	10.5	8.5	7.0	7.5	2.0	1.5	2.0	5.0	4.5	5.0
2	13.0	11.0	11.5	9.5	8.5	9.0	3.5	1.5	2.5	5.0	4.0	4.5
3	13.0	11.5	---	9.5	9.0	9.5	5.0	3.5	4.5	5.0	4.5	5.0
4	12.5	11.0	11.5	9.5	8.0	9.0	5.5	5.0	5.0	5.5	4.0	4.5
5	12.5	10.5	11.5	8.0	7.0	7.5	5.5	5.0	5.5	6.0	5.5	5.5
6	12.5	11.0	11.5	8.0	7.5	7.5	6.0	5.5	5.5	5.5	5.0	5.0
7	11.5	11.0	11.5	8.5	8.0	8.5	6.0	5.5	6.0	5.5	4.5	5.0
8	11.0	7.5	9.5	8.0	6.5	7.0	5.5	5.5	5.5	6.5	5.5	6.0
9	7.5	6.0	6.5	6.5	6.0	6.0	5.5	4.5	5.0	6.5	6.5	6.5
10	7.5	6.0	6.5	6.0	5.0	5.5	4.5	3.0	3.5	6.5	5.5	6.0
11	9.0	7.0	8.5	5.0	4.0	4.0	3.0	2.5	2.5	6.0	5.0	5.5
12	9.0	8.5	9.0	4.0	3.0	3.0	3.0	2.5	2.5	6.0	5.0	5.5
13	8.5	7.5	8.0	3.5	3.0	3.5	3.0	2.5	3.0	6.5	6.0	6.0
14	8.5	7.5	8.0	4.0	3.0	3.5	3.5	2.5	3.0	6.0	5.5	6.0
15	9.0	8.0	8.5	6.0	4.0	5.0	4.0	3.0	3.5	6.0	6.0	6.0
16	9.5	8.5	9.0	6.5	6.0	6.5	3.5	3.0	3.5	6.5	6.0	6.5
17	9.0	8.0	8.5	6.5	5.0	5.5	3.5	3.5	3.5	6.5	5.5	6.0
18	8.5	7.5	8.0	5.5	5.0	5.0	4.0	3.5	3.5	7.5	6.5	7.0
19	9.0	7.5	8.5	5.0	4.0	4.5	4.0	3.0	3.5	7.5	6.0	6.5
20	9.5	9.0	9.5	4.0	3.5	4.0	3.5	3.0	3.5	6.0	5.0	5.5
21	9.5	9.0	9.0	4.0	3.5	3.5	3.5	3.5	3.5	5.5	5.0	5.0
22	9.0	8.5	8.5	3.5	2.5	3.0	4.0	3.5	3.5	6.0	5.5	6.0
23	9.0	9.0	9.0	2.5	1.0	1.5	4.0	3.5	3.5	6.0	6.0	6.0
24	10.0	9.0	9.5	2.0	1.5	2.0	4.0	3.5	4.0	6.0	5.0	5.5
25	9.5	9.5	9.5	3.0	2.0	2.5	4.0	3.5	4.0	5.5	5.0	5.5
26	9.5	8.5	9.0	3.5	3.0	3.0	3.5	3.0	3.5	6.0	5.0	5.5
27	9.5	8.5	9.0	3.5	2.5	3.0	3.5	3.0	3.0	7.0	6.0	6.5
28	9.0	7.5	8.0	3.5	3.0	3.5	3.0	3.0	3.0	7.0	6.5	7.0
29	7.5	6.5	7.0	3.5	1.5	2.5	3.0	3.0	3.0	7.0	6.5	7.0
30	7.5	7.0	7.0	2.0	1.0	1.5	3.0	2.5	2.5	7.5	7.0	7.5
31	7.5	7.0	7.0	---	---	---	4.5	3.0	3.5	7.5	6.5	7.0
MONTH	13.0	6.0	---	9.5	1.0	5.0	6.0	1.5	3.5	7.5	4.0	6.0

SOUTH SANTIAM RIVER BASIN

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.0	8.5	7.5	8.0						
2	7.0	6.5	7.0	8.0	6.5	7.5						
3	6.5	6.0	6.5	8.5	7.0	7.5						
4	6.5	6.5	6.5	9.0	7.5	8.0						
5	6.5	5.0	5.5	9.5	7.5	8.5						
6	5.0	4.5	5.0	9.0	8.5	8.5						
7	4.5	3.5	4.0	9.0	7.5	8.5						
8	4.0	3.0	3.5	7.5	7.0	7.0						
9	4.0	3.0	3.5	7.5	6.5	7.0						
10	4.0	3.0	3.5	8.0	6.5	7.0						
11	4.5	4.0	4.0	7.5	7.0	7.5						
12	4.0	2.5	3.0	7.0	6.5	7.0						
13	6.0	4.0	5.0	7.5	6.0	6.5						
14	6.0	5.0	5.5	6.5	5.0	6.0						
15	6.5	6.0	6.0	7.5	6.0	6.5						
16	6.5	6.5	6.5	7.5	5.5	6.5						
17	6.5	6.5	6.5	7.0	6.5	6.5						
18	6.5	4.5	5.5	7.5	6.0	7.0						
19	5.5	4.5	5.0	8.5	6.0	7.0						
20	5.5	5.0	5.5	9.5	7.0	8.0						
21	6.0	5.5	5.5	9.0	7.5	8.5						
22	6.5	6.0	6.5	7.5	6.0	7.0						
23	7.0	6.5	7.0	8.0	7.0	7.5						
24	8.0	6.5	7.5	7.5	6.5	7.0						
25	7.5	7.0	7.5	8.0	5.5	7.0						
26	8.0	7.0	7.5	9.5	7.0	8.5						
27	9.0	7.5	8.0	10.5	8.0	9.0						
28	8.5	7.5	8.0	11.0	8.5	9.5						
29	---	---	---	10.5	8.0	9.5						
30	---	---	---	9.5	7.5	8.5						
31	---	---	---	---	---	---						
MONTH	9.0	2.5	6.0	---	---	---						
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	19.0	16.5	17.5	21.0	16.5	18.5	19.5	16.0	17.0
2	---	---	---	18.5	16.5	17.5	21.0	18.0	19.0	20.0	16.5	17.5
3	---	---	---	17.5	16.0	16.5	22.0	18.0	19.0	20.0	16.5	18.0
4	---	---	---	16.5	13.5	15.0	21.5	17.5	18.5	20.5	17.0	18.0
5	16.0	16.0	16.0	16.0	12.5	14.0	21.0	17.0	18.5	20.0	16.5	18.0
6	15.5	14.0	14.0	17.5	14.5	16.0	21.5	17.0	18.5	20.0	16.5	17.5
7	14.0	13.0	13.5	16.5	15.5	16.0	22.5	18.0	19.5	19.0	16.5	17.0
8	15.0	12.0	13.5	19.0	16.0	17.0	23.5	19.0	20.5	17.0	16.0	16.5
9	15.5	12.5	14.0	17.5	16.5	17.0	24.0	19.5	21.0	16.0	15.0	15.5
10	17.5	14.0	16.0	16.5	15.5	15.5	23.0	19.0	20.5	16.0	14.5	15.0
11	18.5	15.5	17.0	17.5	15.0	16.0	22.5	18.5	19.5	16.5	13.5	14.5
12	19.0	16.0	17.5	18.5	16.5	17.0	22.0	18.0	19.5	15.5	13.5	14.0
13	19.0	15.5	17.5	18.5	16.0	17.0	22.0	18.0	19.5	14.5	13.0	13.5
14	17.5	14.0	16.0	18.0	16.0	16.5	23.0	18.5	20.0	14.0	12.0	12.5
15	15.5	13.0	14.5	16.0	15.0	15.5	22.5	19.0	20.0	13.5	12.5	13.0
16	15.5	13.0	14.0	15.0	14.0	14.5	20.5	18.0	19.0	13.5	12.5	13.0
17	13.5	13.0	13.0	16.5	13.0	14.5	20.5	17.0	18.5	13.5	12.5	13.0
18	13.0	12.0	12.5	17.0	15.0	15.5	20.5	17.0	18.0	13.0	12.5	12.5
19	14.5	11.0	13.0	18.5	15.5	16.5	20.5	17.0	18.5	14.0	12.0	13.0
20	16.0	13.0	14.5	20.0	17.0	18.0	21.0	17.5	18.5	13.0	12.5	13.0
21	16.5	13.5	15.0	20.5	17.5	18.5	21.5	18.0	19.0	13.0	12.0	12.5
22	18.5	15.0	16.5	20.5	18.0	18.5	20.0	17.5	18.5	13.5	12.0	12.5
23	19.5	16.5	18.0	20.0	17.5	18.5	20.5	17.0	18.5	12.5	12.0	12.0
24	20.0	17.5	18.5	20.0	17.0	18.0	20.0	17.0	18.0	12.0	11.0	11.5
25	20.0	17.5	18.5	20.0	17.0	18.0	20.5	16.5	18.0	11.0	10.0	10.5
26	18.5	17.5	18.0	19.5	17.0	18.0	20.5	17.0	18.5	10.0	9.5	9.5
27	19.0	16.5	17.5	19.5	16.5	17.5	20.5	18.5	19.5	10.5	9.5	10.0
28	18.0	15.0	16.5	19.5	16.0	17.0	20.0	18.5	19.0	10.5	10.0	10.5
29	17.0	14.5	15.5	20.0	16.5	17.5	19.0	18.0	18.5	10.5	10.0	10.5
30	18.0	15.0	16.5	19.5	16.0	17.5	18.5	17.0	18.0	11.0	10.5	10.5
31	---	---	---	20.0	16.0	17.5	19.5	16.5	17.5	---	---	---
MONTH	---	---	---	20.5	12.5	17.0	24.0	16.5	19.0	20.5	9.5	13.5

SOUTH SANTIAM RIVER BASIN

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14185700 MIDDLE SANTIAM RIVER NEAR UPPER SODA, OR

LOCATION.--Lat 44°30'45", long 122°15'52", in SE¼NE¼ sec.24, T.12 S., R.4 E., Linn County, Hydrologic Unit 17090006, on right bank 0.8 mi upstream from Bear Creek, 7.5 mi north of Upper Soda, and at mile 23.9.

DRAINAGE AREA.--74.6 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,500 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent.

AVERAGE DISCHARGE.--6 years, 450 ft³/s, 81.92 in/yr, 326,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s Feb. 23, 1986, gage height, 11.05 ft, from rating curve extended above 3,600 ft³/s on basis of slope-area measurement of December 1980; minimum discharge, 22 ft³/s Sept. 16-20, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0700	3,520	6.08	Feb. 23	0900	*18,400	*11.05

Minimum discharge, 25 ft³/s Sept. 7, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	33	317	207	742	611	870	325	509	182	75	40	29		
2	33	374	241	690	575	728	308	545	170	74	39	27		
3	32	363	491	657	566	625	285	562	160	73	39	27		
4	32	355	417	557	608	560	268	524	151	96	37	27		
5	31	362	408	617	607	508	252	551	147	87	36	27		
6	31	423	751	736	544	480	236	515	141	77	36	26		
7	43	969	1110	613	492	689	228	475	136	73	35	25		
8	38	1330	894	621	456	716	222	439	133	70	34	25		
9	33	911	684	828	419	699	218	412	127	68	33	29		
10	32	676	556	825	382	645	208	432	123	69	32	31		
11	61	541	474	733	352	691	201	430	119	72	31	28		
12	79	457	419	626	356	671	212	439	115	67	31	27		
13	59	399	372	564	384	645	207	495	112	63	30	27		
14	50	351	334	513	446	603	201	484	110	60	31	27		
15	45	631	306	510	662	547	205	439	111	59	31	35		
16	42	1460	289	887	2220	496	235	396	105	62	30	39		
17	41	1100	289	1130	3210	458	282	363	106	65	30	44		
18	39	793	321	1040	2270	415	277	341	119	62	29	65		
19	60	642	360	1060	1420	380	264	319	117	57	29	42		
20	89	549	389	876	1030	356	270	331	105	56	29	61		
21	73	477	410	716	1050	362	285	322	99	54	29	49		
22	360	429	421	795	5500	341	279	313	95	52	29	39		
23	1360	369	449	1070	11700	402	251	288	92	50	28	55		
24	1100	336	494	912	4530	593	230	267	89	49	28	192		
25	1270	307	515	748	2440	533	248	258	86	48	27	242		
26	805	282	490	636	1800	502	260	251	85	47	27	457		
27	552	260	453	616	1340	469	622	238	81	46	27	338		
28	544	246	415	654	1070	449	764	225	81	45	27	260		
29	431	229	374	665	---	418	637	212	81	44	27	199		
30	374	216	335	716	---	389	554	204	77	42	28	173		
31	346	---	327	646	---	352	---	193	---	42	29	---		
TOTAL	8118	16154	13995	22999	47040	16592	9034	11772	3455	1904	968	2672		
MEAN	262	538	451	742	1680	535	301	380	115	61.4	31.2	89.1		
MAX	1360	1460	1110	1130	11700	870	764	562	182	96	40	457		
MIN	31	216	207	510	352	341	201	193	77	42	27	25		
CFSM	3.51	7.21	6.05	9.95	22.5	7.17	4.03	5.09	1.54	.82	.42	1.19		
IN.	4.05	8.06	6.98	11.47	23.46	8.27	4.50	5.87	1.72	.95	.48	1.33		
AC-FT	16100	32040	27760	45620	93300	32910	17920	23350	6850	3780	1920	5300		
CAL YR 1985	TOTAL	130020	MEAN	356	MAX	1460	MIN	31	CFSM	4.77	IN.	64.84	AC-FT	257900
WTR YR 1986	TOTAL	154703	MEAN	424	MAX	11700	MIN	25	CFSM	5.68	IN.	77.14	AC-FT	306900

SOUTH SANTIAM RIVER BASIN

14185880 PACKERS GULCH NEAR CASCADIA, OR

LOCATION.--Lat 44°36'00", long 122°23'38", in NE¼NW¼ sec.24, T.11 S., R.3 E., Linn County, Hydrologic Unit 17090006, on right bank 2 ft downstream from bridge, 1.0 mi upstream from mouth, and 14 mi north of Cascadia.

DRAINAGE AREA.--7.45 mi².

PERIOD OF RECORD.--July 1983 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,520 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those above 400 ft³/s, which are fair. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s Feb. 23, 1986, gage height, 4.85 ft, from rating curve extended above 200 ft³/s; minimum discharge, 2.0 ft³/s Sept. 6-8, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 540 ft³/s and maximum (*) from rating curve extended above 200 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1630	942	3.66	Feb. 23	0730	*2,600	*4.85

Minimum discharge, 2.0 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	3.3	37	19	118	60	75	29	56	13	4.9	3.3	2.6		
2	3.3	47	37	91	55	59	26	73	13	4.9	3.3	2.4		
3	3.2	46	88	91	63	48	23	76	12	4.9	3.3	2.3		
4	3.1	44	69	72	77	42	22	65	11	8.5	3.2	2.3		
5	2.9	46	70	94	85	37	19	90	11	7.2	3.1	2.2		
6	2.9	63	165	100	69	36	18	81	11	5.7	3.1	2.1		
7	3.5	226	233	74	57	98	17	66	10	5.1	3.0	2.0		
8	3.1	221	157	70	49	97	16	54	9.7	4.9	2.9	2.1		
9	2.9	125	98	79	43	104	16	49	9.1	4.8	2.8	2.6		
10	2.9	79	71	73	39	85	15	50	8.6	5.8	2.8	2.6		
11	8.2	57	56	60	36	92	14	57	8.1	6.1	2.8	2.4		
12	8.1	46	47	51	35	101	16	59	7.7	5.4	2.8	2.3		
13	5.5	40	42	45	50	104	16	66	7.4	4.9	2.8	2.2		
14	4.6	36	38	41	70	99	16	58	7.7	4.7	2.7	2.3		
15	4.2	142	35	50	176	82	16	49	7.6	4.6	2.6	2.6		
16	4.1	253	36	125	717	65	26	41	7.3	6.0	2.6	3.3		
17	4.0	149	44	156	489	54	39	36	8.1	5.6	2.6	5.2		
18	3.7	91	54	134	271	46	37	33	9.7	4.9	2.5	8.1		
19	11	67	57	120	155	41	33	30	9.8	4.7	2.5	5.6		
20	14	54	55	100	106	37	32	30	7.7	4.4	2.5	7.6		
21	16	45	52	77	185	36	30	32	7.0	4.2	2.5	6.8		
22	104	40	51	111	917	33	27	33	6.6	4.1	2.4	4.9		
23	207	34	52	199	2000	67	24	29	6.3	4.0	2.4	23		
24	157	31	51	144	601	122	20	26	6.0	4.0	2.4	56		
25	227	28	49	98	268	87	24	24	5.7	3.9	2.3	99		
26	106	26	44	75	193	67	38	22	5.6	3.8	2.3	146		
27	63	24	39	69	134	54	123	20	5.4	3.7	2.3	99		
28	64	23	34	67	96	45	106	18	5.5	3.7	2.3	57		
29	50	21	30	65	---	39	82	16	5.6	3.6	2.4	41		
30	43	20	27	76	---	36	67	15	5.2	3.5	2.7	34		
31	39	---	30	67	---	31	---	14	---	3.4	2.7	---		
TOTAL	1174.5	2161	1930	2792	7096	2019	987	1368	248.4	149.9	83.9	631.5		
MEAN	37.9	72.0	62.3	90.1	253	65.1	32.9	44.1	8.28	4.84	2.71	21.1		
MAX	227	253	233	199	2000	122	123	90	13	8.5	3.3	146		
MIN	2.9	20	19	41	35	31	14	14	5.2	3.4	2.3	2.0		
CFSM	5.09	9.66	8.36	12.1	34.0	8.74	4.42	5.92	1.11	.65	.36	2.83		
IN.	5.86	10.79	9.64	13.94	35.43	10.08	4.93	6.83	1.24	.75	.42	3.15		
AC-FT	2330	4290	3830	5540	14070	4000	1960	2710	493	297	166	1250		
CAL YR 1985	TOTAL	14794.0	MEAN	40.5	MAX	253	MIN	2.4	CFSM	5.44	IN.	73.87	AC-FT	29340
WTR YR 1986	TOTAL	20641.2	MEAN	56.6	MAX	2000	MIN	2.0	CFSM	7.60	IN.	103.07	AC-FT	40940

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR

LOCATION.--Lat 44°32'25", long 122°26'05", in NW¼ sec.10, T.12 S., R.3 E., Linn County, Hydrologic Unit 17090006, on Bureau of Land Management land, on right bank 80 ft downstream from Panther Creek, 10 mi north of Cascadia, and at mile 6.6.

DRAINAGE AREA.--99.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to November 1964 (destroyed by flood of December 1964); October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,050 ft, from topographic map. Aug. 13, 1963, to Dec. 22, 1964, water-stage recorder on left bank at present datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--22 years (water years 1964, 1966-86), 681 ft³/s, 93.23 in/yr, 493,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s Jan. 20, 1972, gage height, 16.38 ft; minimum discharge, 14 ft³/s Aug. 19-23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 36,500 ft³/s Dec. 22, 1964, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	2300	5,250	10.20	Feb. 16	1700	8,450	11.84
Nov. 16	0300	4,510	9.76	Feb. 23	0900	*16,800	*14.82

Minimum discharge, 19 ft³/s Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	43	432	190	1670	768	905	352	669	184	69	40	26		
2	42	627	284	1190	690	726	323	888	172	67	39	25		
3	41	591	1250	1280	878	605	296	986	162	67	39	24		
4	39	533	833	876	1090	528	277	788	152	105	37	23		
5	38	590	828	1190	1130	471	257	1080	146	95	36	22		
6	37	908	2010	1390	843	448	242	928	139	76	35	21		
7	54	3230	2820	895	660	1090	232	724	138	70	35	20		
8	46	2950	1730	843	539	1210	225	609	132	67	33	20		
9	39	1450	1060	1110	459	1310	220	545	125	63	32	27		
10	38	910	756	1030	400	990	207	586	119	77	31	32		
11	82	640	588	834	367	1190	203	660	113	89	31	26		
12	132	497	489	662	369	1220	226	705	108	79	31	23		
13	90	411	420	559	560	1180	226	868	103	69	30	23		
14	71	357	372	487	888	1100	222	749	105	63	30	24		
15	62	1500	339	578	2180	869	235	585	109	61	29	32		
16	59	3740	342	1830	6980	697	344	484	99	75	28	44		
17	58	1770	444	2150	5550	592	553	426	108	85	27	68		
18	53	1050	620	1710	3730	512	496	387	143	72	26	119		
19	145	756	671	1620	1880	464	418	351	159	65	26	60		
20	278	596	637	1290	1270	441	415	369	117	61	26	117		
21	223	490	595	936	1800	461	394	382	104	57	26	88		
22	1410	420	586	1360	9110	430	339	458	96	54	25	59		
23	3400	352	609	2670	12100	705	284	412	90	52	24	132		
24	2260	318	606	1670	5230	1660	255	354	86	51	24	662		
25	2790	288	583	1100	2810	1070	317	319	81	49	24	1040		
26	1240	262	505	843	2170	818	420	291	79	48	23	1660		
27	737	240	433	809	1510	678	1550	265	77	47	22	1010		
28	963	227	375	890	1160	576	1380	244	76	45	23	627		
29	655	211	328	825	---	493	938	225	77	43	23	444		
30	516	200	291	1020	---	441	749	210	72	42	27	370		
31	456	---	303	885	---	382	---	196	---	41	29	---		
TOTAL	16097	26546	21897	36202	67121	24262	12595	16743	3471	2004	911	6868		
MEAN	519	885	706	1168	2397	783	420	540	116	64.6	29.4	229		
MAX	3400	3740	2820	2670	12100	1660	1550	1080	184	105	40	1660		
MIN	37	200	190	487	367	382	203	196	72	41	22	20		
CFSM	5.23	8.92	7.12	11.8	24.2	7.89	4.23	5.44	1.17	.65	.30	2.31		
IN.	6.04	9.95	8.21	13.58	25.17	9.10	4.72	6.28	1.30	.75	.34	2.58		
AC-FT	31930	52650	43430	71810	133100	48120	24980	33210	6880	3970	1810	13620		
CAL YR 1985	TOTAL	190036	MEAN	521	MAX	3740	MIN	33	CFSM	5.25	IN.	71.26	AC-FT	376900
WTR YR 1986	TOTAL	234717	MEAN	643	MAX	12100	MIN	20	CFSM	6.48	IN.	88.02	AC-FT	465600

SOUTH SANTIAM RIVER BASIN

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR-- Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1963 to November 1964, October 1965 to current year.

INSTRUMENTATION.--Temperature recorder August 1963 to November 1964, October 1965 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 10, 11, 1971; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C Aug. 8, 9; minimum, 0.0°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	11.0	9.0	10.0	8.0	7.0	7.5	1.0	.0	.5	5.5	4.5	5.0
2	13.0	10.5	11.5	9.0	8.0	8.5	2.0	.0	1.0	5.0	5.0	5.0
3	13.0	12.0	12.5	9.5	9.0	9.0	4.5	2.0	4.0	5.5	5.0	5.0
4	12.5	11.0	12.0	9.5	7.5	8.5	5.0	4.5	5.0	5.5	4.5	5.0
5	12.5	11.0	12.0	7.5	7.0	7.0	5.0	5.0	5.0	6.0	5.5	5.5
6	12.5	11.5	12.0	8.0	7.0	7.5	5.5	5.0	5.5	6.0	5.0	5.5
7	12.0	10.0	11.5	8.0	7.5	7.5	6.0	5.5	5.5	5.5	5.0	5.5
8	10.0	7.5	8.5	7.5	6.5	7.0	6.0	5.5	5.5	6.5	5.5	6.0
9	7.5	5.5	7.0	6.5	5.0	5.5	5.5	4.5	5.0	6.5	6.0	6.5
10	8.5	6.5	7.5	5.5	4.5	5.0	4.5	3.0	4.0	6.0	5.5	6.0
11	9.5	8.5	9.0	4.5	3.5	4.0	3.0	2.5	3.0	6.0	5.5	5.5
12	9.0	8.5	9.0	3.5	3.0	3.0	3.0	2.5	3.0	5.5	5.5	5.5
13	8.5	7.5	8.0	3.5	3.0	3.5	3.5	3.0	3.0	6.0	5.5	6.0
14	9.0	7.5	8.0	4.0	3.0	3.5	3.5	3.0	3.0	6.0	5.5	6.0
15	9.0	8.0	8.5	6.0	4.0	4.5	4.0	3.5	3.5	6.0	6.0	6.0
16	10.5	9.0	9.5	6.5	6.0	6.0	4.0	3.5	3.5	6.5	6.0	6.0
17	9.0	8.0	8.5	6.0	5.0	5.0	4.0	3.5	4.0	6.0	6.0	6.0
18	9.0	7.5	8.5	5.0	5.0	5.0	4.5	4.0	4.0	7.0	6.0	7.0
19	9.0	8.0	8.5	5.0	4.0	4.5	4.5	4.0	4.0	7.0	6.0	6.5
20	9.5	8.5	9.0	4.0	3.5	4.0	4.0	4.0	4.0	6.0	5.0	5.5
21	9.5	8.0	8.5	3.5	2.5	3.5	4.0	4.0	4.0	5.5	5.0	5.0
22	8.5	7.5	8.0	2.5	2.0	2.5	4.5	4.0	4.5	6.0	5.5	5.5
23	8.5	8.5	8.5	2.0	1.0	1.5	4.5	4.5	4.5	6.0	6.0	6.0
24	9.5	8.5	9.0	2.0	1.5	2.0	4.5	4.5	4.5	6.0	5.0	5.5
25	9.5	8.5	9.0	3.0	2.0	2.5	4.5	4.5	4.5	6.0	5.0	5.5
26	9.0	8.0	8.5	3.5	3.0	3.5	4.5	4.0	4.0	6.0	5.0	5.5
27	9.0	8.0	8.5	3.5	2.5	3.0	4.0	3.5	4.0	6.5	6.0	6.5
28	8.5	7.0	7.5	3.5	3.0	3.5	4.0	3.5	3.5	6.5	6.5	6.5
29	7.0	5.5	6.5	3.5	2.0	2.5	3.5	3.5	3.5	7.0	6.5	6.5
30	7.0	6.5	7.0	2.0	1.0	1.5	3.5	3.0	3.0	7.0	7.0	7.0
31	7.0	6.5	7.0	---	---	---	4.5	3.5	4.0	7.0	6.5	6.5
MONTH	13.0	5.5	9.0	9.5	1.0	4.5	6.0	.0	4.0	7.0	4.5	6.0

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.5	6.5	8.0	7.5	7.5	7.5	6.5	7.0	---	---	---
2	7.0	6.5	6.5	8.0	6.5	7.0	7.5	6.0	7.0	---	---	---
3	6.5	6.0	6.5	8.5	6.5	7.5	8.0	5.5	6.5	---	---	---
4	6.5	6.0	6.0	8.5	7.0	7.5	7.5	7.0	7.5	---	---	---
5	---	---	---	9.0	7.0	8.0	9.0	6.0	7.5	---	---	---
6	5.5	4.5	5.0	8.0	8.0	8.0	10.5	6.5	8.5	---	---	---
7	5.0	4.0	4.5	8.0	7.0	8.0	11.0	7.5	9.0	---	---	---
8	4.0	3.5	3.5	7.0	6.5	7.0	10.0	9.0	9.5	---	---	---
9	4.0	3.0	3.5	7.0	6.0	6.5	9.0	8.0	8.5	---	---	---
10	4.0	3.5	3.5	7.5	6.5	7.0	9.5	7.5	8.5	---	---	---
11	4.0	2.0	4.0	7.0	6.5	7.0	8.0	7.0	7.0	---	---	---
12	3.0	1.0	2.0	6.5	6.0	6.5	7.0	6.0	6.5	---	---	---
13	4.0	3.0	3.5	6.5	5.5	6.0	8.0	6.0	7.0	---	---	---
14	5.0	4.0	4.5	6.5	5.0	6.0	8.5	6.0	7.0	---	---	---
15	5.5	5.0	5.0	7.0	5.5	6.0	8.5	7.5	8.0	9.0	6.0	7.5
16	6.0	5.5	5.5	7.0	5.0	6.0	7.5	6.5	7.0	10.5	6.5	8.5
17	6.0	5.0	5.5	7.0	6.0	6.5	8.0	6.0	7.0	12.0	8.0	10.0
18	6.0	5.0	5.0	7.5	6.0	6.5	9.0	6.0	7.5	11.0	9.5	10.5
19	5.5	5.0	5.0	8.5	6.0	7.0	10.0	6.5	8.5	12.0	9.0	10.5
20	5.5	5.0	5.5	9.0	6.5	7.5	12.0	7.5	9.5	10.5	9.0	10.0
21	5.5	5.5	5.5	8.0	7.0	7.5	12.5	9.0	10.5	9.0	7.5	8.0
22	6.0	5.5	6.0	8.0	6.0	7.0	11.0	8.0	9.5	10.5	6.5	8.5
23	6.5	6.0	6.5	7.0	6.5	7.0	---	---	---	10.5	8.0	9.0
24	7.5	6.5	7.0	7.0	6.0	6.5	---	---	---	12.5	9.0	11.0
25	7.0	7.0	7.0	7.5	6.0	6.5	---	---	---	15.0	10.5	13.0
26	7.5	6.5	7.0	9.5	6.5	8.0	---	---	---	14.5	12.5	13.5
27	8.0	7.0	7.5	10.0	7.0	8.5	---	---	---	15.5	12.5	14.0
28	8.0	7.0	7.5	10.5	7.5	9.0	---	---	---	16.5	13.0	15.0
29	---	---	---	10.0	7.5	8.5	---	---	---	18.5	13.5	15.5
30	---	---	---	9.0	7.5	8.0	---	---	---	18.5	14.5	16.5
31	---	---	---	8.5	5.5	7.0	---	---	---	20.0	15.5	18.0
MONTH	---	---	---	10.5	5.0	7.0	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.0	17.0	18.5	20.0	16.0	18.0	21.0	16.5	19.0	18.0	16.0	17.0
2	19.0	16.5	18.0	18.5	17.0	17.5	20.0	18.0	19.0	19.0	15.5	17.5
3	18.5	15.5	17.0	18.5	15.0	16.5	21.0	17.5	19.0	19.0	16.5	18.0
4	18.0	16.0	17.0	16.0	14.0	14.5	20.5	17.0	19.0	19.5	17.0	18.0
5	16.5	15.0	16.0	16.5	12.5	14.5	20.5	16.5	18.5	19.0	16.0	17.5
6	15.0	14.0	14.5	18.5	13.5	16.0	21.0	17.0	19.0	19.0	16.0	17.5
7	14.5	13.0	13.5	18.0	14.5	16.5	21.5	18.5	20.0	18.5	16.5	17.0
8	16.0	12.5	14.0	20.0	16.0	18.0	22.0	18.0	20.5	17.5	15.0	16.0
9	17.0	13.0	15.0	18.0	16.0	16.5	22.0	19.0	20.5	15.0	14.5	15.0
10	18.5	14.5	16.5	16.0	15.0	15.5	21.5	18.5	20.5	15.0	14.0	14.5
11	19.5	15.5	17.5	18.5	15.0	16.5	20.5	17.5	19.0	15.5	13.0	14.0
12	20.0	16.0	18.0	19.0	16.0	17.5	20.0	17.0	18.5	14.5	13.0	13.5
13	20.0	15.5	18.0	19.5	15.0	17.0	20.5	17.0	19.0	13.5	12.5	13.0
14	17.5	14.5	16.0	18.5	15.5	16.5	21.0	17.5	19.5	13.5	11.5	12.5
15	16.5	13.5	15.0	15.5	14.0	15.0	20.5	18.0	19.5	13.5	12.5	13.0
16	15.5	14.0	14.5	14.5	13.5	14.0	19.0	17.0	18.0	13.5	12.0	12.5
17	14.0	13.0	13.5	17.5	13.0	15.0	19.0	16.0	17.5	12.5	12.0	12.0
18	13.0	12.5	12.5	17.5	14.0	16.0	19.0	16.5	18.0	13.0	11.5	12.0
19	15.5	11.5	13.5	19.5	15.0	17.0	20.0	17.0	18.0	13.0	11.5	12.0
20	15.0	12.5	14.0	21.0	16.0	18.0	19.0	17.0	18.0	12.0	11.5	11.5
21	18.0	12.5	15.0	21.0	17.0	19.0	20.5	17.0	18.5	12.5	11.0	11.5
22	19.0	15.0	17.0	20.5	17.0	18.5	19.0	17.0	18.0	13.0	11.0	12.0
23	20.5	16.0	18.5	20.0	17.0	18.5	19.0	16.0	18.0	12.5	11.0	11.5
24	21.0	17.5	19.0	20.0	16.0	18.0	19.0	16.0	17.5	11.0	9.5	10.0
25	21.0	17.0	19.0	20.0	16.5	18.5	19.5	16.5	18.0	9.5	8.5	9.0
26	19.5	17.0	18.5	19.5	17.0	18.0	20.0	17.5	19.0	9.0	8.5	8.5
27	20.0	16.5	18.0	19.0	15.5	17.5	20.0	18.0	19.0	9.5	8.5	9.0
28	18.0	15.0	16.5	19.0	15.0	17.0	20.5	18.0	19.0	9.5	8.5	9.0
29	18.5	14.5	16.0	19.5	16.0	18.0	19.0	17.5	18.0	10.0	9.5	9.5
30	19.5	14.5	17.0	19.5	15.5	17.5	17.5	17.0	17.0	10.0	9.5	10.0
31	---	---	---	20.0	15.5	18.0	18.5	15.5	17.0	---	---	---
MONTH	21.0	11.5	16.0	21.0	12.5	17.0	22.0	15.5	18.5	19.5	8.5	13.0

SOUTH SANTIAM RIVER BASIN

14186100 GREEN PETER LAKE NEAR FOSTER, OR

LOCATION.--Lat 44°27'10", long 122°32'40", in NE¼SE¼ sec.10, T.13 S., R.2 E., Linn County, Hydrologic Unit 17090006, in Green Peter Dam on Middle Santiam River, 7.0 mi northeast of Foster, and at mile 5.7.

DRAINAGE AREA.--273 mi².

PERIOD OF RECORD.--October 1966 to current year. Prior to October 1971, published as Green Peter Reservoir near Foster.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by concrete, gravity-type dam with ogee spillway completed in 1966 by Corps of Engineers; controlled storage began Oct. 6, 1966. Total capacity, 428,100 acre-ft, usable capacity 330,800 acre-ft between elevations 887.0 ft, proposed lower limit of operation, and 1,015.0 ft, top of spillway gates. Reservoir used for flood control, power development, improvement of navigation, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Midnight elevations furnished by Corps of Engineers and reviewed by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 420,200 acre-ft June 9, 1981, elevation, 1,012.86 ft; minimum contents, 116,900 acre-ft Dec. 15, 1972, elevation, 899.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 412,000 acre-ft May 14, elevation, 1,010.60 ft; minimum contents, 159,900 acre-ft Jan. 21, elevation, 922.03 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

899	116,600	960	251,100
900	118,300	980	309,700
920	155,700	1,000	374,800
940	199,900	1,013	420,700

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	980.00	962.80	934.76	925.09	928.45	991.98	988.55	1001.89	1009.94	1008.13	1000.46	991.32
2	979.27	962.16	934.21	926.30	927.88	986.41	988.79	1002.98	1009.94	1007.93	1000.16	990.84
3	978.58	961.74	935.91	927.11	929.05	980.49	989.00	1003.98	1009.94	1007.69	999.86	990.34
4	977.87	960.99	936.20	927.17	930.67	976.21	989.19	1004.77	1009.96	1007.55	999.54	989.85
5	977.18	960.45	936.48	927.63	932.44	974.86	989.32	1005.92	1009.98	1007.37	999.27	989.36
6	976.44	960.41	937.72	928.38	933.73	974.59	989.44	1006.85	1010.00	1007.15	999.00	988.85
7	975.74	963.08	939.17	928.61	934.74	974.41	989.57	1007.56	1010.12	1006.91	998.72	988.34
8	975.01	964.86	938.96	928.82	935.59	973.69	989.69	1008.17	1010.03	1006.66	998.46	987.82
9	974.27	964.85	937.67	929.08	936.30	973.87	989.77	1008.62	1010.00	1006.44	998.17	987.39
10	973.55	963.85	937.60	928.39	936.90	974.73	989.87	1009.11	1009.96	1006.29	997.89	986.94
11	972.66	962.41	937.19	927.26	937.54	976.05	989.98	1009.62	1009.94	1006.09	997.60	986.47
12	971.80	960.64	936.57	925.85	938.30	977.27	990.17	1010.12	1009.94	1005.89	997.32	986.01
13	970.84	958.68	936.78	924.18	939.52	977.78	990.33	1010.31	1009.90	1005.68	997.03	985.55
14	969.85	956.58	934.86	922.92	941.12	978.30	990.43	1010.29	1009.88	1005.45	996.75	985.08
15	968.95	956.29	933.82	922.73	944.15	978.63	990.64	1009.91	1009.85	1005.19	996.46	984.70
16	968.04	958.84	932.77	924.28	953.22	978.88	990.96	1009.80	1009.82	1004.95	996.16	984.26
17	967.12	959.24	932.28	925.35	962.28	978.93	991.52	1009.84	1009.83	1004.68	995.85	983.95
18	966.19	958.24	931.90	924.85	967.32	979.55	991.96	1009.84	1009.87	1004.43	995.54	983.64
19	965.49	956.67	931.60	924.50	968.15	980.04	992.32	1009.82	1009.89	1004.19	995.24	983.26
20	964.84	954.74	931.43	923.56	968.10	980.47	992.67	1009.78	1009.88	1003.93	994.95	983.00
21	964.16	952.54	930.93	922.04	968.66	980.97	993.10	1009.86	1009.83	1003.67	994.65	982.63
22	965.21	950.16	930.30	923.03	982.03	981.38	993.52	1009.94	1009.82	1003.42	994.35	982.22
23	969.23	947.59	929.82	926.40	1000.19	982.14	993.89	1009.97	1009.74	1003.14	994.05	982.04
24	970.47	944.98	929.20	928.26	1006.32	983.80	994.22	1009.97	1009.65	1002.86	993.75	982.44
25	972.27	942.76	928.46	929.21	1007.35	984.84	994.66	1009.90	1009.46	1002.55	993.44	983.32
26	971.60	941.59	927.19	929.38	1005.21	985.70	995.23	1009.81	1009.24	1002.28	993.13	984.70
27	970.24	940.31	926.80	928.84	1001.70	986.38	996.95	1009.71	1009.00	1001.96	992.83	985.47
28	969.10	938.93	925.70	928.81	997.10	986.95	998.68	1009.73	1008.78	1001.65	992.53	985.41
29	967.47	937.57	924.53	928.58	---	987.43	999.96	1009.82	1008.54	1001.34	992.22	984.93
30	965.68	936.12	923.61	929.16	---	987.86	1000.98	1009.88	1008.35	1001.04	991.93	984.32
31	963.88	---	923.22	928.87	---	988.20	---	1009.91	---	1000.75	991.62	---
MAX	980.00	964.86	939.17	929.38	1007.35	991.98	1000.98	1010.31	1010.12	1008.13	1000.46	991.32
MIN	963.88	936.12	923.22	922.04	927.88	973.69	988.55	1001.89	1008.35	1000.75	991.62	982.04
(+)	261900	190800	162400	174500	364900	335600	378100	409500	403900	377300	346800	323300
(#)	-50000	-71100	-28400	+12100	+190400	-29300	+42500	+31400	-5600	-26600	-30500	-23500

CAL YR 1985 MAX 1011.50 MIN 921.00 AC-FT# -400
WTR YR 1986 MAX 1010.31 MIN 922.04 AC-FT# +11400

† Contents, in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

SOUTH SANTIAM RIVER BASIN

189

14186600 FOSTER LAKE AT FOSTER, OR

LOCATION.--Lat 44°25'00", long 122°40'25", in NW¼NE¼ sec.27, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, in Foster Dam on South Santiam River, 0.3 mi above Wiley Creek, 0.5 mi north of Foster, and at mile 37.7.

DRAINAGE AREA.--492 mi².

PERIOD OF RECORD.--December 1966 to current year. Prior to October 1971, published as Foster Reservoir at Foster.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Lake is formed by rockfill embankment with an impervious core and ogee spillway completed in 1966 by Corps of Engineers; controlled storage began in November 1966. Total capacity, 60,780 acre-ft and usable capacity 33,210 acre-ft between elevations 609.0 ft, proposed lower limit of operation, and 641.0 ft, top of spillway gates. Lake used for reregulation of water released from Green Peter Lake, flood control, power development, pollution abatement, and other purposes. Figures given herein represent total contents.

COOPERATION.--Midnight elevations furnished by Corps of Engineers and reviewed by Geological Survey. Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 60,090 acre-ft Sept. 17, 1968, elevation, 640.45 ft; minimum contents, 26,590 acre-ft Nov. 15, 16, 1971, elevation, 607.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 58,390 acre-ft Sept. 26, elevation, 639.08 ft; minimum contents, 29,000 acre-ft Dec. 10, elevation, 610.66 ft.

Capacity table (elevation, in feet, and total contents, in acre-feet)

607	25,880	630	47,860
610	28,430	635	53,510
615	32,870	640	59,530
620	37,570	641	60,780
625	42,550		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637.23	619.87	613.71	614.17	614.20	623.13	623.46	636.12	636.95	637.12	636.94	637.04
2	637.17	619.80	613.98	612.86	614.13	623.13	623.46	636.24	637.01	637.01	637.05	637.07
3	637.12	618.73	613.55	613.45	613.30	623.13	623.40	636.30	636.96	637.08	637.15	637.07
4	637.08	618.71	613.98	613.16	614.04	623.04	623.35	636.28	636.91	637.25	637.24	637.04
5	637.09	618.29	614.11	613.16	614.62	624.49	623.42	636.43	636.81	637.27	637.21	637.00
6	637.06	618.26	615.48	613.64	614.88	624.01	623.42	636.24	636.74	637.31	637.19	636.96
7	637.07	618.17	614.07	613.12	615.01	623.07	623.56	636.30	636.68	637.31	637.18	636.94
8	637.06	616.93	613.33	613.45	615.20	623.28	623.58	636.47	636.62	637.31	637.15	636.95
9	637.06	615.23	613.41	613.30	615.37	623.86	623.72	636.92	636.76	637.23	637.10	636.95
10	637.04	615.26	612.15	613.00	615.71	622.93	623.84	637.35	636.91	637.18	637.09	636.95
11	637.11	615.19	614.09	613.07	616.12	623.60	624.21	637.50	636.91	637.13	637.06	636.95
12	636.47	614.61	613.57	613.07	616.34	623.15	624.74	637.50	636.91	637.03	637.03	636.95
13	635.73	614.06	612.97	613.07	616.93	623.64	625.50	638.26	636.88	636.92	637.00	636.95
14	634.77	613.37	613.69	612.98	617.07	623.60	626.31	638.14	636.88	636.84	637.00	636.95
15	633.04	613.24	613.90	613.33	617.31	623.55	627.04	638.45	636.88	636.84	637.00	636.95
16	631.52	613.14	613.92	614.25	617.96	623.57	627.93	637.59	636.85	636.97	637.00	637.03
17	630.03	613.03	613.24	613.20	617.86	623.86	629.24	637.56	636.88	637.10	637.03	637.19
18	629.32	613.14	613.70	613.13	617.86	623.18	630.53	637.71	637.09	637.14	637.03	637.37
19	628.47	613.06	613.60	613.09	617.04	623.44	631.66	637.42	637.15	637.07	637.03	637.32
20	627.40	613.14	613.20	613.13	618.34	623.43	632.70	636.92	637.02	637.05	637.03	637.30
21	626.84	613.05	613.30	613.19	618.90	623.43	633.15	637.14	637.09	637.05	637.03	637.20
22	626.52	613.06	613.20	613.60	625.98	623.37	633.11	637.41	636.93	636.96	637.03	637.06
23	630.12	613.04	613.33	613.95	638.37	623.56	633.07	637.06	636.95	636.88	637.00	637.02
24	632.14	613.05	613.60	614.40	633.31	623.28	633.19	637.06	636.99	636.86	636.99	637.66
25	627.99	613.12	613.41	614.00	626.27	623.37	633.38	637.18	637.07	636.92	636.99	637.89
26	624.48	613.30	613.02	613.25	624.40	623.37	633.69	637.21	637.13	636.79	636.99	638.17
27	623.76	613.80	613.48	614.55	623.13	623.29	635.69	637.25	637.17	636.82	636.98	637.27
28	623.06	613.21	613.24	614.40	623.13	623.39	636.15	637.25	637.23	636.84	636.98	637.27
29	622.25	613.67	613.40	614.60	---	623.23	636.26	637.17	637.30	636.84	637.00	637.00
30	621.45	613.90	613.20	613.94	---	623.45	636.29	637.07	637.22	636.87	637.01	636.06
31	620.85	---	613.02	614.14	---	623.39	---	636.98	---	636.87	637.03	---
MAX	637.23	619.87	615.48	614.60	638.37	624.49	636.29	638.45	637.30	637.31	637.24	638.17
MIN	620.85	613.03	612.15	612.86	613.30	622.93	623.35	636.12	636.62	636.79	636.94	636.06
(+)	38390	31880	31080	32090	40650	40910	55030	55850	56140	55720	55910	54760
(#)	-17780	-6510	-800	+1010	+8560	+260	+14120	+820	+290	-420	+190	-1150

CAL YR 1985 MAX 638.30 MIN 612.15 AC-FT# -960
WTR YR 1986 MAX 638.45 MIN 612.15 AC-FT# -1410

† Contents, in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

SOUTH SANTIAM RIVER BASIN

14187100 WILEY CREEK AT FOSTER, OR

LOCATION.--Lat 44°23'55", long 122°39'35", in SW¼NW¼ sec.35, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 1.5 mi downstream from Jackson Creek, 1.0 mi southeast of Foster, and at mile 1.4.

DRAINAGE AREA.--62.3 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 590 ft, from topographic map. Prior to May 2, 1974, at present site at datum 5.00 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-11, Aug. 7 to Sept. 15. Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--13 years, 239 ft³/s, 52.10 in/yr, 173,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,320 ft³/s Jan. 15, 1974, gage height, 9.28 ft; minimum discharge, 3.1 ft³/s Oct. 19, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1030	2,290	7.40	Feb. 23	1030	*3,950	*8.34

Minimum daily discharge, 5.4 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	10	115	86	208	230	381	161	275	71	27	11	7.4		
2	10	109	283	218	220	306	168	342	66	25	11	6.8		
3	10	101	769	307	262	257	154	383	63	27	11	6.4		
4	9.2	122	586	228	247	227	146	323	62	51	9.6	6.4		
5	9.2	165	503	269	276	205	136	421	61	48	9.0	6.2		
6	8.0	151	840	336	265	188	128	431	61	36	8.7	5.4		
7	10	392	1020	260	234	292	122	338	60	30	8.0	5.4		
8	14	677	762	244	206	354	119	281	58	30	7.8	5.4		
9	9.2	566	558	277	184	619	115	244	56	27	7.6	6.0		
10	8.0	379	404	277	168	472	110	261	55	33	7.5	6.8		
11	24	246	303	245	166	421	107	296	53	36	7.4	6.6		
12	40	192	245	212	434	445	136	272	51	28	7.4	6.4		
13	25	159	212	188	797	458	160	277	49	25	7.6	6.6		
14	20	138	186	168	711	430	157	252	50	22	8.0	7.0		
15	18	340	168	178	788	355	153	224	54	22	7.8	8.0		
16	17	788	152	373	1330	294	177	199	50	24	7.0	15		
17	19	615	140	579	1740	259	211	177	54	29	7.0	14		
18	18	425	134	417	1350	231	205	161	66	22	7.0	28		
19	27	299	130	587	902	209	184	148	54	19	7.0	14		
20	53	259	125	619	740	191	168	157	47	18	7.0	39		
21	58	221	119	468	904	185	154	163	43	17	6.8	24		
22	124	194	115	521	2280	175	146	169	40	16	6.8	14		
23	608	164	112	811	3020	205	136	146	37	16	6.8	17		
24	405	146	111	635	1530	422	127	131	33	16	6.8	89		
25	349	132	110	487	963	330	136	120	31	15	6.8	138		
26	247	121	105	367	757	267	152	113	29	14	6.8	371		
27	172	111	98	309	613	230	395	108	28	14	6.4	217		
28	270	104	92	287	488	202	443	100	30	13	6.4	130		
29	178	94	86	262	---	182	388	91	33	13	6.1	84		
30	143	85	81	282	---	174	338	82	29	12	6.4	69		
31	134	---	81	250	---	159	---	77	---	12	7.6	---		
TOTAL	3046.6	7610	8716	10869	21805	9125	5432	6762	1474	737	238.1	1359.8		
MEAN	98.3	254	281	351	779	294	181	218	49.1	23.8	7.68	45.3		
MAX	608	788	1020	811	3020	619	443	431	71	51	11	371		
MIN	8.0	85	81	168	166	159	107	77	28	12	6.1	5.4		
CFSM	1.58	4.08	4.51	5.63	12.5	4.72	2.91	3.50	.79	.38	.12	.73		
IN.	1.82	4.54	5.20	6.49	13.02	5.45	3.24	4.04	.88	.44	.14	.81		
AC-FT	6040	15090	17290	21560	43250	18100	10770	13410	2920	1460	472	2700		
CAL YR 1985	TOTAL	56959.6	MEAN	156	MAX	1020	MIN	8.0	CFSM	2.50	IN.	34.01	AC-FT	113000
WTR YR 1986	TOTAL	77174.5	MEAN	211	MAX	3020	MIN	5.4	CFSM	3.39	IN.	46.08	AC-FT	153100

SOUTH SANTIAM RIVER BASIN

191

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR

LOCATION.--Lat 44°24'45", long 122°41'15", in SE¼NE¼ sec.28, T.13 S., R.1 E., Linn County, Hydrologic Unit 17090006, on left bank 0.6 mi downstream from Wiley Creek and at mile 37.0.

DRAINAGE AREA.--557 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year. Records for October 1966 to July 1973 (published as South Santiam River at Foster, station 14186700) at site 0.5 mi upstream not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 3-10, Apr. 7-22. Water-discharge records excellent. Flow regulated since October 1966 by Green Peter Lake (station 14186100) and since December 1966 by Foster Lake (station 14186600). No diversion upstream from station.

AVERAGE DISCHARGE.--13 years, 2,988 ft³/s, 2,165,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s Feb. 26, 1982, gage height, 16.61 ft; minimum discharge, 425 ft³/s July 26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,700 ft³/s Feb. 24, gage height, 16.49 ft; minimum discharge, 519 ft³/s June 18; minimum daily, 607 ft³/s June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	3960	3150	2320	3890	14800	1340	1940	969	813	723	665
2	1360	3560	2580	3470	3880	14300	1390	1920	888	814	701	957
3	1370	3460	4000	3330	2540	13900	1300	2430	862	817	701	955
4	1360	3400	3860	3540	1630	10500	1340	2230	837	836	701	991
5	1330	3480	3880	3550	1910	4360	1190	2380	789	832	702	986
6	1350	3540	6450	3750	1930	3350	1200	2520	752	814	703	986
7	1370	6520	10200	3750	1800	5210	1060	2060	726	810	698	986
8	1360	9770	8620	3140	1490	5990	1060	1800	723	817	695	983
9	1370	8440	6920	4240	1380	5400	1010	1640	661	812	696	908
10	1380	6410	4810	5260	1200	4000	986	1910	639	815	694	908
11	1860	5790	3090	5020	1180	2660	872	2350	639	817	693	906
12	2350	5650	3630	4800	1980	3400	891	2320	633	815	691	903
13	2350	5460	3680	4650	3320	3560	909	2900	629	811	679	904
14	2450	5430	3140	4040	3450	3700	900	3670	630	801	660	907
15	2650	6190	3060	2780	3950	3270	919	3410	639	805	660	905
16	2670	9530	3170	3450	7850	3110	900	3210	630	806	660	916
17	2580	7930	2910	6600	11800	2550	919	2140	636	814	661	918
18	2160	6850	2450	6640	9530	2010	937	1910	607	805	660	964
19	2330	6630	2740	7320	9210	1410	919	2150	638	802	656	1020
20	2490	6290	2800	7190	6960	1490	909	2330	635	805	657	1100
21	2240	6140	2870	6390	8040	1490	1070	1710	630	802	661	1070
22	1970	5930	2960	4280	12500	1480	1190	1720	629	805	661	1060
23	3670	5710	2860	5110	14400	1480	1090	2020	628	808	663	1060
24	5060	5560	2890	4350	16100	2710	895	1680	622	804	665	1190
25	8680	4680	3340	4190	16600	2160	906	1600	776	803	663	1590
26	8110	3210	3240	4070	16500	1930	919	1590	813	802	663	3020
27	5750	2860	2890	3980	15700	1790	1250	1570	813	807	661	3240
28	6060	3360	3100	3950	15200	1570	2710	1230	814	797	665	2610
29	5690	2870	2880	3930	---	1610	2360	1110	815	780	662	2940
30	5450	2920	2590	3960	---	1350	2060	1080	811	751	661	3090
31	5360	---	2110	3920	---	1390	---	1040	---	756	661	---
TOTAL	95530	161530	116870	136970	195920	127930	35401	63570	21513	24976	20977	39638
MEAN	3082	5384	3770	4418	6997	4127	1180	2051	717	806	677	1321
MAX	8680	9770	10200	7320	16600	14800	2710	3670	969	836	723	3240
MIN	1330	2860	2110	2320	1180	1350	872	1040	607	751	656	665
AC-FT	189500	320400	231800	271700	388600	253700	70220	126100	42670	49540	41610	78620
CAL YR 1985	TOTAL	813590	MEAN	2229	MAX	10200	MIN	603	AC-FT	1614000		
WTR YR 1986	TOTAL	1040825	MEAN	2852	MAX	16600	MIN	607	AC-FT	2064000		

SOUTH SANTIAM RIVER BASIN

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: July 1973 to current year.

INSTRUMENTATION.--Temperature recorder since July 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 15.5°C at times in 1975, 1978, 1981; minimum recorded, 2.5°C Dec. 30, 31, 1978, Feb. 1, 1980, Feb. 7, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 14.5°C June 23; minimum, 4.0°C on several days during winter period.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.0	10.5	10.5	10.0	9.5	9.5	5.5	4.5	5.0	5.0	4.0	4.5
2	11.0	10.5	10.5	10.5	10.0	10.0	5.0	4.5	4.5	4.5	4.0	4.5
3	11.0	10.5	10.5	10.5	10.5	10.5	5.5	4.5	5.5	5.0	4.0	4.5
4	11.0	10.5	10.5	10.5	9.5	10.0	6.0	5.5	5.5	5.0	4.5	4.5
5	11.0	10.5	10.5	10.0	9.5	9.5	6.0	5.5	6.0	5.5	5.0	5.5
6	11.0	10.5	10.5	10.0	10.0	10.0	6.5	6.0	6.0	5.5	5.0	5.0
7	11.0	10.5	10.5	10.0	9.5	9.5	6.5	6.0	6.5	5.5	5.0	5.0
8	12.0	10.5	11.0	9.5	9.0	9.0	6.5	6.0	6.0	6.0	5.0	5.5
9	11.0	10.0	10.5	9.0	8.0	8.5	6.0	5.5	6.0	6.0	6.0	6.0
10	11.0	10.0	10.5	8.0	8.0	8.0	5.5	4.5	5.0	6.0	6.0	6.0
11	11.0	10.0	10.5	8.0	7.5	7.5	4.5	4.0	4.5	6.0	5.5	5.5
12	10.5	10.5	10.5	7.5	7.0	7.0	4.5	4.5	4.5	5.5	5.5	5.5
13	11.0	10.0	10.5	7.5	7.0	7.5	5.0	4.5	4.5	5.5	5.5	5.5
14	11.0	10.0	10.5	7.5	7.0	7.5	4.5	4.5	4.5	5.5	5.5	5.5
15	11.0	10.0	10.5	7.5	7.5	7.5	5.0	4.5	4.5	6.0	5.5	5.5
16	10.5	10.0	10.5	8.0	7.5	7.5	4.5	4.0	4.5	7.0	6.0	6.0
17	11.0	10.0	10.5	7.5	7.0	7.0	4.5	4.5	4.5	6.5	5.5	6.0
18	10.5	10.0	10.0	7.5	7.0	7.0	4.5	4.5	4.5	7.0	6.5	6.5
19	11.0	10.0	10.5	7.0	7.0	7.0	4.5	4.5	4.5	6.5	6.5	6.5
20	11.0	10.0	10.5	7.0	6.5	7.0	4.5	4.0	4.5	6.5	5.5	6.0
21	10.5	9.5	10.0	7.0	6.5	6.5	4.5	4.0	4.0	6.0	5.5	5.5
22	10.0	9.5	10.0	6.5	6.0	6.5	4.5	4.0	4.0	6.5	6.0	6.0
23	10.0	9.5	10.0	6.5	6.0	6.0	4.5	4.0	4.0	6.5	6.0	6.5
24	10.5	10.0	10.0	6.0	6.0	6.0	4.5	4.0	4.0	6.0	5.5	5.5
25	10.0	10.0	10.0	6.5	6.0	6.0	4.5	4.0	4.0	6.0	5.5	5.5
26	10.5	9.5	10.0	6.5	6.0	6.5	4.0	4.0	4.0	6.0	5.5	5.5
27	10.0	9.5	10.0	6.5	6.0	6.0	4.0	4.0	4.0	6.5	6.0	6.5
28	10.0	9.5	9.5	6.0	5.5	6.0	4.0	4.0	4.0	6.5	6.5	6.5
29	9.5	9.0	9.5	5.5	5.5	5.5	4.0	4.0	4.0	6.5	6.0	6.5
30	9.5	9.0	9.5	5.5	5.0	5.5	4.0	4.0	4.0	7.5	6.5	7.0
31	9.5	9.0	9.5	---	---	---	4.0	4.0	4.0	7.0	6.5	7.0
MONTH	12.0	9.0	10.5	10.5	5.0	7.5	6.5	4.0	4.5	7.5	4.0	5.5

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.5	7.0	7.0	7.0	7.0	---	---	---	9.0	8.5	8.5
2	7.0	6.5	7.0	7.0	6.5	7.0	---	---	---	9.0	8.5	9.0
3	7.0	6.5	6.5	7.0	6.5	6.5	---	---	---	9.5	8.5	9.0
4	7.0	6.5	6.5	7.0	6.5	7.0	9.5	8.0	8.5	9.5	8.5	9.0
5	6.5	6.0	6.0	---	---	---	9.5	8.0	8.5	9.0	8.0	8.5
6	6.0	5.5	5.5	---	---	---	10.0	8.0	9.0	9.5	8.0	9.0
7	5.5	5.0	5.5	---	---	---	10.5	8.5	9.5	9.0	8.5	9.0
8	5.5	5.0	5.0	---	---	---	10.0	9.0	9.5	9.5	8.5	9.0
9	5.5	4.5	5.0	---	---	---	9.5	9.0	9.5	9.0	8.0	8.5
10	5.5	4.5	5.0	---	---	---	11.0	8.5	9.5	9.0	8.0	8.5
11	5.5	5.0	5.0	---	---	---	10.0	9.0	9.5	9.0	8.0	8.5
12	5.0	4.0	4.5	---	---	---	10.5	9.0	9.5	10.0	8.5	9.0
13	6.0	5.0	5.5	---	---	---	10.0	9.0	9.5	9.5	8.5	9.0
14	6.0	5.5	5.5	---	---	---	10.5	9.0	9.5	10.0	8.5	9.0
15	7.0	5.5	6.5	---	---	---	10.0	8.5	9.0	10.0	9.0	9.5
16	6.5	6.5	6.5	---	---	---	9.5	8.5	9.0	10.0	9.0	9.5
17	6.5	6.5	6.5	---	---	---	9.5	8.5	9.0	10.0	9.5	9.5
18	6.5	5.0	5.5	---	---	---	10.5	8.0	9.0	10.0	9.5	9.5
19	5.5	5.0	5.5	---	---	---	11.0	8.5	9.5	10.5	9.5	10.0
20	6.0	5.5	5.5	---	---	---	11.0	8.5	9.5	10.5	9.5	10.0
21	6.5	5.5	6.0	---	---	---	11.0	9.5	10.0	9.5	9.0	9.5
22	7.5	6.5	7.0	---	---	---	9.5	8.0	9.0	11.0	9.5	10.0
23	8.0	7.0	7.5	---	---	---	9.5	8.0	8.5	10.0	9.5	10.0
24	8.0	7.0	7.5	---	---	---	8.5	8.0	8.5	11.0	9.5	10.5
25	8.0	7.5	7.5	---	---	---	9.0	8.0	8.0	11.5	10.0	11.0
26	7.5	7.0	7.5	---	---	---	9.0	8.0	8.5	11.0	10.5	10.5
27	7.5	7.0	7.5	---	---	---	9.0	8.0	8.5	11.5	10.0	10.5
28	7.0	7.0	7.0	---	---	---	9.0	7.5	8.5	12.0	10.5	11.0
29	---	---	---	---	---	---	9.0	7.5	8.0	12.0	10.5	11.0
30	---	---	---	---	---	---	9.0	7.5	8.0	12.5	10.5	11.5
31	---	---	---	---	---	---	---	---	---	13.0	11.0	12.0
MONTH	8.0	4.0	6.0	---	---	---	---	---	---	13.0	8.0	9.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	13.0	11.0	12.0	14.0	11.5	12.5	13.5	12.0	13.0	13.5	12.0	12.5
2	13.0	11.0	11.5	13.5	12.0	12.5	13.5	12.0	12.5	13.5	12.0	13.0
3	12.5	11.0	11.5	13.5	12.0	12.5	13.5	12.0	12.5	13.5	12.0	12.5
4	12.0	11.0	11.5	13.5	11.5	12.5	13.5	11.5	12.5	13.0	12.0	12.5
5	12.0	11.0	11.0	13.5	11.5	12.5	13.5	12.0	12.5	13.0	12.0	12.5
6	11.5	10.5	11.0	13.5	11.5	12.5	13.5	12.0	12.5	13.0	12.0	12.5
7	11.5	10.5	11.0	13.0	11.5	12.5	14.0	12.0	13.0	13.0	12.0	12.5
8	12.5	10.5	11.5	13.5	12.0	12.5	14.0	12.0	13.0	12.5	12.0	12.0
9	13.0	10.5	11.5	13.0	12.0	12.5	14.0	12.0	13.0	12.5	11.5	12.0
10	13.5	10.5	12.0	12.5	12.0	12.5	13.5	12.0	13.0	12.5	12.0	12.5
11	14.0	11.0	12.5	13.5	12.0	12.5	14.0	12.0	13.0	12.5	11.5	12.0
12	14.0	11.0	12.5	13.5	12.0	12.5	14.0	12.0	13.0	12.5	11.5	12.0
13	14.0	11.0	12.5	13.5	11.5	12.5	14.0	12.0	13.0	12.0	11.5	12.0
14	12.5	11.5	12.0	13.5	12.0	12.5	14.0	12.0	13.0	12.0	11.5	12.0
15	13.5	11.5	12.5	13.0	12.0	12.5	14.0	12.0	13.0	12.5	11.5	12.0
16	12.0	11.5	11.5	13.0	12.0	12.5	13.5	12.0	12.5	12.5	11.5	12.0
17	12.0	11.5	11.5	13.5	12.0	12.5	13.5	12.0	12.5	12.0	11.5	11.5
18	12.5	11.0	12.0	13.0	11.5	12.5	13.5	12.0	12.5	12.0	11.5	12.0
19	13.5	11.0	12.0	13.5	11.5	12.5	13.5	12.0	13.0	12.5	11.5	12.0
20	13.5	11.0	12.5	13.5	11.5	13.0	13.5	12.0	13.0	12.0	11.5	12.0
21	13.5	11.5	12.5	13.5	11.5	12.5	14.0	12.0	13.0	12.5	11.5	12.0
22	14.0	11.5	13.0	13.5	11.5	12.5	13.5	12.0	12.5	12.5	11.5	12.0
23	14.5	11.5	13.0	13.5	12.0	12.5	13.5	12.0	12.5	12.0	11.5	11.5
24	14.0	12.0	13.0	13.5	12.0	12.5	13.5	12.0	12.5	12.0	11.5	12.0
25	14.0	11.5	13.0	14.0	12.0	12.5	13.5	12.0	13.0	12.0	11.0	11.5
26	14.0	11.5	12.5	13.0	12.0	12.5	13.5	12.0	13.0	11.5	11.5	11.5
27	14.0	12.0	13.0	13.5	11.5	12.5	13.5	12.0	12.5	12.0	11.5	11.5
28	12.5	12.0	12.0	13.5	11.5	12.5	13.5	12.0	12.5	12.0	11.5	11.5
29	13.5	12.0	12.5	13.5	12.0	12.5	12.5	12.0	12.5	12.0	11.5	11.5
30	14.0	11.5	12.5	13.5	12.0	12.5	13.0	12.0	12.5	11.5	11.5	11.5
31	---	---	---	13.5	11.5	12.5	13.5	12.0	12.5	---	---	---
MONTH	14.5	10.5	12.0	14.0	11.5	12.5	14.0	11.5	12.5	13.5	11.0	12.0

SOUTH SANTIAM RIVER BASIN

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR

LOCATION.--Lat 44°29'55", long 122°49'20", in SW¼NW¼ sec.28, T.12 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.1 mi downstream from highway bridge at Waterloo, 2.1 mi upstream from Hamilton Creek, and at mile 23.3.

DRAINAGE AREA.--640 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1905 to March 1907, October 1910 to December 1911 (gage heights only January to December 1911), July 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as South Fork of Santiam River at Waterloo 1905-07, 1910-11.

REVISED RECORDS.--WSP 1248: 1907, 1924-30, 1932.

GAGE.--Water-stage recorder. Datum of gage is 370.39 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at site 0.5 mi downstream at datum about 5.0 ft lower. July 1, 1923, to Nov. 12, 1934, nonrecording gage, at present site and datum.

REMARKS.--Estimated daily discharges: Mar. 2-24, Apr. 10-22. Water-discharge records excellent except for estimated daily discharges, which are good. Flow regulated since October 1966 by Green Peter Lake (see station 14186100) and since December 1966 by Foster Lake (see station 14186600). No diversion upstream from station.

AVERAGE DISCHARGE.--64 years (water years 1906, 1924-86), 2,954 ft³/s, 2,140,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,200 ft³/s Dec. 22, 1964, gage height, 24.50 ft; minimum discharge, 61 ft³/s Oct. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft³/s Feb. 24, gage height, 9.87 ft; minimum discharge, 516 ft³/s June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	4200	3170	2360	4100	14200	1500	2050	1040	804	699	628
2	1380	3620	2870	3460	4070	13700	1530	2080	914	803	666	893
3	1380	3530	4140	3530	3080	13300	1440	2580	885	803	659	969
4	1390	3440	4200	3670	1820	11200	1440	2460	850	844	661	1000
5	1320	3570	4120	3700	2070	4710	1360	2620	804	847	660	1000
6	1370	3600	6640	3900	2120	3630	1260	2870	769	807	664	995
7	1380	5960	10900	3920	2030	5610	1150	2340	730	803	661	1000
8	1380	10100	9380	3380	1710	6420	1180	2050	721	806	653	1000
9	1390	8870	7430	4140	1550	5890	978	1820	671	807	655	929
10	1400	6840	5460	5340	1410	4330	1140	2050	623	819	653	917
11	1790	5950	3460	5210	1300	3060	936	2510	627	823	653	914
12	2280	5740	3690	4900	2530	3600	983	2500	621	814	653	908
13	2340	5540	3930	4730	3890	3720	1020	2910	620	803	653	914
14	2420	5470	3280	4220	4170	3950	1010	3680	618	793	634	915
15	2620	5940	3190	3140	4400	3490	995	3560	629	791	629	924
16	2660	9880	3230	3490	7950	3280	1010	3330	621	791	628	930
17	2610	8490	3130	6610	13000	2830	1020	2380	624	802	625	955
18	2200	7170	2550	6850	10800	2150	1030	2050	604	789	632	983
19	2220	6850	2750	7650	9900	1650	995	2190	638	782	625	1060
20	2590	6530	2900	7640	7670	1640	983	2410	621	785	620	1130
21	2260	6340	2880	6820	8510	1670	1080	1930	616	778	623	1120
22	2060	6180	3010	4910	14000	1660	1260	1810	608	775	625	1100
23	3610	5850	2930	5670	16100	1610	1200	2060	607	780	625	1110
24	4890	5650	2910	4810	16400	2800	950	1830	597	778	625	1230
25	8220	5010	3310	4530	16700	2430	964	1670	711	776	625	1620
26	8490	3430	3340	4350	16300	2110	985	1650	806	779	621	3000
27	5840	2990	2930	4240	15300	2000	1250	1630	798	782	616	3370
28	6110	3390	3120	4200	14600	1730	2660	1370	812	776	623	2800
29	5790	2990	2930	4180	---	1770	2460	1150	811	761	617	2960
30	5410	2990	2740	4240	---	1540	2270	1120	806	723	624	3190
31	5460	---	2160	4140	---	1520	---	1090	---	722	625	---
TOTAL	95610	166110	122680	143930	207480	133200	38039	67750	21402	24546	19832	40464
MEAN	3084	5537	3957	4643	7410	4297	1268	2185	713	792	640	1349
MAX	8490	10100	10900	7650	16700	14200	2660	3680	1040	847	699	3370
MIN	1320	2990	2160	2360	1300	1520	936	1090	597	722	616	628
AC-FT	189600	329500	243300	285500	411500	264200	75450	134400	42450	48690	39340	80260
CAL YR 1985	TOTAL	844155	MEAN	2313	MAX	10900	MIN	556	AC-FT	1674000		
WTR YR 1986	TOTAL	1081043	MEAN	2962	MAX	16700	MIN	597	AC-FT	2144000		

SOUTH SANTIAM RIVER BASIN

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14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.0°C Aug. 4, 1966; minimum, 1.5°C Dec. 18-20, 1965, Feb. 1, 2, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 18.5°C June 23; minimum, 4.0°C Dec. 27, 28.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	9.5	11.0	10.0	10.0	10.0	5.5	5.0	5.0	5.0	4.5	5.0
2	13.0	10.0	11.5	11.0	10.0	10.5	5.5	5.0	5.0	5.0	5.0	5.0
3	12.5	10.5	11.5	11.5	10.5	11.0	6.0	5.0	5.5	5.5	5.0	5.0
4	12.5	9.5	11.0	10.5	10.0	10.0	6.0	6.0	6.0	5.0	4.5	5.0
5	12.5	10.0	11.5	10.5	10.0	10.0	6.5	6.0	6.5	6.0	5.0	5.5
6	12.0	10.5	11.0	10.5	10.5	10.5	6.5	6.5	6.5	5.5	5.5	5.5
7	11.5	10.5	11.0	10.5	10.0	10.0	7.0	6.5	6.5	6.0	5.5	5.5
8	11.5	9.0	10.5	10.0	10.0	10.0	7.0	6.5	6.5	6.5	5.5	6.0
9	11.0	9.5	10.0	10.0	9.0	9.5	7.0	6.5	6.5	6.5	6.0	6.5
10	12.0	9.0	10.5	9.0	9.0	9.0	6.5	6.0	6.5	6.5	6.0	6.5
11	11.0	10.0	10.5	9.0	8.5	8.5	6.0	5.5	5.5	6.5	6.0	6.0
12	11.5	10.0	10.5	8.5	8.0	8.0	5.5	5.0	5.5	6.0	6.0	6.0
13	11.5	10.0	10.5	8.5	8.0	8.0	5.5	5.0	5.5	6.0	6.0	6.0
14	12.0	9.0	10.5	8.5	8.0	8.0	5.0	5.0	5.0	6.0	6.0	6.0
15	12.0	9.5	11.0	8.5	8.5	8.5	5.5	5.0	5.0	6.5	6.0	6.5
16	11.0	10.0	10.5	8.5	8.0	8.5	5.0	5.0	5.0	7.0	6.5	6.5
17	11.5	9.5	10.5	8.0	8.0	8.0	5.0	5.0	5.0	6.5	6.0	6.5
18	11.5	9.5	10.5	8.0	8.0	8.0	5.0	5.0	5.0	7.0	6.5	7.0
19	11.0	9.5	10.5	8.0	8.0	8.0	5.0	5.0	5.0	7.0	6.5	7.0
20	11.5	10.5	11.0	8.0	7.5	8.0	5.0	5.0	5.0	7.0	6.5	6.5
21	10.5	9.5	10.0	7.5	7.5	7.5	5.0	4.5	5.0	6.5	6.0	6.5
22	10.5	10.0	10.0	7.5	7.0	7.0	5.0	4.5	4.5	6.5	6.5	6.5
23	10.5	10.0	10.0	7.0	7.0	7.0	5.0	4.5	4.5	6.5	6.5	6.5
24	10.5	10.0	10.0	7.0	6.5	6.5	5.0	4.5	4.5	6.5	6.0	6.0
25	10.0	10.0	10.0	7.0	6.5	6.5	4.5	4.5	4.5	6.5	6.0	6.5
26	10.5	10.0	10.0	7.0	7.0	7.0	4.5	4.5	4.5	6.0	6.0	6.0
27	10.5	10.0	10.0	7.0	6.5	7.0	4.5	4.0	4.5	6.5	6.0	6.5
28	10.0	9.5	10.0	7.0	6.0	6.5	4.5	4.0	4.5	6.5	6.5	6.5
29	10.0	9.5	9.5	6.0	5.5	6.0	4.5	4.5	4.5	6.5	6.5	6.5
30	10.0	9.5	9.5	5.5	5.5	5.5	4.5	4.5	4.5	7.5	6.5	7.0
31	10.0	10.0	10.0	---	---	---	4.5	4.5	4.5	7.5	7.0	7.5
MONTH	13.0	9.0	10.5	11.5	5.5	8.5	7.0	4.0	5.0	7.5	4.5	6.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.5	7.0	7.5	8.0	7.0	7.5	10.0	8.0	8.5	10.0	9.0	9.5
2	7.5	7.0	7.5	8.0	6.5	7.5	10.0	8.0	9.0	10.0	9.0	9.5
3	7.5	7.0	7.0	8.0	7.0	7.5	10.0	7.5	9.0	11.5	9.0	10.0
4	7.5	7.0	7.0	8.0	7.0	7.5	10.0	8.0	9.0	11.0	9.0	10.0
5	7.0	6.5	7.0	9.0	6.5	8.0	10.5	7.5	9.0	10.0	9.0	9.5
6	6.5	6.0	6.5	8.5	7.5	8.0	11.5	8.0	10.0	11.5	8.5	10.0
7	6.5	6.0	6.0	9.0	7.5	8.5	12.0	8.5	10.5	10.0	9.0	9.5
8	6.0	5.0	5.5	8.0	8.0	8.0	12.0	9.0	10.0	11.0	8.5	10.0
9	6.0	5.0	5.5	8.0	7.5	8.0	10.0	9.5	9.5	9.5	8.5	9.0
10	5.5	5.0	5.5	9.0	7.5	8.0	11.0	8.0	9.5	10.0	8.5	9.0
11	5.5	5.5	5.5	8.5	7.5	8.0	10.5	8.0	9.0	10.5	8.5	9.5
12	5.5	5.0	5.0	8.5	7.5	8.0	9.0	8.5	8.5	11.5	8.5	10.0
13	6.5	5.0	6.0	8.5	7.0	8.0	10.0	9.0	9.5	11.0	9.0	9.5
14	6.0	6.0	6.0	8.5	7.0	7.5	10.5	8.0	9.5	11.5	8.5	10.0
15	7.0	6.0	6.5	8.5	7.5	8.0	11.0	9.0	10.0	12.0	9.0	10.0
16	6.5	6.5	6.5	8.5	7.0	8.0	10.0	9.0	9.5	12.5	8.5	10.5
17	7.0	6.5	6.5	8.0	7.0	7.5	10.0	9.0	9.5	13.0	9.0	11.0
18	7.0	6.5	6.5	8.5	7.0	7.5	11.5	8.5	10.0	12.0	9.0	10.5
19	6.5	6.5	6.5	10.0	7.0	8.5	12.5	9.0	11.0	12.5	9.0	11.0
20	6.5	6.0	6.0	10.0	7.5	9.0	13.5	10.0	12.0	11.0	9.5	10.5
21	6.5	6.0	6.5	9.0	7.5	8.5	14.0	10.5	12.0	11.0	9.5	10.0
22	7.5	6.5	7.0	9.5	7.0	8.5	12.5	9.5	10.0	13.5	9.0	11.0
23	8.0	7.0	7.5	9.0	8.0	8.5	11.5	8.5	10.0	12.5	9.5	11.0
24	8.5	7.5	8.0	9.0	8.0	8.5	10.0	8.0	9.0	14.0	10.0	12.0
25	8.5	7.5	8.0	9.5	7.0	8.5	10.0	8.5	9.0	15.0	10.0	12.5
26	8.0	7.5	8.0	10.5	8.5	9.5	10.0	8.5	9.5	12.5	11.0	12.0
27	8.0	6.5	7.5	10.5	8.5	9.5	11.0	9.0	10.0	13.0	10.5	12.0
28	7.5	7.5	7.5	11.5	8.5	10.0	10.5	8.5	9.5	15.0	10.5	13.0
29	---	---	---	11.5	8.0	9.5	10.0	8.0	9.0	15.5	12.0	14.0
30	---	---	---	10.5	8.5	9.5	10.5	8.5	9.5	16.5	12.0	14.5
31	---	---	---	10.5	7.0	9.0	---	---	---	17.0	13.0	15.0
MONTH	8.5	5.0	6.5	11.5	6.5	8.5	14.0	7.5	9.5	17.0	8.5	11.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.5	13.5	15.0	17.0	14.5	15.5	17.5	14.5	16.0	16.0	14.0	15.5
2	16.5	13.5	15.0	16.5	14.0	15.0	17.5	15.0	16.5	16.5	14.5	15.5
3	15.0	13.0	14.0	15.5	14.0	14.5	17.5	14.5	16.0	16.5	13.5	15.0
4	14.5	13.0	14.0	15.0	12.5	14.0	17.5	15.0	16.0	16.0	13.5	15.0
5	14.0	12.5	13.0	16.0	13.0	14.5	17.5	15.0	16.0	16.0	13.0	14.5
6	13.5	12.5	13.0	17.0	13.5	15.0	17.5	15.0	16.5	16.0	13.0	14.5
7	14.0	12.5	13.0	16.5	13.5	14.0	18.0	15.5	17.0	15.5	12.5	14.0
8	15.5	12.0	13.5	16.0	13.5	14.5	18.0	15.5	17.0	14.5	12.5	13.0
9	16.5	13.0	14.5	15.0	13.5	14.0	18.0	15.5	17.0	14.0	12.5	13.0
10	17.5	14.5	16.0	14.5	13.5	13.5	17.5	15.0	16.5	13.5	12.0	13.0
11	17.5	15.5	16.5	16.5	13.5	15.0	17.5	15.0	16.5	14.0	11.5	13.0
12	17.0	15.0	16.0	16.5	14.5	15.5	17.5	15.5	16.5	14.0	11.5	13.0
13	17.5	14.5	16.0	16.5	13.5	15.0	17.5	15.5	16.5	13.0	11.5	12.5
14	16.5	13.5	14.5	15.5	13.5	14.5	18.0	15.5	17.0	13.5	11.0	12.5
15	16.0	12.0	14.0	14.5	13.5	14.0	17.5	16.0	16.5	13.0	12.0	12.5
16	15.5	12.5	14.0	14.5	13.0	13.5	16.5	15.0	15.5	13.5	11.5	12.5
17	12.5	12.0	12.5	16.5	12.5	14.5	16.5	14.0	15.5	13.0	12.0	12.5
18	13.5	12.0	13.0	16.0	13.5	14.5	16.0	14.0	15.5	13.0	12.0	12.5
19	16.0	12.5	14.0	17.0	13.5	15.5	16.5	14.5	15.5	14.0	11.5	13.0
20	16.5	14.0	15.0	17.5	14.5	16.0	17.5	15.0	16.0	13.5	11.5	12.5
21	17.0	14.5	15.5	17.5	14.5	16.0	17.5	15.0	16.0	13.5	11.5	12.5
22	18.0	15.0	16.5	16.5	14.0	15.5	16.5	15.0	15.5	14.0	11.5	12.5
23	18.5	16.0	17.0	16.0	14.0	15.0	16.5	14.0	15.5	13.5	11.5	12.0
24	18.0	16.5	17.0	17.0	13.5	15.0	16.5	14.5	15.5	12.5	11.5	12.0
25	17.5	16.0	16.5	17.0	14.5	15.5	17.5	15.0	16.0	12.5	11.5	12.0
26	16.5	14.0	15.5	16.0	14.0	15.0	17.5	15.0	16.5	12.0	11.0	11.5
27	16.5	14.5	15.5	16.5	13.5	15.0	16.5	15.0	15.5	12.0	11.5	12.0
28	16.0	13.0	14.0	16.5	13.5	15.0	16.0	15.0	15.5	12.5	11.5	12.0
29	16.0	12.5	14.5	16.5	14.0	15.5	15.5	14.0	14.5	12.5	11.5	12.0
30	17.0	13.5	15.5	17.0	14.0	15.5	14.5	13.5	14.0	12.0	11.5	12.0
31	---	---	---	17.5	14.5	15.5	16.0	13.5	15.0	---	---	---
MONTH	18.5	12.0	15.0	17.5	12.5	15.0	18.0	13.5	16.0	16.5	11.0	13.0
YEAR	18.5	4.0	10.5									

SOUTH SANTIAM RIVER BASIN

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14188800 THOMAS CREEK NEAR SCIO, OR

LOCATION.--Lat 44°42'42", long 122°45'55", in SE¼SE¼ sec.11, T.10 S., R.1 W., Linn County, Hydrologic Unit 17090006, on left bank 0.3 mi upstream from bridge on State Highway 226, 1.6 mi upstream from Mill Creek, 4.2 mi east of Scio, and at mile 14.6.

DRAINAGE AREA.--109 mi².

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR OR-71-1: 1965(P), 1966(P), 1969(P).

GAGE.--Water-stage recorder. Datum of gage is 380.84 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent except those for July to Sept., which are good. No regulation. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--24 years, 500 ft³/s, 62.29 in/yr, 362,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s Dec. 22, 1964, gage height, 18.44 ft, from rating curve extended above 7,200 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 19.58 ft Jan. 21, 1972, backwater from debris; minimum discharge, 7.8 ft³/s Aug. 20, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0830	4,680	8.83	Feb. 23	0530	*8,160	*11.27

Minimum daily discharge, 19 ft³/s Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	31	299	218	598	641	764	303	496	152	49	28	28		
2	31	304	343	584	578	644	290	583	142	47	28	27		
3	29	285	1030	735	589	548	266	640	133	49	26	26		
4	29	315	835	565	603	482	252	562	131	104	25	25		
5	29	357	812	706	739	431	234	767	125	91	25	25		
6	28	451	1950	817	655	393	217	748	121	65	24	24		
7	28	1700	2240	615	569	688	201	624	118	57	24	23		
8	30	1990	1530	611	496	711	191	530	115	54	24	23		
9	28	1460	1050	676	440	877	186	466	105	51	23	23		
10	28	981	798	647	393	737	176	480	100	57	20	24		
11	48	698	645	583	377	764	169	524	92	69	21	25		
12	74	538	538	495	557	878	220	484	85	59	21	26		
13	49	440	463	437	976	848	233	530	80	51	21	26		
14	42	374	406	391	1070	779	226	483	82	47	21	26		
15	39	984	366	447	1340	671	224	419	92	45	21	27		
16	38	1830	333	806	3090	575	311	367	81	48	20	29		
17	41	1380	313	992	4290	513	569	327	82	54	19	32		
18	39	970	308	952	3210	459	525	297	104	47	19	64		
19	61	789	306	1460	1870	413	450	275	109	44	20	38		
20	153	720	295	1290	1340	376	397	313	89	42	21	37		
21	153	613	278	953	1490	367	349	325	79	40	22	46		
22	707	546	261	1180	6330	338	313	405	73	38	23	34		
23	1380	452	260	2160	6310	420	283	349	68	37	24	45		
24	912	393	260	1470	3090	879	254	307	63	37	25	424		
25	1260	352	260	1070	2030	687	284	277	60	36	25	507		
26	728	318	247	845	1500	561	329	251	56	35	25	738		
27	492	292	229	782	1150	482	695	236	55	34	25	545		
28	724	273	207	757	921	420	794	216	53	34	25	363		
29	471	247	191	691	---	370	688	193	55	33	25	259		
30	380	226	179	786	---	355	572	176	55	32	26	214		
31	339	---	176	689	---	321	---	162	---	30	28	---		
TOTAL	8421	20577	17327	25790	46644	17751	10201	12812	2755	1516	724	3753		
MEAN	272	686	559	832	1666	573	340	413	91.8	48.9	23.4	125		
MAX	1380	1990	2240	2160	6330	879	794	767	152	104	28	738		
MIN	28	226	176	391	377	321	169	162	53	30	19	23		
CFSM	2.50	6.29	5.13	7.63	15.3	5.26	3.12	3.79	.84	.45	.21	1.15		
IN.	2.87	7.02	5.91	8.80	15.92	6.06	3.48	4.37	.94	.52	.25	1.28		
AC-FT	16700	40810	34370	51150	92520	35210	20230	25410	5460	3010	1440	7440		
CAL YR 1985	TOTAL	125876	MEAN	345	MAX	2240	MIN	14	CFSM	3.17	IN.	42.96	AC-FT	249700
WTR YR 1986	TOTAL	168271	MEAN	461	MAX	6330	MIN	19	CFSM	4.23	IN.	57.43	AC-FT	333800

SOUTH SANTIAM RIVER BASIN

14188850 THOMAS CREEK NEAR CRABTREE, OR

LOCATION.--Lat 44°41'27", long 122°56'12", in NE1/4 sec.21, T.10 S., R.2 W., Linn County, Hydrologic Unit 17090006, on right bank 7 miles from Crabtree on Kelly Road, and at mile 1.2.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1985 to September 1986 (discontinued).

INSTRUMENTATION.--Temperature recorder since May 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5°C July 19, 20, 1985, Aug. 9, 1986; minimum, 0.5°C Dec. 1, 2, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 9; minimum, 0.5°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	11.5	13.5	10.0	8.0	9.0	1.0	.5	1.0	6.0	3.5	5.0
2	16.5	13.5	15.0	11.5	9.5	10.5	3.0	.5	1.5	5.5	4.5	5.0
3	16.5	14.0	15.0	12.0	11.0	11.5	5.5	3.0	4.5	6.5	5.5	6.0
4	16.5	13.5	15.0	12.0	9.5	11.0	6.5	5.5	6.0	5.5	4.0	4.5
5	16.0	13.0	14.5	9.5	8.5	9.0	7.5	6.5	7.0	7.0	5.0	6.0
6	15.0	13.5	14.5	9.0	8.5	9.0	7.5	7.0	7.5	7.0	6.0	6.5
7	14.5	13.5	14.0	9.5	9.0	9.5	8.0	7.5	7.5	6.0	5.0	5.5
8	13.5	11.5	12.5	9.5	8.0	8.5	7.5	7.0	7.0	8.0	6.0	7.0
9	12.0	9.5	11.0	8.0	7.0	7.5	7.0	5.5	6.0	8.0	8.0	8.0
10	11.5	9.5	10.5	7.0	6.5	6.5	5.5	4.5	5.0	8.0	7.0	7.5
11	12.5	11.0	11.5	6.5	5.0	5.5	4.5	3.5	4.0	7.5	6.5	6.5
12	12.5	10.5	11.5	5.0	4.0	4.5	4.0	3.0	3.5	6.5	6.5	6.5
13	12.0	10.5	11.0	5.0	3.5	4.0	4.0	3.0	3.5	6.5	6.0	6.0
14	12.5	10.0	11.0	5.0	3.5	4.5	4.0	3.0	3.5	---	---	---
15	13.0	10.5	11.5	7.5	5.0	6.0	4.5	3.5	4.0	---	---	---
16	13.5	11.5	12.5	8.0	7.5	7.5	4.5	3.5	4.0	---	---	---
17	12.5	11.0	11.5	7.5	6.5	7.0	4.5	3.5	4.0	---	---	---
18	12.0	10.0	11.0	6.5	6.0	6.5	4.0	3.5	3.5	---	---	---
19	11.5	10.5	11.0	6.5	6.0	6.5	4.0	2.5	3.5	---	---	---
20	11.0	10.5	11.0	6.0	5.5	6.0	3.0	2.5	2.5	---	---	---
21	11.0	10.0	10.5	5.5	5.0	5.5	3.0	2.0	2.5	---	---	---
22	10.0	9.5	10.0	5.5	4.0	4.5	3.0	2.0	2.5	---	---	---
23	10.0	9.5	10.0	4.0	2.0	3.0	3.0	2.5	3.0	---	---	---
24	11.0	10.0	10.5	2.5	1.5	2.0	3.0	2.0	2.5	---	---	---
25	11.0	10.0	11.0	4.0	2.5	3.0	2.5	2.0	2.5	---	---	---
26	10.5	9.5	10.0	5.0	3.5	4.5	2.0	1.5	2.0	---	---	---
27	11.0	10.5	11.0	5.0	4.0	4.5	2.0	1.0	1.5	---	---	---
28	10.5	9.0	9.5	5.0	3.5	4.5	2.5	1.0	1.5	---	---	---
29	9.0	7.0	7.5	3.5	1.5	2.5	3.0	2.5	2.5	---	---	---
30	8.5	7.5	8.0	1.5	1.0	1.5	2.5	1.5	2.0	9.0	8.0	8.5
31	8.0	7.5	8.0	---	---	---	3.5	2.0	3.0	9.0	8.0	8.5
MONTH	16.5	7.0	11.5	12.0	1.0	6.0	8.0	.5	3.5	---	---	---

SOUTH SANTIAM RIVER BASIN

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14188850 THOMAS CREEK NEAR CRABTREE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	9.0	8.0	8.5	10.5	9.5	10.0	11.0	9.5	10.0	10.0	10.0	10.0
2	8.5	8.0	8.5	10.0	8.5	9.5	11.0	9.0	10.0	10.5	9.5	10.0
3	8.5	7.5	8.0	10.0	8.5	9.5	10.0	8.5	9.0	11.5	9.0	10.5
4	8.0	7.5	8.0	11.0	9.0	10.0	11.0	9.5	10.0	11.0	9.5	10.5
5	7.5	6.5	7.0	11.0	9.0	10.0	11.5	9.0	10.0	11.0	9.5	10.0
6	6.5	6.0	6.0	11.0	10.0	10.5	12.5	9.5	11.0	10.5	8.5	9.5
7	6.0	5.0	5.5	11.5	10.5	11.0	14.0	10.5	12.5	10.5	9.5	10.0
8	5.5	4.0	4.5	10.5	9.0	9.5	13.0	12.0	12.5	12.0	9.5	11.0
9	5.5	3.5	4.5	9.5	8.5	9.0	12.0	11.0	11.5	11.5	9.5	10.0
10	5.0	4.0	4.5	10.5	8.5	9.5	12.5	10.0	11.5	10.5	9.0	9.5
11	5.5	5.0	5.0	9.5	9.0	9.5	11.5	9.0	10.0	10.0	8.5	9.5
12	5.0	4.0	4.5	9.0	8.0	8.5	9.5	8.5	9.0	11.5	9.0	10.5
13	6.5	4.5	5.5	9.0	8.0	8.5	11.0	8.5	9.5	13.0	11.0	12.0
14	6.5	5.5	6.0	9.0	7.0	8.0	11.0	9.5	10.0	11.5	9.5	10.5
15	8.0	5.5	6.5	9.5	7.5	8.5	12.0	10.0	11.0	13.5	10.5	12.0
16	8.0	7.0	7.5	10.0	8.0	9.0	11.0	9.5	10.5	14.0	11.0	12.5
17	7.0	6.5	6.5	9.5	8.5	9.0	10.5	8.5	9.5	15.5	12.0	13.5
18	6.5	6.0	6.0	10.0	8.0	9.0	11.0	8.5	9.5	15.0	14.0	14.5
19	6.5	5.5	6.0	11.5	9.0	10.0	12.5	9.5	11.0	16.5	13.5	15.0
20	7.5	6.5	7.0	11.5	9.5	10.5	14.5	11.0	13.0	15.0	13.0	14.0
21	8.0	7.0	7.5	12.0	10.5	11.0	15.5	12.5	14.0	13.0	11.5	12.0
22	8.5	7.5	8.0	10.5	8.5	9.5	14.5	11.5	13.5	13.5	10.0	11.5
23	9.0	8.0	8.5	10.0	9.0	9.5	12.0	10.0	11.0	13.5	12.0	12.5
24	10.0	8.5	9.0	9.5	8.5	9.0	10.5	9.0	9.5	16.5	13.0	14.5
25	9.5	9.0	9.5	9.5	8.0	8.5	10.0	8.5	9.0	19.5	15.5	17.0
26	10.0	8.5	9.5	12.0	9.5	10.5	9.5	9.0	9.0	19.0	17.5	18.5
27	10.5	9.0	9.5	12.0	10.5	11.5	10.5	9.0	9.5	17.5	16.0	17.0
28	10.0	9.5	9.5	13.0	10.5	11.5	9.5	8.5	9.0	19.5	15.5	17.5
29	---	---	---	13.0	10.5	12.0	10.0	7.5	9.0	21.0	17.0	19.0
30	---	---	---	12.5	10.5	11.5	10.0	8.0	9.0	22.5	18.5	20.5
31	---	---	---	11.0	9.0	10.0	---	---	---	24.0	20.0	22.0
MONTH	10.5	3.5	7.0	13.0	7.0	10.0	15.5	7.5	10.5	24.0	8.5	13.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	24.0	21.0	22.5	23.5	20.5	22.0	25.0	21.5	23.5	22.5	19.5	21.0
2	24.0	20.5	22.5	22.5	21.5	22.0	25.5	22.5	24.0	23.5	20.5	22.0
3	22.5	20.0	21.0	22.0	20.0	21.0	26.0	22.0	24.0	24.0	21.0	22.5
4	20.0	18.5	19.5	20.5	19.0	20.0	25.5	22.0	24.0	24.5	21.0	22.5
5	19.0	18.0	18.5	20.0	16.5	18.5	25.5	22.0	23.5	24.5	20.5	22.5
6	18.5	17.0	17.5	21.5	18.0	20.0	25.5	22.0	24.0	24.5	20.5	22.5
7	18.5	16.5	17.5	21.5	20.0	20.5	26.0	22.5	24.5	24.0	20.0	21.5
8	19.5	16.0	17.5	22.0	19.5	20.5	27.0	23.0	25.0	21.0	19.5	20.0
9	20.5	17.0	19.0	21.0	20.5	20.5	27.5	22.5	25.0	21.0	19.0	19.5
10	22.0	18.5	20.5	20.5	19.5	19.5	26.5	22.0	24.0	19.5	18.5	19.0
11	23.5	20.0	22.0	22.0	19.0	20.0	25.5	22.0	23.5	19.5	17.0	18.0
12	24.0	21.0	22.5	23.0	20.0	21.5	26.0	21.5	23.5	18.5	16.5	18.0
13	24.5	21.5	23.0	23.5	20.0	22.0	26.0	21.5	23.5	17.5	16.5	17.0
14	23.0	20.0	21.5	22.0	20.5	21.5	27.0	22.0	24.0	17.5	15.0	16.5
15	21.0	18.0	19.5	21.0	19.0	20.0	26.5	22.0	24.0	17.0	16.0	16.5
16	20.0	18.5	19.0	20.0	18.5	19.5	24.0	21.5	22.5	17.5	15.5	16.5
17	18.5	17.0	17.5	21.5	18.0	20.0	25.0	20.0	22.0	16.5	16.0	16.5
18	17.0	16.0	16.5	22.0	18.5	20.5	23.5	20.5	21.5	16.5	15.5	16.0
19	19.0	15.5	17.5	23.5	19.5	21.5	24.5	19.5	21.5	16.5	15.0	16.0
20	20.5	17.5	19.0	24.5	21.0	22.5	25.5	20.0	22.5	16.0	15.5	15.5
21	22.0	18.5	20.5	25.0	21.5	23.5	26.0	20.5	22.5	16.0	14.5	15.5
22	23.5	20.0	22.0	24.0	21.5	23.0	24.0	20.0	22.0	16.5	14.5	15.5
23	25.0	21.5	23.5	23.5	21.5	22.5	25.0	20.0	22.0	15.5	14.5	15.0
24	25.5	22.5	24.0	24.0	20.5	22.0	24.0	19.5	22.0	14.5	12.5	13.0
25	25.0	22.0	23.5	24.0	21.0	22.5	25.5	20.0	22.5	12.5	11.5	12.0
26	24.5	22.0	23.0	22.5	21.0	22.0	25.0	20.5	23.0	11.5	11.0	11.0
27	24.5	22.0	23.0	22.5	20.0	21.0	24.5	22.0	23.0	11.5	10.5	11.0
28	23.0	20.0	21.0	23.5	19.5	21.5	22.0	20.5	21.0	12.5	11.0	12.0
29	21.5	18.5	20.0	23.5	20.5	22.0	21.0	20.5	20.5	13.0	12.0	12.5
30	23.0	19.0	21.0	23.5	20.5	22.0	21.0	20.0	20.5	13.0	12.0	12.5
31	---	---	---	24.5	20.5	22.5	22.0	19.0	20.5	---	---	---
MONTH	25.5	15.5	20.5	25.0	16.5	21.0	27.5	19.0	23.0	24.5	10.5	17.0

SOUTH SANTIAM RIVER BASIN

14188900 SOUTH SANTIAM RIVER BELOW THOMAS CREEK, NEAR JEFFERSON, OR

LOCATION.--Lat 44°40'21", long 122°59'28", in SE¼NE¼ sec.25, T.10 S., R.3 W., Linn County, Hydrologic Unit 17090006, on left bank 5 miles from Albany near Lickskilllet Road, and at mile 2.2.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1985 to September 1986 (discontinued).

INSTRUMENTATION.--Temperature recorder since May 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.0°C July 18-20, 1985, June 23, 1986; minimum, 3.0°C Dec. 27, 28, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C June 23; minimum, 3.0°C Dec. 27, 28.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	11.5	12.0	10.5	10.0	10.0	4.5	3.5	4.0	5.5	4.5	5.0
2	14.5	12.0	13.0	11.5	10.5	11.0	5.0	3.5	4.0	5.0	4.5	4.5
3	14.5	12.5	13.0	12.0	11.0	11.5	5.5	4.5	5.0	5.5	5.0	5.0
4	14.0	12.0	12.5	12.0	10.0	11.0	6.0	5.5	5.5	5.0	4.0	4.5
5	14.0	12.0	13.0	10.0	9.5	10.0	6.5	6.0	6.0	6.0	4.5	5.5
6	13.5	12.0	12.5	10.5	10.0	10.5	7.0	6.5	6.5	6.0	5.0	5.5
7	13.0	11.5	12.0	10.5	10.0	10.5	7.0	6.5	7.0	5.5	4.5	5.0
8	12.0	10.0	11.0	10.0	9.5	10.0	7.0	6.5	6.5	6.5	5.5	6.0
9	11.5	9.5	10.5	9.5	9.0	9.0	6.5	6.0	6.5	7.0	6.5	6.5
10	11.5	9.5	10.5	9.0	8.5	8.5	6.0	5.5	6.0	6.5	6.5	6.5
11	12.0	11.0	11.5	8.5	7.5	8.0	5.5	4.5	5.0	6.5	6.0	6.0
12	12.0	10.5	11.0	8.0	7.0	7.5	5.0	4.0	4.5	6.0	6.0	6.0
13	11.5	10.0	11.0	8.0	7.0	7.5	5.0	4.5	4.5	6.0	5.5	5.5
14	11.5	10.5	11.0	8.0	7.0	7.5	5.0	4.0	4.5	6.0	5.5	6.0
15	12.0	10.5	11.5	8.5	8.0	8.5	5.0	4.5	5.0	6.5	6.0	6.0
16	12.0	11.0	11.5	9.0	8.5	8.5	5.0	4.5	4.5	7.0	6.5	7.0
17	11.5	10.0	11.0	8.5	7.5	8.0	5.0	4.5	4.5	7.0	6.0	6.5
18	11.0	10.0	11.0	8.0	7.0	7.5	5.0	4.0	4.5	7.5	6.5	7.0
19	11.0	10.5	11.0	8.0	7.5	8.0	4.5	3.5	4.0	7.5	7.0	7.0
20	11.0	11.0	11.0	7.5	7.0	7.5	4.5	3.5	4.0	7.0	6.5	6.5
21	11.0	10.5	11.0	7.0	7.0	7.0	4.5	3.5	4.0	6.5	6.0	6.0
22	11.0	10.5	10.5	7.0	6.5	6.5	4.0	3.5	4.0	6.5	6.0	6.5
23	10.5	10.0	10.5	6.5	5.5	6.0	4.5	3.5	4.0	7.0	6.5	7.0
24	11.0	10.5	11.0	6.0	5.5	5.5	4.0	3.5	4.0	6.5	6.0	6.5
25	11.0	10.5	10.5	6.5	5.5	6.0	4.0	3.5	4.0	6.5	6.0	6.5
26	11.0	10.0	10.5	6.5	6.0	6.5	4.0	3.5	3.5	6.5	5.5	6.0
27	11.0	10.5	11.0	6.5	6.0	6.0	4.0	3.0	3.5	7.0	6.0	6.5
28	11.0	10.0	10.0	6.5	5.5	6.0	4.0	3.0	3.5	7.0	6.5	7.0
29	10.0	9.0	9.5	5.5	4.5	4.5	4.5	4.0	4.0	6.5	6.5	6.5
30	10.0	9.5	9.5	4.5	4.0	4.5	4.0	3.5	4.0	7.5	6.5	7.0
31	10.0	9.5	9.5	---	---	---	4.5	4.0	4.0	7.5	7.0	7.5
MONTH	14.5	9.0	11.0	12.0	4.0	8.0	7.0	3.0	4.5	7.5	4.0	6.0

14188900 SOUTH SANTIAM RIVER BELOW THOMAS CREEK, NEAR JEFFERSON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.0	7.5	8.0	7.5	7.5	11.0	9.5	10.0	10.5	9.5	10.0
2	7.5	7.0	7.5	8.0	7.0	7.5	11.0	9.0	10.0	10.0	9.5	10.0
3	7.5	7.0	7.5	8.0	7.0	7.5	10.5	9.0	9.5	11.5	9.5	10.5
4	7.5	7.5	7.5	8.5	7.0	7.5	11.0	9.5	10.0	11.0	9.5	10.5
5	7.5	6.5	7.0	9.0	7.0	8.0	11.5	9.0	10.0	10.5	9.5	10.0
6	6.5	6.0	6.0	9.0	8.5	8.5	13.0	9.5	11.0	11.0	9.0	10.0
7	6.5	5.5	6.0	10.0	8.5	9.5	14.0	10.5	12.0	11.0	10.0	10.5
8	5.5	4.5	5.0	8.5	7.5	8.0	13.0	11.5	12.5	12.0	9.5	10.5
9	5.5	4.5	5.0	8.5	7.5	8.0	12.0	10.5	11.0	11.0	9.5	10.0
10	5.0	4.5	4.5	9.0	8.0	8.5	12.0	9.5	10.5	10.0	9.0	9.5
11	5.5	4.5	5.0	9.0	8.0	8.5	10.5	10.0	10.0	10.0	9.0	9.5
12	5.0	4.0	4.5	8.5	8.0	8.5	10.0	8.5	9.0	11.0	9.5	10.5
13	6.0	4.5	5.0	8.5	8.0	8.0	11.0	9.0	10.0	12.0	10.5	11.5
14	6.5	5.5	5.5	8.5	7.0	8.0	11.5	9.5	10.5	11.5	9.0	10.5
15	7.0	5.5	6.0	9.0	7.5	8.5	13.0	10.0	11.0	12.0	9.5	11.0
16	7.0	6.5	7.0	9.5	8.0	8.5	11.0	10.0	10.5	12.5	10.0	11.0
17	6.5	6.5	6.5	9.0	8.0	8.5	11.0	9.0	10.0	13.0	10.5	12.0
18	6.5	6.0	6.0	9.0	8.0	8.5	12.0	9.0	10.5	13.0	12.0	12.5
19	6.5	5.5	6.0	10.5	8.5	9.5	13.5	10.5	12.0	13.5	12.0	12.5
20	6.5	6.0	6.0	11.0	9.5	10.0	15.0	11.5	13.0	13.0	11.5	12.0
21	6.5	6.0	6.0	11.0	10.0	10.5	16.0	12.5	14.5	12.0	10.5	11.0
22	7.5	6.5	7.0	10.0	8.5	9.5	14.5	11.0	13.0	13.0	10.0	11.5
23	8.5	7.5	8.0	9.5	9.0	9.5	12.0	9.5	10.5	12.5	12.0	12.5
24	8.5	7.5	8.0	10.0	9.0	9.5	10.5	9.5	10.0	14.5	12.0	13.0
25	8.5	8.0	8.0	9.5	8.0	9.0	10.5	8.5	9.5	16.5	14.0	15.0
26	8.0	7.5	8.0	11.5	9.5	10.5	10.0	9.0	9.5	17.0	14.5	16.0
27	8.0	7.5	7.5	11.5	10.5	11.0	11.0	9.5	10.0	15.0	13.5	14.0
28	8.0	7.5	7.5	12.0	10.5	11.0	10.0	9.5	10.0	17.0	13.5	15.0
29	---	---	---	12.0	10.5	11.5	10.5	9.0	9.5	19.0	15.0	17.0
30	---	---	---	12.0	10.0	11.0	10.0	9.0	9.5	20.0	16.0	18.0
31	---	---	---	11.0	9.5	10.0	---	---	---	21.5	17.0	19.0
MONTH	8.5	4.0	6.5	12.0	7.0	9.0	16.0	8.5	10.5	21.5	9.0	12.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	21.5	17.5	19.5	21.0	17.5	19.0	22.0	18.0	19.5	20.0	16.0	18.0
2	21.5	17.5	19.5	19.5	18.0	18.5	22.0	18.5	20.0	20.5	17.5	18.5
3	19.5	17.5	18.0	18.5	16.5	17.5	22.5	18.5	20.5	---	---	---
4	18.0	16.0	17.0	18.0	16.0	17.0	22.0	18.0	19.5	---	---	---
5	17.5	16.0	16.5	19.0	15.0	17.0	22.0	18.0	19.5	---	---	---
6	16.0	15.0	15.5	21.0	15.5	18.0	22.5	18.0	20.0	---	---	---
7	17.0	14.5	15.5	19.0	17.0	18.0	23.0	18.5	20.5	---	---	---
8	18.0	14.0	16.0	19.0	16.0	17.5	23.5	19.0	21.0	---	---	---
9	20.0	15.0	17.0	18.5	17.0	17.5	23.5	19.5	21.0	---	---	---
10	21.5	16.5	18.5	17.0	16.0	16.5	22.5	18.5	20.5	---	---	---
11	22.5	18.0	20.0	19.5	15.5	17.5	22.0	18.0	20.0	---	---	---
12	23.0	18.5	20.5	20.5	17.0	18.5	22.0	18.5	20.0	---	---	---
13	23.5	18.5	20.5	21.0	17.0	18.5	22.5	18.5	20.0	---	---	---
14	20.0	18.0	19.0	19.5	17.0	18.0	22.5	18.5	20.5	---	---	---
15	20.0	16.0	18.0	18.0	16.0	17.0	22.5	19.0	20.5	---	---	---
16	17.5	16.5	17.0	17.0	15.5	16.0	19.5	17.5	18.5	---	---	---
17	16.5	15.0	15.5	19.0	15.0	17.0	20.5	16.0	18.0	---	---	---
18	16.5	14.0	15.0	19.5	15.5	17.5	19.0	16.5	17.5	---	---	---
19	19.0	14.0	16.0	20.5	16.0	18.0	20.5	16.0	18.0	---	---	---
20	20.0	16.0	17.5	21.5	17.5	19.5	21.5	17.0	19.0	---	---	---
21	21.5	16.5	19.0	22.0	18.0	20.0	21.5	18.0	19.5	---	---	---
22	22.5	17.5	20.0	21.0	18.0	19.0	20.0	17.5	19.0	---	---	---
23	24.0	19.0	21.5	20.0	17.5	18.5	20.5	17.0	18.5	---	---	---
24	23.5	19.5	21.5	20.5	16.5	18.5	20.5	16.5	18.5	---	---	---
25	23.5	19.0	21.0	21.0	17.0	19.0	21.0	17.0	19.0	---	---	---
26	21.5	19.0	20.0	19.0	17.5	18.0	22.0	17.5	19.5	---	---	---
27	21.0	18.0	19.5	19.5	16.0	17.5	20.0	18.5	19.0	---	---	---
28	19.0	16.5	17.5	20.5	16.0	18.0	18.5	17.0	18.0	---	---	---
29	18.5	15.5	17.0	21.0	17.0	18.5	17.5	16.5	17.0	---	---	---
30	20.5	15.5	18.0	20.5	17.0	18.5	17.5	16.0	16.5	---	---	---
31	---	---	---	21.0	17.0	19.0	19.0	15.0	17.0	---	---	---
MONTH	24.0	14.0	18.0	22.0	15.0	18.0	23.5	15.0	19.0	---	---	---

SANTIAM RIVER BASIN

14189000 SANTIAM RIVER AT JEFFERSON, OR

LOCATION.--Lat 44°42'55", long 122°00'40", in SE¼ sec.11, T.10 S., R.3 W., Marion County, Hydrologic Unit 17090005, on right bank 350 ft upstream from Southern Pacific railroad bridge at Jefferson, 2.1 mi downstream from confluence of North and South Santiam Rivers, and at mile 9.62.

DRAINAGE AREA.--1,790 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to June 1906 (gage heights and discharge measurements only), October 1907 to September 1916, October 1939 to current year. Gage-height records collected at same site since 1907 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 904: Drainage area. WSP 1094: 1908, 1910, 1912, 1943. WSP 1248: 1911, 1915-16(M). WSP 1935: 1909.

GAGE.--Water-stage recorder. Datum of gage is 199.63 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft downstream at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (station 14180500), since 1966 by Green Peter Lake (station 14186100) and by Foster Lake (station 14186600). Salem Canal diverts from North Santiam River at Stayton for irrigation and power; most of this water reaches Willamette River by way of Mill Creek at Salem. Stayton Canal diverts from North Santiam River at Stayton for irrigation of lands near town of West Stayton; some return flow reaches North Santiam River upstream from station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany.

AVERAGE DISCHARGE.--56 years (water years 1908-16, 1940-86), 7,828 ft³/s, 5,671,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197,000 ft³/s Dec. 22, 1964, gage height, 24.22 ft; minimum discharge observed, 260 ft³/s Aug. 15-22, Aug. 24 to Sept. 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 25.0 ft was reached in December 1861, and 23.4 ft in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached 19.5 ft at gage on railroad bridge 350 ft downstream, corresponding gage height at present site and datum, 24.4 ft, from curve of relation, discharge, 202,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 67,300 ft³/s Feb. 23, gage height, 17.60 ft; minimum discharge, 1,120 ft³/s Aug. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3640	9530	7490	6550	11000	31300	4160	5560	3800	1690	1340	1310
2	3550	8760	6420	8360	10600	29900	4160	5830	3560	1700	1310	1390
3	3580	8940	8400	10200	10100	28900	3960	6770	3410	1700	1300	1580
4	3560	8580	10800	9610	7780	26400	3830	6410	3280	1890	1290	1590
5	3500	8950	10100	10000	7730	15700	3770	6840	3320	2030	1270	1680
6	3560	9580	13500	11200	7210	10700	3480	7590	2970	1850	1240	1790
7	3610	16000	23500	10300	6250	12500	3390	6410	2590	1780	1240	1900
8	3630	26600	21800	9780	5320	15000	3320	5910	2390	1770	1230	1980
9	3590	22700	16200	10200	4750	17200	3250	5600	2350	2060	1230	2130
10	3480	18000	13400	11500	4400	14900	3240	5980	2100	2040	1250	2260
11	3990	14600	10200	11500	4050	11800	3010	7070	2030	1900	1240	2330
12	4920	13400	8940	10700	6460	12400	3230	6980	1960	1820	1220	2340
13	5280	12700	8620	10300	9280	11500	3390	7620	1910	1770	1220	2350
14	5280	12200	7550	9850	10500	11200	3390	8910	1940	1700	1190	2390
15	5490	12500	7100	9160	11400	10300	3360	8490	2020	1670	1160	2450
16	5690	21800	6760	9810	18800	9530	3490	7760	2010	1690	1150	2500
17	5700	19700	6320	13700	34200	8840	4430	6440	2100	1760	1190	2600
18	5220	15800	5610	16900	31200	6590	4580	5420	2710	1680	1190	2760
19	5030	15200	5780	19000	22600	5470	4200	5250	2530	1630	1180	2750
20	6090	15000	6100	20000	20300	4830	4000	5640	2120	1590	1180	2900
21	5840	14300	5720	17000	18800	4790	3990	5590	1940	1540	1180	3060
22	6820	14000	5820	15400	42900	4720	4030	5530	1820	1500	1190	2930
23	12500	13200	5760	19900	58800	4600	3820	5590	1750	1490	1200	2950
24	13100	12700	5810	17200	47600	7360	3430	5410	1650	1480	1220	4440
25	16300	12100	6660	13600	41100	7270	3410	5060	1640	1470	1220	5010
26	17400	9020	7160	12000	39100	6070	3640	4790	1710	1480	1210	7690
27	11700	8070	6520	11500	35400	5610	4870	4600	1710	1490	1200	8360
28	12200	8050	6370	11500	32900	5050	7570	4390	1730	1480	1210	7420
29	11500	7660	6190	11100	---	4790	7190	3300	1780	1440	1260	6540
30	10500	7400	6100	11900	---	4530	6230	3450	1750	1390	1310	7160
31	10600	---	5250	11500	---	4280	---	3780	---	1350	1320	---
TOTAL	216850	397040	271950	381220	560530	354030	121820	183970	68580	51830	38140	98540
MEAN	6995	13230	8773	12300	20020	11420	4061	5935	2286	1672	1230	3285
MAX	17400	26600	23500	20000	58800	31300	7570	8910	3800	2060	1340	8360
MIN	3480	7400	5250	6550	4050	4280	3010	3300	1640	1350	1150	1310
AC-FT	430100	787500	539400	756100	1112000	702200	241600	364900	136000	102800	75650	195500
CAL YR 1985	TOTAL	2179620	MEAN	5972	MAX	26600	MIN	1320	AC-FT	4323000		
WTR YR 1986	TOTAL	2744500	MEAN	7519	MAX	58800	MIN	1150	AC-FT	5444000		

SANTIAM RIVER BASIN

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14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1963 to current year.

INSTRUMENTATION.--Temperature recorder since October 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 1971, Aug. 1, 1973, Aug. 9, 1981; minimum, 0.0°C Jan. 1, 1979, Dec. 24, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.5°C Aug. 8, 9; minimum recorded, 2.5°C Dec. 27, 28.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.5	12.5	13.0	11.0	10.0	10.5	4.5	3.5	4.0	5.5	4.0	5.0
2	15.0	13.5	14.0	12.0	11.0	11.5	4.5	3.5	4.0	4.5	4.5	4.5
3	15.0	13.5	14.5	12.0	11.0	11.5	5.0	4.5	5.0	5.0	4.5	5.0
4	14.5	13.0	14.0	12.0	10.5	11.5	6.0	5.0	5.5	4.5	4.0	4.0
5	14.5	13.0	14.0	10.5	10.0	10.0	6.5	6.0	6.0	5.5	4.5	5.0
6	14.5	13.5	14.0	10.0	10.0	10.0	6.5	6.5	6.5	5.5	5.0	5.5
7	13.5	13.0	13.5	10.0	9.5	10.0	6.5	6.5	6.5	5.0	4.5	5.0
8	13.0	11.5	12.0	9.5	9.0	9.0	6.5	6.5	6.5	6.0	5.0	5.5
9	12.0	10.0	11.0	9.0	8.0	8.5	6.5	6.0	6.0	6.0	6.0	6.0
10	12.5	11.5	12.0	8.5	8.0	8.0	6.0	5.0	5.5	6.0	6.0	6.0
11	13.5	12.5	13.0	8.0	7.5	7.5	5.0	4.0	4.5	6.0	5.5	5.5
12	13.0	12.0	12.5	7.5	7.0	7.5	4.5	3.5	4.0	5.5	5.5	5.5
13	13.0	11.5	12.5	8.0	7.0	7.5	4.5	4.0	4.0	5.5	5.0	5.0
14	13.5	12.0	12.5	8.0	7.0	7.5	4.5	4.0	4.0	5.5	5.0	5.0
15	13.5	12.5	13.0	8.5	8.0	8.0	4.5	4.5	4.5	5.5	5.5	5.5
16	14.0	13.0	13.5	8.0	8.0	8.0	4.5	4.0	4.5	6.5	5.5	6.0
17	13.0	11.5	12.5	8.0	7.0	7.5	4.5	4.0	4.5	6.0	5.5	6.0
18	13.0	12.0	12.5	7.5	6.5	7.0	4.5	4.0	4.0	7.0	6.0	6.5
19	13.0	12.5	12.5	7.5	7.0	7.5	4.0	3.5	4.0	7.0	6.5	6.5
20	13.0	12.5	12.5	7.0	7.0	7.0	4.0	3.0	3.5	6.5	6.0	6.0
21	12.5	12.0	12.5	7.0	6.5	6.5	4.0	3.0	3.5	6.0	5.5	5.5
22	12.5	11.5	12.0	6.5	6.0	6.0	4.0	3.0	3.5	6.0	5.5	5.5
23	11.5	10.5	11.0	6.0	5.0	5.5	4.0	3.5	3.5	6.5	6.0	6.0
24	11.0	10.5	11.0	5.0	5.0	5.0	3.5	3.0	3.5	6.0	5.5	6.0
25	11.0	10.5	11.0	6.0	5.0	5.5	3.5	3.0	3.5	6.0	5.5	6.0
26	11.0	10.0	10.5	6.5	6.0	6.0	3.5	3.0	3.0	6.0	5.0	5.5
27	11.5	11.0	11.5	6.5	5.5	6.0	3.0	2.5	3.0	6.5	6.0	6.0
28	11.5	10.0	10.5	6.0	5.0	6.0	3.5	2.5	3.0	6.5	6.5	6.5
29	10.0	9.0	9.5	5.0	4.0	4.5	3.5	3.5	3.5	6.5	6.5	6.5
30	10.5	10.0	10.0	4.5	4.0	4.0	3.5	3.0	3.0	7.0	6.5	7.0
31	10.0	9.5	10.0	---	---	---	4.0	3.5	3.5	7.0	7.0	7.0
MONTH	15.0	9.0	12.0	12.0	4.0	7.5	6.5	2.5	4.5	7.0	4.0	5.5

14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.5	6.5	7.0	7.5	7.0	7.0	10.5	8.5	9.5	10.0	9.5	10.0
2	7.0	6.5	7.0	7.5	6.5	7.0	10.5	8.5	9.5	10.0	9.5	10.0
3	7.0	6.5	6.5	7.5	6.5	7.0	10.0	8.5	9.0	11.5	9.0	10.5
4	7.0	6.5	6.5	8.0	6.5	7.0	10.5	9.0	---	11.0	10.0	10.5
5	6.5	6.0	6.5	8.0	7.0	7.5	11.5	8.5	10.0	10.5	9.5	10.0
6	6.0	5.5	5.5	8.0	7.5	7.5	12.5	9.5	11.0	11.0	9.0	10.0
7	5.5	5.0	5.5	9.0	7.5	8.0	13.5	10.5	12.0	10.5	10.0	10.0
8	5.0	4.0	4.5	8.0	7.0	7.5	12.5	10.5	12.0	12.0	9.5	10.5
9	5.0	4.0	4.5	7.5	7.0	7.5	11.0	10.0	10.5	11.0	9.0	10.0
10	5.0	4.0	4.5	8.5	7.0	7.5	12.0	9.0	10.5	9.5	8.5	9.0
11	5.5	5.0	5.0	8.0	7.5	8.0	10.0	8.5	9.5	9.0	8.0	8.5
12	5.0	4.0	4.5	7.5	7.0	7.5	9.5	8.0	8.5	10.5	8.5	9.5
13	6.0	4.5	5.0	7.5	7.0	7.5	10.5	8.5	9.5	11.5	10.0	10.5
14	6.0	5.5	5.5	8.5	6.5	7.5	10.5	9.0	10.0	10.5	8.5	9.5
15	7.0	5.5	6.0	8.5	7.0	7.5	12.0	9.5	10.5	12.0	9.0	10.5
16	7.0	6.5	7.0	8.5	7.0	8.0	10.0	9.0	9.5	11.5	9.5	11.0
17	6.5	6.5	6.5	8.5	7.5	8.0	10.5	8.5	9.5	13.0	10.0	11.5
18	6.5	6.0	6.0	9.0	7.5	8.5	11.5	8.5	10.0	13.0	12.0	12.5
19	6.0	5.5	6.0	10.0	8.0	9.5	12.5	10.0	11.5	13.5	11.5	12.5
20	6.0	5.5	6.0	10.5	9.5	10.0	14.0	11.0	13.0	13.0	10.5	11.5
21	6.5	6.0	6.0	11.0	8.5	10.0	15.0	12.5	13.5	11.0	9.5	10.5
22	7.5	6.5	7.0	10.0	8.5	9.5	13.5	10.5	12.5	12.0	8.5	10.5
23	8.0	7.5	8.0	9.0	8.5	9.0	11.5	9.5	10.5	11.5	10.5	11.0
24	8.5	8.0	8.5	9.5	8.0	9.0	10.0	9.0	9.0	13.0	11.0	12.0
25	8.0	7.5	8.0	9.0	8.0	8.5	10.0	8.5	9.5	15.5	12.0	14.0
26	8.0	7.5	7.5	11.0	9.0	10.5	9.5	9.0	9.0	15.0	13.5	14.5
27	8.0	7.0	7.5	11.5	10.0	11.0	10.5	9.0	9.5	13.5	12.5	13.0
28	7.5	7.0	7.0	12.0	10.5	11.0	9.5	8.5	9.0	15.5	12.5	14.0
29	---	---	---	12.0	10.5	11.5	10.5	8.0	9.5	18.0	14.0	16.0
30	---	---	---	12.0	9.0	10.5	10.0	8.5	9.0	18.5	16.0	17.0
31	---	---	---	10.5	9.0	10.0	---	---	---	18.0	15.5	17.0
MONTH	8.5	4.0	6.5	12.0	6.5	8.5	15.0	8.0	---	18.5	8.0	11.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.5	15.5	16.5	19.5	16.0	17.5	21.5	17.0	19.5	19.5	16.0	17.5
2	17.0	14.5	16.0	18.0	16.5	17.5	21.0	18.0	19.5	20.5	17.0	18.5
3	16.0	13.5	14.5	17.0	14.5	16.0	21.5	17.0	19.5	20.0	17.0	18.5
4	14.5	13.5	14.0	16.0	14.5	15.5	21.0	17.0	19.0	20.0	16.5	18.5
5	13.5	13.0	13.5	17.5	13.5	15.5	21.0	17.0	19.0	19.5	16.5	18.0
6	13.0	12.0	12.5	19.5	14.5	17.0	21.5	17.0	19.5	19.0	16.0	17.5
7	14.5	12.5	13.5	18.0	16.0	17.0	22.0	18.0	20.0	18.0	15.5	17.0
8	16.5	12.5	14.0	18.5	15.0	16.5	22.5	18.5	20.5	16.0	14.0	15.0
9	17.5	13.5	15.5	17.0	14.5	16.0	22.5	18.5	20.5	15.0	13.5	14.5
10	19.5	14.5	17.0	14.5	13.5	14.0	21.5	18.0	19.5	14.0	13.0	13.5
11	20.5	16.0	18.0	18.0	14.0	16.0	20.5	17.5	19.0	15.0	12.5	13.5
12	20.5	16.5	18.5	19.5	16.0	17.5	21.5	17.5	19.5	15.0	13.0	14.0
13	21.0	16.5	18.5	19.5	15.5	17.5	21.5	17.5	19.5	13.5	12.5	13.0
14	18.0	15.0	16.5	18.0	16.0	17.0	22.0	18.0	20.0	14.5	12.0	13.0
15	17.5	13.5	15.5	16.5	15.0	16.0	21.5	18.0	20.0	14.0	13.0	13.5
16	16.0	14.0	15.0	15.5	14.0	14.5	19.0	17.0	18.0	14.5	12.5	13.5
17	14.0	12.5	13.0	18.0	13.5	15.5	19.5	15.5	17.5	14.0	13.0	13.5
18	13.0	11.5	12.0	18.5	14.5	16.5	19.0	16.0	17.5	14.5	13.0	13.5
19	15.5	11.0	13.0	19.5	15.0	17.5	19.5	15.5	17.5	15.0	13.0	14.0
20	17.0	14.0	15.5	21.0	16.5	18.5	20.5	16.5	18.5	14.0	13.5	14.0
21	19.0	14.5	16.5	21.5	17.0	19.0	21.0	17.0	19.0	14.5	13.0	13.5
22	20.5	16.0	18.0	20.0	17.0	18.5	19.5	17.0	18.0	14.5	13.0	14.0
23	21.5	17.0	19.5	19.5	16.5	17.5	20.0	16.0	18.0	14.0	12.5	13.5
24	21.5	17.5	19.5	19.5	15.5	17.5	20.0	16.0	18.0	13.0	12.5	12.5
25	21.0	17.0	19.0	20.5	16.5	18.0	20.5	16.5	18.5	12.5	12.0	12.0
26	20.5	17.5	18.5	18.0	16.5	17.5	21.0	17.0	19.0	12.0	11.5	11.5
27	20.0	16.5	18.0	19.0	15.5	17.0	19.5	18.0	18.5	12.0	11.5	11.5
28	18.0	15.0	16.0	19.5	15.5	17.5	18.0	16.5	17.0	13.0	11.5	12.5
29	17.0	13.5	15.5	20.0	16.5	18.0	16.5	16.0	16.5	13.0	12.5	12.5
30	19.5	14.5	17.0	20.0	16.0	18.0	16.5	15.0	15.5	13.0	12.0	12.5
31	---	---	---	20.5	16.5	18.5	18.5	14.5	16.5	---	---	---
MONTH	21.5	11.0	16.0	21.5	13.5	17.0	22.5	14.5	18.5	20.5	11.5	14.5
YEAR	22.5	2.5										

SANTIAM RIVER BASIN

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14190500 LUCKIAMUTE RIVER NEAR SUVER, OR

LOCATION.--Lat 44°47'00", long 123°14'00", in SW¼SW¼ sec.18, T.9 S., R.4 W., Polk County, Hydrologic Unit 17090003, on right bank 10 ft upstream from highway bridge at Helmick State Park, 3.0 mi northwest of Suver, 4.7 mi downstream from Little Luckiamute River, and at mile 13.5.

DRAINAGE AREA.--240 mi².

PERIOD OF RECORD.--August 1905 to October 1911, July 1940 to current year.

REVISED RECORDS.--WSP 1044: Drainage area. WSP 1094: 1945-46. WSP 1248: 1905-11.

GAGE.--Water-stage recorder. Datum of gage is 171.92 ft above National Geodetic Vertical Datum of 1929. Aug. 18, 1905, to Oct. 31, 1911, nonrecording gage at present site at different datum, Aug. 20 to Oct. 15, 1940, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 5, June 30 to July 11. Records good. Some diurnal fluctuation during periods of low flow caused by millpond upstream from station. A few small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--52 years, 907 ft³/s, 51.32 in/yr, 657,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft³/s Dec. 22, 1964, gage height, 34.52 ft; minimum discharge, 0.65 ft³/s Aug. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1100	7,660	27.34	Feb. 24	0200	*10,400	*28.82

Minimum discharge, 22 ft³/s Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	43	254	340	361	1380	1900	595	596	177	78	41	32		
2	43	306	330	504	1330	1600	570	616	171	79	40	30		
3	43	407	1250	825	1570	1380	527	627	162	78	39	29		
4	43	383	1700	815	1610	1210	502	576	160	113	40	28		
5	43	416	1550	941	1610	1080	481	562	161	156	36	27		
6	42	495	1810	1330	1520	981	450	628	157	113	35	26		
7	42	809	2850	1140	1340	1260	426	594	154	100	34	24		
8	42	1690	2900	1010	1200	1360	403	549	149	92	34	25		
9	41	1460	2220	999	1060	1290	387	507	143	84	34	25		
10	41	1300	1660	1000	957	1260	372	481	135	81	34	28		
11	43	947	1310	956	870	1290	356	485	129	88	35	30		
12	50	731	1090	862	916	1490	384	460	123	94	33	30		
13	56	597	927	787	1410	1670	397	437	119	86	33	29		
14	53	509	809	732	2000	1630	355	430	114	77	34	30		
15	50	562	724	731	2670	1450	335	397	126	67	33	36		
16	48	925	656	1300	4380	1280	385	373	123	67	31	38		
17	47	994	597	1600	7350	1130	603	352	118	68	29	42		
18	47	1020	553	2270	6120	1020	549	331	140	69	31	58		
19	46	858	514	2920	4170	927	482	317	150	65	30	63		
20	80	848	480	2760	2820	850	436	321	131	63	29	55		
21	157	783	450	2050	2460	797	402	311	117	61	28	73		
22	272	860	424	1990	4120	758	372	301	114	54	28	70		
23	644	733	402	2780	7550	732	349	281	109	52	29	53		
24	479	635	387	3080	9350	1120	335	267	101	51	29	103		
25	868	565	369	2420	6320	1090	363	252	96	50	29	131		
26	694	515	350	1870	4360	966	437	241	89	49	28	240		
27	448	471	330	1550	3070	870	565	234	87	51	27	227		
28	442	447	315	1330	2320	790	706	228	82	55	27	151		
29	360	405	302	1190	---	722	704	213	88	49	27	118		
30	296	366	292	1570	---	671	649	201	90	46	27	108		
31	285	---	282	1570	---	622	---	189	---	45	30	---		
TOTAL	5888	21291	28173	45243	85833	35196	13877	12357	3815	2281	994	1959		
MEAN	190	710	909	1459	3065	1135	463	399	127	73.6	32.1	65.3		
MAX	868	1690	2900	3080	9350	1900	706	628	177	156	41	240		
MIN	41	254	282	361	870	622	335	189	82	45	27	24		
CFSM	.79	2.96	3.79	6.08	12.8	4.73	1.93	1.66	.53	.31	.13	.27		
IN.	.91	3.30	4.37	7.01	13.30	5.46	2.15	1.92	.59	.35	.15	.30		
AC-FT	11680	42230	55880	89740	170200	69810	27530	24510	7570	4520	1970	3890		
CAL YR 1985	TOTAL	178328	MEAN	489	MAX	2900	MIN	39	CFSM	2.04	IN.	27.64	AC-FT	353700
WTR YR 1986	TOTAL	256907	MEAN	704	MAX	9350	MIN	24	CFSM	2.93	IN.	39.82	AC-FT	509600

WILLAMETTE RIVER BASIN

14191000 WILLAMETTE RIVER AT SALEM, OR

LOCATION.--Lat 44°56'40", long 123°02'30", in SE¼SW¼ sec. 22, T.7 S., R.3 W., Marion County, Hydrologic Unit 17090007, on right bank 300 ft upstream from Center Street Bridge in Salem and at mile 84.16.

DRAINAGE AREA.--7,280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1909 to December 1916, January 1923 to current year. Monthly discharge only January 1923 to September 1927, published in WSP 1318. Gage-height records collected at about the same site since 1892 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1318: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 106.14 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mi upstream at datum 8.00 ft higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated by 12 reservoirs upstream from station (see elsewhere in this report). Many small diversions for irrigation upstream from station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River downstream from station, through Mill Creek at Salem.

AVERAGE DISCHARGE.--70 years, 23,680 ft³/s, 44.17 in/yr, 17,160,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348,000 ft³/s Jan. 8, 1923, gage height, 38.3 ft, present datum; minimum discharge, 2,470 ft³/s Aug. 27, 1940, gage height, 3.55 ft, present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 500,000 ft³/s Dec. 4, 1861, gage height, about 47 ft present datum, from rating curve extended above 250,000 ft³/s in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft, discharge, 428,000 ft³/s, and 45.1 ft, discharge, 448,000 ft³/s, respectively, from floodmarks and information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152,000 ft³/s Feb. 24, gage height, 27.81 ft; minimum discharge, 6,100 ft³/s July 24-26, gage height, 4.83 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	11500	22500	18300	14500	34600	100000	14300	16700	12600	6550	6200	6770		
2	11700	20700	18100	18600	32800	93800	14000	16600	12300	6450	6180	6720		
3	12100	20700	20200	24300	32000	86400	13700	18300	12000	6390	6190	6900		
4	12200	20500	34300	27000	29300	75400	13100	19800	11500	6700	6270	7610		
5	12100	20400	37300	28000	25400	58800	12900	19700	10900	7080	6310	8330		
6	11600	20700	39500	31500	25400	45000	12300	22000	9860	7230	6390	8740		
7	10900	24200	55400	30400	23600	41600	11900	22100	9280	6860	6480	9020		
8	10400	39600	66500	28100	21000	49000	11500	20500	8930	6660	6460	9110		
9	9970	42700	62500	27300	18300	51400	11400	19000	8740	6580	6450	9340		
10	9630	40600	51400	29700	16900	55700	11100	17700	8430	6770	6470	9590		
11	10100	35500	38000	32400	15800	49000	10900	18400	8100	6660	6500	9800		
12	11900	31000	30400	30700	18300	40800	10800	18900	7810	6640	6460	9900		
13	13400	27400	25500	28300	32300	40800	11200	18700	7640	6530	6410	9880		
14	14000	25200	23900	26400	42500	39300	11300	20200	7610	6410	6430	9910		
15	14100	24300	22200	24700	47400	37100	11300	20800	7680	6290	6430	9900		
16	14300	31800	21000	28000	58700	33900	11200	19900	7700	6280	6390	10200		
17	14300	41700	19900	37000	79200	31000	12000	18700	7600	6370	6470	10300		
18	14000	41400	17700	50300	96100	26200	13200	16100	8080	6460	6550	10600		
19	14200	38700	16800	55900	96900	21200	13000	15100	8490	6370	6550	10900		
20	15200	37900	16900	61100	84600	18700	12400	15000	8170	6370	6500	11000		
21	15600	36200	16500	58200	75000	17500	12000	15700	7810	6320	6450	11400		
22	16000	35100	16100	52800	87500	16800	11800	15900	7570	6190	6450	11400		
23	20400	33700	15800	56100	118000	16200	11500	17000	7390	6140	6460	11200		
24	28800	30700	15500	61300	144000	18600	11100	16800	7100	6100	6490	11800		
25	33900	28600	16200	54900	146000	22100	10700	15900	6960	6110	6540	13800		
26	39500	25700	17100	45200	133000	20900	10900	15200	6720	6120	6470	16500		
27	33100	21400	16700	38700	118000	19100	11700	14500	6570	6220	6430	21800		
28	29400	19900	15900	35800	108000	17600	15300	14000	6490	6260	6420	23000		
29	28200	19200	15600	34200	---	16300	18200	12900	6610	6240	6430	20500		
30	25100	18400	15100	35900	---	15500	17400	12400	6710	6180	6520	19200		
31	23800	---	14400	36700	---	14800	---	12700	---	6160	6680	---		
TOTAL	541400	876400	810700	1144000	1760600	1190500	374100	537200	253350	199690	199430	345120		
MEAN	17460	29210	26150	36900	62880	38400	12470	17330	8445	6442	6433	11500		
MAX	39500	42700	66500	61300	146000	100000	18200	22100	12600	7230	6680	23000		
MIN	9630	18400	14400	14500	15800	14800	10700	12400	6490	6100	6180	6720		
CFSM	2.40	4.01	3.59	5.07	8.64	5.27	1.71	2.38	1.16	.88	.88	1.58		
IN.	2.77	4.48	4.14	5.85	9.00	6.08	1.91	2.75	1.29	1.02	1.02	1.76		
AC-FT	1074000	1738000	1608000	2269000	3492000	2361000	742000	1066000	502500	396100	395600	684500		
CAL YR 1985	TOTAL	6235150	MEAN	17080	MAX	66500	MIN	6300	CFSM	2.35	IN.	31.86	AC-FT	12367000
WTR YR 1986	TOTAL	8232490	MEAN	22550	MAX	146000	MIN	6100	CFSM	3.10	IN.	42.07	AC-FT	16329000

WILLAMETTE RIVER BASIN

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14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1910-12, 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1951 to September 1972, October 1976 to September 1983.

WATER TEMPERATURES: February 1951 to current year.

INSTRUMENTATION.--Temperature recorder since February 1951. Specific conductance recorder February 1951 to September 1972 and from October 1976 to September 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 141 micromhos Sept. 17, 1966; minimum daily, 30 micromhos Jan. 29, 1965.

WATER TEMPERATURES: Maximum, 25.5°C July 23, 1959; minimum, 0.0°C on several days in 1956, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.0°C Aug. 9; minimum, 2.5°C Dec. 1, 2.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	14.0	13.0	13.5	11.0	10.0	10.5	3.5	2.5	3.0	4.5	4.0	4.5
2	15.0	14.0	14.5	11.5	11.0	11.5	3.0	2.5	2.5	4.5	4.5	4.5
3	15.5	14.5	15.0	12.0	11.5	12.0	4.0	3.0	3.5	5.0	4.5	5.0
4	16.0	14.5	15.0	12.0	11.5	12.0	4.5	4.0	4.5	5.0	4.5	4.5
5	15.5	14.5	14.5	11.5	10.5	11.0	5.5	4.5	5.0	5.0	4.5	4.5
6	14.5	14.0	14.5	10.5	10.5	10.5	6.0	5.5	6.0	5.5	5.0	5.0
7	14.5	14.0	14.0	10.5	10.5	10.5	6.5	6.0	6.0	5.5	5.0	5.0
8	14.0	12.5	13.5	10.5	9.5	10.0	6.5	6.5	6.5	5.5	5.0	5.5
9	12.5	12.0	12.0	9.5	9.0	9.0	6.5	6.0	6.0	6.5	5.5	6.0
10	12.0	11.5	12.0	9.0	8.0	8.5	6.0	5.5	5.5	6.5	6.5	6.5
11	12.5	12.0	12.5	8.0	7.5	7.5	5.5	4.5	5.0	6.5	6.0	6.5
12	13.0	12.5	13.0	7.5	7.0	7.0	4.5	4.0	4.0	6.0	6.0	6.0
13	13.0	12.5	12.5	7.0	7.0	7.0	4.0	4.0	4.0	6.0	5.5	6.0
14	13.0	12.5	13.0	7.0	7.0	7.0	4.0	3.5	4.0	5.5	5.5	5.5
15	13.5	13.0	13.0	8.0	7.0	7.5	4.0	4.0	4.0	6.0	5.5	6.0
16	14.0	13.0	13.5	8.0	8.0	8.0	4.5	4.0	4.0	6.5	6.0	6.5
17	13.5	13.0	13.0	8.0	7.5	8.0	4.0	4.0	4.0	6.5	6.5	6.5
18	13.0	12.5	13.0	7.5	7.0	7.5	4.0	4.0	4.0	7.5	6.5	7.0
19	13.0	12.5	13.0	7.0	7.0	7.0	4.0	3.5	4.0	7.5	7.5	7.5
20	13.0	12.5	13.0	7.0	7.0	7.0	3.5	3.5	3.5	7.5	7.0	7.0
21	13.0	12.5	12.5	7.0	6.5	7.0	3.5	3.5	3.5	7.0	6.5	6.5
22	12.5	12.0	12.0	6.5	6.0	6.5	3.5	3.0	3.5	6.5	6.0	6.5
23	12.0	11.5	12.0	6.0	5.0	5.5	3.5	3.5	3.5	6.5	6.5	6.5
24	12.0	11.5	12.0	5.0	4.5	4.5	3.5	3.5	3.5	6.5	6.5	6.5
25	12.0	12.0	12.0	5.0	4.5	4.5	3.5	3.0	3.5	6.5	6.0	6.5
26	12.0	11.5	11.5	5.5	5.0	5.5	3.5	3.0	3.0	6.5	6.0	6.0
27	12.0	11.5	12.0	5.5	5.5	5.5	3.0	3.0	3.0	6.5	6.0	6.5
28	12.0	11.5	12.0	5.5	5.0	5.0	3.0	3.0	3.0	7.0	6.5	6.5
29	11.5	10.5	11.0	5.0	4.0	4.5	3.5	3.0	3.5	7.0	7.0	7.0
30	10.5	10.5	10.5	4.0	3.5	3.5	3.5	3.0	3.5	7.5	7.0	7.0
31	10.5	10.0	10.0	---	---	---	4.0	3.5	3.5	7.5	7.5	7.5
MONTH	16.0	10.0	13.0	12.0	3.5	7.5	6.5	2.5	4.0	7.5	4.0	6.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.5	7.5	7.5	8.5	8.5	8.5	11.5	11.0	11.5	11.0	10.5	11.0
2	7.5	7.5	7.5	8.5	8.5	8.5	11.5	10.5	11.0	11.0	10.5	11.0
3	8.0	7.5	7.5	8.5	8.0	8.5	11.0	10.5	10.5	12.0	10.5	11.5
4	7.5	7.5	7.5	8.5	8.0	8.5	11.0	10.5	10.5	12.0	11.5	12.0
5	7.5	7.0	7.5	9.0	8.5	9.0	11.5	10.5	11.0	12.0	11.5	11.5
6	7.0	6.5	7.0	9.5	9.0	9.0	12.0	10.5	11.5	11.5	11.0	11.5
7	6.5	6.0	6.5	9.5	9.5	9.5	13.0	11.5	12.5	11.5	11.0	11.5
8	6.0	5.5	6.0	9.5	9.0	9.0	13.0	12.5	13.0	12.0	11.5	11.5
9	6.0	5.5	5.5	9.0	8.5	8.5	12.5	12.0	12.5	12.0	11.5	12.0
10	5.5	5.0	5.5	9.0	8.5	8.5	12.5	11.5	12.0	11.5	11.0	11.5
11	5.5	5.5	5.5	9.0	9.0	9.0	12.0	11.0	11.5	11.0	10.5	11.0
12	5.5	5.0	5.0	9.0	9.0	9.0	11.0	10.5	10.5	11.5	10.5	11.0
13	5.5	5.0	5.0	9.0	8.5	9.0	11.0	10.0	10.5	12.5	11.5	12.0
14	6.0	5.5	5.5	9.0	8.5	8.5	11.0	10.0	10.5	12.5	12.0	12.5
15	6.5	6.0	6.0	9.0	8.5	9.0	12.0	11.0	11.5	13.5	12.0	12.5
16	7.5	6.5	7.0	9.5	9.0	9.0	11.5	11.0	11.5	13.5	12.5	13.0
17	7.5	7.0	7.0	9.5	9.0	9.0	11.5	11.0	11.0	14.0	13.0	13.5
18	7.0	6.5	7.0	9.5	9.0	9.5	11.5	10.5	11.0	14.5	14.0	14.5
19	6.5	6.0	6.0	10.0	9.5	9.5	13.0	11.5	12.0	15.0	14.0	14.5
20	6.5	6.0	6.0	10.5	10.0	10.0	14.0	12.5	13.5	15.0	14.5	14.5
21	6.5	6.5	6.5	11.0	10.5	10.5	15.5	13.5	14.5	14.5	13.5	13.5
22	7.5	6.5	7.0	11.0	10.5	10.5	15.0	14.0	14.5	13.5	12.5	13.0
23	8.5	7.5	8.0	10.5	10.0	10.5	14.0	13.0	13.5	13.5	13.0	13.5
24	9.5	8.5	9.0	10.0	9.5	10.0	13.0	11.5	12.0	14.5	13.5	14.0
25	9.5	9.0	9.5	10.0	9.5	10.0	11.5	11.0	11.5	16.5	14.5	15.5
26	9.0	9.0	9.0	11.0	10.0	10.5	11.5	11.0	11.0	17.0	16.5	16.5
27	9.0	8.5	8.5	12.0	11.0	11.5	12.0	10.5	11.0	17.0	16.5	16.5
28	8.5	8.5	8.5	12.5	11.5	12.0	11.5	11.0	11.0	17.0	16.0	16.5
29	---	---	---	12.5	12.0	12.0	11.5	10.5	11.0	18.0	16.5	17.0
30	---	---	---	12.5	12.0	12.5	11.5	10.5	11.0	19.5	17.5	18.5
31	---	---	---	12.0	11.5	11.5	---	---	---	20.0	18.5	19.5
MONTH	9.5	5.0	7.0	12.5	8.0	9.5	15.5	10.0	11.5	20.0	10.5	13.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	19.0	19.5	20.5	19.0	20.0	21.5	20.0	21.0	18.5	17.5	18.0
2	20.0	19.0	19.5	20.0	19.5	20.0	22.0	21.0	21.5	19.0	18.0	18.5
3	19.5	18.5	19.0	19.5	19.0	19.5	22.0	21.0	21.5	19.5	18.5	19.0
4	18.5	17.5	18.0	19.0	18.0	18.5	21.5	21.0	21.5	20.0	19.0	19.5
5	17.5	17.0	17.5	18.5	17.5	18.0	21.5	20.5	21.0	19.5	18.5	19.5
6	17.5	16.5	17.0	19.5	18.0	19.0	21.5	20.5	21.0	19.5	18.5	19.0
7	17.0	16.0	16.5	20.0	18.5	19.0	22.0	21.0	21.5	19.0	17.5	18.5
8	17.0	16.0	16.5	20.0	19.0	19.5	22.5	21.5	22.0	18.0	16.5	17.0
9	18.5	16.5	17.5	19.5	19.0	19.5	23.0	21.5	22.5	16.5	16.0	16.5
10	19.5	17.5	18.5	19.0	18.0	18.5	22.0	21.5	22.0	16.0	15.5	16.0
11	21.0	19.0	20.0	19.5	17.5	18.5	21.5	21.0	21.5	15.5	14.5	15.0
12	21.5	20.0	21.0	19.5	19.0	19.0	21.5	20.5	21.0	16.0	14.5	15.0
13	22.0	20.5	21.5	20.0	18.5	19.5	22.0	20.0	21.0	15.0	14.5	15.0
14	21.5	20.0	20.5	20.0	19.0	19.5	21.0	20.0	20.5	14.5	14.0	14.5
15	20.0	19.0	19.5	19.5	18.5	19.0	21.0	20.0	20.5	15.0	14.0	14.5
16	19.0	18.0	18.5	18.5	18.0	18.5	20.5	19.5	20.0	15.0	14.0	14.5
17	18.0	17.0	17.5	19.0	18.0	18.5	19.5	18.5	19.0	14.5	14.0	14.5
18	17.0	16.5	16.5	19.5	18.0	18.5	19.0	18.0	18.5	14.5	14.0	14.5
19	17.0	16.0	16.5	20.0	18.5	19.0	18.5	17.5	18.0	15.0	14.0	14.5
20	18.0	16.0	17.0	21.0	19.5	20.0	19.0	18.0	18.5	15.0	14.0	14.5
21	19.0	17.0	18.0	21.5	20.0	21.0	19.5	18.5	19.0	14.5	14.0	14.0
22	20.5	18.5	19.5	21.5	20.5	21.0	19.5	19.0	19.0	14.5	13.5	14.0
23	21.5	20.0	21.0	21.0	20.0	20.5	19.0	18.5	19.0	14.0	13.5	14.0
24	22.0	20.5	21.5	21.0	20.0	20.5	19.0	18.0	18.5	14.0	13.5	13.5
25	22.0	21.0	21.5	21.0	20.0	20.5	19.5	18.0	19.0	13.5	13.0	13.0
26	22.0	21.0	21.5	20.5	19.5	20.0	20.0	19.0	19.5	13.0	12.5	12.5
27	21.5	21.0	21.5	20.0	19.0	19.5	19.5	19.0	19.5	12.5	12.0	12.0
28	21.0	19.5	20.0	20.0	18.5	19.5	19.0	18.5	19.0	12.5	12.0	12.0
29	19.5	18.5	19.0	20.5	19.0	20.0	18.5	17.5	18.0	13.0	12.5	13.0
30	20.0	18.5	19.0	20.5	19.5	20.0	17.5	17.0	17.0	13.0	13.0	13.0
31	---	---	---	21.0	20.0	20.5	18.0	16.5	17.5	---	---	---
MONTH	22.0	16.0	19.0	21.5	17.5	19.5	23.0	16.5	20.0	20.0	12.0	15.5
YEAR	23.0	2.5	12.0									

YAMHILL RIVER BASIN

209

14192500 SOUTH YAMHILL RIVER NEAR WILLAMINA, OR

LOCATION.--Lat 45°02'50", long 123°30'10", in NE¼SE¼ sec.14, T.6 S., R.7 W., Polk County, Hydrologic Unit 17090008, on left bank 2.3 mi southwest of Willamina, 2.8 mi upstream from Willamina Creek, and at mile 45.5.

DRAINAGE AREA.--133 mi².

PERIOD OF RECORD.--May 1934 to current year.

REVISED RECORDS.--WSP 814: Drainage area. WSP 1318: 1934.

GAGE.--Water-stage recorder. Datum of gage is 235.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 23, 24; Dec. 11, 17-27; Mar. 30, 31; Apr. 23, 29, 30; May 7, 8, 11, 14-16, 18-26; June 2, 3. Records good except for estimated daily discharges, which are fair. Slight regulation occasionally at low flows by millpond upstream. No diversion upstream from station.

AVERAGE DISCHARGE.--52 years, 622 ft³/s, 63.51 in/yr, 450,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s Dec. 22, 1964, gage height, 17.07 ft; minimum discharge, 2.6 ft³/s Oct. 11, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	0700	*5,370	*7.98				
Minimum discharge, 9.3 ft ³ /s Aug. 27, 28, Sept. 7, 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	21	294	287	417	994	835	357	507	140	43	21	15		
2	21	421	413	477	959	710	341	544	119	42	20	13		
3	21	405	1360	814	1150	618	316	514	104	41	18	12		
4	22	390	990	642	1100	547	298	480	102	117	18	12		
5	20	406	940	1120	1100	491	280	537	103	89	18	11		
6	20	574	1650	1150	1010	445	269	562	101	63	18	10		
7	21	1440	2400	870	895	860	262	499	101	53	17	9.8		
8	21	1640	2250	883	791	835	254	475	96	48	16	9.8		
9	19	1380	1630	857	700	975	248	471	90	45	16	11		
10	20	1070	1220	827	626	979	241	483	85	45	14	14		
11	24	793	946	832	566	1260	241	401	80	61	15	14		
12	35	628	767	723	545	1570	292	365	73	60	15	14		
13	35	514	651	658	772	1600	243	400	69	50	14	13		
14	30	437	554	618	987	1520	227	372	68	44	14	14		
15	27	671	485	671	2080	1270	209	348	78	42	13	16		
16	26	856	433	1110	4660	1050	371	337	71	41	12	17		
17	27	897	390	1190	3180	887	535	335	75	47	12	20		
18	25	815	362	2610	2160	768	458	365	101	41	12	34		
19	41	755	337	2800	1540	674	403	327	106	37	12	30		
20	272	779	320	1840	1200	595	367	355	85	34	12	29		
21	259	707	301	1350	1230	564	343	317	74	31	12	31		
22	718	707	285	1630	2320	502	327	282	65	28	11	23		
23	598	545	269	2170	4590	553	317	254	60	28	11	23		
24	500	495	254	1820	3670	782	308	224	53	29	11	119		
25	964	458	240	1400	2420	660	395	198	50	28	11	164		
26	568	411	224	1110	1690	585	517	176	48	27	11	289		
27	465	389	211	933	1270	523	646	167	46	27	9.5	184		
28	560	382	197	779	1010	475	666	159	46	26	10	120		
29	417	338	191	703	---	437	639	152	49	25	12	92		
30	363	305	183	1160	---	398	562	144	46	24	14	91		
31	322	---	178	1020	---	365	---	142	---	22	15	---		
TOTAL	6482	19902	20918	35184	45215	24333	10932	10892	2384	1338	434.5	1454.6		
MEAN	209	663	675	1135	1615	785	364	351	79.5	43.2	14.0	48.5		
MAX	964	1640	2400	2800	4660	1600	666	562	140	117	21	289		
MIN	19	294	178	417	545	365	209	142	46	22	9.5	9.8		
CFSM	1.57	4.98	5.08	8.53	12.1	5.90	2.74	2.64	.60	.32	.11	.36		
IN.	1.81	5.57	5.85	9.84	12.65	6.81	3.06	3.05	.67	.37	.12	.41		
AC-FT	12860	39480	41490	69790	89680	48260	21680	21600	4730	2650	862	2890		
CAL YR 1985	TOTAL	131376	MEAN	360	MAX	2680	MIN	18	CFSM	2.71	IN.	36.75	AC-FT	260600
WTR YR 1986	TOTAL	179469.1	MEAN	492	MAX	4660	MIN	9.5	CFSM	3.70	IN.	50.20	AC-FT	356000

YAMHILL RIVER BASIN

14193000 WILLAMINA CREEK NEAR WILLAMINA, OR

LOCATION.--Lat 45°08'35", long 123°29'35", in NE¼NW¼ sec.13, T.5 S., R.7 W., Yamhill County, Hydrologic Unit 17090008, on right bank 4.5 mi north of Willamina and at mile 6.2.

DRAINAGE AREA.--64.7 mi².

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315 ft above National Geodetic Vertical Datum of 1929 (plane-table survey). Prior to Oct. 1, 1939, water-stage recorder at site on left bank at datum 1.00 ft higher. Oct. 1, 1939, to Aug. 5, 1968, water-stage recorder at site on left bank at present datum.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--52 years, 261 ft³/s, 54.78 in/yr, 189,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s Dec. 22, 1964, gage height, 13.54 ft, from rating curve extended above 3,400 ft³/s on basis of slope-area measurement at gage height 11.65 ft; minimum discharge, 5.4 ft³/s July 15, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1931, reached a stage of about 12 ft, from information by local resident, discharge, 8,200 ft³/s, from rating curve extended above 3,400 ft³/s on basis of slope-area measurement at gage height 11.65 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1900	*1,940	*6.45				
Minimum discharge, 9.3 ft ³ /s Sept. 7, 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	16	84	112	159	394	444	166	214	65	33	18	12		
2	16	155	166	173	392	386	155	235	63	33	17	12		
3	16	124	409	349	450	336	146	244	61	33	16	11		
4	16	118	334	260	458	297	141	223	62	72	15	11		
5	15	131	340	341	516	266	135	236	61	45	15	10		
6	15	186	666	482	493	245	129	262	60	39	15	10		
7	16	357	938	384	446	375	122	237	60	35	15	9.6		
8	16	434	883	348	398	380	117	216	57	33	14	10		
9	15	425	676	350	352	451	113	200	55	32	13	12		
10	16	339	528	342	311	446	108	196	52	36	13	11		
11	18	250	425	314	284	530	111	183	49	37	13	11		
12	20	199	351	283	265	645	124	169	47	34	13	11		
13	19	163	292	260	316	649	113	171	45	32	13	11		
14	17	142	252	240	363	601	105	154	47	30	13	13		
15	17	228	221	263	615	524	102	145	48	30	13	13		
16	17	288	198	404	1230	455	185	137	46	30	12	15		
17	17	324	181	494	977	399	223	129	51	31	12	18		
18	17	280	169	1010	750	353	186	122	55	28	12	22		
19	33	260	157	945	608	312	160	118	50	26	13	17		
20	73	259	147	701	510	279	145	131	46	25	13	21		
21	69	239	138	556	545	260	134	117	44	24	12	18		
22	220	216	131	645	820	234	126	111	41	23	11	16		
23	135	185	125	871	1740	257	119	104	39	23	11	32		
24	99	163	120	777	1470	296	117	98	37	23	11	55		
25	194	149	113	644	1050	265	157	92	36	22	11	113		
26	117	138	106	530	780	241	229	88	36	22	11	117		
27	89	145	101	450	629	219	321	85	34	21	11	60		
28	108	145	97	386	520	203	281	81	34	21	11	43		
29	89	129	94	361	---	188	256	77	37	20	12	42		
30	83	119	90	447	---	177	229	73	36	20	13	39		
31	79	---	87	401	---	165	---	69	---	19	13	---		
TOTAL	1687	6374	8647	14170	17682	10878	4755	4717	1454	932	405	795.6		
MEAN	54.4	212	279	457	632	351	159	152	48.5	30.1	13.1	26.5		
MAX	220	434	938	1010	1740	649	321	262	65	72	18	117		
MIN	15	84	87	159	265	165	102	69	34	19	11	9.6		
CFSM	.84	3.28	4.31	7.06	9.77	5.43	2.46	2.35	.75	.47	.20	.41		
IN.	.97	3.66	4.97	8.15	10.17	6.25	2.73	2.71	.84	.54	.23	.46		
AC-FT	3350	12640	17150	28110	35070	21580	9430	9360	2880	1850	803	1580		
CAL YR 1985	TOTAL	55921	MEAN	153	MAX	938	MIN	14	CFSM	2.36	IN.	32.15	AC-FT	110900
WTR YR 1986	TOTAL	72496.6	MEAN	199	MAX	1740	MIN	9.6	CFSM	3.08	IN.	41.68	AC-FT	143800

YAMHILL RIVER BASIN

211

14194000 SOUTH YAMHILL RIVER NEAR WHITESON, OR

LOCATION.--Lat 45°10'08", long 123°12'25", in NE¼NW¼ sec.5, T.5 S., R.4 W., Yamhill County, Hydrologic Unit 17090008, near left bank on downstream side of Whiteson Bridge on State Highway 99W, 1.3 mi northwest of Whiteson, 1.4 mi downstream from Salt Creek, and at mile 16.71.

DRAINAGE AREA.--502 mi².

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 82.30 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1940, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: June 9 to Aug. 25. Records good except for estimated daily discharges, which are fair. Slight regulation during low-water periods by logpond upstream. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--46 years, 1,760 ft³/s, 47.61 in/yr, 1,275,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,200 ft³/s Dec. 23, 1964, gage height, 47.20 ft; minimum discharge, 3.2 ft³/s Aug. 24, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 46.9 ft, from Oregon State Highway Department bridge plans.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1630	*13,900	*37.58	No other peak greater than base discharge.			
Minimum discharge, 12 ft ³ /s Sept. 6.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	62	483	550	452	2870	2770	1020	1040	261	86	37	28		
2	61	539	534	879	2650	2330	1010	1060	244	82	35	27		
3	61	684	1900	1470	2980	2030	924	1180	228	78	33	21		
4	62	625	2820	1680	3170	1780	870	1080	219	86	30	20		
5	64	665	2450	1800	3060	1590	823	1060	221	200	29	17		
6	64	750	3150	3400	3070	1460	775	1270	219	150	29	15		
7	65	1280	5390	3040	2710	1810	734	1220	220	110	29	16		
8	64	2730	6370	2360	2320	2560	680	1080	220	93	28	20		
9	67	2840	5530	2240	1980	2730	649	960	190	81	26	21		
10	62	2470	3890	2230	1720	2870	620	891	178	76	26	18		
11	65	1730	2750	2230	1530	2970	594	871	170	73	22	22		
12	69	1260	2090	1950	1470	3650	648	805	160	97	24	21		
13	82	987	1680	1680	1800	4320	649	761	148	97	24	26		
14	88	811	1410	1500	3030	4240	610	773	138	85	22	30		
15	84	762	1220	1370	4340	3600	570	692	135	76	22	33		
16	80	1540	1070	2380	7770	2970	614	639	155	70	20	38		
17	79	1610	962	3770	13100	2460	1110	596	144	66	19	43		
18	77	1780	882	5260	12100	2090	1070	544	150	75	19	52		
19	79	1450	823	7430	8420	1830	903	513	210	66	18	70		
20	141	1500	762	7390	5220	1630	796	529	192	62	18	66		
21	471	1440	704	5290	3780	1490	722	529	175	57	18	67		
22	587	1470	653	4030	5190	1400	666	504	145	51	18	66		
23	1340	1220	616	5430	7250	1290	621	475	125	47	18	57		
24	810	1010	587	6160	10800	1920	594	446	113	45	18	84		
25	1250	885	559	5110	10300	2050	646	413	100	47	18	180		
26	1300	798	526	3740	7450	1790	897	386	90	47	19	387		
27	803	730	488	2840	4910	1550	1250	366	85	45	17	446		
28	792	765	479	2300	3490	1370	1370	346	82	44	16	245		
29	765	691	451	1940	---	1250	1300	326	81	43	15	177		
30	607	603	423	2530	---	1160	1170	304	88	42	17	156		
31	552	---	398	3260	---	1070	---	284	---	40	24	---		
TOTAL	10753	36108	52117	97141	138480	68030	24905	21943	4886	2317	708	2469		
MEAN	347	1204	1681	3134	4946	2195	830	708	163	74.7	22.8	82.3		
MAX	1340	2840	6370	7430	13100	4320	1370	1270	261	200	37	446		
MIN	61	483	398	452	1470	1070	570	284	81	40	15	15		
CFSM	.69	2.40	3.35	6.24	9.85	4.37	1.65	1.41	.32	.15	.05	.16		
IN.	.80	2.68	3.86	7.20	10.26	5.04	1.85	1.63	.36	.17	.05	.18		
AC-FT	21330	71620	103400	192700	274700	134900	49400	43520	9690	4600	1400	4900		
CAL YR 1985	TOTAL	316451	MEAN	867	MAX	6370	MIN	31	CFSM	1.73	IN.	23.45	AC-FT	627700
WTR YR 1986	TOTAL	459857	MEAN	1260	MAX	13100	MIN	15	CFSM	2.51	IN.	34.08	AC-FT	912100

YAMHILL RIVER BASIN

14194300 NORTH YAMHILL RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°21'55", long 123°22'40", in SW¼ sec.25, T.2 S., R.6 W., Yamhill County, Hydrologic Unit 17090008, on right bank 0.4 mi downstream from small tributary, 1.3 mi upstream from Kutch Creek, 2.1 mi west of Fairdale, 9.5 mi west of Yamhill and at mile 28.4.

DRAINAGE AREA.--9.03 mi².

PERIOD OF RECORD.--October 1958 to March 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 560 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 17-29, May 17 to June 4. Records excellent except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--26 years (water years 1959-65, 1968-86), 47.4 ft³/s, 71.28 in/yr, 34,340 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s Dec. 22, 1964, gage height, 6.88 ft, from rating curve extended above 1,000 ft³/s; maximum gage height, 9.7 ft Dec. 23, 1964 (backwater from debris); minimum discharge, 2.3 ft³/s Sept. 23-26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1630	*270	*3.75				
Minimum discharge, 2.5 ft ³ /s Sept. 5-7.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	3.0	22	16	35	66	69	32	42	13	6.5	4.3	3.2		
2	3.1	32	22	37	68	60	29	52	13	6.5	4.1	3.2		
3	3.2	28	38	76	73	54	27	51	12	6.5	4.0	3.1		
4	3.1	28	36	61	77	49	26	48	12	12	3.9	2.9		
5	3.0	30	38	74	83	45	24	48	12	7.8	3.9	2.8		
6	3.1	47	72	96	78	42	22	48	12	7.0	3.9	2.7		
7	3.3	82	111	80	70	66	22	45	12	6.5	3.8	2.8		
8	3.1	90	107	77	61	63	21	41	11	6.4	3.7	3.1		
9	3.1	78	84	71	54	64	20	39	11	6.3	3.6	3.4		
10	3.1	58	68	68	49	68	19	38	9.9	7.2	3.6	3.2		
11	4.4	45	55	63	45	78	21	36	9.6	7.4	3.8	3.1		
12	4.6	36	47	55	42	96	22	35	9.2	6.8	3.8	3.0		
13	3.8	30	41	51	46	100	21	36	8.8	6.3	3.6	3.1		
14	3.6	26	36	46	49	92	19	33	9.3	6.1	3.5	3.3		
15	3.6	38	33	49	87	81	19	30	9.1	6.0	3.4	3.4		
16	3.8	52	32	63	208	71	26	27	9.0	6.3	3.3	3.5		
17	3.7	56	30	74	140	62	26	25	9.8	6.2	3.3	4.6		
18	3.5	48	29	144	105	56	25	25	9.8	5.8	3.3	4.5		
19	9.1	43	27	172	85	50	22	24	9.6	5.5	3.4	3.8		
20	21	38	26	126	73	46	21	26	8.9	5.3	3.3	3.8		
21	16	34	25	93	81	44	20	23	8.5	5.2	3.2	3.6		
22	40	29	24	108	117	41	19	22	8.0	5.1	3.1	3.4		
23	21	26	23	132	240	43	19	21	7.7	5.1	3.0	6.8		
24	22	23	23	122	206	50	19	20	7.3	5.1	3.1	6.7		
25	45	21	22	100	148	46	29	19	7.1	5.0	3.1	16		
26	27	20	21	82	117	43	40	18	7.0	5.0	3.0	13		
27	23	21	21	69	95	40	48	17	6.7	5.0	3.0	7.0		
28	26	19	20	59	80	38	49	16	7.0	4.9	3.2	5.7		
29	21	17	20	58	---	36	47	15	7.1	4.7	3.5	5.9		
30	22	16	19	72	---	35	42	14	6.8	4.5	3.6	5.1		
31	20	---	19	65	---	33	---	13	---	4.4	3.4	---		
TOTAL	375.2	1133	1185	2478	2643	1761	796	947	284.2	188.4	108.7	139.7		
MEAN	12.1	37.8	38.2	79.9	94.4	56.8	26.5	30.5	9.47	6.08	3.51	4.66		
MAX	45	90	111	172	240	100	49	52	13	12	4.3	16		
MIN	3.0	16	16	35	42	33	19	13	6.7	4.4	3.0	2.7		
CFSM	1.34	4.19	4.23	8.85	10.5	6.29	2.93	3.38	1.05	.67	.39	.52		
IN.	1.55	4.67	4.88	10.21	10.89	7.25	3.28	3.90	1.17	.78	.45	.58		
AC-FT	744	2250	2350	4920	5240	3490	1580	1880	564	374	216	277		
CAL YR 1985	TOTAL	9810.1	MEAN	26.9	MAX	127	MIN	3.0	CFSM	2.98	IN.	40.41	AC-FT	19460
WTR YR 1986	TOTAL	12039.2	MEAN	33.0	MAX	240	MIN	2.7	CFSM	3.65	IN.	49.60	AC-FT	23880

YAMHILL RIVER BASIN

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14195500 HASKINS CREEK RESERVOIR NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'43", long 123°21'23", in SW¼NW¼ sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on control tower 250 ft upstream from dam on Haskins Creek, 11 mi northwest of McMinnville, and at mile 5.1.

DRAINAGE AREA.--6.88 mi².

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-79-1: 1978 (maximum contents).

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of McMinnville). Prior to February 1981, at datum 20.0 ft lower.

REMARKS.--Reservoir is formed by earthfill dam equipped with five siphon spillways which act as overflow weirs until priming occurs, approximately 815.5 ft elevation. Capacity of reservoir is 733 acre-ft between elevations 741.5 ft, invert of outlet tunnel, and 815.0 ft, crest of siphon spillways. Dead storage negligible. Rated capacity of three siphons is 700 ft³/s each and remaining two siphons 350 ft³/s each. Water is used for municipal supply of city of McMinnville.

COOPERATION.--Elevations and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 748 acre-ft Nov. 17, 1954, elevation, 815.65 ft, present datum; no contents at times during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 733 acre-ft many days during the year, elevation, 815.0 ft, present datum; no contents Mar. 27 to Apr. 4.

MONTHEND ELEVATIONS AND CONTENTS AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	815.0	733	-
Oct. 31.....	815.0	733	0
Nov. 30.....	815.0	733	0
Dec. 31.....	815.0	733	0
CAL YR 1985.....	-	-	0
Jan. 31.....	813.8	706	-27
Feb. 28.....	813.5	699	-7
Mar. 31.....	755.0	0	-699
Apr. 30.....	813.0	688	+688
May 31.....	814.5	722	+34
June 30.....	814.5	722	0
July 31.....	814.6	724	+2
Aug. 31.....	812.4	675	-49
Sept. 30.....	815.0	733	+58
WTR YR 1986.....	-	-	0

YAMHILL RIVER BASIN

14196001 HASKINS CREEK BELOW RESERVOIR, NEAR MCMINNVILLE, OR

LOCATION.--Lat 45°18'39", long 123°21'06", in SE¼NW¼ sec.18, T.3 S., R.5 W., Yamhill County, Hydrologic Unit 17090008, on right bank 800 ft downstream from Haskins Creek Reservoir, 11 mi northwest of McMinnville, and at mile 5.0.

DRAINAGE AREA.--6.90 mi².

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. Maximum discharge for water year 1957, published in WSP 1518, has been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 707 ft above National Geodetic Vertical Datum of 1929 (topographic survey of 1955). Prior to Aug. 5, 1952, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Mar. 26-28. Records good. All records given herein include flow in pipeline which diverts 600 ft upstream from station for municipal supply of McMinnville. Flow regulated by Haskins Creek Reservoir (station 14195500). Water from McGuire Lake (station 14302800) on the Nestucca River is diverted through a tunnel to Haskins Creek Reservoir to augment summer flows.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

AVERAGE DISCHARGE.--35 years, 32.1 ft³/s, 63.18 in/yr, 23,260 acre-ft/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s Dec. 23, 1964, gage height, 5.98 ft, from floodmark, from rating curve extended above 400 ft³/s on basis of slope-area measurement of peak flow; maximum daily discharge, 515 ft³/s Jan. 21, 1972; minimum daily, 0.10 ft³/s Oct. 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 112 ft³/s Jan. 18; minimum daily, 4.6 ft³/s Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	12	24	84	87	24	9.1	14	14	14	11
2	11	14	15	27	82	86	23	36	14	12	14	10
3	11	13	31	40	81	84	21	38	13	12	12	10
4	11	13	23	33	80	82	13	34	13	11	13	11
5	11	14	23	59	79	80	6.5	35	12	16	14	11
6	11	18	45	70	78	79	6.6	39	12	15	14	10
7	10	34	67	62	76	80	6.5	30	12	15	14	10
8	11	42	61	55	74	78	6.6	29	12	16	15	7.8
9	11	40	54	55	71	77	6.3	26	14	14	13	7.8
10	11	32	45	50	67	75	6.4	26	17	9.8	12	7.8
11	11	25	41	46	64	71	5.8	25	18	14	12	8.7
12	12	20	36	41	60	69	5.2	23	17	14	12	8.7
13	11	17	30	38	55	74	5.5	22	15	14	13	7.5
14	11	15	27	34	52	80	5.3	20	10	14	13	6.9
15	11	22	24	38	52	79	5.8	19	11	14	15	8.3
16	11	29	22	53	65	71	5.8	18	12	13	15	5.5
17	11	33	20	60	72	63	5.8	17	11	14	12	5.8
18	10	28	20	112	75	60	6.5	16	8.9	14	12	7.5
19	15	26	19	111	76	57	6.3	16	9.2	14	13	6.4
20	26	24	18	86	75	53	6.0	17	13	14	14	6.1
21	21	22	17	66	73	49	6.3	15	13	14	14	9.3
22	32	19	16	100	74	43	4.6	16	14	13	12	11
23	18	14	16	103	79	38	5.9	14	16	11	9.9	13
24	16	15	16	91	85	42	5.4	13	18	13	11	15
25	31	14	16	74	87	40	4.7	13	15	12	14	22
26	18	13	15	62	88	37	6.6	13	14	10	14	18
27	14	13	14	61	88	32	6.6	13	14	11	14	11
28	15	12	14	59	87	29	6.0	13	11	14	10	10
29	12	11	13	53	---	27	5.3	13	11	13	9.6	9.5
30	13	12	13	76	---	26	5.6	14	16	13	7.9	9.5
31	11	---	12	85	---	24	---	15	---	14	8.1	---
TOTAL	439	615	795	1924	2079	1872	234.9	647.1	400.1	411.8	390.5	296.1
MEAN	14.2	20.5	25.6	62.1	74.3	60.4	7.83	20.9	13.3	13.3	12.6	9.87
MAX	32	42	67	112	88	87	24	39	18	16	15	22
MIN	10	11	12	24	52	24	4.6	9.1	8.9	9.8	7.9	5.5
AC-FT	871	1220	1580	3820	4120	3710	466	1280	794	817	775	587
MEAN†	9.61	20.5	25.7	61.6	74.2	49.0	19.3	21.3	8.37	5.46	3.71	3.36
CFSM†	1.39	2.97	3.72	8.93	10.8	7.10	2.80	3.09	1.21	0.79	0.54	0.49
IN.†	1.61	3.32	4.29	10.30	11.20	8.18	3.13	3.56	1.35	0.91	0.62	0.54
AC-FT†	591	1220	1580	3790	4120	3010	1150	1310	498	336	228	200

CAL YR 1985 TOTAL 7426.3 MEAN 20.3 MAX 83 MIN 3.6 AC-FT 14730 MEAN† 17.8 CFSM† 2.58 IN.† 34.98 AC-FT† 12870
WTR YR 1986 TOTAL 10104.5 MEAN 27.7 MAX 112 MIN 4.6 AC-FT 20040 MEAN† 24.9 CFSM† 3.61 IN.† 49.03 AC-FT† 18040

† Adjusted for change in contents of Haskins Creek Reservoir and diversion from McGuire Lake.

14198500 MOLALLA RIVER ABOVE PINE CREEK, NEAR WILHOIT, OR

LOCATION.--Lat 45°00'35", long 122°28'45", in NE¼NE¼ sec.31, T.6 S., R.3 E., Clackamas County, Hydrologic Unit 17090009, on right bank 0.5 mi upstream from Pine Creek, 5 mi southeast of Wilhoit, and at mile 32.5.

DRAINAGE AREA.--97.0 mi², at cableway 0.2 mi downstream.

PERIOD OF RECORD.--October 1935 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WDR OR-75-1: 1967(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 791.35 ft above National Geodetic Vertical Datum of 1929 (Bureau of Public Roads bench mark). Oct. 1, 1935, to Sept. 30, 1945, and Oct. 1, 1945, to Feb. 9, 1961, water-stage recorder at site 0.3 mi downstream at datums 8.42 ft and 10.44 ft lower, respectively. Feb. 10, 1961, to July 21, 1966, water-stage recorder at site 0.2 mi downstream at datum 5.99 ft lower.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--51 years, 543 ft³/s, 76.02 in/yr, 393,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft³/s Dec. 22, 1964, gage height, 16.3 ft, from floodmark, site and datum then in use, from rating curve extended above 5,200 ft³/s; minimum discharge, 18 ft³/s Oct. 3, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	2000	4,140	7.77	Feb. 23	0530	*7,320	*9.55
Feb. 16	1600	5,970	8.92				

Minimum discharge, 22 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	51	313	171	771	738	797	377	506	171	69	43	28		
2	51	311	228	676	658	659	356	570	161	69	42	26		
3	49	320	690	800	695	561	336	600	153	72	40	26		
4	46	349	605	630	774	493	328	551	149	113	39	25		
5	44	380	639	970	789	441	313	710	146	99	38	24		
6	42	802	1170	1310	683	411	291	657	141	79	38	23		
7	50	3150	1730	864	571	737	277	558	138	72	37	22		
8	48	2310	1210	839	500	735	265	507	133	68	36	22		
9	42	1290	821	915	433	763	258	464	127	65	35	32		
10	42	849	627	854	379	738	245	483	120	78	33	37		
11	63	616	509	763	346	903	243	522	115	85	32	30		
12	85	482	432	625	330	909	282	555	110	75	33	27		
13	75	400	377	529	383	909	291	666	106	68	33	26		
14	62	345	337	469	494	909	292	629	109	64	31	26		
15	57	705	309	496	1090	761	313	527	116	62	30	28		
16	61	1330	300	970	4520	630	407	452	105	70	29	31		
17	68	943	313	1180	3680	552	594	398	113	86	29	42		
18	61	687	364	1260	2160	495	576	360	132	73	29	69		
19	74	559	393	1300	1350	463	511	328	148	67	29	48		
20	157	476	382	1110	956	442	503	364	117	62	29	81		
21	139	409	362	873	1060	452	502	364	105	58	27	61		
22	619	362	350	1300	4690	416	443	352	99	56	26	46		
23	1200	309	354	2270	6130	562	377	321	93	54	26	47		
24	1050	285	358	1540	3630	1180	332	295	87	55	26	279		
25	1470	264	344	1100	2330	889	348	273	83	52	26	346		
26	834	243	318	841	1680	735	356	254	79	50	25	535		
27	549	228	289	777	1260	623	729	239	77	50	24	323		
28	667	212	263	772	979	537	882	220	75	49	24	239		
29	489	193	241	718	---	435	685	205	79	48	24	234		
30	401	186	219	929	---	438	571	193	75	46	27	254		
31	355	---	215	830	---	385	---	181	---	45	31	---		
TOTAL	9001	19308	14920	29281	43288	19960	12283	13304	3462	2059	971	3037		
MEAN	290	644	481	945	1546	644	409	429	115	66.4	31.3	101		
MAX	1470	3150	1730	2270	6130	1180	882	710	171	113	43	535		
MIN	42	186	171	469	330	385	243	181	75	45	24	22		
CFSM	2.99	6.64	4.96	9.74	15.9	6.64	4.22	4.42	1.19	.68	.32	1.04		
IN.	3.45	7.40	5.72	11.23	16.60	7.65	4.71	5.10	1.33	.79	.37	1.16		
AC-FT	17850	38300	29590	58080	85860	39590	24360	26390	6870	4080	1930	6020		
CAL YR 1985	TOTAL	140103	MEAN	384	MAX	3150	MIN	21	CFSM	3.96	IN.	53.73	AC-FT	277900
WTR YR 1986	TOTAL	170874	MEAN	468	MAX	6130	MIN	22	CFSM	4.82	IN.	65.53	AC-FT	338900

TUALATIN RIVER BASIN

14202965 HENRY HAGG LAKE NEAR GASTON, OR

LOCATION.--Lat 45°28'25", long 123°11'51", in SE¼NE¼ sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, at left end of Scoggins Dam on Scoggins Creek, 3.8 mi northwest of Gaston, and at mile 4.9.

DRAINAGE AREA.--38.7 mi².

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam with gated concrete spillway and a gated outlet tunnel. Storage began in January 1975. Total capacity at elevation 305.7 ft, maximum water-surface elevation, is 63,360 acre-ft, of which 56,160 acre-ft is active storage above elevation 239.3 ft, proposed minimum pool. Reservoir is used for irrigation, flood control, and recreation. Figures given herein represent active storage.

COOPERATION.--Monthend elevations and contents furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,660 acre-ft Apr. 30, 1975, elevation, 303.52 ft; minimum contents observed since first filling, 808 acre-ft Oct. 31, 1975, elevation, 237.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum monthend contents, 53,630 acre-ft May 31, elevation, 303.49 ft; minimum monthend contents, 22,290 acre-ft Oct. 31, elevation, 271.29 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	271.71	22,630	-
Oct. 31.....	271.29	22,290	-340
Nov. 30.....	272.83	23,560	+1,280
Dec. 31.....	275.93	26,200	+2,640
CAL YR 1985.....	-	-	-1,990
Jan. 31.....	288.40	37,730	+11,530
Feb. 28.....	299.38	49,060	+11,330
Mar. 31.....	300.73	50,540	+1,480
Apr. 30.....	303.18	53,280	+2,730
May 31.....	303.49	53,630	+350
June 30.....	299.25	48,920	-4,700
July 31.....	290.62	39,930	-8,990
Aug. 31.....	279.86	29,680	-10,250
Sept.30.....	274.79	25,220	-4,460
WTR YR 1986.....	-	-	+2,600

TUALATIN RIVER BASIN

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14202980 SCOGGINS CREEK BELOW HENRY HAGG LAKE, NEAR GASTON, OR

LOCATION.--Lat 45°28'10", long 123°11'56", in SE¼NE¼ sec.20, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 600 ft downstream from Scoggins Dam, 800 ft upstream from small left bank tributary, 3.7 mi northwest of Gaston, and at mile 4.8.

DRAINAGE AREA.--38.8 mi².

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.48 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Henry Hagg Lake since January 1975. Discharge not adjusted for storage or release from Henry Hagg Lake as evaporation from reservoir at times exceeds natural flow.

AVERAGE DISCHARGE.--11 years, 107 ft³/s, 77,520 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s Dec. 16, 1977, gage height, 13.50 ft; minimum discharge, 1.4 ft³/s Nov. 16, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 787 ft³/s Feb. 26, gage height, 10.80 ft; minimum discharge, 10 ft³/s Dec. 18-21, 23, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	22	50	11	51	347	54	14	43	164	149	119
2	31	22	50	11	51	345	28	65	43	153	148	106
3	31	22	50	11	51	184	13	139	60	152	148	99
4	31	22	50	11	51	79	13	113	61	152	158	99
5	31	22	50	11	51	59	13	157	57	152	165	99
6	31	20	50	11	27	48	13	157	58	152	165	99
7	31	15	50	11	12	80	13	112	62	152	164	99
8	31	13	50	11	12	98	13	90	62	140	164	99
9	31	13	79	11	12	98	13	90	77	132	164	93
10	31	13	134	11	12	98	13	90	106	132	164	89
11	31	13	151	11	12	98	13	90	106	131	164	89
12	31	13	151	11	12	99	13	73	106	131	163	89
13	31	13	103	11	13	147	13	64	106	131	162	89
14	31	13	74	11	13	178	13	50	106	130	161	89
15	31	13	74	11	13	177	13	43	107	130	162	89
16	31	13	63	11	13	177	13	43	98	130	162	88
17	31	13	56	11	13	127	13	43	85	130	161	88
18	31	13	27	11	62	96	13	43	71	130	161	88
19	32	13	10	11	105	96	13	43	62	130	161	80
20	32	36	10	11	104	96	13	43	69	130	154	75
21	31	51	11	11	104	96	13	32	78	137	150	75
22	32	50	11	110	105	96	13	27	78	151	149	75
23	31	50	11	182	112	96	13	27	100	151	149	75
24	31	50	11	180	189	98	13	27	122	150	149	69
25	32	50	11	178	571	99	13	27	129	150	149	55
26	32	50	11	178	760	99	13	27	128	150	148	34
27	31	50	11	177	768	98	13	39	128	150	148	27
28	26	50	11	98	555	98	13	49	129	150	130	27
29	22	50	11	50	---	98	13	50	128	149	120	27
30	22	50	11	51	---	98	13	46	155	149	120	27
31	22	---	11	50	---	75	---	43	---	149	120	---
TOTAL	934	838	1453	1485	3854	3778	446	1956	2720	4420	4732	2356
MEAN	30.1	27.9	46.9	47.9	138	122	14.9	63.1	90.7	143	153	78.5
MAX	32	51	151	182	768	347	54	157	155	164	165	119
MIN	22	13	10	11	12	48	13	14	43	130	120	27
AC-FT	1850	1660	2880	2950	7640	7490	885	3880	5400	8770	9390	4670
CAL YR 1985	TOTAL	23111	MEAN	63.3	MAX	183	MIN	10	AC-FT	45840		
WTR YR 1986	TOTAL	28972	MEAN	79.4	MAX	768	MIN	10	AC-FT	57470		

TUALATIN RIVER BASIN

14203500 TUALATIN RIVER NEAR DILLEY, OR

LOCATION.--Lat 45°28'30", long 123°07'23", in NE¼NW¼ sec.24, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 5 ft upstream from highway bridge, 1.0 mi south of Dilley, 1.2 mi downstream from Scoggins Creek, and at mile 58.81.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1940 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 147.57 ft above National Geodetic Vertical Datum of 1929. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft of present site at datum 4.00 ft higher. June 16, 1950, to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diurnal fluctuation caused by operation of millpond on Scoggins Creek upstream from station and regulation by Henry Hagg Lake since January 1975. Diversions upstream from station of approximately 3,000 acre-ft from J.W. Barney Reservoir on the Middle Fork of North Fork Trask River for municipal water supply and irrigation in Wapato Lake area.

AVERAGE DISCHARGE.--47 years, 398 ft³/s, 288,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft³/s Dec. 22, 1964, gage height, 19.34 ft, from rating curve extended above 6,000 ft³/s; minimum discharge, 0.08 ft³/s Sept. 3, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,780 ft³/s Feb. 24, gage height, 17.73 ft; minimum discharge, 38 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	108	106	115	534	1140	208	145	77	174	149	135
2	40	147	112	156	515	958	184	212	74	160	150	127
3	45	142	225	318	509	804	152	383	79	162	149	111
4	43	129	246	345	500	564	146	332	90	182	154	112
5	43	129	233	341	516	452	138	370	87	185	166	111
6	43	152	330	498	507	346	129	375	83	177	162	111
7	47	200	456	492	438	417	123	320	91	169	165	112
8	49	253	572	416	375	525	118	249	89	161	165	112
9	52	219	521	400	316	534	113	233	92	145	167	111
10	54	188	471	401	279	537	109	225	127	145	167	104
11	60	146	433	372	252	535	106	218	126	146	168	104
12	72	120	378	317	253	562	119	199	121	146	168	102
13	65	104	302	276	269	629	115	180	119	146	169	104
14	61	92	224	249	391	715	108	165	120	143	169	105
15	59	107	204	238	601	691	104	146	127	141	171	105
16	63	210	187	332	1310	634	114	138	123	142	170	111
17	62	227	170	447	1570	566	123	130	105	145	171	111
18	58	198	158	774	1200	461	113	124	104	142	172	117
19	63	166	133	1120	978	407	105	121	87	139	172	109
20	126	161	128	974	802	354	97	131	85	139	169	96
21	146	174	122	712	680	329	90	120	93	138	159	95
22	186	174	115	698	830	314	87	109	93	153	159	94
23	191	152	112	1140	1450	311	84	105	102	154	157	94
24	139	130	113	1240	2540	390	84	101	126	156	157	118
25	218	138	113	1040	2180	395	106	95	133	154	157	111
26	185	140	108	860	2010	365	153	89	133	154	156	101
27	152	133	107	726	1780	337	222	90	132	155	158	61
28	164	136	91	606	1520	311	220	96	136	155	151	53
29	155	123	89	474	---	289	193	91	140	153	135	50
30	126	106	87	533	---	275	161	88	149	150	136	49
31	116	---	83	563	---	250	---	80	---	146	136	---
TOTAL	2922	4604	6729	17173	25105	15397	3924	5460	3243	4757	4954	3036
MEAN	94.3	153	217	554	897	497	131	176	108	153	160	101
MAX	218	253	572	1240	2540	1140	222	383	149	185	172	135
MIN	39	92	83	115	252	250	84	80	74	138	135	49
AC-FT	5800	9130	13350	34060	49800	30540	7780	10830	6430	9440	9830	6020
CAL YR 1985	TOTAL	70614	MEAN	193	MAX	945	MIN	30	AC-FT	140100		
WTR YR 1986	TOTAL	97304	MEAN	267	MAX	2540	MIN	39	AC-FT	193000		

TUALATIN RIVER BASIN

219

14207000 OSWEGO CANAL NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°23'18", long 122°43'11", in NW¼NW¼ sec.20, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 0.4 mi downstream from point of diversion on Tualatin River, 1.0 mi upstream from Lake Oswego, and 3.5 mi southwest of town of Lake Oswego.

PERIOD OF RECORD.--October 1928 to current year. October 1951 to September 1970, Oswego Canal records were not published separately, but were combined with records for Tualatin River at West Linn.

GAGE.--Water-stage recorder. Datum of gage is 96.50 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1928, nonrecording gage 800 ft upstream at different datum. Nov. 15, 1928, to June 29, 1939, nonrecording gage 900 ft downstream at datum about 1.0 ft higher.

REMARKS.--Estimated daily discharges: Nov. 22, 28. Records good except those above 88 ft³/s, which are fair. Oswego Canal diverts water from Tualatin River in NW¼ sec.20, but diversion dam is in NE¼ sec.33, about 3 mi downstream. Water used for recreational facilities and development of power below Lake Oswego and returned to Willamette River at that point.

AVERAGE DISCHARGE.--58 years, 69.2 ft³/s, 50,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,000 ft³/s Dec. 23, 1933; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft³/s Dec. 8, gage height, 5.64 ft; minimum discharge, 26 ft³/s Dec. 28 to Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	55	40	28	85	120	74	66	46	68	65	68
2	60	51	40	30	84	117	67	70	46	68	64	70
3	59	50	50	39	81	113	62	46	64	68	63	66
4	58	57	60	52	78	108	58	31	74	70	62	62
5	57	66	75	79	76	101	54	31	73	71	62	59
6	58	66	82	100	71	92	52	52	69	72	63	56
7	58	63	108	115	67	83	51	68	70	70	62	53
8	59	69	114	109	64	76	50	77	70	68	62	53
9	59	67	90	99	60	78	50	74	70	67	54	55
10	60	60	95	97	72	92	59	74	70	67	53	56
11	65	56	94	98	82	102	58	73	70	68	62	57
12	69	50	82	96	80	102	58	72	69	68	63	56
13	68	46	70	91	87	103	58	71	68	67	64	55
14	68	48	65	83	96	105	59	68	68	66	63	55
15	68	53	58	76	99	107	58	66	68	66	59	57
16	68	64	50	84	94	105	56	60	68	67	48	60
17	68	71	45	98	90	102	55	65	68	68	57	62
18	67	66	42	85	89	97	57	76	69	68	66	60
19	64	63	39	88	86	96	54	73	70	68	65	58
20	72	60	36	90	84	94	51	79	68	66	64	59
21	73	57	34	90	84	90	53	81	68	66	63	57
22	70	58	33	94	85	85	67	80	66	66	62	59
23	59	58	31	98	90	84	68	74	66	65	60	65
24	59	54	30	98	90	92	67	69	66	66	59	68
25	55	48	29	98	89	98	69	66	66	66	59	66
26	49	46	28	96	106	98	72	63	66	66	63	61
27	53	45	28	95	120	94	81	62	66	66	65	61
28	56	44	26	93	121	90	85	59	66	67	64	59
29	52	44	26	91	---	85	78	57	66	67	66	55
30	52	42	26	90	---	81	68	55	68	66	67	55
31	57	---	26	87	---	78	---	50	---	66	68	---
TOTAL	1900	1677	1652	2667	2410	2968	1849	2008	2002	2088	1917	1783
MEAN	61.3	55.9	53.3	86.0	86.1	95.7	61.6	64.8	66.7	67.4	61.8	59.4
MAX	73	71	114	115	121	120	85	81	74	72	68	70
MIN	49	42	26	28	60	76	50	31	46	65	48	53
AC-FT	3770	3330	3280	5290	4780	5890	3670	3980	3970	4140	3800	3540
CAL YR 1985	TOTAL	20435.1	MEAN	56.0	MAX	158	MIN	5.1	AC-FT	40530		
WTR YR 1986	TOTAL	24921	MEAN	68.3	MAX	121	MIN	26	AC-FT	49430		

TUALATIN RIVER BASIN

14207500 TUALATIN RIVER AT WEST LINN, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°21'03", long 122°40'30", in SW¼ sec.34, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 300 ft upstream from bridge on State Highway 212, 0.4 mi west of West Linn city limits, and at mile 1.8.

DRAINAGE AREA.--706 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1928 to current year. Prior to October 1960, published as "near Willamette."

REVISED RECORDS.--WSP 1014: 1943. WSP 1184: 1947. WSP 1248: 1941. WSP 1935: Drainage area. WDR OR-75-1: 1974(M). WDR OR-77-1: 1971-73, 1975, 1976(M).

GAGE.--Water-stage recorder. Datum of gage is 85.61 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft higher.

REMARKS.--Estimated daily discharges: Jan. 14, Feb. 25-27. Water-discharge records excellent. October 1951 to September 1970, all records published for this station included the daily flow in Oswego Canal. Oswego Canal diverts at point 5.0 mi upstream from station for development of power between outlet of Lake Oswego and Willamette River. Some regulation in low-water season by flashboards on crest of diversion dam for Oswego Canal and regulation by Henry Hagg Lake since January 1975. Several diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--58 years, 1,532 ft³/s, 29.47 in/yr, 1,110,000 acre-ft/yr, adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft³/s Dec. 23, 1933, gage height, 17.72 ft; minimum daily discharge, 0.20 ft³/s July 30 to Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,570 ft³/s Feb. 28, gage height, 9.05 ft; minimum discharge, 55 ft³/s Oct. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	275	324	439	3040	5480	1220	640	270	202	93	88
2	74	258	316	485	2920	5240	1120	693	181	198	83	90
3	65	239	457	715	2780	4850	1030	839	78	194	78	89
4	61	275	611	966	2620	4360	946	1100	96	270	73	83
5	59	334	881	1360	2540	3740	891	1200	115	306	69	80
6	58	362	1140	1720	2450	3060	841	1150	178	346	75	74
7	63	415	1790	2080	2360	2500	789	1110	193	305	75	67
8	66	546	2520	2190	2190	2230	739	1040	200	261	78	62
9	61	700	2710	2050	1990	2320	668	926	209	220	78	63
10	61	691	2530	1980	1790	2280	630	894	194	210	73	65
11	61	613	2200	2020	1610	2250	619	887	191	229	67	73
12	69	522	1840	1950	1560	2260	617	840	190	225	69	76
13	81	403	1530	1790	1720	2310	619	803	182	206	74	73
14	81	324	1290	1570	2060	2410	628	745	171	182	73	74
15	91	380	1080	1460	2880	2470	617	701	170	159	70	76
16	103	500	942	1570	4510	2430	596	642	194	152	68	84
17	100	641	858	2000	5210	2310	587	590	232	155	70	103
18	111	726	785	2800	5220	2100	607	528	230	167	78	189
19	121	683	725	3320	5050	1860	577	498	257	156	94	232
20	170	629	666	3510	4910	1650	529	547	239	140	93	229
21	343	582	616	3510	4770	1530	456	575	203	122	90	216
22	553	615	575	3660	4830	1430	409	570	179	110	85	197
23	533	602	541	4060	5140	1400	418	503	173	101	78	185
24	515	544	515	4100	5310	1580	406	455	158	104	75	253
25	452	446	490	4000	5290	1770	420	421	154	109	86	347
26	376	407	471	3910	5330	1760	447	392	165	107	101	355
27	397	400	452	3830	5470	1650	525	371	158	109	93	353
28	377	393	415	3660	5560	1540	598	349	145	122	85	340
29	344	382	420	3420	---	1430	673	333	148	128	82	276
30	318	361	423	3320	---	1360	676	319	183	119	84	226
31	276	---	405	3140	---	1300	---	295	---	106	86	---
TOTAL	6119	14248	30518	76585	101110	74860	19898	20956	5436	5520	2476	4718
MEAN	197	475	984	2470	3611	2415	663	676	181	178	79.9	157
MAX	553	726	2710	4100	5560	5480	1220	1200	270	346	101	355
MIN	58	239	316	439	1560	1300	406	295	78	101	67	62
AC-FT	12140	28260	60530	151900	200600	148500	39470	41570	10780	10950	4910	9360
MEAN†	259	531	1038	2557	3698	2511	725	741	248	245	142	217
CFSM†	0.37	0.75	1.47	3.62	5.24	3.56	1.03	1.05	0.35	0.35	0.20	0.31
IN.†	0.42	0.84	1.70	4.18	5.46	4.10	1.15	1.21	0.39	0.40	0.23	0.34
AC-FT†	15910	31590	63810	157200	205400	154400	43140	45550	14750	15090	8710	12900

CAL YR 1985 TOTAL 263842 MEAN 723 MAX 3630 MIN 32 AC-FT 523300 MEAN† 779 CFSM† 1.10 IN.† 14.98 AC-FT† 563800
WTR YR 1986 TOTAL 362444 MEAN 993 MAX 5560 MIN 58 AC-FT 718900 MEAN† 1061 CFSM† 1.50 IN.† 20.41 AC-FT† 768300

† Adjusted for diversion of Oswego Canal.

TUALATIN RIVER BASIN

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14207500 TUALATIN RIVER AT WEST LINN, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to September 1981.

WATER TEMPERATURES: October 1975 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCARB DIS- SOLVED (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 25...	1130	458	212	7.2	12.0	6.4	K38	150	61	0	16
FEB 28...	1300	5580	75	7.0	10.0	10.0	K9	K74	25	3	6.5
MAY 16...	1200	619	118	7.6	12.0	9.8	K26	K35	39	0	10
AUG 26...	1000	111	219	7.2	21.5	5.7	86	900	58	10	15

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WATER DISSOLV FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 25...	5.2	15	3.4	64	20	14	0.2	2.2	1.1	2.6	0.11
FEB 28...	2.2	4.4	1.1	22	6.1	4.2	<0.1	0.15	1.4	0.8	0.05
MAY 16...	3.5	7.6	1.5	40	7.3	6.8	0.1	0.29	1.0	0.6	0.15
AUG 26...	5.0	18	3.6	46	23	17	0.2	0.36	2.6	1.3	<0.17

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 25...	0.19	--	23	127	140	157	5.0	11	14	75
FEB 28...	0.08	0.20	17	57	56	859	32	68	1030	87
MAY 16...	0.16	0.22	20	88	81	147	10	13	22	95
AUG 26...	0.22	0.26	20	153	130	46	3.6	5	1.5	99

K - Results based on colony count outside acceptable range (non-ideal colony count).

TUALATIN RIVER BASIN

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 25...	10	1	20	<0.5	<1	<1	<3	4	210	1
FEB 28...	120	<1	12	<0.5	<1	<1	<3	3	180	2
MAY 16...	--	--	--	--	--	--	--	--	--	--
AUG 26...	20	1	19	0.9	2	<1	<3	7	29	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 25...	<4	190	<0.1	<10	3	<1	<1	72	<6	<3
FEB 28...	<4	30	0.2	<10	9	<1	<1	40	<6	15
MAY 16...	--	--	--	--	--	--	--	--	--	--
AUG 26...	6	150	0.1	<10	2	<1	<1	71	<6	23

WILLAMETTE RIVER BASIN

223

14207740 WILLAMETTE RIVER ABOVE FALLS, AT OREGON CITY, OR

LOCATION.--Lat 45°20'55", long 122°37'08", in SW¼SW¼ sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.2 mi above Willamette Falls, 0.6 mi downstream from Tualatin River, and at mile 26.8.

DRAINAGE AREA.--10,000 mi², approximately.

PERIOD OF RECORD.--October 1976 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 64.79 ft Dec. 17, 1977; minimum recorded, 52.65 ft Feb. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 63.59 ft Feb. 25; minimum, 52.94 ft July 2.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.46	56.41	55.43	54.58	57.33	61.61	---	55.65	54.28	53.02	55.09	55.07
2	55.47	56.30	55.45	54.91	57.14	61.17	---	55.60	54.25	52.98	55.09	55.04
3	55.52	56.23	55.51	55.58	57.00	60.74	54.74	55.72	54.16	53.01	55.06	54.92
4	55.56	56.23	56.50	56.14	56.93	60.26	54.64	55.91	54.11	53.05	55.05	54.98
5	55.56	56.24	57.24	56.31	56.60	59.54	54.56	55.97	54.00	53.18	55.09	55.39
6	55.53	56.27	57.39	56.73	56.45	58.33	54.50	56.07	53.89	53.31	55.13	55.61
7	55.43	56.79	58.22	56.93	56.35	57.64	54.46	56.23	53.76	53.27	55.19	55.68
8	55.31	57.72	59.09	56.71	56.09	57.84	54.36	56.12	53.67	53.18	55.16	55.73
9	55.23	57.91	59.27	56.55	55.75	58.11	54.24	55.94	53.63	53.10	55.15	55.74
10	55.18	57.80	58.85	56.60	55.46	58.38	54.18	55.78	53.61	53.32	55.10	55.79
11	55.17	57.45	57.88	56.82	55.25	58.38	54.14	55.75	53.55	54.07	55.11	55.82
12	55.36	57.20	57.03	56.80	55.18	57.83	54.10	55.85	53.50	54.59	55.10	55.82
13	55.64	57.00	56.56	56.58	56.06	57.67	54.16	55.83	53.47	54.84	55.05	55.83
14	55.80	56.74	56.10	56.36	57.38	57.63	54.22	55.89	53.42	54.82	54.92	55.84
15	55.84	56.62	55.88	56.16	58.07	57.50	54.22	55.97	53.43	54.71	54.59	55.86
16	55.85	56.87	55.71	56.28	59.16	57.24	54.19	55.93	53.43	54.60	54.37	55.91
17	55.86	57.67	55.55	57.04	60.51	57.09	54.28	55.81	53.42	54.49	54.16	55.97
18	55.86	57.85	55.37	57.99	61.25	56.93	54.61	55.60	53.44	54.62	54.15	56.00
19	55.83	57.69	55.14	58.75	61.52	56.45	54.72	55.37	53.55	54.74	54.37	56.04
20	55.93	57.45	55.06	59.12	61.26	56.11	54.62	55.30	53.56	54.71	54.54	56.06
21	56.07	57.16	55.06	59.15	60.61	---	54.51	55.33	53.50	54.62	54.67	56.09
22	56.15	57.05	54.99	58.82	60.52	---	54.41	55.37	53.42	54.35	54.72	56.12
23	56.40	56.95	54.92	58.89	61.67	---	54.34	55.45	53.37	54.16	54.79	56.05
24	56.95	56.75	54.86	59.25	62.75	---	54.27	55.48	53.31	54.06	54.86	56.06
25	57.30	56.52	54.83	59.17	63.43	---	54.20	55.42	53.25	54.31	54.96	56.29
26	57.61	56.37	54.92	58.53	63.47	---	54.21	55.02	53.19	54.57	55.04	56.52
27	57.45	55.97	54.95	57.86	62.91	---	54.37	54.67	53.11	54.77	54.91	56.94
28	56.97	55.71	54.84	57.44	62.19	---	55.02	54.56	53.04	55.11	54.81	57.22
29	56.85	55.57	54.78	57.20	---	---	55.71	54.47	53.04	55.24	54.74	57.16
30	56.65	55.48	54.70	57.20	---	---	55.76	54.30	53.07	55.18	54.76	56.92
31	56.44	---	54.64	57.43	---	---	---	54.29	---	55.14	54.88	---
MEAN	56.01	56.80	56.02	57.22	58.87	---	---	55.50	53.55	54.17	54.86	55.95
MAX	57.61	57.91	59.27	59.25	63.47	---	---	56.23	54.28	55.24	55.19	57.22
MIN	55.17	55.48	54.64	54.58	55.18	---	---	54.29	53.04	52.98	54.15	54.92
CAL YR 1985	MEAN	55.42	MAX	59.27	MIN	53.28						

LOCATION.--Lat 45°21'28", long 122°36'35", in NE¼NW¼ sec.31, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090007, on right bank 0.5 mi below Willamette Falls, 1.4 mi upstream from Clackamas River, and at mile 26.2.

PERIOD OF RECORD.--November 1976 to current year.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 30.15 ft Feb. 25; minimum, 1.85 ft Aug. 31.

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.14	4.05	5.30	9.17	7.76	8.28	8.02	6.88	7.45	---	---	---
2	7.15	4.30	5.39	8.33	7.15	7.79	8.77	7.01	7.81	---	---	---
3	6.66	4.21	5.15	7.93	---	---	9.24	8.02	8.76	---	---	---
4	6.54	4.10	4.97	7.58	6.40	6.84	11.07	8.74	9.64	9.73	---	---
5	6.23	4.05	4.83	7.66	6.36	6.95	11.70	10.88	11.28	---	---	---
6	5.80	3.61	4.48	8.21	6.86	7.49	12.28	11.18	11.71	11.33	---	---
7	5.64	3.51	4.52	11.39	---	---	15.10	12.37	13.80	---	---	---
8	5.43	3.60	4.41	13.21	11.53	12.46	16.75	15.23	16.14	11.64	---	---
9	5.26	3.12	4.19	13.41	12.75	13.06	17.02	16.37	16.72	11.54	---	---
10	5.80	3.47	4.59	13.34	12.44	12.91	16.34	15.01	15.88	---	---	---
11	6.78	3.78	5.16	12.59	11.66	12.15	14.89	13.04	14.03	11.98	---	---
12	7.02	4.11	5.41	11.98	10.92	11.42	12.95	11.63	12.26	---	---	---
13	7.11	4.26	5.52	11.29	9.77	10.49	11.93	10.99	11.37	---	---	---
14	7.36	4.14	5.48	10.78	9.40	9.95	11.09	9.98	10.57	10.61	---	---
15	7.92	4.50	5.92	11.03	8.89	9.67	10.11	8.61	9.34	---	---	---
16	8.25	4.91	6.23	10.94	9.52	10.06	9.44	7.91	8.39	---	---	---
17	8.16	5.09	6.23	12.01	10.51	11.18	9.33	8.45	8.88	12.19	---	---
18	8.08	5.13	6.18	11.77	11.23	11.53	8.60	7.80	8.00	14.73	12.24	13.47
19	7.55	5.30	6.15	11.67	10.81	11.12	8.27	6.85	7.40	---	---	---
20	7.53	4.89	5.89	11.80	10.78	11.24	7.97	6.50	7.28	---	---	---
21	7.14	5.13	6.04	11.53	10.89	11.25	8.06	6.48	7.15	---	---	---
22	7.47	5.33	6.35	11.48	10.57	11.11	8.01	6.46	7.16	---	---	---
23	---	---	---	10.89	10.23	10.56	7.94	6.32	6.82	---	---	---
24	9.67	---	---	10.88	10.00	10.46	7.50	5.81	6.18	---	---	---
25	10.63	---	---	10.99	10.09	10.44	8.05	5.50	6.34	---	---	---
26	11.61	10.07	10.73	10.15	8.97	9.74	8.37	5.99	6.69	---	---	---
27	11.20	9.62	10.56	9.50	8.18	8.75	8.52	5.99	6.73	---	---	---
28	9.98	8.89	9.40	8.78	7.63	8.17	8.34	6.18	7.01	---	---	---
29	9.86	8.45	8.97	9.27	7.04	8.00	---	5.92	---	---	---	---
30	9.41	7.91	8.51	8.48	---	---	---	5.72	---	---	---	---
31	9.21	7.55	8.12	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	13.41	---	---	---	---	---	---	---	---

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	12.92	---	---	25.33	24.04	24.67	12.31	11.40	11.87	10.62	9.94	10.32
2	12.56	---	---	24.05	22.91	23.50	11.76	10.34	10.98	10.58	9.84	10.24
3	---	---	---	22.93	21.65	22.28	10.82	10.19	10.57	10.64	9.76	10.21
4	---	---	---	21.65	20.08	21.04	10.96	10.26	10.61	10.54	9.38	9.94
5	---	---	---	20.05	17.54	18.97	10.84	9.95	10.54	10.30	9.38	10.02
6	11.39	---	---	17.46	15.02	16.26	10.40	9.56	9.99	11.18	10.04	10.86
7	11.36	10.13	10.57	15.38	14.62	15.02	9.99	8.94	9.43	11.54	10.52	10.95
8	11.05	9.66	10.21	17.24	15.30	16.30	10.04	8.72	9.30	11.32	10.22	10.69
9	10.63	9.19	9.80	18.30	17.18	17.81	9.70	8.34	8.90	11.00	10.14	10.56
10	10.32	8.91	9.50	18.55	18.10	18.35	9.30	7.98	8.55	11.02	10.02	10.42
11	9.90	8.81	9.33	18.30	17.53	18.01	9.42	7.98	8.89	10.82	10.04	10.35
12	9.75	8.51	9.16	17.51	16.27	16.77	9.88	8.68	9.14	11.08	10.26	10.65
13	11.55	8.93	10.09	16.38	15.98	16.19	9.46	8.44	8.91	11.38	10.62	10.89
14	13.43	11.60	12.53	16.67	16.29	16.48	9.88	8.84	9.48	10.76	9.78	10.54
15	14.60	13.45	13.96	16.58	16.16	16.36	10.22	9.08	9.67	10.70	10.26	10.42
16	19.59	14.69	16.93	16.15	15.02	15.64	9.76	8.98	9.32	10.70	10.22	10.50
17	21.14	19.65	20.44	14.98	13.60	14.35	9.62	8.98	9.24	10.54	9.40	9.99
18	22.06	21.14	21.72	13.60	12.29	13.02	9.86	9.24	9.52	9.88	8.28	9.12
19	22.38	21.98	22.21	12.28	11.20	11.80	9.88	8.76	9.54	9.46	8.36	8.85
20	22.13	21.01	21.67	11.48	10.95	11.28	9.14	7.56	8.40	10.04	9.38	9.75
21	20.94	19.69	20.37	11.21	10.58	10.97	8.98	7.58	8.27	10.64	9.60	10.28
22	22.76	19.61	21.16	10.87	9.68	10.45	9.52	7.98	8.87	11.44	10.38	10.96
23	---	---	---	10.21	9.24	9.74	9.84	8.58	9.13	11.98	10.72	11.33
24	---	---	---	11.11	9.12	10.22	10.36	8.84	9.75	11.98	9.64	10.74
25	30.15	---	---	11.52	9.85	10.62	11.58	9.72	10.59	11.00	8.66	9.59
26	29.98	28.91	29.62	12.50	11.07	11.87	11.32	9.88	10.53	10.46	8.30	9.09
27	28.93	27.00	27.97	12.82	11.78	12.20	11.78	10.32	10.86	10.10	8.32	9.16
28	26.98	25.26	26.12	12.43	11.43	11.82	11.32	10.32	10.70	10.64	9.44	10.17
29	---	---	---	11.91	10.34	11.00	11.48	10.58	11.07	11.78	10.70	11.14
30	---	---	---	11.20	9.88	10.42	11.44	10.26	10.76	12.42	11.72	11.95
31	---	---	---	12.16	10.61	11.03	---	---	---	13.02	12.42	12.63
MONTH	---	---	---	25.33	9.12	14.98	12.31	7.56	9.78	13.02	8.28	10.40
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	13.16	12.78	12.96	---	---	---	6.37	3.37	4.61	5.46	2.02	3.68
2	13.34	12.98	13.19	---	---	---	6.69	3.92	5.06	5.81	2.29	3.90
3	13.56	13.24	13.32	6.87	3.77	4.98	6.95	3.84	5.15	6.18	2.82	4.38
4	13.62	13.26	13.43	6.89	3.11	4.67	7.07	3.81	5.15	7.09	3.57	5.10
5	13.78	12.86	13.42	6.43	2.77	4.35	6.98	3.22	4.81	7.33	4.04	5.50
6	13.16	12.34	12.75	6.46	2.89	4.45	6.88	3.45	4.89	7.38	3.94	5.51
7	12.72	11.98	12.36	6.51	2.84	4.48	7.08	3.68	5.13	7.56	4.29	5.63
8	12.34	11.54	11.91	6.54	2.81	4.54	7.20	3.72	5.25	7.65	4.19	5.53
9	11.94	10.86	11.45	7.15	3.90	5.14	7.22	3.77	5.21	7.24	3.98	5.20
10	11.06	9.84	10.46	6.63	3.26	4.75	7.17	3.86	5.21	6.76	3.81	4.94
11	10.16	9.02	9.56	7.20	4.28	5.49	7.07	3.75	5.09	6.38	3.49	4.48
12	9.70	8.64	9.14	7.19	5.05	6.02	7.18	3.68	4.84	6.41	3.23	4.32
13	9.06	7.80	8.50	7.07	4.68	5.55	7.29	4.02	5.09	6.31	3.18	4.42
14	8.58	7.14	7.87	7.13	4.50	5.33	7.32	4.05	5.14	6.41	3.23	4.66
15	8.28	6.56	7.30	7.19	4.28	5.29	7.16	3.68	4.98	6.77	3.43	4.94
16	8.54	6.94	7.54	7.51	5.20	5.93	7.17	3.51	4.98	7.05	3.57	5.32
17	8.66	7.22	7.89	8.00	4.72	5.98	7.19	3.23	5.00	7.72	4.37	5.79
18	8.92	7.30	7.93	8.15	4.99	6.09	7.04	3.44	5.13	7.48	4.21	5.68
19	9.32	7.58	8.21	8.18	4.62	5.92	7.56	3.83	5.39	7.40	4.20	5.58
20	9.74	7.26	8.23	8.02	4.39	5.80	7.55	3.79	5.39	7.39	4.24	5.59
21	9.68	6.64	7.83	8.35	4.88	6.30	7.49	3.82	5.42	6.93	3.99	5.29
22	9.36	---	---	8.60	5.36	6.60	7.16	3.65	5.27	6.90	3.96	5.09
23	---	---	---	8.48	5.34	6.63	7.08	3.61	5.13	7.32	3.91	5.15
24	---	---	---	7.92	4.65	6.18	6.34	2.90	4.59	7.47	4.38	5.63
25	---	---	---	7.43	4.53	5.93	5.86	2.54	4.02	7.18	4.84	5.74
26	---	---	---	7.23	4.13	5.53	6.35	2.74	3.89	6.86	5.17	5.89
27	---	---	---	7.05	3.89	5.26	6.05	3.17	4.14	6.79	5.67	6.31
28	---	---	---	6.81	3.67	4.99	5.91	2.95	3.94	7.28	6.12	6.68
29	---	---	---	6.66	3.39	4.52	5.61	2.51	3.67	7.46	5.52	6.56
30	---	---	---	6.35	3.47	4.35	5.16	2.07	3.49	7.52	5.64	6.52
31	---	---	---	6.36	3.40	4.44	5.26	1.85	3.50	---	---	---
MONTH	---	---	---	---	---	---	7.56	1.85	4.79	7.72	2.02	5.30

CLACKAMS RIVER BASIN

14208600 TIMOTHY LAKE NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'35", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, in intake structure 350 ft upstream from dam on Oak Grove Fork, 0.4 mi upstream from Anvil Creek, 14 mi south of Government Camp, and at mile 15.8.

DRAINAGE AREA.--53.8 mi².

PERIOD OF RECORD.--May 1956 to current year. Prior to October 1957, published as Timothy Meadows Reservoir.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.).

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway built by Portland General Electric Co. Usable storage began May 28, 1956. Capacity, 65,710 acre-ft at elevation 3,190 ft, normal maximum operating level. Usable capacity increased in 1966 water year to 64,450 acre-ft between elevations 3,125.0 ft, invert of outlet pipe, and 3,192.0 ft, top of radial gates. Storage of 4,060 acre-ft below elevation 3,125.0 ft not normally available for release. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Portland General Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 68,800 acre-ft Oct. 3, 1967, elevation, 3,192.2 ft; minimum contents observed, 16,010 acre-ft Feb. 24, 1957, elevation, 3,144.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 65,490 acre-ft July 17, elevation, 3,189.84 ft; minimum contents observed, 44,840 acre-ft Dec. 17, elevation, 3,173.54 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	3,187.03	61,700	-
Oct. 31.....	3,183.88	57,580	-4,120
Nov. 30.....	3,178.59	50,930	-6,650
Dec. 31.....	3,173.62	44,930	-6,000
CAL YR 1985.....	-	-	-11,800
Jan. 31.....	3,175.50	47,170	+2,240
Feb. 28.....	3,181.45	54,490	+7,320
Mar. 31.....	3,185.82	60,100	+5,610
Apr. 30.....	3,185.69	59,930	-170
May 31.....	3,188.74	63,990	+4,060
June 30.....	3,189.07	64,440	+450
July 31.....	3,189.75	65,370	+930
Aug. 31.....	3,185.55	59,750	-5,620
Sept. 30.....	3,183.84	57,530	-2,220
WTR YR 1986.....	-	-	-4,170

CLACKAMAS RIVER BASIN

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14208700 OAK GROVE FORK NEAR GOVERNMENT CAMP, OR

LOCATION.--Lat 45°06'50", long 121°48'50", in NE¼ sec.27, T.5 S., R.8 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Anvil Creek, 0.3 mi downstream from Timothy Lake, 14 mi south of Government Camp, and at mile 15.5.

DRAINAGE AREA.--54.4 mi².

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft above National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion upstream from station.

AVERAGE DISCHARGE.--30 years, 132 ft³/s, 32.95 in/yr, 95,630 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s Dec. 24, 1964, gage height, 3.93 ft, from rating curve extended above 290 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 3.7 ft³/s Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 463 ft³/s Mar. 17, 18, 23, 24, gage height, 2.58 ft; minimum discharge, 28 ft³/s May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	201	310	77	151	49	296	169	40	39	133	35
2	110	299	310	91	144	48	296	169	106	40	137	35
3	110	329	272	103	126	47	296	161	260	40	129	35
4	110	298	294	114	135	46	296	184	269	41	128	35
5	110	311	318	95	139	46	297	158	271	42	139	35
6	110	218	291	40	167	46	297	166	281	41	140	34
7	110	44	262	76	183	49	266	170	282	40	205	34
8	110	45	279	78	201	49	216	153	288	40	333	58
9	110	45	299	78	212	48	230	150	191	40	331	133
10	109	44	304	56	219	48	236	131	136	41	334	158
11	111	159	310	54	233	46	236	134	91	77	272	177
12	112	231	312	64	221	215	237	149	39	94	158	175
13	112	239	315	75	240	364	237	135	39	73	146	175
14	239	250	318	69	251	378	206	142	39	71	146	173
15	318	231	321	55	225	413	202	94	39	71	146	169
16	306	204	219	47	61	412	207	40	39	82	146	172
17	307	234	43	40	45	442	190	36	39	100	146	164
18	319	252	85	40	43	458	200	36	36	88	145	170
19	310	260	110	42	43	456	218	35	37	67	149	175
20	297	263	110	53	86	452	210	49	40	71	152	175
21	314	269	108	121	106	451	198	42	40	86	161	186
22	168	269	92	110	52	455	182	42	39	86	165	177
23	39	290	86	41	70	460	195	42	39	86	165	156
24	110	291	86	41	74	282	216	41	39	82	168	106
25	134	295	86	119	64	266	206	41	39	78	166	134
26	120	299	85	180	57	299	205	40	40	73	166	135
27	140	301	96	185	55	299	150	40	40	69	166	151
28	74	314	97	186	51	296	145	40	39	69	167	161
29	35	310	97	184	---	295	181	39	39	69	145	139
30	37	310	97	152	---	297	173	39	40	109	131	139
31	42	---	97	166	---	296	---	40	---	150	71	---
TOTAL	4743	7105	6109	2832	3654	7808	6720	2907	2956	2155	5286	3801
MEAN	153	237	197	91.4	131	252	224	93.8	98.5	69.5	171	127
MAX	319	329	321	186	251	460	297	184	288	150	334	186
MIN	35	44	43	40	43	46	145	35	36	39	71	34
AC-FT	9410	14090	12120	5620	7250	15490	13330	5770	5860	4270	10480	7540
MEAN†	86.0	125	99.5	128	262	343	221	160	106	84.6	79.0	89.4
CFSM†	1.58	2.30	1.83	2.35	4.82	6.31	4.06	2.94	1.95	1.56	1.45	1.64
IN.†	1.82	2.57	2.11	2.71	5.02	7.27	4.54	3.39	2.18	1.79	1.68	1.83
AC-FT†	5290	7440	6120	7860	14570	21100	13160	9830	6310	5200	4860	5320

CAL YR 1985 TOTAL 50032 MEAN 137 MAX 329 MIN 35 AC-FT 99240 MEAN† 121 CFSM† 2.22 IN.† 30.15 AC-FT† 87440
WTR YR 1986 TOTAL 56076 MEAN 154 MAX 460 MIN 34 AC-FT 111200 MEAN† 148 CFSM† 2.72 IN.† 36.89 AC-FT† 107000

† Adjusted for change in contents in Timothy Lake.

CLACKAMAS RIVER BASIN

14209000 OAK GROVE FORK ABOVE POWERPLANT INTAKE, OR

LOCATION.--Lat 45°04'20", long 121°57'00", on line between secs.3 and 4, T.6 S., R.7 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.2 mi upstream from Spring Creek, 0.7 mi upstream from Kink Creek, 1.0 mi upstream from Portland General Electric Co. diversion dam, 24 mi southeast of Estacada, and at mile 6.1.

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--May 1909 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as both Oak Grove Fork of Clackamas River at proposed intake, near Cazadero, and Oak Grove Fork of Clackamas River at intake, near Cazadero, May 1909 to September 1910, as Oak Grove Fork of Clackamas River at intake, near Cazadero, October 1910 to September 1921, and as Oak Grove Fork at Portland General Electric Power Co. intake, October 1921 to September 1929.

REVISED RECORDS.--WSP 1248: 1909, 1910(M), 1916, 1918, 1923, 1932. WSP 1935: 1914, 1921.

GAGE.--Water-stage recorder. Datum of gage is 2,052.31 ft above National Geodetic Vertical Datum of 1929. May 21, 1909, to Nov. 17, 1911, nonrecording gage and Mar. 26, 1912, to Sept. 30, 1923, water-stage recorder, at various sites 0.7 mi downstream, below Kink Creek, at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion upstream from station.

AVERAGE DISCHARGE.--77 years, 501 ft³/s, 363,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s Jan. 7, 1923, gage height, 5.45 ft, site and datum then in use, from rating curve extended above 2,300 ft³/s on basis of peak discharge for other stations in Clackamas River basin; minimum discharge, 208 ft³/s Aug. 28-31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,240 ft³/s Feb. 23, gage height, 4.37 ft; minimum discharge, 242 ft³/s Sept. 3, 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	354	440	600	355	597	953	775	549	369	273	365	247
2	352	589	600	354	585	863	753	559	400	274	369	247
3	351	618	535	374	580	794	732	544	590	273	360	247
4	348	591	559	374	582	742	719	570	593	298	359	247
5	349	601	586	387	579	717	707	549	590	282	369	246
6	349	653	590	341	577	709	699	539	595	276	370	245
7	361	1020	595	353	578	865	671	537	592	273	421	245
8	348	801	579	366	585	880	633	515	592	271	585	254
9	348	591	587	386	585	816	659	522	501	270	584	389
10	348	492	584	372	579	765	660	516	427	276	585	382
11	364	529	586	369	589	741	655	508	372	303	527	404
12	366	597	584	372	575	831	653	515	308	334	395	401
13	357	581	586	387	586	985	638	527	304	310	371	401
14	462	579	589	377	593	950	603	518	304	303	371	403
15	572	585	587	371	601	950	581	474	301	304	371	402
16	568	571	507	451	712	920	595	398	299	318	371	402
17	560	582	303	507	691	920	587	394	301	337	371	402
18	565	584	331	525	583	921	578	399	297	324	369	403
19	571	587	366	584	519	917	589	401	297	297	373	408
20	548	582	365	548	525	916	589	426	294	297	377	413
21	566	594	360	576	558	931	594	422	291	315	383	416
22	532	578	346	581	1080	915	587	418	286	315	387	409
23	401	595	337	528	2000	939	581	399	283	315	387	401
24	409	598	337	491	1930	835	589	392	282	311	390	402
25	502	597	337	526	1600	750	588	395	281	305	389	379
26	426	592	335	578	1370	778	590	401	280	301	389	398
27	434	587	344	577	1200	785	599	396	279	297	389	397
28	397	592	343	582	1060	798	575	391	278	295	392	411
29	311	594	343	578	---	805	586	386	277	294	380	416
30	307	597	343	579	---	817	563	383	276	326	358	392
31	311	---	343	582	---	788	---	377	---	383	304	---
TOTAL	13037	18097	14387	14331	22599	26296	18928	14320	11139	9350	12411	10809
MEAN	421	603	464	462	807	848	631	462	371	302	400	360
MAX	572	1020	600	584	2000	985	775	570	595	383	585	416
MIN	307	440	303	341	519	709	563	377	276	270	304	245
AC-FT	25860	35900	28540	28430	44830	52160	37540	28400	22090	18550	24620	21440
CAL YR 1985	TOTAL	173143	MEAN	474	MAX	1020	MIN	286	AC-FT	343400		
WTR YR 1986	TOTAL	185704	MEAN	509	MAX	2000	MIN	245	AC-FT	368300		

14209500 CLACKAMAS RIVER ABOVE THREE LYNX CREEK, OR

LOCATION.--Lat 45°07'30", long 122°04'20", in NE¼ sec.21, T.5 S., R.6 E., Clackamas County, Hydrologic Unit 17090011, Mount Hood National Forest, on right bank 0.1 mi upstream from Three Lynx Creek, 0.25 mi downstream from powerplant, 17 mi southeast of Estacada, and at mile 47.8.

DRAINAGE AREA.--479 mi².

PERIOD OF RECORD.--April 1909 to December 1913, October 1921 to current year. Prior to October 1911 (monthly discharge only), published in WSP 1318.

REVISED RECORDS.--WSP 1148: Drainage area. WSP 1248: 1910(M), 1912, 1948-50(M).

GAGE.--Water-stage recorder. Datum of gage is 1,091.69 ft above National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.). Apr. 23, 1909, to Jan. 4, 1914, nonrecording gage at about same site and datum. Nov. 1, 1921, to Dec. 27, 1924, water-stage recorder at present site at datum 0.91 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Minor regulation since May 1956 by Timothy Lake (see station 14208600).

AVERAGE DISCHARGE.--69 years, 1,997 ft³/s, 56.62 in/yr, 1,447,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft³/s Dec. 22, 1964, gage height, 21.7 ft, from floodmark, from rating curve extended above 34,100 ft³/s on basis of slope-area measurement at gage height 15.06 ft; minimum recorded discharge, 287 ft³/s Sept. 8, 1986; minimum daily, 410 ft³/s Sept. 4, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1830	10,100	7.53	Feb. 23	0900	*25,100	*12.74

Minimum discharge, 287 ft³/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	708	1400	1250	1830	3540	5350	2660	2060	1470	773	764	699		
2	708	1520	1230	1950	3330	4720	2470	2130	1470	765	750	693		
3	706	1530	1530	2130	3330	4210	2330	2260	1510	765	742	424		
4	693	1520	1500	1900	3200	3880	2220	2190	1450	899	744	410		
5	695	1560	1470	2110	3100	3730	2130	2260	1410	879	741	579		
6	692	1840	1850	2960	2770	3690	2060	2130	1380	800	748	796		
7	748	5120	2750	2400	2520	5610	2020	2010	1350	774	861	656		
8	710	5610	2590	2300	2310	5860	1990	1940	1320	761	960	447		
9	699	3490	2170	2690	2160	4840	2010	1870	1180	749	949	719		
10	698	2570	1930	2930	2040	4250	1980	1950	1060	764	947	778		
11	757	2100	1780	2820	1940	4120	1950	1920	1030	790	834	756		
12	814	1950	1670	2510	1920	3990	1930	1870	947	805	742	746		
13	776	1760	1590	2250	1840	3980	1880	2000	920	762	729	739		
14	835	1640	1530	2090	1800	3770	1800	2020	921	756	740	743		
15	950	1830	1480	2100	2050	3500	1740	1900	930	757	730	799		
16	920	3180	1370	3660	7120	3200	1820	1750	907	776	727	785		
17	888	2840	1110	5280	8200	3060	1880	1690	938	813	724	781		
18	910	2370	1150	5650	5560	2830	1890	1740	935	780	722	808		
19	948	2110	1310	5990	4010	2750	1840	1750	987	737	723	791		
20	1080	1930	1320	4640	3260	2720	1880	1900	911	731	732	838		
21	1020	1790	1270	3650	3200	2800	2050	1850	878	748	727	797		
22	1590	1710	1260	3630	12500	2730	2150	1770	860	737	726	777		
23	3440	1540	1280	4890	22000	2950	1990	1640	843	737	734	773		
24	2900	1460	1330	4070	15200	4020	1860	1560	824	732	732	1130		
25	3370	1490	1320	3370	10800	3420	1880	1600	815	718	732	1050		
26	2480	1470	1290	2930	8890	3150	1850	1670	806	716	731	1590		
27	1860	1400	1250	2690	7090	3090	2270	1760	805	701	721	1260		
28	1850	1350	1210	2760	6070	3100	2700	1470	792	698	730	1140		
29	1510	1280	1190	2810	---	3060	2400	1520	793	702	746	1110		
30	1360	1280	1150	3590	---	2990	2180	1540	777	723	724	1140		
31	1300	---	1130	3650	---	2800	---	1490	---	767	728	---		
TOTAL	38615	62640	46260	98230	151750	114170	61810	57210	31219	23615	23640	24754		
MEAN	1246	2088	1492	3169	5420	3683	2060	1845	1041	762	763	825		
MAX	3440	5610	2750	5990	22000	5860	2700	2260	1510	899	960	1590		
MIN	692	1280	1110	1830	1800	2720	1740	1470	777	698	721	410		
CFSM	2.60	4.36	3.11	6.62	11.3	7.69	4.30	3.85	2.17	1.59	1.59	1.72		
IN.	3.00	4.86	3.59	7.63	11.79	8.87	4.80	4.44	2.42	1.83	1.84	1.92		
AC-FT	76590	124200	91760	194800	301000	226500	122600	113500	61920	46840	46890	49100		
CAL YR 1985	TOTAL	609222	MEAN	1669	MAX	5610	MIN	692	CFSM	3.48	IN.	47.31	AC-FT	1208000
WTR YR 1986	TOTAL	733913	MEAN	2011	MAX	22000	MIN	410	CFSM	4.20	IN.	57.00	AC-FT	1456000

CLACKAMAS RIVER BASIN

14210000 CLACKAMAS RIVER AT ESTACADA, OR

LOCATION.--Lat 45°18'00", long 122°21'10", in NE¼ sec.19, T.3 S., R.4 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.2 mi downstream from River Mill Dam, 1.5 mi northwest of Estacada, and at mile 23.1.

DRAINAGE AREA.--671 mi².

PERIOD OF RECORD.--April 1908 to current year. Monthly discharge only April 1908, published in WSP 1318. Published as "near Cazadero" January 1909 to September 1957.

REVISED RECORDS.--WSP 1248: 1908-9, 1910(M), 1916, 1917(M), 1922(M), 1923. WSP 1288: Drainage area (former site). WSP 1638: 1919(M).

GAGE.--Water-stage recorder. Datum of gage is 296.93 ft above National Geodetic Vertical Datum of 1929 (levels by Portland General Electric Co.). See WSP 1738 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Feb. 16, 1965, water-stage recorder at same site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Large diurnal fluctuations and some regulation caused by powerplants at River Mill Dam and, since 1958, North Fork Dam. Minor regulation since 1956 by Timothy Lake (see station 14208600). Two small diversions upstream from station for Oregon City and Estacada municipal water supply.

AVERAGE DISCHARGE.--78 years, 2,761 ft³/s, 55.88 in/yr, 2,000,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,900 ft³/s Dec. 22, 1964, gage height, 18.36 ft; minimum discharge, 50 ft³/s Mar. 10, 1961, from rating curve extended below 260 ft³/s; minimum daily, 285 ft³/s Oct. 4, 5, 1958, caused by filling of North Fork dam forebay.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 7	2230	17,000	7.82	Feb. 23	1230	*43,300	*12.80
Feb. 16	2130	17,000	7.81				

Minimum discharge, 620 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	792	2030	1970	2670	4480	7210	3310	3140	2010	996	958	860		
2	729	2170	2020	2850	4350	6290	3180	3130	1880	1040	927	810		
3	766	2140	2670	3040	4220	5560	3010	3260	1980	986	929	796		
4	727	2380	2250	2880	4060	4990	2900	3160	1890	1200	888	791		
5	755	2740	2170	2830	4000	4700	2800	3580	1840	1220	920	658		
6	760	3420	2900	4190	3650	4570	2700	2870	1780	1040	909	630		
7	839	10500	4090	3630	3310	6430	2610	2940	1810	999	995	630		
8	817	10900	4240	3330	3060	7320	2560	2870	1730	1000	1110	630		
9	754	6270	3430	3740	2880	6230	2580	2750	1600	972	1100	919		
10	755	4530	2930	4000	2690	5550	2550	2970	1350	1050	1080	981		
11	886	3650	2650	3870	2540	5290	2490	2990	1360	1050	1060	887		
12	966	2810	2450	3470	2570	5090	2600	2940	1250	1060	883	914		
13	940	2460	2270	3170	2520	5050	2530	3210	1200	992	879	894		
14	860	2350	2150	2810	2440	4990	2460	3230	1250	972	873	865		
15	1080	2990	2060	2780	2860	4580	2410	2930	1210	981	884	999		
16	1040	4100	2030	3890	10800	4110	2470	2710	1190	1050	898	1040		
17	998	4130	1700	7070	12600	3840	2800	2530	1240	1090	857	1020		
18	912	3450	1830	6980	8120	3590	2900	2510	1260	1030	871	996		
19	1060	3050	2080	7800	5820	3500	2800	2540	1320	964	882	897		
20	1300	2880	2100	6400	4580	3450	2740	2720	1230	958	833	978		
21	1170	2570	2030	5010	4400	3390	2880	2700	1080	976	893	1020		
22	2200	2470	2010	4700	18700	3450	3010	2680	1140	989	844	933		
23	4380	2230	2000	6930	36800	3510	2780	2500	1080	1070	866	974		
24	4180	2050	2140	5940	24800	5210	2540	2330	1060	1070	882	1860		
25	4950	2090	2160	4820	16200	4420	2560	2340	1060	922	875	1440		
26	4160	2030	2090	4040	12800	4010	2600	2340	1040	696	877	2070		
27	2940	1930	1960	3630	9940	3860	3400	2420	1040	866	835	1810		
28	2800	1860	1880	3660	8350	3820	4320	2140	1020	870	865	1660		
29	2190	1730	1820	3660	---	3770	3840	2100	1040	850	886	1710		
30	1830	1660	1690	4260	---	3730	3430	2130	1000	887	908	1840		
31	1930	---	1710	4680	---	3560	---	2040	---	937	896	---		
TOTAL	50466	99570	71480	132730	223540	145070	85760	84700	40940	30783	28363	32512		
MEAN	1628	3319	2306	4282	7984	4680	2859	2732	1365	993	915	1084		
MAX	4950	10900	4240	7800	36800	7320	4320	3580	2010	1220	1110	2070		
MIN	727	1660	1690	2670	2440	3390	2410	2040	1000	696	833	630		
CFSM	2.43	4.95	3.44	6.38	11.9	6.97	4.26	4.07	2.03	1.48	1.36	1.62		
IN.	2.80	5.52	3.96	7.36	12.39	8.04	4.75	4.70	2.27	1.71	1.57	1.80		
AC-FT	100100	197500	141800	263300	443400	287700	170100	168000	81200	61060	56260	64490		
CAL YR 1985	TOTAL	854239	MEAN	2340	MAX	10900	MIN	727	CFSM	3.49	IN.	47.36	AC-FT	1694000
WTR YR 1986	TOTAL	1025914	MEAN	2811	MAX	36800	MIN	630	CFSM	4.19	IN.	56.88	AC-FT	2035000

LOWER WILLAMETTE RIVER BASIN

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14211500 JOHNSON CREEK AT SYCAMORE, OR

LOCATION.--Lat 45°28'40", long 122°30'24", in lot 2, SW¼ sec.13, T.1 S., R.2 E., Multnomah County, Hydrologic Unit 17090012, on right bank 0.3 mi southwest of Sycamore station, 2.5 mi east of city limits of Portland, and at mile 10.2.

DRAINAGE AREA.--26.5 mi².

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1318: 1941(M). WDR OR-75-1: 1974. WDR OR-77-1: Drainage area.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 228.47 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 22, 24, 25, 27-30, Dec. 20 to Jan. 1. Records good except for estimated daily discharges, and those below 10 ft³/s, which are poor. Slight diurnal fluctuation at low flow caused by recreational ponds upstream. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--46 years, 54.8 ft³/s, 28.08 in/yr, 39,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,620 ft³/s Dec. 22, 1964, gage height, 14.68 ft; minimum discharge, 0.08 ft³/s Aug. 21, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1500	*1,300	*12.01	Feb. 23	0930	810	9.85

Minimum discharge, 0.29 ft³/s Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	.45	9.3	28	11	101	69	39	20	5.0	2.9	2.0	1.8		
2	.56	7.9	30	16	99	57	36	32	7.5	2.8	2.1	4.1		
3	1.1	6.4	99	36	100	48	30	28	4.5	3.0	2.1	1.6		
4	.58	36	73	26	89	42	30	27	4.5	11	6.2	1.4		
5	.84	32	72	132	118	37	27	60	4.4	5.1	4.8	1.3		
6	12	25	240	176	87	34	23	46	4.3	3.7	1.9	1.3		
7	4.1	227	308	98	70	95	21	39	4.4	3.2	1.9	1.6		
8	1.3	214	178	88	57	85	19	33	4.2	3.1	1.8	4.3		
9	1.4	151	103	124	47	120	17	30	3.9	3.2	1.7	18		
10	1.7	89	71	108	40	113	15	47	3.9	12	5.2	3.6		
11	5.2	56	51	85	37	87	16	60	3.4	5.7	15	2.3		
12	3.4	38	40	65	53	76	22	47	3.2	3.9	1.8	2.0		
13	2.1	29	32	51	87	75	18	58	3.1	3.6	1.7	1.7		
14	1.7	23	28	43	155	67	16	41	3.2	3.3	1.6	4.8		
15	1.6	106	24	57	343	58	18	32	7.0	5.5	1.9	1.6		
16	5.8	190	20	186	1030	47	18	26	3.2	5.6	1.6	2.1		
17	2.1	159	18	227	520	38	22	22	6.9	4.6	1.7	3.4		
18	1.8	93	16	283	305	36	22	27	6.7	3.8	1.7	6.3		
19	4.0	88	15	186	187	31	18	26	7.4	3.4	2.3	3.1		
20	16	114	11	126	133	28	16	27	4.5	3.3	1.6	3.2		
21	8.0	94	10	89	176	29	15	21	3.7	3.1	1.6	4.9		
22	26	78	10	205	349	27	13	24	3.5	2.9	3.4	4.8		
23	15	59	9.8	329	650	51	11	17	3.2	2.9	1.5	15		
24	12	47	9.0	179	329	105	11	14	3.1	2.8	1.5	13		
25	20	36	8.4	114	228	75	16	13	3.1	2.5	1.5	13		
26	13	30	7.8	82	155	60	16	9.6	2.9	2.4	1.5	9.1		
27	14	23	7.2	66	113	48	29	8.7	2.7	8.1	1.5	7.3		
28	26	22	6.6	55	85	39	31	7.9	3.2	3.2	3.1	11		
29	13	23	6.0	64	---	32	30	11	2.9	2.3	1.5	9.3		
30	13	26	5.6	168	---	44	23	8.1	2.9	2.2	2.9	7.2		
31	12	---	7.4	117	---	42	---	6.3	---	6.5	3.0	---		
TOTAL	239.73	2131.6	1544.8	3592	5743	1795	638	868.6	126.4	131.6	83.6	164.1		
MEAN	7.73	71.1	49.8	116	205	57.9	21.3	28.0	4.21	4.25	2.70	5.47		
MAX	26	227	308	329	1030	120	39	60	7.5	12	15	18		
MIN	.45	6.4	5.6	11	37	27	11	6.3	2.7	2.2	1.5	1.3		
CFSM	.29	2.68	1.88	4.38	7.74	2.18	.80	1.06	.16	.16	.10	.21		
IN.	.34	2.99	2.17	5.04	8.06	2.52	.90	1.22	.18	.18	.12	.23		
AC-FT	476	4230	3060	7120	11390	3560	1270	1720	251	261	166	325		
CAL YR 1985	TOTAL	10628.84	MEAN	29.1	MAX	308	MIN	.45	CFSM	1.10	IN.	14.92	AC-FT	21080
WTR YR 1986	TOTAL	17058.43	MEAN	46.7	MAX	1030	MIN	.45	CFSM	1.76	IN.	23.95	AC-FT	33840

LOWER WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°31'07", long 122°40'00", in NW¼ sec.3, T.1 S., R.1 E., Multnomah County, Hydrologic Unit 17090012, in pier at east end of drawspan, on upstream side of Morrison Bridge, in Portland, and at mile 12.8.

DRAINAGE AREA.--11,100 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year. Gage-height records collected in this vicinity since 1879 are in reports of the National Weather Service.

GAGE.--Acoustic velocity meter (AVM) with water-stage and velocity-index recorder. Datum of gage is 1.55 ft above National Geodetic Vertical Datum of 1929 (levels by National Weather Service).

REMARKS.--Daily discharges estimated by flow routing for entire year. Water-discharge records fair above 50,000 ft³/s, poor below. Flow regulated by many reservoirs upstream. Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--14 years, 33,740 ft³/s, 24,440,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283,000 ft³/s Jan. 18, 1974; maximum gage height, 23.84 ft Jan. 18, 1974; minimum daily discharge, 4,200 ft³/s July 10, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 7, 1894, and June 1, 1948, reached stages of 33.0 ft and 30.0 ft, respectively, from information by National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 213,000 ft³/s Feb. 24; maximum gage height, 18.9 ft Feb. 25; minimum daily discharge, 7,220 ft³/s July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12700	26700	22600	20300	52800	127000	23200	24400	16200	8310	7580	7980
2	12800	25300	22400	25500	50000	117000	22500	24600	15600	8260	7490	7870
3	13200	25500	28900	33300	49400	108000	21600	27000	15100	8110	7490	8010
4	13200	25600	44500	36400	46700	94400	20600	28600	14500	8910	7500	8700
5	13200	26200	47200	38700	42400	75800	20000	29400	13900	9600	7580	9240
6	12700	27900	52800	48300	41600	60100	19200	31000	12900	9490	7650	9590
7	12100	44100	76600	46000	38400	59100	18400	31000	12400	8900	7840	9860
8	11600	62500	90800	42100	34300	68600	17700	28800	12000	8560	7980	9940
9	11100	58900	84000	41400	30300	70100	17400	26600	11600	8330	7950	10600
10	10700	53400	68500	44000	27600	73700	17000	25400	10900	8610	7930	10900
11	11400	45400	51600	46500	25500	67000	16600	26100	10500	8540	7920	11000
12	13300	38500	41700	43500	27900	59900	16800	26300	10100	8570	7660	11100
13	14900	33600	35100	39700	42800	61300	17100	26400	9800	8330	7610	11100
14	15300	30700	32200	36400	56200	59700	17100	27900	9790	8100	7610	11100
15	15700	30900	29600	34300	66500	55700	16900	27700	9810	7920	7620	11300
16	15900	42300	27800	41700	102000	50500	17100	26300	9880	7990	7590	11600
17	15900	52300	25800	58700	136000	45800	19400	24500	9900	8140	7620	11800
18	15400	51400	23600	76600	143000	39500	20700	21700	10400	8190	7740	12200
19	15800	47300	22800	88500	133000	33400	19900	20500	11100	7960	7780	12500
20	17500	46200	22600	92100	112000	30000	18900	20900	10600	7900	7670	12700
21	18800	43800	22000	83000	98700	28200	18400	21500	9900	7840	7680	13200
22	21600	42600	21300	75400	137000	27100	18100	21700	9630	7680	7610	13000
23	30800	40300	20900	86100	199000	26500	17400	22300	9300	7710	7630	12900
24	37700	36600	20700	90800	213000	33300	16500	21800	8940	7670	7680	15000
25	45000	34100	21300	80300	201000	36200	16300	20700	8760	7510	7740	16900
26	48900	30800	21900	66400	177000	33700	17100	19800	8490	7220	7710	21100
27	39600	26200	21200	57300	153000	30900	20200	19200	8310	7530	7590	25900
28	35900	24600	20200	53100	137000	28700	25500	18200	8170	7600	7600	26400
29	33600	23600	19800	50200	---	26800	27600	17000	8330	7560	7630	23700
30	29500	22500	19000	53800	---	25600	25900	16400	8450	7530	7760	22400
31	28100	---	18300	56200	---	24300	---	16500	---	7550	7920	---
TOTAL	643900	1119800	1077700	1686600	2574100	1677900	581100	740200	325260	252120	238360	399590
MEAN	20770	37330	34760	54410	91930	54130	19370	23880	10840	8133	7689	13320
MAX	48900	62500	90800	92100	213000	127000	27600	31000	16200	9600	7980	26400
MIN	10700	22500	18300	20300	25500	24300	16300	16400	8170	7220	7490	7870
AC-FT	1277000	2221000	2138000	3345000	5106000	3328000	1153000	1468000	645200	500100	472800	792600
CAL YR 1985	TOTAL	8576210	MEAN	23500	MAX	90800	MIN	7540	AC-FT	17011000		
WTR YR 1986	TOTAL	11316630	MEAN	31000	MAX	213000	MIN	7220	AC-FT	22447000		

LOWER WILLAMETTE RIVER BASIN

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14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1975 to September 1981.

WATER TEMPERATURES: November 1975 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREP-TOCOC CI, FECAL, KF AGAR (COLS. PER 100 ML)	HARD-NESS (MG/L AS CAC03)	HARD-NESS NONCARB DIS-SOLVED (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV 06...	1110	27900	61	7.5	11.0	11.2	94	120	20	0	5.3
JAN 15...	1230	34300	68	7.3	5.5	13.3	290	110	22	1	5.7
MAY 06...	1130	31000	67	7.7	11.5	11.2	130	37	22	0	5.7
JUL 31...	1130	7550	87	7.5	21.0	8.4	K28	K6	25	0	6.4
SEP 24...	1345	15000	76	7.4	15.5	9.2	160	40	24	0	6.0

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WATER DISSOLV FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
NOV 06...	1.7	4.2	0.7	28	3.5	3.1	<0.1	0.07	0.2	0.2	0.04
JAN 15...	1.9	3.9	0.7	21	5.9	3.6	<0.1	0.10	0.7	0.4	0.03
MAY 06...	1.8	4.2	0.8	24	4.2	3.6	<0.1	0.07	0.3	0.4	0.01
JUL 31...	2.3	6.9	1.2	33	6.3	4.3	<0.1	0.05	0.2	0.4	0.07
SEP 24...	2.1	5.6	1.1	27	4.2	3.8	<0.1	0.07	0.2	--	0.05

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	TUR-BID-ITY (NTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 06...	0.06	0.04	15	48	51	3620	4.3	11	829	80
JAN 15...	0.05	0.06	16	47	55	4350	7.5	7	648	77
MAY 06...	0.05	0.06	15	52	50	4350	4.0	10	837	94
JUL 31...	0.08	0.10	16	60	62	1220	4.5	9	183	69
SEP 24...	0.06	0.09	17	59	56	2390	3.0	10	405	88

K - Results based on colony count outside acceptable range (non-ideal colony count).

LOWER WILLAMETTE RIVER BASIN

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 06...	30	<1	5	<0.5	1	1	<3	5	76	<1
JAN 15...	--	<1	7	<0.5	1	<1	<3	4	--	<1
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUL 31...	--	--	--	--	--	--	--	--	--	--
SEP 24...	--	--	--	--	--	--	--	--	--	--
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 06...	<4	10	<0.1	<10	2	<1	<1	34	<6	13
JAN 15...	<4	15	0.2	<10	3	<1	<1	39	<6	20
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUL 31...	--	--	--	--	--	--	--	--	--	--
SEP 24...	--	--	--	--	--	--	--	--	--	--
DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)		
JAN 15...	<0.4	<0.6	1.0	0.9	<0.6	<0.6	0.02	<0.18		

COWLITZ RIVER BASIN

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14245150 COWLITZ RIVER AT LONGVIEW, WA

LOCATION.--Lat 46°06'13", long 122°53'30", in NE¼SE¼ sec.11, T.7 N., R.2 W., Cowlitz County, Hydrologic Unit 17080005, near left bank on downstream side of railroad bridge, 0.3 mi downstream from Cowman River, 3.2 mi southeast of Longview City Hall, and at mile 1.0.

DRAINAGE AREA.--2,480 mi², at mouth, 1.0 mi downstream.

PERIOD OF RECORD.--May 1984 to current year (gage heights only). Maximum and minimum gage heights only October 1985 to September 1986.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Reference to Columbia River Datum in WDR-OR-84-2, WDR-OR-85-2, WDR-WA-84-1, and WDR-WA-85-1 is incorrect.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 11.53 ft Mar. 10, 1986; minimum, 2.12 ft Aug. 26, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 11.53 ft Mar. 10; minimum, 2.42 ft Oct. 6.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.07	2.60	7.15	4.42	5.83	4.30	6.54	4.26			---	---
2	6.04	2.67	6.50	4.53	6.65	4.25	6.29	4.53			---	---
3	5.51	2.70	5.96	4.53	6.95	4.76	6.73	4.67			---	---
4	5.30	2.68	6.24	4.62	6.47	5.10	6.59	4.83			10.53	9.09
5	5.17	2.49	5.93	4.98	6.91	5.08	7.20	4.82			9.77	8.28
6	4.89	2.42	6.27	5.07	7.48	5.33	7.53	5.36			9.41	7.93
7	4.74	2.44	6.79	5.38	8.27	6.11	7.65	5.12			9.86	8.21
8	4.44	2.62	7.51	5.76	8.53	6.28	8.28	5.28			10.54	8.60
9	4.77	2.53	7.84	5.65	8.66	6.12	8.32	5.39			11.23	8.96
10	4.83	2.56	8.32	5.47	8.85	5.95	8.92	5.43			11.53	9.40
11	5.72	2.73	8.32	5.14	8.96	5.73	8.31	5.49			11.33	9.34
12	5.98	2.82	8.63	5.11	8.91	5.57	8.01	5.30			11.02	8.97
13	6.08	2.75	8.45	4.96	8.78	5.47	7.84	5.22			10.73	8.80
14	6.22	2.72	8.35	4.83	8.22	5.44	7.33	5.10			10.52	8.84
15	6.76	2.78	8.39	4.67	7.26	5.06	7.29	5.01			10.50	8.75
16	7.14	2.92	7.66	5.05	6.60	4.72	7.36	5.03			10.10	8.39
17	7.04	3.09	6.94	5.00	6.34	4.73	7.50	5.66			9.25	7.79
18	6.80	3.01	6.12	4.91	6.16	4.67	8.14	5.84			8.34	7.46
19	6.39	3.05	6.07	4.83	6.07	4.60	---	---			7.87	7.27
20	6.44	3.08	6.54	4.88	6.10	4.51	---	---			7.63	6.91
21	6.13	3.63	6.84	5.08	6.10	4.39	---	---			7.84	6.89
22	6.30	3.65	7.04	5.65	6.23	4.37	---	---			7.69	6.71
23	6.34	3.98	6.85	5.42	6.20	4.35	---	---			7.77	6.69
24	6.65	4.11	7.33	5.47	5.91	4.35	---	---			8.52	6.87
25	7.09	4.93	7.78	5.74	6.37	4.31	---	---			8.40	6.79
26	7.62	5.17	7.32	5.15	6.71	4.32	---	---			8.98	6.90
27	7.71	5.29	7.20	5.02	6.78	4.29	---	---			9.48	7.20
28	7.19	5.28	6.97	5.00	6.83	4.30	---	---			9.55	7.09
29	6.99	4.81	7.24	4.60	6.80	4.38	---	---			9.28	6.78
30	6.94	4.64	6.51	4.44	6.51	4.31	---	---			8.93	6.71
31	6.80	4.48	---	---	6.35	4.28	---	---			8.73	6.88
MONTH	7.71	2.42	8.63	4.42	8.96	4.25	---	---			---	---

COWLITZ RIVER BASIN

14245150 COWLITZ RIVER AT LONGVIEW, WA--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.75	6.77	7.84	6.47	9.10	7.66	5.94	4.59	5.32	3.68	4.95	3.43
2	7.91	6.59	7.72	6.58	9.26	7.83	5.88	4.34	5.57	3.63	5.20	3.67
3	7.74	6.52	7.89	6.54	9.65	7.94	5.98	4.11	5.95	3.61	5.40	3.66
4	7.98	6.56	7.87	6.44	9.73	7.93	6.15	4.13	6.06	3.60	5.81	3.64
5	7.88	6.33	7.91	6.53	9.93	7.97	5.76	4.04	6.13	3.59	6.31	3.65
6	7.65	6.24	8.47	6.75	9.64	7.53	5.72	3.99	5.93	3.60	6.38	3.64
7	7.93	6.24	8.77	6.56	9.37	7.26	5.80	3.96	6.18	3.59	6.51	3.67
8	7.94	6.19	8.25	6.50	9.05	6.98	5.85	3.93	6.22	3.58	6.59	3.67
9	7.82	6.07	8.03	6.42	8.72	6.63	6.23	3.92	6.01	3.56	6.21	3.71
10	7.52	6.01	8.25	6.45	8.23	6.08	6.00	3.94	6.05	3.55	5.89	3.71
11	7.52	5.94	8.10	6.53	7.64	5.68	6.19	4.05	6.01	3.55	5.48	3.63
12	7.89	6.09	8.02	6.51	7.29	5.64	6.21	3.97	6.03	3.56	5.44	3.63
13	7.62	6.02	8.35	6.81	7.94	5.88	6.00	3.91	6.17	3.55	5.52	3.62
14	7.39	5.98	7.86	6.75	7.72	6.42	6.01	3.88	6.21	3.57	5.57	3.61
15	7.77	6.07	7.40	6.54	8.01	6.39	6.24	3.87	6.22	3.55	5.89	3.61
16	7.50	6.18	7.12	6.44	8.30	6.35	6.79	3.95	6.26	3.51	6.16	3.66
17	7.08	6.26	7.10	6.18	8.61	6.39	6.71	4.06	6.46	3.51	6.56	3.66
18	6.85	6.34	6.97	6.01	8.73	6.44	6.88	4.01	6.50	3.50	6.54	3.70
19	6.96	6.16	7.11	5.95	8.99	6.51	7.11	3.93	6.72	3.51	6.36	3.70
20	6.94	6.01	7.78	6.28	9.41	6.41	6.98	3.87	6.64	3.50	6.38	3.69
21	7.05	5.97	8.50	6.33	9.46	6.36	7.23	3.86	6.59	3.51	5.96	3.67
22	7.52	6.02	8.97	6.45	9.18	6.30	7.61	3.92	6.19	3.50	5.80	3.64
23	7.92	5.99	9.47	6.57	8.84	6.26	7.58	3.93	6.06	3.51	6.36	3.66
24	8.36	6.04	9.85	6.37	8.79	6.24	6.96	3.86	5.61	3.49	6.45	3.95
25	9.61	6.27	9.45	5.90	8.30	6.13	6.48	3.84	5.19	3.47	6.09	3.96
26	9.41	6.51	8.98	5.86	7.82	6.04	6.11	3.81	5.20	3.45	5.33	4.10
27	9.75	6.82	8.39	5.89	7.50	6.01	5.90	3.80	5.07	3.45	5.02	3.97
28	9.18	6.79	8.21	5.97	7.13	5.81	5.57	3.78	4.96	3.46	5.00	3.83
29	8.66	6.79	8.01	6.20	6.87	5.71	5.27	3.76	4.72	3.45	5.08	3.86
30	8.13	6.65	8.48	6.66	6.67	4.65	5.25	3.73	4.70	3.46	5.43	4.03
31	---	---	8.98	7.47	---	---	5.20	3.73	4.75	3.45	---	---
MONTH	9.75	5.94	9.85	5.86	9.93	4.65	7.61	3.73	6.72	3.45	6.59	3.43

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LOCATION.--Lat 46°06'22", long 122°57'14", in SE¼NE¼ sec.8, T.7 N., R.2 W., Cowlitz County, Hydrologic Unit 17080003, on right bank, at the Port of Longview, 2,000 ft upstream from Longview Bridge, 2.1 mi downstream from Cowlitz River and at mile 66.2.

PERIOD OF RECORD.--November 1983 to current year (gage heights only). Gage-height records collected at site on opposite bank, at different datum, published as "at Rainier" (station 14245295) November 1971 to May 1981. Maximum and minimum gage heights only October 1985 to September 1986.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.52 ft Jan. 19, 1974; minimum, 0.46 ft July 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.01 ft Feb. 25; minimum not recorded because of equipment failure.

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	5.91	1.32	6.78	2.02	---	1.68	---	1.20	---	3.44	11.70	9.50
2	---	1.46	6.06	2.33	6.21	1.47	---	1.24	---	3.61	11.01	8.74
3	5.35	1.49	5.43	1.69	6.33	3.05	---	1.79	7.91	3.53	10.36	8.13
4	4.85	---	4.84	1.24	---	2.58	---	1.64	7.89	3.60	9.69	7.50
5	4.85	1.06	4.89	1.08	---	2.65	---	1.95	7.58	2.90	8.97	---
6	4.70	---	4.87	1.54	---	2.91	---	2.02	---	2.87	8.68	---
7	4.46	---	5.63	1.94	7.57	3.30	---	2.25	---	---	9.31	---
8	4.12	---	6.70	3.06	---	3.84	---	2.50	---	---	9.86	---
9	4.56	---	---	3.38	8.09	4.04	---	2.49	---	---	10.45	7.68
10	4.66	---	7.91	3.58	8.40	4.10	---	2.98	---	---	10.80	8.04
11	---	1.17	---	3.47	---	3.90	---	2.56	---	---	10.60	8.00
12	---	---	---	3.45	8.60	3.65	---	2.43	7.36	3.40	10.24	7.52
13	---	1.04	---	3.15	8.46	3.58	---	2.29	7.01	3.44	9.97	---
14	5.42	1.04	---	3.10	7.88	3.65	---	2.43	6.98	3.48	9.68	---
15	---	1.11	---	2.88	6.83	2.89	---	2.42	7.88	4.20	9.65	---
16	---	1.48	7.32	3.21	6.04	1.89	---	2.61	7.82	4.74	9.29	---
17	---	1.65	---	2.24	---	2.31	---	3.17	7.62	5.27	8.34	---
18	---	1.61	---	1.81	---	2.22	---	3.28	7.91	5.65	---	---
19	6.23	1.74	---	1.83	---	1.98	---	4.11	7.90	5.67	---	---
20	---	1.47	---	1.98	---	1.75	6.77	3.75	8.35	5.85	---	4.43
21	---	1.70	---	2.66	---	1.88	6.62	3.27	8.54	5.77	6.89	4.21
22	5.96	1.98	---	2.88	---	1.64	---	3.44	9.26	6.23	6.69	3.79
23	---	1.94	---	2.55	---	1.20	---	3.81	10.99	6.54	---	3.53
24	---	2.04	---	3.06	---	---	---	3.64	12.68	9.80	---	3.93
25	---	2.39	6.85	3.31	---	1.19	---	---	13.01	10.93	---	3.58
26	---	2.58	6.74	2.44	---	1.25	---	---	12.72	11.14	7.77	4.14
27	---	2.84	6.68	2.17	---	1.43	---	3.10	12.51	10.61	8.41	4.93
28	---	2.05	---	1.78	---	1.45	---	---	12.14	10.03	8.35	4.71
29	---	1.98	---	1.77	---	1.37	---	2.62	---	---	8.12	4.02
30	---	2.00	6.08	2.01	---	1.28	---	2.74	---	---	---	3.77
31	6.49	1.82	---	---	---	1.24	---	3.32	---	---	7.42	4.41
MONTH	---	---	---	1.08	---	---	---	---	---	---	---	---

LOWER COLUMBIA RIVER BASIN

14245300 COLUMBIA RIVER AT LONGVIEW, WA--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.46	4.39	7.23	4.24	8.55	6.51	5.61	1.65	5.22	1.22	---	---
2	6.39	3.64	7.00	4.26	8.72	6.68	5.65	1.36	5.51	1.29	---	---
3	6.21	3.66	7.23	4.16	9.16	6.91	5.87	1.41	5.94	1.33	---	---
4	6.55	3.86	7.26	3.94	9.29	6.92	6.13	1.29	6.07	1.25	5.79	1.08
5	6.53	3.69	7.39	4.10	9.49	6.99	5.71	1.22	6.14	.99	6.31	1.52
6	6.24	3.44	7.86	4.62	9.27	6.49	5.67	1.22	5.96	1.05	6.39	1.64
7	6.64	3.42	7.98	4.54	9.01	6.18	5.78	1.22	6.21	1.41	6.52	1.81
8	6.56	3.23	7.76	4.25	8.65	5.87	5.82	1.22	6.24	1.51	6.60	1.89
9	---	---	7.55	4.21	8.32	5.47	6.22	1.42	6.00	1.49	6.22	1.74
10	---	---	7.80	4.21	7.83	4.79	6.00	1.22	6.08	1.56	5.87	1.51
11	---	---	7.60	4.20	7.28	4.12	6.14	1.72	6.02	1.59	5.41	1.08
12	---	---	7.45	4.31	6.91	3.93	6.13	2.02	6.03	1.49	5.39	.76
13	---	---	7.84	4.75	6.59	3.66	5.94	1.57	6.18	1.76	5.54	.74
14	---	---	6.91	3.92	6.33	3.42	5.96	1.61	6.22	1.71	5.53	.70
15	---	---	6.36	3.91	6.75	2.98	6.21	1.80	6.27	1.42	5.90	.89
16	---	---	6.07	3.92	7.10	3.26	6.76	2.26	6.28	1.24	6.18	1.18
17	---	3.98	6.18	3.71	7.52	3.60	6.79	2.33	6.51	1.25	6.59	1.76
18	5.86	3.88	6.39	3.24	7.55	3.62	6.88	2.11	6.57	1.26	6.55	1.66
19	6.04	3.72	6.80	3.58	7.84	3.48	7.11	1.81	---	---	6.35	1.46
20	6.13	2.98	7.34	4.31	8.29	3.58	7.00	1.60	---	---	6.40	1.72
21	6.45	3.24	8.15	4.43	8.41	3.19	7.26	1.89	---	---	5.99	1.44
22	7.10	3.72	8.72	4.87	8.10	2.72	7.64	2.27	---	---	5.80	1.27
23	7.62	3.86	9.29	5.18	7.74	2.39	7.52	2.34	---	---	6.37	1.31
24	8.13	4.26	9.72	5.03	7.70	2.49	6.96	2.03	---	---	6.39	2.11
25	9.50	5.00	9.38	4.03	7.16	2.23	6.46	1.96	---	---	5.98	2.11
26	9.25	5.00	8.90	3.63	6.62	2.10	6.08	1.74	---	---	5.06	2.06
27	9.54	5.30	8.22	3.61	6.27	2.18	5.87	1.71	---	---	4.72	1.52
28	8.89	4.93	7.95	4.36	5.91	1.71	5.52	1.73	---	---	4.85	.86
29	8.23	4.75	7.61	4.88	5.59	1.43	5.16	1.63	---	---	4.84	.69
30	7.55	4.48	7.99	5.46	5.69	1.52	5.15	1.34	---	---	5.21	.95
31	---	---	8.49	6.24	---	---	5.17	1.22	---	---	---	---
MONTH	---	---	9.72	3.24	9.49	1.43	7.64	1.22	---	---	---	---

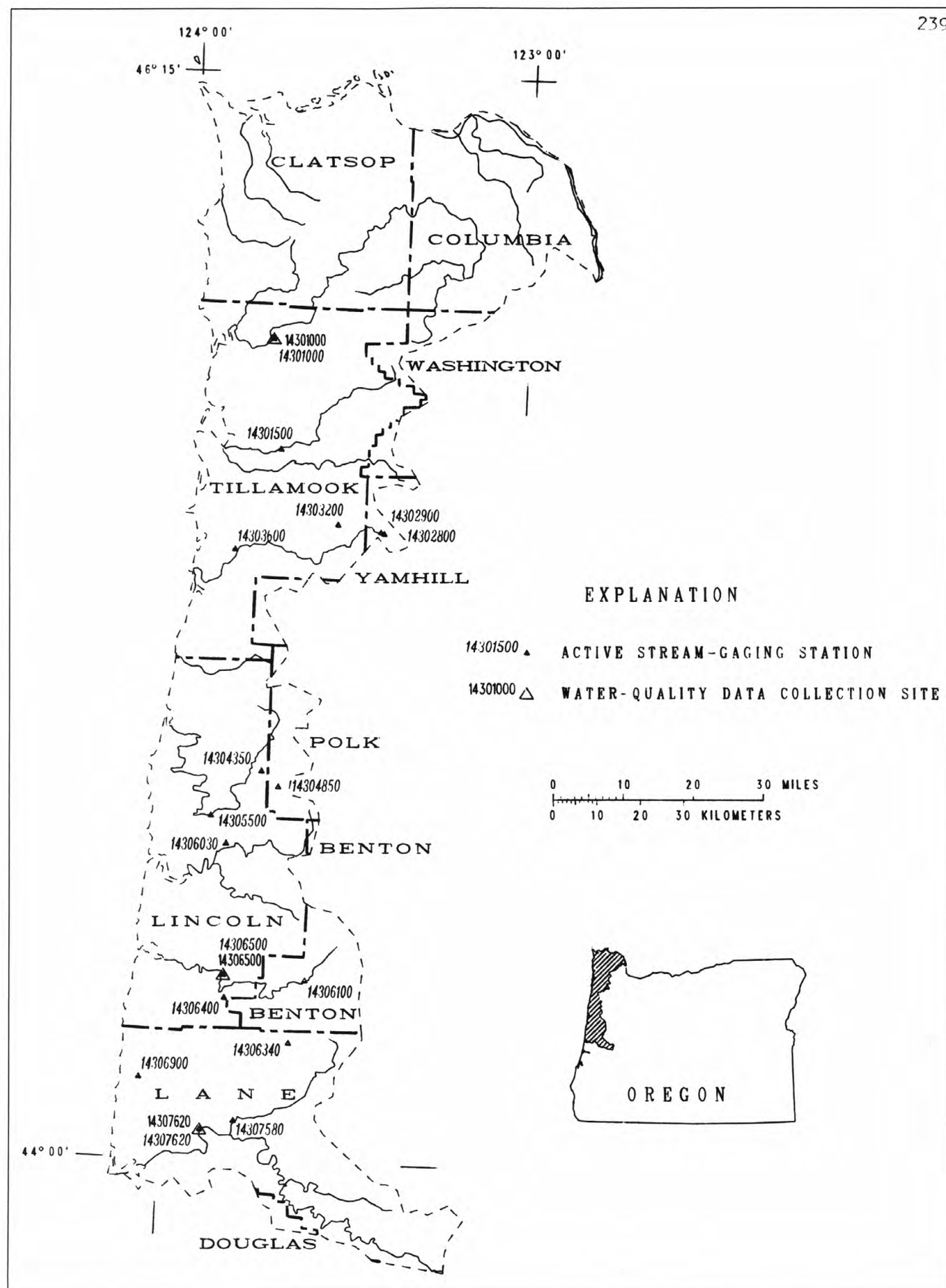


Figure 4.--Location of surface-water and water-quality stations in the Oregon Coastal Drainages north of the Siuslaw River basin.

PACIFIC SLOPE BASINS IN OREGON

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR
(National stream quality accounting network station)

LOCATION.--Lat 45°42'15", long 123°45'15", in NW¼ sec.35, T.3 N., R.9 W., Tillamook County, Hydrologic Unit 17100202, on right bank 0.2 mi upstream from Cook Creek, 2.2 mi northeast of Foss, and at mile 13.5.

DRAINAGE AREA.--667 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft above National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to Nov. 11, 1939, nonrecording gage.

REMARKS.--Estimated daily discharges: Jan. 18 to Feb. 10, Feb. 21 to Apr. 29. Water-discharge records good. No regulation. Several small diversions for irrigation and domestic use upstream from station.

AVERAGE DISCHARGE.--47 years, 2,709 ft³/s, 55.15 in/yr, 1,963,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft³/s Jan. 20, 1972, gage height, 23.11 ft; minimum discharge, 34 ft³/s Aug. 29-31, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 19,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	2200	*27,300	*16.77	No other peak greater than base discharge.			
Minimum discharge, 67 ft ³ /s Aug. 27-29, Sept. 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	146	1880	1020	1260	4050	4810	1630	2730	677	242	146	82		
2	143	2150	1170	1490	3950	3930	1590	2580	637	243	137	84		
3	143	2180	2820	3240	4160	3270	1500	2520	601	239	125	85		
4	143	2300	3170	3670	4340	2800	1440	2360	583	284	123	84		
5	139	2590	3500	3820	4700	2460	1380	2320	567	298	118	84		
6	138	4260	4950	5210	4650	2190	1310	2220	561	281	116	83		
7	149	6590	7930	5230	4280	2520	1250	2040	561	272	114	72		
8	150	6410	9270	4740	3800	3380	1210	1860	540	241	109	70		
9	148	5960	7890	4600	3290	3550	1160	1720	516	227	106	73		
10	141	5230	6110	4590	2890	3450	1110	1690	481	241	102	75		
11	166	4180	4730	4640	2550	3770	1100	1690	449	271	101	73		
12	190	3280	3760	4160	2300	5040	1200	1630	424	276	101	72		
13	194	2610	3080	3600	2240	5260	1190	1930	400	263	99	71		
14	183	2150	2590	3160	2360	5250	1110	1890	383	241	95	76		
15	186	2090	2250	3020	3800	4680	1080	1720	372	231	92	83		
16	206	2760	1980	3560	10200	4040	1320	1570	360	231	86	95		
17	212	3040	1820	4500	11000	3430	1680	1460	358	235	85	111		
18	203	3090	1710	10500	8830	2990	1810	1360	388	229	85	153		
19	235	2930	1630	15000	6680	2660	1600	1300	404	219	84	163		
20	973	2810	1550	10800	5220	2370	1470	1300	392	210	82	147		
21	1460	2610	1470	7970	4420	2250	1370	1330	360	196	81	142		
22	3410	2360	1390	7280	5380	2070	1290	1260	337	184	79	129		
23	2750	2070	1330	9390	17400	2000	1240	1180	318	176	77	175		
24	2390	1760	1280	9580	22200	2610	1180	1100	296	168	74	292		
25	4590	1540	1230	8110	16700	2800	1320	1030	279	162	73	437		
26	3630	1460	1190	6350	11100	2610	1850	970	266	158	73	618		
27	3860	1430	1110	5050	7990	2390	2500	924	257	158	69	542		
28	4020	1370	1040	4100	6060	2170	2880	873	251	157	67	450		
29	3150	1260	1060	3430	---	1960	3040	820	253	154	70	361		
30	2540	1160	1030	3820	---	1830	2970	770	246	152	78	318		
31	2090	---	971	4050	---	1710	---	723	---	149	80	---		
TOTAL	38078	85510	86031	169920	186540	96250	46780	48870	12517	6788	2927	5300		
MEAN	1228	2850	2775	5481	6662	3105	1559	1576	417	219	94.4	177		
MAX	4590	6590	9270	15000	22200	5260	3040	2730	677	298	146	618		
MIN	138	1160	971	1260	2240	1710	1080	723	246	149	67	70		
CFSM	1.84	4.27	4.16	8.22	9.99	4.66	2.34	2.36	.63	.33	.14	.27		
IN.	2.12	4.77	4.80	9.48	10.40	5.37	2.61	2.73	.70	.38	.16	.30		
AC-FT	75530	169600	170600	337000	370000	190900	92790	96930	24830	13460	5810	10510		
CAL YR 1985	TOTAL	578810	MEAN	1586	MAX	9270	MIN	93	CFSM	2.38	IN.	32.28	AC-FT	1148000
WTR YR 1986	TOTAL	785511	MEAN	2152	MAX	22200	MIN	67	CFSM	3.23	IN.	43.81	AC-FT	1558000

PACIFIC SLOPE BASINS IN OREGON

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NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1980 to September 1981.

WATER TEMPERATURES: December 1974 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7	STREP- TOCOCCI FECAL, KF AGAR	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB	CALCIUM	
							UM-MF (COLS./ 100 ML)	(COLS. PER 100 ML)		DIS- SOLVED (MG/L AS CACO3)	DIS- SOLVED (MG/L AS CA)	
OCT 15...	1430	170	--	--	11.5	10.6	K18	67	27	1	7.5	
FEB 10...	1400	2580	54	7.2	4.0	14.1	K9	25	15	0	4.3	
APR 29...	1400	2810	53	7.0	8.0	11.8	42	K5	16	5	4.4	
AUG 27...	1200	88	90	7.2	21.0	10.6	K5	K84	26	0	7.1	
DATE		MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WATER DISSOLV FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 15...	2.0	7.2	1.1	--	7.4	7.4	3.2	0.07	0.2	0.6	--	
FEB 10...	1.1	4.6	0.6	15	3.9	4.7	<0.1	0.04	0.6	0.3	0.01	
APR 29...	1.1	4.7	0.6	15	3.4	4.2	<0.1	0.03	0.4	0.5	<0.01	
AUG 27...	1.9	7.6	1.1	28	5.3	7.4	<0.1	0.03	0.2	0.5	<0.01	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
OCT 15...	0.01	0.02	16	84	68	39	5.0	3	1.4	94		
FEB 10...	0.01	0.03	15	36	43	251	3.5	7	49	72		
APR 29...	0.01	0.03	13	53	38	402	2.0	10	76	83		
AUG 27...	0.02	0.04	14	76	61	18	1.4	3	0.71	93		

K - Results based on colony count outside acceptable range (non-ideal colony count).

PACIFIC SLOPE BASINS IN OREGON

NEHALEM RIVER BASIN

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 15...	10	<1	6	<0.5	--	<1	--	6	430	1
FEB 10...	30	<1	4	<0.5	<1	<1	<3	3	56	3
APR 29...	--	--	--	--	--	--	--	--	--	--
AUG 27...	20	<1	7	1	1	<1	<3	4	92	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 15...	<4	4	<0.1	<10	<1	<1	<1	48	<6	8
FEB 10...	<4	4	--	<10	11	<1	<1	31	<6	10
APR 29...	--	--	--	--	--	--	--	--	--	--
AUG 27...	4	5	0.2	<10	2	<1	<1	51	<6	25

14301500 WILSON RIVER NEAR TILLAMOOK, OR

LOCATION.--Lat 45°29'05", long 123°41'20", in SW¼SE¼ sec.8, T.1 S., R.8 W., Tillamook County, Hydrologic Unit 17100203, on right bank 0.2 mi upstream from Negro Jack Creek, 8.0 mi east of Tillamook, and at mile 11.4.

DRAINAGE AREA.--161 mi², at cableway, 2.0 mi downstream, where all discharge measurements are made.

PERIOD OF RECORD.--October 1914 to September 1915, August to November 1916, July 1931 to current year. Prior to January 1915 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1398: 1953. WSP 1738: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 71.89 ft above National Geodetic Vertical Datum of 1929. Dec. 18, 1914, to Nov. 4, 1916, nonrecording gage at site 2.8 mi downstream at different datum. July 30, 1931, to Sept. 30, 1938, nonrecording gage at site 2.82 mi downstream at datum 28.83 ft lower. Oct. 1, 1938, to Oct. 17, 1968, water-stage recorder at site 2.1 mi downstream at datum 29.76 ft lower.

REMARKS.--Estimated daily discharges: Apr. 22-27. Records good. No regulation. Small diversions for domestic use upstream from station.

AVERAGE DISCHARGE.--56 years (water years 1915, 1932-86), 1,190 ft³/s, 100.37 in/yr, 862,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s Jan. 20, 1972, gage height, 16.91 ft; maximum gage height, 20.26 ft Dec. 22, 1964 (site and datum then in use); minimum discharge, 32 ft³/s Sept. 5, 1973, but may have been less for short period following a landslide Jan. 31, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in February 1916 reached a stage of 20.8 ft, from floodmark, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	2030	*15,500	*13.42	No other peak greater than base discharge.			
Minimum discharge, 48 ft ³ /s Sept. 7.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	88	1150	486	703	1670	1630	655	1020	279	128	79	57		
2	85	1630	612	818	1580	1360	610	1020	267	128	76	55		
3	85	1650	1450	1710	1770	1170	565	979	256	125	73	53		
4	85	1580	1410	1450	2030	1030	534	899	254	172	72	51		
5	83	1510	1490	1450	2270	913	498	923	252	151	70	50		
6	82	2020	2540	2230	1960	833	469	841	247	134	69	50		
7	82	2780	3140	1700	1660	1250	445	777	243	125	68	49		
8	82	2600	2920	1520	1410	1610	425	708	234	119	66	52		
9	81	2190	2190	1440	1230	1650	407	650	224	115	65	59		
10	81	1810	1710	1410	1090	1510	389	642	216	152	64	55		
11	110	1480	1390	1480	980	1700	389	638	204	193	63	52		
12	126	1220	1170	1300	879	2270	426	646	190	161	63	51		
13	107	1040	1020	1150	938	2250	403	918	183	139	63	51		
14	98	908	897	1040	1030	2040	377	846	190	128	62	55		
15	96	1120	809	1020	1730	1740	362	755	190	120	59	54		
16	102	1820	738	1370	4600	1460	576	670	183	122	58	59		
17	105	1710	688	1690	2940	1260	760	611	189	126	57	67		
18	100	1470	682	4590	2180	1120	730	559	218	118	57	84		
19	184	1300	679	5980	1750	995	637	527	224	112	59	72		
20	706	1170	643	3120	1460	891	563	545	194	106	58	70		
21	791	1050	599	2170	1530	915	508	503	179	101	57	65		
22	1860	935	564	2340	2510	855	480	470	172	97	56	64		
23	1460	823	549	3900	10800	921	440	439	164	96	55	144		
24	1510	746	534	3260	9400	1340	420	410	149	93	54	164		
25	3190	687	508	2400	5000	1350	660	395	142	91	54	340		
26	1970	632	477	1870	3400	1200	950	378	138	89	53	409		
27	2000	643	449	1560	2520	1040	1300	359	134	89	52	224		
28	1950	612	424	1320	2000	923	1540	338	130	89	52	161		
29	1470	559	405	1210	---	827	1340	325	134	87	55	168		
30	1190	520	387	1700	---	765	1160	303	134	84	60	155		
31	1010	---	372	1750	---	692	---	291	---	81	60	---		
TOTAL	20969	39365	31932	60651	72317	39510	19018	19385	5913	3671	1909	3040		
MEAN	676	1312	1030	1956	2583	1275	634	625	197	118	61.6	101		
MAX	3190	2780	3140	5980	10800	2270	1540	1020	279	193	79	409		
MIN	81	520	372	703	879	692	362	291	130	81	52	49		
CFSM	4.20	8.15	6.40	12.1	16.0	7.92	3.94	3.88	1.22	.73	.38	.63		
IN.	4.85	9.10	7.38	14.01	16.71	9.13	4.39	4.48	1.37	.85	.44	.70		
AC-FT	41590	78080	63340	120300	143400	78370	37720	38450	11730	7280	3790	6030		
CAL YR 1985	TOTAL	250000	MEAN	685	MAX	4430	MIN	74	CFSM	4.25	IN.	57.76	AC-FT	495900
WTR YR 1986	TOTAL	317680	MEAN	870	MAX	10800	MIN	49	CFSM	5.40	IN.	73.40	AC-FT	630100

NESTUCCA RIVER BASIN

14302800 MCGUIRE LAKE NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'30", long 123°24'30", in NW¼SE¼ sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on control tower in reservoir on Nestucca River, 0.3 mi upstream from Walker Creek, and 5.0 mi southwest of Fairdale.

DRAINAGE AREA.--2.85 mi².

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam with ungated spillway. Capacity of reservoir is 3,840 acre-ft between elevations 1,810.0 ft and 1,865.5 ft. Dead storage negligible. Under normal operation, reservoir is filled in the spring (April or May) and drained when fall rains start. There is no planned storage during winter months; however, during periods of heavy runoff, inflow may be greater than capacity of outlet tunnel and there may be temporary storage. Water is used during summer months for municipal supply of city of McMinnville.

COOPERATION.--Elevation and capacity table furnished by city of McMinnville, Water and Light Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,890 acre-ft Mar. 12 1972, Feb. 19, Mar. 28, 1974, elevation, 1,865.8 ft; no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,770 acre-ft Feb. 17 to June 12, elevation, 1,865.0 ft; reservoir empty Nov. 20.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.....	1,850.1	2,020	-
Oct. 31.....	1,843.5	1,460	-560
Nov. 30.....	1,818.0	175	-1,285
Dec. 31.....	1,836.6	976	+801
CAL YR 1985.....	-	-	+96
Jan. 31.....	1,858.5	2,910	+1,934
Feb. 28.....	1,865.0	3,770	+860
Mar. 31.....	1,865.0	3,770	0
Apr. 30.....	1,865.0	3,770	0
May 31.....	1,865.0	3,770	0
June 30.....	1,862.7	3,450	-320
July 31.....	1,858.4	2,900	-550
Aug. 31.....	1,852.8	2,290	-610
Sept. 30.....	1,848.6	1,880	-410
WTR YR 1986.....	-	-	-140

NESTUCCA RIVER BASIN

245

14302900 NESTUCCA RIVER NEAR FAIRDALE, OR

LOCATION.--Lat 45°18'40", long 123°25'05", in SW¼NW¼ sec.15, T.3 S., R.6 W., Yamhill County, Hydrologic Unit 17100203, on right bank 100 ft upstream from former Meadow Lake, 0.4 mi downstream from Walker Creek, 5.3 mi southwest of Fairdale, and at mile 49.3.

DRAINAGE AREA.--6.18 mi².

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,778.99 ft above National Geodetic Vertical Datum of 1929 (levels by city of McMinnville).

REMARKS.--Estimated daily discharges: Oct. 21 to Jan. 8. Records good except for estimated daily discharges, which are poor. Flow regulated since March 1969 by McGuire Lake about 1 mi upstream from station (station 14302800); during winter months lake is empty except when inflow exceeds capacity of outlet tunnel.

AVERAGE DISCHARGE.--26 years (water years 1961-86), 32.3 ft³/s, 70.98 in/yr, 23,400 acre-ft/yr, adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft³/s Dec. 22, 1964, gage height, 10.43 ft; minimum discharge, 0.41 ft³/s Sept. 11, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 282 ft³/s Feb. 23, gage height, 4.89 ft; minimum discharge, 0.41 ft³/s Sept. 11; minimum daily, 0.59 ft³/s Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	17	11	20	27	42	20	32	7.5	3.8	3.2	.69
2	3.0	21	15	22	27	36	20	45	6.8	4.0	3.2	.68
3	3.1	18	25	40	32	33	18	45	6.3	4.0	3.2	.68
4	3.1	18	23	32	34	30	18	41	6.2	9.2	3.1	.60
5	3.1	20	25	40	35	28	17	42	5.8	5.1	3.1	.61
6	3.2	24	43	45	30	26	16	46	6.2	4.5	3.1	.59
7	3.3	35	69	40	26	58	15	39	6.5	4.1	3.1	.60
8	3.3	60	65	36	22	53	14	34	5.8	3.9	3.1	.65
9	3.4	48	54	31	19	52	14	31	5.5	3.9	3.1	.72
10	3.4	40	44	30	17	52	13	30	5.1	4.6	3.2	.69
11	4.0	33	36	27	15	62	14	27	4.7	4.8	3.2	.64
12	4.1	26	30	22	14	76	17	25	4.9	4.2	3.4	.63
13	3.7	21	26	20	16	76	16	26	4.8	4.0	3.2	.64
14	3.6	17	23	18	17	66	14	21	5.2	3.9	3.3	.77
15	3.5	23	20	24	39	54	13	20	5.1	3.8	3.2	.70
16	3.6	37	17	37	96	45	26	18	5.0	4.3	3.2	.82
17	3.5	40	16	41	62	38	26	17	6.0	4.2	3.3	1.2
18	3.5	35	15	111	58	34	22	16	6.1	3.8	2.0	1.2
19	6.9	29	14	105	51	31	19	16	5.4	3.6	.72	.94
20	14	26	14	59	43	28	18	19	5.0	3.5	.72	.98
21	16	23	13	38	57	28	16	18	4.8	3.3	.68	.97
22	32	20	13	72	100	25	15	17	4.6	3.4	.71	.88
23	16	17	12	86	238	32	14	14	4.3	3.4	.65	4.7
24	17	15	12	61	221	38	15	13	4.1	3.4	.62	5.4
25	33	13	11	43	143	32	27	13	4.1	3.4	.64	17
26	25	12	11	32	86	29	35	12	4.0	3.3	.60	12
27	17	14	11	25	62	26	45	11	3.9	3.5	.62	5.4
28	19	13	10	21	50	24	42	10	4.0	3.4	.65	3.5
29	15	12	10	23	---	23	37	9.7	4.2	3.3	.78	3.5
30	16	11	10	33	---	21	31	8.9	4.0	3.2	.81	2.8
31	15	---	10	27	---	20	---	8.2	---	3.2	.78	---
TOTAL	303.3	738	708	1261	1637	1218	627	724.8	155.9	124.0	65.18	71.18
MEAN	9.78	24.6	22.8	40.7	58.5	39.3	20.9	23.4	5.20	4.00	2.10	2.37
MAX	33	60	69	111	238	76	45	46	7.5	9.2	3.4	17
MIN	3.0	11	10	18	14	20	13	8.2	3.9	3.2	.60	.59
AC-FT	602	1460	1400	2500	3250	2420	1240	1440	309	246	129	141
MEAN†	5.24	2.94	35.8	72.1	74.0	39.4	20.8	23.4	4.76	2.91	0.31	3.03
CFSM†	0.85	0.48	5.79	11.7	12.0	6.38	3.37	3.79	0.77	0.47	0.05	0.49
IN.†	0.98	0.53	6.68	13.45	12.47	7.34	3.76	4.37	0.86	0.54	0.06	0.55
AC-FT†	322	175	2200	4430	4110	2420	1240	1440	283	179	19	180

CAL YR 1985 TOTAL 4932.8 MEAN 13.5 MAX 87 MIN 2.6 AC-FT 9780 MEAN† 16.2 CFSM† 2.62 IN.† 35.60 AC-FT† 11730
WTR YR 1986 TOTAL 7633.36 MEAN 20.9 MAX 238 MIN .59 AC-FT 15140 MEAN† 23.5 CFSM† 3.80 IN.† 51.60 AC-FT† 17010

† Adjusted for storage and diversion by McGuire Lake.

NESTUCCA RIVER BASIN

14303200 TUCCA CREEK NEAR BLAINE, OR

LOCATION.--Lat 45°19'28", long 123°32'43", in SE¼NW¼ sec.9, T.3 S., R.7 W., Tillamook County, Hydrologic Unit 17100203, on right bank at road bridge, 80 ft upstream from mouth, and 8 mi northeast of Blaine.

DRAINAGE AREA.--3.09 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 220 ft³/s Feb. 23, 1986, gage height, 3.35 ft; minimum discharge, 0.67 ft³/s Sept. 6-8, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1430	*220	*3.35	No other peak greater than base discharge.			
Minimum discharge, 0.67 ft ³ /s Sept. 6-8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.7	19	8.2	11	18	26	10	21	5.4	2.3	1.4	.93		
2	1.8	34	11	11	19	22	9.8	20	5.1	2.3	1.4	.92		
3	1.7	33	15	17	20	19	9.1	18	5.0	2.3	1.3	.87		
4	1.6	28	15	16	24	17	8.6	16	4.9	4.6	1.3	.82		
5	1.6	27	18	19	27	16	8.0	16	4.7	2.8	1.3	.79		
6	1.6	37	30	27	28	14	7.6	16	4.7	2.5	1.3	.76		
7	1.6	65	57	26	25	19	7.3	15	4.5	2.3	1.3	.77		
8	1.6	75	62	25	23	20	6.9	14	4.3	2.2	1.2	.88		
9	1.6	62	47	23	20	22	6.7	14	4.1	2.2	1.2	1.1		
10	1.6	45	33	21	17	23	6.4	14	4.0	2.8	1.2	.90		
11	2.0	32	26	19	16	28	7.0	14	3.9	2.9	1.2	.88		
12	2.0	25	22	18	14	34	7.4	13	3.7	2.5	1.2	.82		
13	1.8	21	18	16	16	38	6.8	15	3.5	2.3	1.2	.85		
14	1.7	17	16	15	16	35	6.3	13	3.7	2.2	1.2	.87		
15	1.6	22	14	16	25	30	6.1	13	3.6	2.2	1.1	.89		
16	1.7	27	13	18	71	26	9.4	12	3.5	2.4	1.0	1.0		
17	1.6	32	12	20	60	23	12	12	3.7	2.4	1.0	1.3		
18	1.6	30	12	41	41	20	11	11	3.8	2.2	1.0	1.3		
19	5.4	26	12	66	31	18	11	10	3.4	2.1	1.1	.99		
20	9.2	23	11	51	25	16	10	10	3.8	2.0	1.0	1.3		
21	8.2	20	11	36	29	16	9.7	9.9	3.0	1.7	.98	.98		
22	19	17	10	34	50	14	9.1	9.3	2.9	1.7	.97	.89		
23	19	15	10	37	183	14	8.5	8.6	2.7	1.7	.90	4.8		
24	20	13	9.7	38	148	16	8.4	8.0	2.6	1.7	.94	4.2		
25	37	12	9.1	33	85	15	11	7.5	2.6	1.6	.92	8.7		
26	28	11	8.6	28	53	14	14	7.1	2.5	1.6	.89	7.8		
27	22	11	8.1	24	37	13	20	6.8	2.5	1.6	.86	4.6		
28	20	10	7.6	20	30	13	24	6.4	2.5	1.6	.91	3.7		
29	17	9.1	7.2	19	---	12	24	6.1	2.5	1.5	.99	4.1		
30	17	8.6	6.9	20	---	11	23	5.9	2.4	1.5	1.1	3.5		
31	16	---	6.6	18	---	11	---	5.6	---	1.5	.98	---		
TOTAL	268.2	806.7	547.0	783	1151	615	319.1	368.2	109.5	67.2	34.34	62.21		
MEAN	8.65	26.9	17.6	25.3	41.1	19.8	10.6	11.9	3.65	2.17	1.11	2.07		
MAX	37	75	62	66	183	38	24	21	5.4	4.6	1.4	8.7		
MIN	1.6	8.6	6.6	11	14	11	6.1	5.6	2.4	1.5	.86	.76		
CFSM	2.80	8.71	5.70	8.19	13.3	6.41	3.43	3.85	1.18	.70	.36	.67		
IN.	3.23	9.71	6.59	9.43	13.86	7.40	3.84	4.43	1.32	.81	.41	.75		
AC-FT	532	1600	1080	1550	2280	1220	633	730	217	133	68	123		
CAL YR 1985	TOTAL	4311.4	MEAN	11.8	MAX	95	MIN	1.5	CFSM	3.82	IN.	51.90	AC-FT	8550
WTR YR 1986	TOTAL	5131.45	MEAN	14.1	MAX	183	MIN	.76	CFSM	4.56	IN.	61.78	AC-FT	10180

NESTUCCA RIVER BASIN

247

14303600 NESTUCCA RIVER NEAR BEAVER, OR

LOCATION.--Lat 45°16'00", long 123°50'45", In SE¼NE¼ sec.36, T.3 S., R.10 W., Tillamook County, Hydrologic Unit 17100203, on right bank 150 ft upstream from Saling Creek, 1.2 mi southwest of Beaver, and at mile 13.5.

DRAINAGE AREA.--180 mi².

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 43 ft, from river profile map.

REMARKS.--Estimated daily discharges: Feb. 24-26. Records good. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--22 years, 1,079 ft³/s, 81.40 in/yr, 781,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s Jan. 11, 1972, gage height, 22.0 ft, from floodmark; minimum discharge, 32 ft³/s Sept. 14, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1962, reached a stage of 23.4 ft, discharge, 32,500 ft³/s caused by failure of Meadow Lake Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	2030	*8,410	*11.01	No other peak greater than base discharge.			
Minimum discharge, 61 ft ³ /s Sept. 6-8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	105	1050	705	647	1360	1770	699	1050	323	147	106	75		
2	105	1630	912	654	1310	1530	675	1050	308	147	103	70		
3	105	1590	1500	961	1450	1340	617	982	295	145	100	69		
4	103	1480	1380	843	1610	1200	588	906	293	292	98	67		
5	98	1410	1440	965	1810	1080	552	982	289	215	97	65		
6	96	2080	2070	1210	1720	1000	525	945	283	174	96	63		
7	99	4330	2860	1080	1560	1360	497	882	281	156	95	62		
8	97	4230	3000	1090	1380	1340	479	827	269	148	93	63		
9	95	3590	2460	1060	1230	1560	461	788	259	142	91	70		
10	93	2860	1980	1040	1110	1560	437	811	249	188	90	71		
11	120	2230	1630	1020	1020	1750	445	800	233	252	87	68		
12	127	1810	1380	948	963	2200	529	757	226	219	86	65		
13	118	1490	1190	898	1080	2310	505	975	219	183	86	65		
14	106	1280	1060	850	1200	2200	459	895	222	168	85	68		
15	104	1550	959	888	1610	1940	440	821	224	159	82	68		
16	109	1860	878	1140	4360	1680	669	754	217	180	80	72		
17	110	1890	814	1260	3850	1470	955	692	218	196	78	85		
18	102	1720	755	2520	2860	1320	902	640	238	171	78	100		
19	251	1670	697	3280	2240	1180	794	611	229	156	79	86		
20	922	1650	644	2590	2060	1070	712	667	208	145	77	81		
21	820	1520	601	2010	2130	1030	645	590	192	139	73	86		
22	1440	1390	567	2340	2740	932	594	572	184	137	72	76		
23	1220	1230	541	3090	6870	999	557	522	177	136	71	175		
24	1090	1110	515	2800	6690	1160	533	486	173	132	71	381		
25	1900	1020	491	2290	4680	1060	676	460	170	128	70	560		
26	1440	929	462	1860	3360	984	914	442	161	124	68	697		
27	1240	956	436	1570	2630	910	1190	421	156	124	66	414		
28	1420	912	413	1340	2110	851	1310	395	153	120	66	309		
29	1180	823	395	1210	---	799	1250	376	158	117	70	311		
30	1110	754	376	1490	---	761	1130	357	153	111	77	300		
31	1000	---	360	1340	---	706	---	340	---	108	80	---		
TOTAL	16925	52044	33471	46284	66993	41052	20739	21796	6760	4959	2571	4742		
MEAN	546	1735	1080	1493	2393	1324	691	703	225	160	82.9	158		
MAX	1900	4330	3000	3280	6870	2310	1310	1050	323	292	106	697		
MIN	93	754	360	647	963	706	437	340	153	108	66	62		
CFSM	3.03	9.64	6.00	8.29	13.3	7.36	3.84	3.91	1.25	.89	.46	.88		
IN.	3.50	10.76	6.92	9.57	13.85	8.48	4.29	4.50	1.40	1.02	.53	.98		
AC-FT	33570	103200	66390	91800	132900	81430	41140	43230	13410	9840	5100	9410		
CAL YR 1985	TOTAL	268718	MEAN	736	MAX	4330	MIN	74	CFSM	4.09	IN.	55.54	AC-FT	533000
WTR YR 1986	TOTAL	318336	MEAN	872	MAX	6870	MIN	62	CFSM	4.84	IN.	65.79	AC-FT	631400

SILETZ RIVER BASIN

14304350 SUNSHINE CREEK NEAR VALSETZ, OR

LOCATION.--Lat 44°48'34", long 123°44'34", in NW¼NW¼ sec.12, T.9 S., R.9 W., Lincoln County, Hydrologic Unit 17100204, on right bank about 50 ft upstream from Deer Creek, and about 5 mi southwest of Valseltz.

DRAINAGE AREA.--6.7 mi².

PERIOD OF RECORD.--October 1972 to current year. Prior to October 1985, in reports of Oregon Water Resources Department.

GAGE.--Water-stage recorder. Elevation of gage is 600 ft, from topographic map.

REMARKS.--Estimated daily discharges: July 27 to Sept. 30. Records good except for those above 240 ft³/s, and those for August and September, which are fair.

AVERAGE DISCHARGE.--14 years, 55.4 ft³/s, 112.29 in/yr, 40,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s Nov. 25, 1977, gage height, 4.32 ft; minimum discharge, 0.54 ft³/s Sept. 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 560 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1200	584	3.55	Feb. 23	0800	*1,160	*4.26

Minimum daily discharge, 1.5 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2.3	51	20	33	68	68	25	49	9.9	4.1	2.5	1.9		
2	2.5	137	40	32	61	55	22	49	9.6	3.9	2.5	1.8		
3	2.5	125	70	31	93	47	20	44	9.6	4.1	2.4	1.8		
4	2.5	82	56	30	92	41	19	38	9.6	11	2.3	1.7		
5	2.5	71	60	46	93	34	17	47	9.6	7.2	2.2	1.6		
6	2.3	107	100	47	79	32	16	44	9.3	6.0	2.2	1.6		
7	2.3	226	144	39	65	65	15	39	9.0	5.1	2.2	1.5		
8	2.3	255	135	41	55	68	14	34	8.4	5.1	2.1	1.7		
9	2.3	176	97	41	47	72	13	30	7.8	4.9	2.1	2.0		
10	2.3	125	69	41	41	68	12	31	6.7	6.2	2.0	1.9		
11	3.5	86	55	40	38	74	13	31	6.5	10	2.0	1.9		
12	3.5	63	44	37	38	94	17	30	6.2	7.8	1.9	1.8		
13	3.1	49	37	34	61	102	15	39	5.7	6.2	1.8	1.9		
14	2.8	40	33	31	71	89	14	34	7.2	5.3	1.8	2.2		
15	2.7	76	29	41	133	71	14	31	7.0	4.9	1.7	2.0		
16	3.1	97	27	67	495	61	43	27	6.7	4.9	1.7	2.0		
17	3.0	90	25	80	312	51	53	24	7.0	4.9	1.7	3.3		
18	2.8	74	22	211	173	44	44	22	11	4.3	1.7	3.7		
19	8.9	71	21	280	118	37	34	22	9.3	4.1	1.8	2.7		
20	21	71	20	155	94	31	29	23	7.5	3.7	1.8	3.2		
21	18	65	19	97	137	32	25	22	6.5	3.4	1.8	2.7		
22	100	58	18	112	458	31	22	20	6.0	3.4	1.7	5.2		
23	71	48	17	209	948	46	21	17	5.5	3.3	1.7	17		
24	81	41	16	159	471	71	20	16	5.3	3.0	1.7	14		
25	123	35	16	106	259	61	27	15	4.9	2.9	1.6	30		
26	77	31	15	77	164	51	39	14	4.3	2.8	1.6	31		
27	63	28	15	63	115	44	75	13	4.3	2.8	1.7	21		
28	63	25	15	51	84	37	71	12	4.3	2.8	1.8	14		
29	46	22	15	48	---	33	68	11	4.5	2.8	2.2	13		
30	41	21	14	90	---	29	57	11	4.3	2.7	2.2	11		
31	33	---	14	80	---	25	---	10	---	2.6	2.0	---		
TOTAL	794.2	2446	1278	2449	4863	1664	874	849	213.5	146.2	60.4	201.1		
MEAN	25.6	81.5	41.2	79.0	174	53.7	29.1	27.4	7.12	4.72	1.95	6.70		
MAX	123	255	144	280	948	102	75	49	11	11	2.5	31		
MIN	2.3	21	14	30	38	25	12	10	4.3	2.6	1.6	1.5		
CFSM	3.82	12.2	6.15	11.8	26.0	8.01	4.34	4.09	1.06	.70	.29	1.00		
IN.	4.41	13.58	7.10	13.60	27.00	9.24	4.85	4.71	1.19	.81	.34	1.12		
AC-FT	1580	4850	2530	4860	9650	3300	1730	1680	423	290	120	399		
WTR YR 1986	TOTAL	15838.4	MEAN	43.4	MAX	948	MIN	1.5	CFSM	6.48	IN.	87.94	AC-FT	31420

SILETZ RIVER BASIN

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14304850 BIG ROCK CREEK NEAR VALSETZ, OR

LOCATION.--Lat 44°46'41", long 123°41'34", in SE¼NW¼ sec.20, T.9 S., R.8 W., Polk County, Hydrologic Unit 17100204, on left bank about 0.2 mi downstream from access cable, and 4.7 mi southwest of Valsetz.

DRAINAGE AREA.--6.9 mi².

PERIOD OF RECORD.--October 1972 to current year. Prior to October 1985, in reports of Oregon Water Resources Department.

GAGE.--Water-stage recorder. Elevation of gage is 710 ft, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 25, 26, May 27 to June 4. Records good except for estimated daily discharges, which are fair. Water temperatures published February 1979 to September 1985.

AVERAGE DISCHARGE.--13 years (water years 1974-86), 46.4 ft³/s, 91.32 in/yr, 33,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft³/s Dec. 21, 1972, gage height, 5.55 ft; minimum discharge, 1.3 ft³/s Oct. 18, 19, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1200	571	3.78	Feb. 23	0800	*988	*4.53

Minimum discharge, 1.4 ft³/s Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	2.4	40	26	23	53	72	27	45	13	4.4	2.7	1.9		
2	2.4	101	46	22	51	59	24	44	12	4.4	2.7	1.8		
3	2.4	85	68	27	75	50	23	38	12	4.4	2.4	1.8		
4	2.3	72	61	24	77	44	21	35	12	10	2.4	1.7		
5	2.3	69	69	38	78	39	19	40	11	6.0	2.3	1.6		
6	2.3	110	122	36	69	36	18	36	10	5.0	2.3	1.6		
7	2.3	239	178	33	57	54	17	32	9.6	4.8	2.2	1.5		
8	2.2	251	163	33	49	47	16	29	9.3	4.4	2.2	1.7		
9	2.2	175	116	33	41	54	15	27	8.6	4.4	2.2	2.0		
10	2.3	131	87	31	36	54	15	29	7.9	5.5	2.0	1.9		
11	3.7	95	68	30	31	72	15	26	7.6	7.3	2.0	1.9		
12	3.1	72	55	28	34	100	19	24	7.3	5.5	1.9	1.8		
13	2.7	57	46	27	53	103	16	31	6.8	4.8	1.8	1.9		
14	2.6	49	39	25	57	87	15	26	8.3	4.2	1.8	2.2		
15	2.4	80	36	33	109	73	15	23	7.9	4.2	1.7	2.0		
16	2.6	91	31	51	474	60	37	22	7.3	4.2	1.7	2.0		
17	2.6	98	27	58	281	51	41	20	8.6	4.2	1.7	3.3		
18	2.4	84	25	149	161	45	34	19	10	3.9	1.7	3.7		
19	6.8	85	23	239	106	39	29	22	7.9	3.9	1.8	2.7		
20	15	81	21	143	82	35	26	22	6.8	3.7	1.8	3.3		
21	13	75	19	97	113	36	23	21	6.3	3.5	1.7	2.7		
22	76	66	18	112	400	30	21	19	5.8	3.5	1.7	2.4		
23	59	58	17	180	802	41	19	18	5.5	3.5	1.7	12		
24	69	51	16	147	382	53	20	16	5.3	3.5	1.7	12		
25	135	43	15	101	230	48	25	15	5.0	3.3	1.6	23		
26	67	37	15	75	140	45	33	15	4.8	3.1	1.6	24		
27	52	35	14	61	110	40	58	14	5.0	3.1	1.7	16		
28	48	33	13	49	87	37	58	14	5.0	3.1	1.8	10		
29	38	29	13	46	---	34	56	13	4.8	3.0	2.2	9.6		
30	37	26	12	69	---	31	50	13	4.6	2.8	2.2	8.3		
31	32	---	12	57	---	28	---	13	---	2.8	2.0	---		
TOTAL	693.0	2518	1471	2077	4238	1597	805	761	236.0	134.4	61.2	162.3		
MEAN	22.4	83.9	47.5	67.0	151	51.5	26.8	24.5	7.87	4.34	1.97	5.41		
MAX	135	251	178	239	802	103	58	45	13	10	2.7	24		
MIN	2.2	26	12	22	31	28	15	13	4.6	2.8	1.6	1.5		
CFSM	3.25	12.2	6.88	9.71	21.9	7.46	3.88	3.55	1.14	.63	.29	.78		
IN.	3.74	13.58	7.93	11.20	22.85	8.61	4.34	4.10	1.27	.72	.33	.88		
AC-FT	1370	4990	2920	4120	8410	3170	1600	1510	468	267	121	322		
WTR YR 1986	TOTAL	14753.9	MEAN	40.4	MAX	802	MIN	1.5	CFSM	5.86	IN.	79.54	AC-FT	29260

SILETZ RIVER BASIN

14305500 SILETZ RIVER AT SILETZ, OR

LOCATION.--Lat 44°42'55", long 123°53'10", in NW¼SW¼ sec.11, T.10 S., R.10 W., Lincoln County, Hydrologic Unit 17100204, on right bank, 1.8 mi downstream from Baker Creek, 1.5 mi east of Siletz, and at mile 42.6.

DRAINAGE AREA.--202 mi².

PERIOD OF RECORD.--October 1905 to November 1911, January to May 1912, January to June 1924, November 1924 to current year. Prior to December 1905 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1935: 1943, 1947-49(M), 1953-58(M).

GAGE.--Water-stage recorder. Datum of gage is 102.32 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1905, to Sept 30, 1938, nonrecording gage at various sites within 2.5 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records excellent. Slight regulation from logponds. Small diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--67 years (water years 1906-11, 1926-86), 1,555 ft³/s, 104.54 in/yr, 1,127,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1905-12, 1924-38).--Maximum discharge, 34,600 ft³/s Nov. 22, 1909, gage height, 24.6 ft, site and datum then in use; minimum observed discharge, 51 ft³/s Dec. 6, 7, 1929.

EXTREMES FOR PERIOD OF RECORD (1938-86).--Maximum discharge, 32,200 ft³/s Jan. 28, 1965, gage height, 27.32 ft, present site and datum; minimum discharge, 48 ft³/s Sept 25, 26, Oct. 4, 1965, Sept. 28, 29, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1921, reached a stage of 31.6 ft, at site 2.5 mi downstream at different datum, from floodmark, discharge, 40,800 ft³/s, from rating curve extended above 17,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 14,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	1100	*17,100	*16.91	No other peak greater than base discharge.			
Minimum discharge, 70 ft ³ /s Sept. 7, 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	109	1190	770	772	2080	2300	864	1280	387	180	120	87		
2	107	2520	1130	809	1880	1900	807	1310	371	178	116	83		
3	108	2430	2690	1170	2340	1610	747	1240	359	176	112	81		
4	105	2050	2270	1060	2480	1390	712	1140	359	325	110	78		
5	101	1860	2230	1520	2620	1230	666	1330	358	257	107	75		
6	98	2830	3190	1790	2320	1130	628	1320	346	209	105	73		
7	98	6240	4540	1420	2000	1900	596	1210	340	191	103	71		
8	97	7110	4440	1350	1720	2090	567	1100	317	185	102	71		
9	94	5060	3400	1340	1490	2300	539	1010	301	177	101	80		
10	93	3850	2630	1310	1320	2170	509	1020	287	194	99	81		
11	112	2880	2100	1380	1190	2410	503	1020	273	271	97	77		
12	131	2230	1730	1250	1210	2910	608	963	260	235	96	74		
13	115	1790	1470	1120	1490	3080	564	1090	250	201	95	74		
14	103	1500	1280	1040	1850	2870	513	1030	266	186	94	81		
15	98	2080	1140	1100	2850	2470	495	954	276	176	92	82		
16	100	2800	1020	1830	10000	2060	868	876	258	180	89	85		
17	106	2720	932	2070	7970	1750	1250	808	259	186	87	105		
18	98	2420	869	4730	5210	1520	1140	751	323	170	87	137		
19	139	2230	813	6670	3620	1330	974	714	342	162	92	111		
20	595	2160	767	4410	2790	1180	854	793	275	156	90	94		
21	712	1980	724	3070	2830	1150	766	747	253	150	87	105		
22	2220	1860	686	3160	7900	1030	700	707	238	145	85	89		
23	2330	1610	656	4620	14700	1190	651	647	225	144	84	152		
24	2150	1420	628	4090	10600	1870	622	609	215	142	82	421		
25	4200	1270	600	3140	6800	1710	747	576	207	137	81	544		
26	2490	1140	570	2470	5030	1510	946	546	200	134	81	767		
27	1970	1040	538	2050	3710	1330	1640	520	194	133	79	665		
28	2110	968	507	1710	2860	1180	1750	486	191	130	81	442		
29	1640	878	484	1550	---	1070	1620	458	195	127	88	390		
30	1370	807	460	2360	---	983	1410	434	188	123	95	387		
31	1180	---	443	2300	---	896	---	407	---	121	93	---		
TOTAL	24979	70923	45707	68661	112860	53519	25256	27096	8313	5481	2930	5662		
MEAN	806	2364	1474	2215	4031	1726	842	874	277	177	94.5	189		
MAX	4200	7110	4540	6670	14700	3080	1750	1330	387	325	120	767		
MIN	93	807	443	772	1190	896	495	407	188	121	79	71		
CFSM	3.99	11.7	7.30	11.0	20.0	8.54	4.17	4.33	1.37	.88	.47	.94		
IN.	4.60	13.06	8.42	12.64	20.78	9.86	4.65	4.99	1.53	1.01	.54	1.04		
AC-FT	49550	140700	90660	136200	223900	106200	50100	53740	16490	10870	5810	11230		
CAL YR 1985	TOTAL	360257	MEAN	987	MAX	10100	MIN	80	CFSM	4.89	IN.	66.34	AC-FT	714600
WTR YR 1986	TOTAL	451387	MEAN	1237	MAX	14700	MIN	71	CFSM	6.12	IN.	83.13	AC-FT	895300

YAQUINA RIVER BASIN

251

14306030 YAQUINA RIVER NEAR CHITWOOD, OR

LOCATION.--Lat 44°39'29", long 123°50'15", in NE¼SW¼ sec.31, T.10 S., R.9 W., Lincoln County, Hydrologic Unit 17100204, on left bank 200 ft below Thornton Creek and 1.1 mi west of Chitwood, and at mile 29.3.

DRAINAGE AREA.--71.0 mi².

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 28.43 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 259 ft³/s, 49.54 in/yr, 187,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,150 ft³/s Nov. 16, 1973, gage height, 14.43 ft; minimum discharge, 2.8 ft³/s Sept. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1900	3,720	10.89	Feb. 23	1400	*4,080	*11.48
Minimum discharge, 3.7 ft ³ /s Sept. 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	12	82	144	103	336	537	172	247	66	22	10	7.0		
2	13	119	159	109	322	442	155	224	64	22	9.9	6.4		
3	13	150	402	181	397	372	142	192	61	21	9.7	6.4		
4	13	143	434	188	505	324	134	171	60	42	9.2	6.1		
5	12	157	417	219	555	290	123	177	60	35	9.0	5.4		
6	12	259	586	239	526	265	116	163	57	24	8.8	4.6		
7	12	812	849	235	471	311	111	146	55	22	8.6	4.2		
8	11	1340	848	226	411	298	105	136	51	21	8.6	4.0		
9	11	902	674	208	357	405	98	128	49	20	8.1	4.5		
10	12	858	518	199	318	415	93	137	47	21	8.3	5.3		
11	17	604	405	195	291	440	91	143	43	25	8.3	5.8		
12	22	428	330	189	326	533	104	134	41	23	8.3	5.9		
13	19	327	280	184	423	619	94	146	39	20	7.8	5.9		
14	17	265	246	176	564	630	84	140	40	18	7.2	7.2		
15	15	265	216	186	694	568	81	134	40	17	7.1	8.0		
16	15	300	189	245	2650	474	131	125	37	18	6.6	8.2		
17	15	342	168	310	2720	391	206	118	37	20	6.3	17		
18	16	395	154	483	1670	334	205	110	46	17	6.1	22		
19	19	380	141	772	1070	294	177	107	38	16	6.7	17		
20	50	404	130	768	797	265	153	118	33	15	6.8	13		
21	51	442	120	587	680	250	134	120	31	14	6.4	22		
22	147	467	114	504	2100	219	120	114	30	13	6.0	15		
23	275	422	107	656	3540	225	110	105	28	13	6.0	18		
24	190	360	101	841	2520	297	104	99	27	13	6.1	59		
25	294	305	96	695	1480	292	118	94	26	12	5.5	50		
26	206	263	93	543	1070	278	129	89	26	11	4.8	107		
27	134	227	88	444	834	257	197	85	25	12	4.9	89		
28	123	202	84	369	664	233	262	80	24	12	5.1	49		
29	103	178	81	330	---	210	283	76	25	11	5.8	39		
30	96	157	80	350	---	192	269	73	23	11	6.9	39		
31	88	---	77	346	---	175	---	70	---	11	7.4	---		
TOTAL	2033	11555	8331	11080	28291	10835	4301	4001	1229	572	226.3	650.9		
MEAN	65.6	385	269	357	1010	350	143	129	41.0	18.5	7.30	21.7		
MAX	294	1340	849	841	3540	630	283	247	66	42	10	107		
MIN	11	82	77	103	291	175	81	70	23	11	4.8	4.0		
CFSM	.92	5.42	3.79	5.03	14.2	4.93	2.01	1.82	.58	.26	.10	.31		
IN.	1.07	6.05	4.36	5.81	14.82	5.68	2.25	2.10	.64	.30	.12	.34		
AC-FT	4030	22920	16520	21980	56120	21490	8530	7940	2440	1130	449	1290		
CAL YR 1985	TOTAL	62283	MEAN	171	MAX	1350	MIN	11	CFSM	2.41	IN.	32.63	AC-FT	123500
WTR YR 1986	TOTAL	83105.2	MEAN	228	MAX	3540	MIN	4.0	CFSM	3.21	IN.	43.54	AC-FT	164800

ALSEA RIVER BASIN

14306100 NORTH FORK ALSEA RIVER AT ALSEA, OR

LOCATION.--Lat 44°22'45", long 123°35'40", in SE¼ sec.1, T.14 S., R.8 W., Benton County, Hydrologic Unit 17100205, on left bank at Alsea, 0.2 mi upstream from bridge on Lobster Valley Road, 0.7 mi upstream from confluence with South Fork, and at mile 49.4.

DRAINAGE AREA.--63.0 mi².

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.31 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 28 to Dec. 2. Records good except for estimated daily discharges, which are poor. No regulation. Some diversions by pumping upstream from station.

AVERAGE DISCHARGE.--29 years, 280 ft³/s, 60.36 in/yr, 202,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s Dec. 22, 1964, gage height, 14.57 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurement at gage height 11.80 ft; minimum discharge, 8.3 ft³/s June 8, Sept. 19, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1530	2,650	6.09	Feb. 23	0700	*3,810	*7.56

Minimum discharge, 13 ft³/s Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	29	85	120	152	348	463	170	191	71	38	23	19		
2	29	80	200	164	362	394	157	195	69	37	23	17		
3	29	75	657	263	554	346	148	191	67	37	22	17		
4	29	80	545	226	490	309	143	185	67	57	22	17		
5	29	90	540	309	454	282	135	215	67	45	21	16		
6	29	110	921	384	403	265	129	223	67	38	21	16		
7	29	180	1100	311	359	420	124	207	67	36	21	16		
8	28	350	918	291	319	392	119	189	61	36	20	17		
9	28	400	664	307	286	451	115	175	59	35	20	17		
10	29	360	474	303	261	418	111	180	56	37	20	18		
11	32	280	381	279	250	466	112	173	56	37	19	18		
12	34	200	324	253	350	541	130	160	54	35	20	17		
13	34	160	279	231	680	570	122	156	51	33	20	18		
14	34	140	245	211	738	524	114	143	54	32	19	20		
15	34	150	219	254	1020	453	112	135	53	31	19	19		
16	34	280	199	486	2280	383	212	127	51	32	18	20		
17	34	320	183	578	2420	330	245	120	56	33	18	27		
18	34	340	172	852	1760	294	210	114	68	31	17	37		
19	39	280	161	1020	1120	267	181	112	58	30	18	28		
20	68	290	149	779	777	246	160	116	52	29	18	29		
21	65	290	139	562	779	239	144	117	49	28	17	38		
22	226	300	130	527	2580	214	132	111	47	28	17	27		
23	241	280	124	733	3250	239	123	102	45	28	17	42		
24	164	240	119	670	1880	312	119	96	43	28	17	72		
25	298	200	114	528	1180	286	138	93	42	27	17	134		
26	160	180	109	425	849	259	147	90	41	26	17	162		
27	109	160	104	363	673	236	192	87	40	26	17	94		
28	120	150	99	314	552	215	197	83	41	26	18	64		
29	110	140	96	314	---	198	208	79	42	25	20	51		
30	100	130	93	404	---	185	198	75	40	24	20	45		
31	90	---	90	386	---	172	---	73	---	24	20	---		
TOTAL	2348	6320	9668	12879	26974	10369	4547	4313	1634	1009	596	1132		
MEAN	75.7	211	312	415	963	334	152	139	54.5	32.5	19.2	37.7		
MAX	298	400	1100	1020	3250	570	245	223	71	57	23	162		
MIN	28	75	90	152	250	172	111	73	40	24	17	16		
CFSM	1.20	3.35	4.95	6.59	15.3	5.30	2.41	2.21	.87	.52	.30	.60		
IN.	1.39	3.73	5.71	7.60	15.93	6.12	2.68	2.55	.96	.60	.35	.67		
AC-FT	4660	12540	19180	25550	53500	20570	9020	8550	3240	2000	1180	2250		
CAL YR 1985	TOTAL	57228	MEAN	157	MAX	1100	MIN	20	CFSM	2.49	IN.	33.79	AC-FT	113500
WTR YR 1986	TOTAL	81789	MEAN	224	MAX	3250	MIN	16	CFSM	3.56	IN.	48.29	AC-FT	162200

ALSEA RIVER BASIN

253

14306340 EAST FORK LOBSTER CREEK NEAR ALSEA, OR

LOCATION.--Lat 44°14'53", long 123°38'07", in NE¼SE¼ sec.22, T.15 S., R.8 W., Benton County, Hydrologic Unit 17100205, on left bank 500 ft upstream from mouth, and 9 mi south of Alsea.

DRAINAGE AREA.--5.70 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 680 ft, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 11-21. Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/s Nov. 2, 1984, gage height, 3.81 ft; minimum discharge, 0.48 ft³/s Aug. 21-29, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1600	400	3.28	Feb. 23	0500	*458	*3.34

Minimum discharge, 0.48 ft³/s Aug. 21-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.0	8.8	9.1	13	27	36	12	16	4.8	2.1	.77	.77		
2	1.0	8.8	32	14	29	28	12	16	4.6	2.1	.70	.70		
3	1.0	8.8	86	33	54	25	11	17	4.4	2.1	.70	.70		
4	1.0	13	62	22	43	21	10	17	4.4	3.6	.70	.70		
5	1.0	19	58	40	43	19	9.5	20	4.4	3.2	.70	.66		
6	1.0	18	84	42	40	17	9.0	28	4.4	2.7	.64	.64		
7	1.0	39	112	26	34	39	8.7	24	4.4	2.2	.64	.64		
8	1.0	57	112	23	27	35	8.4	20	4.3	2.2	.64	.60		
9	1.0	58	72	33	24	43	7.7	18	3.7	2.0	.64	.58		
10	1.0	40	49	34	21	40	7.4	17	3.6	2.0	.64	.58		
11	1.1	25	36	31	21	44	7.4	18	3.5	2.0	.64	.58		
12	1.3	18	26	25	55	59	8.4	17	3.4	2.0	.64	.58		
13	1.4	15	22	22	82	62	8.4	16	3.1	1.8	.64	.63		
14	1.4	13	19	19	72	58	7.7	15	3.1	1.7	.64	.77		
15	1.4	23	16	30	104	46	7.2	14	3.4	1.7	.64	.77		
16	1.4	67	15	65	251	37	14	13	3.4	1.6	.64	.77		
17	1.4	57	13	65	300	28	17	12	3.6	1.6	.58	1.3		
18	1.4	47	12	93	181	24	16	11	4.2	1.6	.58	2.9		
19	4.2	36	11	102	99	21	13	10	3.9	1.6	.54	1.9		
20	9.7	35	11	74	71	19	12	9.5	3.4	1.3	.54	1.7		
21	9.5	28	9.9	53	90	17	9.9	9.7	3.1	1.3	.54	2.6		
22	34	25	9.6	56	303	16	9.3	9.6	2.8	1.2	.48	1.8		
23	33	20	8.8	91	322	18	8.4	8.9	2.7	1.2	.48	2.4		
24	19	17	8.4	70	152	26	7.8	8.1	2.5	1.2	.48	4.0		
25	28	14	8.0	52	91	23	9.5	7.6	2.4	1.2	.48	8.3		
26	17	13	7.5	40	69	20	10	7.4	2.4	1.1	.48	9.2		
27	12	11	6.9	33	55	17	18	7.0	2.1	1.1	.48	5.5		
28	13	11	6.8	26	43	16	21	6.5	2.1	1.0	.48	3.7		
29	11	9.9	6.4	25	---	14	19	5.9	2.1	.84	.63	2.8		
30	9.5	9.5	6.2	36	---	14	17	5.7	2.1	.84	.74	2.7		
31	9.4	---	6.2	33	---	13	---	5.2	---	.84	.77	---		
TOTAL	230.1	764.8	941.8	1321	2703	895	336.7	410.1	102.3	52.92	18.89	61.47		
MEAN	7.42	25.5	30.4	42.6	96.5	28.9	11.2	13.2	3.41	1.71	.61	2.05		
MAX	34	67	112	102	322	62	21	28	4.8	3.6	.77	9.2		
MIN	1.0	8.8	6.2	13	21	13	7.2	5.2	2.1	.84	.48	.58		
CFSM	1.30	4.47	5.33	7.47	16.9	5.07	1.96	2.32	.60	.30	.11	.36		
IN.	1.50	4.99	6.15	8.62	17.64	5.84	2.20	2.68	.67	.35	.12	.40		
AC-FT	456	1520	1870	2620	5360	1780	668	813	203	105	37	122		
CAL YR 1985	TOTAL	5842.28	MEAN	16.0	MAX	189	MIN	.84	CFSM	2.81	IN.	38.13	AC-FT	11590
WTR YR 1986	TOTAL	7838.08	MEAN	21.5	MAX	322	MIN	.48	CFSM	3.77	IN.	51.15	AC-FT	15550

ALSEA RIVER BASIN

14306400 FIVE RIVERS NEAR FISHER, OR

LOCATION.--Lat 44°20'15", long 123°49'35", W-1/2 sec.19, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, in Siuslaw National Forest, on left bank at downstream side of abandoned highway bridge, 500 ft downstream from Lobster Creek, 3.2 mi north of Fisher, and at mile 3.3.

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--August 1958 to September 1963, October 1967 to current year.

REVISED RECORDS.--WSP 1718: 1959.

GAGE.--Water-stage recorder. Elevation of gage is 130 ft from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 553 ft³/s, 65.87 in/yr, 400,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft³/s Jan. 21, 1972, gage height, 21.08 ft; minimum discharge, 16 ft³/s Oct. 1, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 22.3 ft, from floodmarks, discharge, 19,000 ft³/s from rating curve extended above 10,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1130	5,050	11.48	Feb. 23	0900	*6,380	*12.88

Minimum discharge, 17 ft³/s Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	32	162	248	294	748	860	342	299	126	61	40	25		
2	32	151	503	317	792	732	311	302	123	61	39	23		
3	33	144	1280	470	1230	636	291	292	119	61	38	23		
4	32	149	919	404	1070	562	282	275	121	107	38	22		
5	32	172	768	669	970	506	266	359	120	81	37	20		
6	32	183	1040	843	862	471	252	437	118	67	37	20		
7	32	316	1500	594	764	864	241	399	120	62	35	18		
8	32	618	1820	554	674	794	233	349	108	64	37	19		
9	31	781	1360	620	598	845	222	315	102	59	38	20		
10	31	707	982	637	539	796	211	331	99	59	39	20		
11	38	486	764	619	510	920	211	334	93	62	39	20		
12	41	371	625	559	880	1100	250	303	89	59	40	20		
13	38	301	531	502	1270	1220	237	293	86	55	38	23		
14	35	257	464	452	1270	1150	214	268	89	53	39	33		
15	37	313	416	538	1900	977	210	250	91	52	39	29		
16	35	558	373	1080	4210	813	430	236	87	54	39	32		
17	35	657	339	1200	4780	694	504	222	92	56	28	40		
18	33	684	313	1750	3460	605	413	212	119	52	25	86		
19	39	571	290	2110	2250	542	345	207	99	49	26	53		
20	178	568	271	1650	1630	491	300	219	85	48	26	38		
21	169	569	254	1230	1530	475	270	212	81	47	26	37		
22	581	657	240	1230	4320	424	249	203	77	47	25	35		
23	580	559	227	1760	5630	515	233	186	74	45	25	46		
24	410	466	216	1540	3640	714	226	176	71	44	25	93		
25	648	401	205	1200	2260	614	277	168	69	42	23	190		
26	411	349	196	963	1640	534	277	161	67	42	23	235		
27	278	312	188	817	1290	475	307	156	66	43	23	159		
28	276	287	180	698	1040	431	311	148	65	42	23	97		
29	225	265	176	663	---	395	322	141	67	41	25	74		
30	204	246	169	870	---	369	302	136	64	40	28	65		
31	181	---	165	839	---	341	---	131	---	40	27	---		
TOTAL	4791	12260	17022	27672	51757	20865	8539	7720	2787	1695	990	1615		
MEAN	155	409	549	893	1848	673	285	249	92.9	54.7	31.9	53.8		
MAX	648	781	1820	2110	5630	1220	504	437	126	107	40	235		
MIN	31	144	165	294	510	341	210	131	64	40	23	18		
CFSM	1.36	3.59	4.82	7.83	16.2	5.90	2.50	2.18	.81	.48	.28	.47		
IN.	1.56	4.00	5.55	9.03	16.89	6.81	2.79	2.52	.91	.55	.32	.53		
AC-FT	9500	24320	33760	54890	102700	41390	16940	15310	5530	3360	1960	3200		
CAL YR 1985	TOTAL	105918	MEAN	290	MAX	2450	MIN	31	CFSM	2.54	IN.	34.56	AC-FT	210100
WTR YR 1986	TOTAL	157713	MEAN	432	MAX	5630	MIN	18	CFSM	3.79	IN.	51.46	AC-FT	312800

ALSEA RIVER BASIN

255

14306500 ALSEA RIVER NEAR TIDEWATER, OR
(National stream quality accounting network station).

LOCATION.--Lat 44°23'10", long 123°49'50", in NW¼NW¼ sec.6, T.14 S., R.9 W., Lincoln County, Hydrologic Unit 17100205, on right bank 0.9 mi downstream from Grass Creek, 2.5 mi upstream from Scott Creek, 3.8 mi southeast of Tidewater, and at mile 21.0.

DRAINAGE AREA.--334 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.16 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1939, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Mar. 15 to Apr. 30, May 16 to June 17. Records good. No regulation. Diversion for irrigation upstream from station.

AVERAGE DISCHARGE.--47 years, 1,520 ft³/s, 61.79 in/yr, 1,101,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,800 ft³/s Dec. 22, 1964, gage height, 27.44 ft; minimum discharge, 45 ft³/s Sept. 26, 27, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on or about Feb. 3, 1890, reached a stage of 29.5 ft, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1300	13,300	14.74	Feb. 23	1030	*17,700	*17.24

Minimum discharge, 67 ft³/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	91	445	693	771	2040	2700	1050	1030	416	202	118	87		
2	91	428	984	872	2050	2320	985	1040	401	197	116	82		
3	91	427	3210	1360	3080	2030	920	1020	390	197	111	79		
4	90	419	2670	1220	2870	1810	894	979	388	282	108	78		
5	88	536	2350	1620	2630	1640	845	1090	386	279	106	73		
6	87	641	3220	2390	2380	1520	803	1260	384	223	104	72		
7	86	1090	4670	1780	2130	2350	767	1190	384	202	104	69		
8	86	2190	4920	1580	1910	2300	737	1090	361	198	103	68		
9	82	2390	3720	1650	1710	2470	712	1000	343	193	99	70		
10	83	2190	2760	1690	1550	2340	683	1010	326	192	97	73		
11	95	1490	2190	1650	1450	2560	668	1060	309	199	96	75		
12	108	1130	1820	1500	2180	2970	787	963	296	196	94	73		
13	108	931	1560	1360	3390	3350	747	934	285	179	92	76		
14	100	791	1370	1250	3710	3230	688	869	285	172	92	87		
15	98	853	1230	1340	5080	2790	664	810	293	167	91	90		
16	96	1500	1120	2580	10700	2380	1120	762	279	171	89	92		
17	96	1770	1030	3230	12700	2060	1540	717	286	177	85	109		
18	94	1870	963	4380	10100	1810	1280	683	351	169	84	208		
19	102	1560	896	5600	6800	1650	1100	663	328	160	86	189		
20	335	1580	838	4560	4810	1500	955	701	281	154	87	130		
21	440	1580	784	3370	4220	1440	878	678	264	149	86	132		
22	1090	1760	738	3130	11900	1300	803	678	253	144	82	141		
23	1520	1520	702	4360	15700	1470	747	608	241	142	81	140		
24	1030	1280	667	4060	10800	1990	712	573	232	141	79	312		
25	1560	1120	638	3220	6990	1780	824	547	224	137	79	485		
26	1110	990	609	2630	5080	1580	883	524	218	133	78	801		
27	719	896	583	2260	3960	1440	1060	510	215	133	78	556		
28	685	820	560	1970	3210	1300	1110	489	210	131	78	332		
29	593	756	543	1840	---	1210	1120	470	216	126	82	248		
30	530	701	523	2270	---	1130	1070	450	211	122	90	215		
31	499	---	509	2240	---	1060	---	435	---	120	91	---		
TOTAL	11883	35654	49070	73733	145130	61480	27152	24833	9056	5387	2866	5242		
MEAN	383	1188	1583	2378	5183	1983	905	801	302	174	92.5	175		
MAX	1560	2390	4920	5600	15700	3350	1540	1260	416	282	118	801		
MIN	82	419	509	771	1450	1060	664	435	210	120	78	68		
CFSM	1.15	3.56	4.74	7.12	15.5	5.94	2.71	2.40	.90	.52	.28	.52		
IN.	1.32	3.97	5.47	8.21	16.16	6.85	3.02	2.77	1.01	.60	.32	.58		
AC-FT	23570	70720	97330	146200	287900	121900	53860	49260	17960	10690	5680	10400		
CAL YR 1985	TOTAL	310223	MEAN	850	MAX	6110	MIN	82	CFSM	2.54	IN.	34.55	AC-FT	615300
WTR YR 1986	TOTAL	451486	MEAN	1237	MAX	15700	MIN	68	CFSM	3.70	IN.	50.29	AC-FT	895500

ALSEA RIVER BASIN

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1986 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1979 to September 1981.

WATER TEMPERATURES: October 1979 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCARB DIS- SOLVED (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 21...	1230	443	66	7.9	10.5	9.0	K230	130	20	0	5.1
FEB 18...	0830	10700	45	6.9	7.0	13.9	K25	680	12	0	3.1
APR 30...	1130	1080	56	8.1	8.0	11.7	K11	K16	17	6	4.3
AUG 28...	0900	72	73	7.4	20.0	7.9	K6	40	--	--	--

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY WATER DISSOLV FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 21...	1.8	5.3	1.2	26	5.3	4.9	<0.1	0.05	0.3	0.4	0.02
FEB 18...	1.1	3.8	0.7	13	2.7	3.8	0.1	0.06	0.6	0.4	0.01
APR 30...	1.5	4.7	0.8	11	1.5	3.8	<0.1	0.03	0.3	0.6	<0.01
AUG 28...	--	--	--	27	--	--	--	<0.01	0.1	0.3	<0.01

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	0.02	0.03	13	48	53	57	11	8	9.6	44
FEB 18...	0.02	0.12	12	26	35	753	25	149	4320	38
APR 30...	0.01	0.02	13	56	36	163	1.2	6	17	84
AUG 28...	0.02	0.03	--	--	--	--	--	4	0.77	67

K - Results based on colony count outside acceptable range (non-ideal colony count).

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WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible][illegible]

BIG CREEK BASIN

14306900 BIG CREEK NEAR ROOSEVELT BEACH, OR

LOCATION.--Lat 44°10'05", long 124°03'55", in SE¼SE¼ sec.13, T.16 S., R.12 W., Lane County, Hydrologic Unit 17100205, on right bank 1.0 mi downstream from Frying Pan Creek, 2.5 mi east of Roosevelt Beach.

DRAINAGE AREA.--11.9 mi².

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 141 ft, by barometer.

REMARKS.--Estimated daily discharges: Feb. 7-27, Sept. 13-30. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 93.3 ft³/s, 106.47 in/yr, 67,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft³/s Nov. 30, 1975, gage height, 6.90 ft; minimum discharge, 3.8 ft³/s Oct. 15, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	unknown	unknown	unknown	Feb. 23	unknown	*1,750	*a6.66

Minimum discharge, 6.1 ft³/s Oct. 5, 6.

a From crest-stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	6.7	74	58	46	117	147	52	47	30	15	8.0	7.4		
2	6.7	88	97	46	142	123	48	49	29	14	8.2	7.1		
3	6.7	77	99	41	164	105	44	48	29	14	8.2	7.1		
4	6.4	76	91	42	172	90	42	45	29	29	7.8	6.7		
5	6.2	72	92	78	163	80	39	71	29	17	7.8	6.4		
6	6.2	100	137	70	155	76	36	80	29	16	7.8	6.4		
7	6.5	171	206	62	130	119	35	73	25	14	7.8	6.4		
8	6.7	289	251	66	120	99	34	69	25	14	7.6	6.4		
9	6.7	301	214	69	105	99	33	65	24	13	7.4	6.4		
10	6.7	246	172	77	95	103	31	66	24	17	7.4	6.4		
11	11	185	138	75	90	118	33	63	22	19	7.4	6.4		
12	8.1	146	115	71	160	127	41	58	22	15	7.4	6.4		
13	7.2	118	98	67	220	144	35	67	20	14	7.1	7.0		
14	7.1	101	87	62	245	139	32	58	26	13	7.1	9.0		
15	7.1	133	78	85	360	131	34	55	22	12	7.1	8.5		
16	7.9	159	69	108	740	113	51	52	22	12	6.6	9.5		
17	7.4	154	63	128	810	100	47	51	23	12	6.7	11		
18	6.7	141	57	240	600	89	43	49	27	11	6.9	23		
19	36	142	52	340	420	81	40	50	22	11	7.1	16		
20	66	133	48	246	300	73	37	49	20	10	7.1	11		
21	41	127	45	202	270	71	35	51	19	9.8	7.1	11		
22	178	120	42	206	800	63	33	46	18	9.4	7.1	10		
23	189	107	39	217	930	92	32	44	17	9.4	7.1	12		
24	167	97	37	188	600	92	35	43	17	9.4	7.1	25		
25	257	88	35	163	400	79	38	41	18	9.4	7.1	60		
26	156	80	33	138	290	74	38	40	16	9.0	6.7	67		
27	141	73	32	123	240	69	56	37	16	9.0	6.7	46		
28	131	67	31	108	184	63	48	35	16	9.0	6.9	30		
29	108	62	29	106	---	60	47	33	16	9.0	8.1	23		
30	95	58	28	140	---	55	45	32	16	8.6	8.2	19		
31	79	---	27	125	---	51	---	30	---	8.6	7.8	---		
TOTAL	1772.0	3785	2600	3735	9022	2925	1194	1597	668	392.6	228.4	477.5		
MEAN	57.2	126	83.9	120	322	94.4	39.8	51.5	22.3	12.7	7.37	15.9		
MAX	257	301	251	340	930	147	56	80	30	29	8.2	67		
MIN	6.2	58	27	41	90	51	31	30	16	8.6	6.6	6.4		
CFSM	4.81	10.6	7.05	10.1	27.1	7.93	3.34	4.33	1.87	1.07	.62	1.34		
IN.	5.54	11.83	8.13	11.68	28.20	9.14	3.73	4.99	2.09	1.23	.71	1.49		
AC-FT	3510	7510	5160	7410	17900	5800	2370	3170	1320	779	453	947		
CAL YR 1985	TOTAL	21818.1	MEAN	59.8	MAX	511	MIN	6.2	CFSM	5.03	IN.	68.20	AC-FT	43280
WTR YR 1986	TOTAL	28396.5	MEAN	77.8	MAX	930	MIN	6.2	CFSM	6.54	IN.	88.77	AC-FT	56320

SIUSLAW RIVER BASIN

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14307580 LAKE CREEK NEAR DEADWOOD, OR

LOCATION.--Lat 44°04'58", long 123°47'05", in NW¼NW¼ sec.21, T.17 S., R.9 W., Lane County, Hydrologic Unit 17100206, on right bank 0.2 mi upstream from Indian Creek, 1.5 mi southwest of Deadwood, and at mile 2.6.

DRAINAGE AREA.--174 mi².

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: May 9 to June 1. Records excellent except for estimated daily discharges, which are good. Flow slightly regulated by natural storage in Triangle Lake. Several diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--19 years, 725 ft³/s, 56.58 in/yr, 525,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 ft³/s Dec. 25, 1980, gage height, 15.86 ft; minimum discharge, 12 ft³/s Aug. 14, 15, 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	1000	6,730	8.07	Feb. 23	1000	*10,900	*10.77
Minimum discharge, 19 ft ³ /s Sept. 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	36	159	281	329	1000	1400	442	392	155	75	40	26		
2	35	149	445	367	1030	1180	416	403	147	73	39	25		
3	34	141	1440	565	1560	1010	394	419	143	74	37	25		
4	34	146	1200	562	1390	883	376	410	144	110	36	24		
5	33	176	1080	881	1280	783	359	493	142	98	35	22		
6	33	182	1670	1140	1160	720	344	622	141	84	34	22		
7	32	224	2330	901	1030	1110	330	578	137	78	34	20		
8	31	578	2900	788	912	1200	320	509	130	77	33	19		
9	30	988	2180	885	808	1420	308	460	124	73	32	20		
10	30	884	1540	925	726	1340	296	410	117	73	31	21		
11	36	580	1150	873	723	1380	291	410	113	79	30	21		
12	40	427	898	774	1930	1540	325	380	107	74	30	20		
13	39	338	735	682	2520	1680	314	350	105	69	30	22		
14	38	285	621	606	2340	1560	293	330	105	66	29	24		
15	37	404	542	706	2850	1380	285	300	106	63	28	27		
16	37	1210	481	1340	4820	1210	425	290	102	62	27	28		
17	37	1120	436	1700	6170	1020	527	270	109	63	26	42		
18	37	1040	402	2020	4960	886	467	260	134	60	26	80		
19	63	872	373	2610	3670	783	402	240	126	58	27	66		
20	178	924	350	2250	2790	707	356	250	110	56	27	54		
21	197	850	329	1700	2770	671	324	250	104	54	25	62		
22	427	913	311	1600	7290	609	301	240	99	52	24	54		
23	722	750	296	2320	9520	650	282	230	93	51	24	66		
24	505	592	283	2160	6370	876	273	220	88	49	23	116		
25	619	488	271	1710	3960	822	298	210	84	47	23	200		
26	416	417	260	1370	2850	719	308	200	83	46	23	295		
27	284	366	250	1160	2160	637	388	190	80	46	22	302		
28	276	337	240	1010	1700	575	421	185	79	45	23	173		
29	228	307	232	958	---	526	429	180	81	43	25	126		
30	198	284	224	1120	---	489	407	170	78	42	30	104		
31	178	---	219	1110	---	455	---	165	---	41	28	---		
TOTAL	4920	16131	23969	37122	80289	30221	10701	10016	3366	1981	901	2106		
MEAN	159	538	773	1197	2867	975	357	323	112	63.9	29.1	70.2		
MAX	722	1210	2900	2610	9520	1680	527	622	155	110	40	302		
MIN	30	141	219	329	723	455	273	165	78	41	22	19		
CFSM	.91	3.09	4.44	6.88	16.5	5.60	2.05	1.86	.64	.37	.17	.40		
IN.	1.05	3.45	5.12	7.94	17.17	6.46	2.29	2.14	.72	.42	.19	.45		
AC-FT	9760	32000	47540	73630	159300	59940	21230	19870	6680	3930	1790	4180		
CAL YR 1985	TOTAL	144192	MEAN	395	MAX	2900	MIN	30	CFSM	2.27	IN.	30.83	AC-FT	286000
WTR YR 1986	TOTAL	221723	MEAN	607	MAX	9520	MIN	19	CFSM	3.49	IN.	47.40	AC-FT	439800

SIUSLAW RIVER BASIN

14307620 SIUSLAW RIVER NEAR MAPLETON, OR
(National stream quality accounting network station)

LOCATION.--Lat 44°03'45", long 123°52'55", in SW¼NW¼ sec.27, T.17 S., R.10 W., Lane County, Hydrologic Unit 17100206, on right bank 250 ft above Shoemaker Creek, 2.5 mi northwest of Mapleton, and at mile 23.7.

DRAINAGE AREA.--588 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 41 ft, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 26 to Mar. 3, Mar. 6-11. Records good. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--19 years, 2,164 ft³/s, 49.98 in/yr, 1,568,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,400 ft³/s Jan. 21, 1972, gage height, 28.45 ft; minimum discharge, 45 ft³/s Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of about 28 ft, from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	0730	20,400	17.29	Feb. 23	1330	*34,000	*23.01

Minimum discharge, 71 ft³/s Sept. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	95	540	818	961	3020	4500	1430	1290	564	279	160	109		
2	94	513	942	1110	2950	3800	1360	1360	539	275	158	105		
3	93	486	3670	1710	4380	3150	1290	1700	520	269	155	102		
4	91	473	3430	1850	4250	2710	1240	1660	518	345	153	98		
5	88	544	2890	2400	3820	2400	1200	1730	518	364	146	92		
6	87	591	4190	3300	3510	2200	1150	2050	508	307	144	86		
7	85	664	6500	2610	3170	3850	1100	2140	487	279	141	79		
8	83	1300	7890	2210	2760	3350	1070	1890	485	275	136	73		
9	78	2380	6080	2300	2390	3300	1030	1630	465	270	135	71		
10	77	2860	4260	2390	2150	3450	991	1490	447	265	129	77		
11	91	1880	3180	2310	2030	3750	968	1480	426	278	127	93		
12	106	1350	2480	2090	5080	4240	1020	1360	405	278	122	80		
13	109	1050	2080	1900	8110	4950	1040	1280	390	258	117	79		
14	107	869	1800	1740	7540	4580	982	1180	388	248	117	90		
15	105	1010	1610	1860	8230	4110	957	1090	401	238	117	108		
16	105	2510	1460	3270	14200	3550	1280	1020	383	233	113	112		
17	107	2610	1340	4860	19800	2990	1530	968	395	232	107	138		
18	104	2630	1260	5350	15300	2580	1400	915	470	228	107	245		
19	152	2250	1160	6370	11800	2290	1260	880	486	222	107	268		
20	464	2310	1090	6160	8740	2090	1130	923	430	216	107	206		
21	592	2220	1030	4750	8410	2010	1040	917	399	206	107	226		
22	1080	2370	971	4220	23600	1860	972	909	369	195	105	228		
23	2270	2140	938	6740	30900	1910	920	853	349	192	101	232		
24	1870	1740	896	6700	22600	2380	882	808	331	190	99	421		
25	1920	1440	857	5150	13600	2360	960	768	318	187	96	648		
26	1400	1230	809	3930	9200	2130	998	726	303	182	95	1030		
27	942	1080	765	3330	7200	1920	1240	706	295	182	92	1220		
28	891	980	771	2900	5600	1770	1420	678	282	182	90	787		
29	759	898	777	2640	---	1650	1440	645	286	177	93	542		
30	665	825	744	3170	---	1550	1370	619	287	172	105	428		
31	602	---	712	3330	---	1460	---	589	---	167	109	---		
TOTAL	15312	43743	67400	103611	254340	88840	34670	36254	12444	7391	3690	8073		
MEAN	494	1458	2174	3342	9084	2866	1156	1169	415	238	119	269		
MAX	2270	2860	7890	6740	30900	4950	1530	2140	564	364	160	1220		
MIN	77	473	712	961	2030	1460	882	589	282	167	90	71		
CFSM	.84	2.48	3.70	5.68	15.4	4.87	1.97	1.99	.71	.40	.20	.46		
IN.	.97	2.77	4.26	6.55	16.09	5.62	2.19	2.29	.79	.47	.23	.51		
AC-FT	30370	86760	133700	205500	504500	176200	68770	71910	24680	14660	7320	16010		
CAL YR 1985	TOTAL	434174	MEAN	1190	MAX	7890	MIN	77	CFSM	2.02	IN.	27.47	AC-FT	861200
WTR YR 1986	TOTAL	675768	MEAN	1851	MAX	30900	MIN	71	CFSM	3.15	IN.	42.75	AC-FT	1340000

SIUSLAW RIVER BASIN

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14307620 SIUSLAW RIVER NEAR MAPLETON, OR--continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to September 1981.

WATER TEMPERATURES: November 1967 to September 1975. October 1977 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB DISSOLV FIELD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 22...	1230	1290	49	7.7	10.5	11.2	K5200	K3900	13	0	3.4
FEB 19...	1300	11200	35	7.4	6.0	13.0	26	K170	9	0	2.3
MAY 01...	1100	1280	42	7.3	9.5	11.1	10	<1	11	0	2.9
AUG 29...	0900	95	52	6.5	18.5	8.5	140	380	14	0	3.3
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WATER DISSOLV FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 22...	1.2	4.3	1.1	18	5.3	4.5	<0.1	0.06	0.5	0.7	0.01
FEB 19...	0.8	3.1	0.8	10	3.2	3.5	0.1	0.06	0.4	0.4	0.01
MAY 01...	1.0	4.0	0.7	--	1.6	3.5	<0.1	0.03	0.2	0.5	<0.01
AUG 29...	1.3	5.3	1.1	18	1.8	5.1	<0.1	0.02	<0.1	0.4	<0.01
DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
OCT 22...	0.06	0.05	11	35	42	122	6.0	30	104	27	
FEB 19...	0.02	0.04	11	49	31	1480	15	51	1540	59	
MAY 01...	<0.01	0.01	11	45	33	156	2.0	2	6.9	81	
AUG 29...	<0.01	0.02	10	41	38	11	1.9	4	1.0	65	

K - Results based on colony count outside acceptable range (non-ideal colony count).

SIUSLAW RIVER BASIN

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 22...	40	<1	13	<0.5	<1	<1	<3	4	130	1
FEB 19...	80	<1	9	<0.5	<1	<1	<3	4	44	1
MAY 01...	--	--	--	--	--	--	--	--	--	--
AUG 29...	<10	<1	24	0.9	<1	<1	<3	2	96	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 22...	<4	3	<0.1	<10	2	<1	<1	41	<6	14
FEB 19...	<4	4	<0.1	<10	<1	<1	<1	30	<6	14
MAY 01...	--	--	--	--	--	--	--	--	--	--
AUG 29...	7	4	0.2	<10	1	<1	<1	48	<6	23

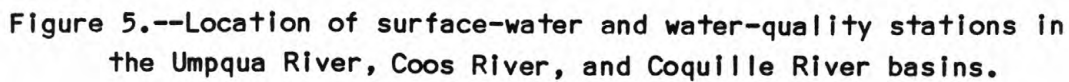


Figure 5.--Location of surface-water and water-quality stations in the Umpqua River, Coos River, and Coquille River basins.

SOUTH UMPQUA RIVER BASIN

14307700 JACKSON CREEK NEAR TILLER, OR

LOCATION.--Lat 42°57'15", long 122°49'40", in SW¼NE¼ sec.21 T.30 S., R.1 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.5 mi upstream from Chapman Creek, 0.8 mi downstream from Beaver Creek, 6.5 mi northeast of Tiller, and at mile 3.0. Records include flow of Chapman Creek.

DRAINAGE AREA.--152 mi², at cableway 0.6 mi downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1955 to September 1986 (discontinued).

REVISED RECORDS.--WSP 1935: 1956-57(M).

GAGE.--Water-stage recorder. Datum of gage is 1,240.25 ft above National Geodetic Vertical Datum of 1929 (levels by Douglas County Water Resources Department).

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--31 years, 319 ft³/s, 28.50 in/yr, 231,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s Dec. 22, 1964, gage height, 18.0 ft, from floodmark, from rating curve extended above 5,100 ft³/s and basin runoff comparison; minimum discharge, 11 ft³/s Jan. 6, 1977, Nov. 13, 1978, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	2130	2,580	6.28	Feb. 23	0500	*6,580	9.76
Feb. 18	0730	4,580	8.11	Feb. 23	0500	(a)	*10.00

Minimum discharge, 15 ft³/s Sept. 6-14.

(a) From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	19	65	294	236	353	666	201	346	162	41	25	17		
2	19	59	1330	239	519	564	193	414	150	40	24	17		
3	18	53	1440	262	711	482	180	595	141	39	23	17		
4	18	50	781	227	643	422	170	583	129	46	22	16		
5	18	61	640	238	613	384	161	697	121	51	22	16		
6	18	52	678	269	515	373	154	749	113	42	22	15		
7	18	49	904	237	423	1120	152	611	107	39	22	15		
8	18	70	741	227	352	1170	155	514	100	39	22	15		
9	17	113	527	334	306	1180	154	448	95	37	21	15		
10	18	102	399	327	273	868	150	438	89	37	21	15		
11	21	80	315	291	243	688	147	438	84	39	20	15		
12	30	67	263	255	239	614	152	408	80	36	20	15		
13	24	61	223	230	317	568	170	377	75	34	20	15		
14	21	56	195	208	420	519	174	344	75	33	20	15		
15	20	155	177	194	671	464	178	312	73	32	19	17		
16	20	441	168	390	819	398	180	286	68	32	19	20		
17	19	363	169	871	1080	353	264	265	69	32	19	33		
18	19	247	196	659	3890	314	293	251	92	32	18	56		
19	19	183	223	671	3550	292	277	240	77	30	18	37		
20	20	162	247	652	2420	279	283	257	68	30	18	38		
21	50	146	247	510	1850	273	287	302	64	29	18	30		
22	134	134	243	548	4160	256	280	322	61	29	18	25		
23	457	117	252	830	5480	259	245	302	57	27	18	25		
24	265	112	261	583	2750	314	217	275	54	27	17	138		
25	176	121	263	467	1660	285	217	259	51	27	17	381		
26	158	112	245	385	1240	263	216	249	49	26	17	835		
27	113	103	221	352	982	250	372	232	47	26	17	434		
28	111	356	201	355	810	241	585	217	45	26	17	276		
29	94	607	180	359	---	236	500	202	45	26	17	183		
30	79	332	163	423	---	227	409	191	43	25	17	169		
31	72	---	150	369	---	209	---	185	---	25	17	---		
TOTAL	2103	4629	12336	12198	37289	14531	7116	11309	2484	1034	605	2915		
MEAN	67.8	154	398	393	1332	469	237	365	82.8	33.4	19.5	97.2		
MAX	457	607	1440	871	5480	1180	585	749	162	51	25	835		
MIN	17	49	150	194	239	209	147	185	43	25	17	15		
CFSM	.45	1.01	2.62	2.59	8.76	3.09	1.56	2.40	.54	.22	.13	.64		
IN.	.51	1.13	3.02	2.99	9.13	3.56	1.74	2.77	.61	.25	.15	.71		
AC-FT	4170	9180	24470	24190	73960	28820	14110	22430	4930	2050	1200	5780		
CAL YR 1985	TOTAL	72409	MEAN	198	MAX	1440	MIN	17	CFSM	1.30	IN.	17.72	AC-FT	143600
WTR YR 1986	TOTAL	108549	MEAN	297	MAX	5480	MIN	15	CFSM	1.95	IN.	26.57	AC-FT	215300

14308000 SOUTH UMPQUA RIVER AT TILLER, OR

LOCATION.--Lat 42°55'50", long 122°56'50", in NE¼ sec.33, T.30 S., R.2 W., Douglas County, Hydrologic Unit 17100302, Umpqua National Forest, on left bank 0.3 mi upstream from bridge on State Highway 227 at Tiller, 0.3 mi upstream from Elk Creek, and at mile 187.31.

DRAINAGE AREA.--449 mi².

PERIOD OF RECORD.--October 1910 to December 1911, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to December 1911, published as South Fork of Umpqua River at Tiller.

REVISED RECORDS.--WSP 1448: 1911(M), 1912, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 991.8 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good except those for February and March, which are fair. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--48 years, 1,048 ft³/s, 31.70 in/yr, 759,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft³/s Dec. 22, 1964, gage height, 25.72 ft; minimum observed discharge, 20 ft³/s Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0600	13,600	12.17	Feb. 23	0600	(a)	*17.98
Feb. 23	0600	*27,400	17.17				

Minimum discharge, 47 ft³/s Sept. 7-15.

(a) From outside gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	55	246	968	885	989	2320	625	1150	473	137	74	48		
2	55	223	3530	1010	1230	1920	604	1230	441	132	74	48		
3	55	203	5330	1020	1910	1620	559	1730	468	130	69	48		
4	54	188	2970	865	2130	1410	528	1640	406	135	67	48		
5	53	202	2480	800	2150	1270	502	1940	371	176	66	48		
6	51	189	3280	846	1750	1190	476	2450	345	144	65	48		
7	50	178	4410	746	1400	2900	458	2210	328	133	65	47		
8	49	254	3450	719	1160	3530	449	1750	308	130	64	47		
9	49	471	2220	1460	979	3780	448	1450	292	123	62	47		
10	49	431	1610	1510	854	2940	439	1360	279	121	60	47		
11	55	335	1220	1170	761	2350	420	1330	263	125	59	47		
12	82	279	981	972	775	2200	435	1220	243	122	59	47		
13	82	247	818	843	1730	2160	516	1100	231	114	58	47		
14	66	227	709	744	1940	2000	518	997	229	110	58	47		
15	61	752	644	675	2260	1720	505	888	224	106	58	48		
16	59	2480	630	1170	3040	1440	537	801	211	104	56	54		
17	57	1790	635	3540	4260	1260	889	733	209	105	55	77		
18	56	1090	724	2470	12100	1100	952	693	256	104	53	206		
19	56	776	790	2420	11700	994	850	665	244	101	51	156		
20	56	669	848	2570	8220	930	830	677	213	98	50	104		
21	134	597	846	1960	6820	884	816	778	198	93	50	100		
22	573	530	819	1880	19000	824	773	842	190	90	50	85		
23	2810	453	829	2830	22600	806	691	785	180	87	50	77		
24	1560	420	851	2070	10500	1070	613	709	173	86	49	467		
25	897	420	872	1620	6250	1030	624	667	164	84	49	1550		
26	789	412	829	1330	4610	920	658	645	159	83	49	3100		
27	517	377	747	1170	3560	844	1520	619	155	81	49	1870		
28	443	1010	672	1140	2830	789	2270	587	149	80	48	1070		
29	368	2190	602	1090	---	752	1780	558	148	79	48	671		
30	304	1210	544	1180	---	717	1400	535	146	77	48	620		
31	275	---	498	1060	---	663	---	521	---	76	48	---		
TOTAL	9820	18849	46356	43765	137508	48333	22685	33260	7696	3366	1761	10919		
MEAN	317	628	1495	1412	4911	1559	756	1073	257	109	56.8	364		
MAX	2810	2480	5330	3540	22600	3780	2270	2450	473	176	74	3100		
MIN	49	178	498	675	761	663	420	521	146	76	48	47		
CFSM	.71	1.40	3.33	3.14	10.9	3.47	1.68	2.39	.57	.24	.13	.81		
IN.	.81	1.56	3.84	3.63	11.39	4.00	1.88	2.76	.64	.28	.15	.90		
AC-FT	19480	37390	91950	86810	272700	95870	45000	65970	15270	6680	3490	21660		
CAL YR 1985	TOTAL	256714	MEAN	703	MAX	5330	MIN	48	CFSM	1.57	IN.	21.27	AC-FT	509200
WTR YR 1986	TOTAL	384318	MEAN	1053	MAX	22600	MIN	47	CFSM	2.35	IN.	31.84	AC-FT	762300

SOUTH UMPQUA RIVER BASIN

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR

LOCATION.--Lat 42°58'05", long 123°09'60", in NW¼ sec.15, T.30 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.3 mi upstream from Days Creek, 0.4 mi southeast of community of Days Creek, and at mile 170.2.

DRAINAGE AREA.--641 mi².

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 738.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 5 to Jan. 22. Records good except for estimated daily discharges, which are fair. No regulation. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--11 years, 1,211 ft³/s, 25.66 in/yr, 877,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,300 ft³/s Dec. 6, 1981, gage height, 22.39 ft; minimum discharge, 31 ft³/s Sept. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1000	17,700	14.49	Feb. 23	0730	(a)	*19.23
Feb. 23	0730	*28,600	18.37				

Minimum discharge, 40 ft³/s Sept. 8.

(a) From outside gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	64	301	1110	920	1210	2620	768	1370	560	159	78	48		
2	63	272	3370	1040	1430	2210	759	1390	521	151	78	47		
3	63	246	6290	1060	2420	1900	693	1880	564	146	75	47		
4	63	229	3370	1000	2440	1670	652	1870	492	148	70	46		
5	63	243	2700	850	2510	1530	624	2070	443	202	68	45		
6	61	237	3200	910	2170	1430	589	2800	409	176	66	44		
7	59	212	5000	860	1760	3270	568	2560	389	155	65	42		
8	57	243	4200	810	1480	4250	551	2060	364	147	66	41		
9	57	555	3200	1700	1270	4820	548	1720	343	141	64	41		
10	57	571	2200	1800	1120	3530	534	1600	327	137	61	43		
11	64	429	1700	1450	997	2770	513	1590	307	142	58	44		
12	77	352	1300	1200	955	2550	523	1470	292	144	58	45		
13	100	304	1000	1000	1690	2460	637	1330	273	132	57	45		
14	82	276	860	850	2110	2310	641	1220	264	124	57	44		
15	75	380	730	760	2460	2040	629	1090	265	118	56	44		
16	72	2570	700	1700	3100	1770	636	985	252	116	55	51		
17	71	2080	720	4000	3900	1560	986	897	247	116	52	75		
18	69	1330	760	3300	14500	1380	1160	838	278	119	50	202		
19	69	946	800	2600	14500	1250	1030	799	307	116	48	226		
20	70	791	870	2900	10300	1160	983	794	258	112	48	154		
21	120	729	900	2500	7960	1110	969	924	237	107	49	130		
22	285	647	860	2000	18600	1040	912	1030	224	101	49	110		
23	2660	553	860	3600	24400	988	837	957	210	97	50	93		
24	1930	501	890	2550	12200	1260	737	864	201	95	49	357		
25	1000	504	920	1990	7010	1240	740	797	192	93	46	1590		
26	973	499	900	1650	5030	1120	792	767	183	90	48	3830		
27	642	457	840	1440	3920	1030	1390	735	177	88	48	2170		
28	525	833	770	1380	3150	968	2420	697	169	85	47	1330		
29	455	2650	700	1320	---	915	2000	665	170	84	47	843		
30	372	1510	630	1390	---	864	1630	636	168	82	48	735		
31	332	---	580	1290	---	809	---	619	---	80	48	---		
TOTAL	10650	21450	52930	51820	154592	57824	26451	39024	9086	3803	1759	12562		
MEAN	344	715	1707	1672	5521	1865	882	1259	303	123	56.7	419		
MAX	2660	2650	6290	4000	24400	4820	2420	2800	564	202	78	3830		
MIN	57	212	580	760	955	809	513	619	168	80	46	41		
CFSM	.54	1.12	2.66	2.61	8.61	2.91	1.38	1.96	.47	.19	.09	.65		
IN.	.62	1.24	3.07	3.01	8.97	3.36	1.54	2.26	.53	.22	.10	.73		
AC-FT	21120	42550	105000	102800	306600	114700	52470	77400	18020	7540	3490	24920		
CAL YR 1985	TOTAL	305429	MEAN	837	MAX	6290	MIN	45	CFSM	1.31	IN.	17.73	AC-FT	605800
WTR YR 1986	TOTAL	441951	MEAN	1211	MAX	24400	MIN	41	CFSM	1.89	IN.	25.65	AC-FT	876600

SOUTH UMPQUA RIVER BASIN

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14308990 COW CREEK ABOVE GALESVILLE RESERVOIR, NEAR AZALEA, OR

LOCATION.--Lat 42°49'24", long 123°07'29", in SW¼NW¼ sec.1, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on left bank, about 600 ft upstream from bridge on Houck Ranch Road (BLM), 1.1 mi downstream from Sugar Creek, 3.2 mi south of Galesville Dam, 6.9 mi northeast of Azalea, and at mile 65.6

DRAINAGE AREA.--64.7 mi².

PERIOD OF RECORD.--October 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 1,900 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec.12-14, 16-29. Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1927 occurred Jan. 15, 1974. Stage and discharge not known at this site, but was 10,600 ft³/s at site 7.4 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0800	*2,240	6.34	Feb. 22	1130	1,570	5.23
Feb. 18	0800	(a)	*6.80				

Minimum discharge, 7.2 ft³/s Sept. 8-12.

(a) From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	10	16	33	23	98	165	59	44	28	15	10	9.4		
2	9.8	15	284	23	270	143	60	84	29	15	10	9.4		
3	9.8	15	260	27	315	125	56	76	32	15	9.7	9.0		
4	9.8	15	94	22	204	113	53	72	27	16	9.5	9.0		
5	9.6	19	78	24	195	103	52	91	27	17	9.3	8.2		
6	9.4	16	87	24	158	97	49	129	25	15	9.4	7.9		
7	9.4	16	159	22	130	295	48	132	26	14	9.4	7.5		
8	9.1	18	109	25	111	323	47	106	25	14	9.0	7.2		
9	9.3	26	71	68	97	316	47	91	24	14	9.0	7.2		
10	10	23	52	53	87	231	46	84	23	14	9.0	7.2		
11	12	18	40	40	80	198	44	80	22	14	8.6	7.2		
12	15	17	34	33	90	227	46	70	21	13	8.6	7.8		
13	13	16	28	29	112	217	50	64	20	13	9.4	7.9		
14	12	16	26	27	129	195	48	60	20	12	9.8	7.9		
15	12	17	24	29	168	173	46	55	20	12	9.4	7.9		
16	11	32	22	342	342	151	46	51	20	12	8.6	9.1		
17	12	38	20	417	413	134	52	48	21	12	8.6	18		
18	12	29	18	208	1710	120	50	47	22	12	8.6	28		
19	12	23	18	318	1390	111	47	45	22	12	8.6	17		
20	12	22	20	245	881	103	45	45	20	12	8.2	19		
21	30	21	20	154	632	95	43	50	20	11	7.9	15		
22	31	20	20	325	1170	89	42	49	19	11	7.5	12		
23	39	18	20	519	965	90	42	44	18	11	7.5	11		
24	23	18	20	233	572	98	39	40	17	11	7.5	24		
25	18	19	18	167	388	85	42	38	17	11	7.5	51		
26	17	17	16	134	295	79	42	37	16	11	7.5	112		
27	17	18	18	119	234	74	46	36	16	11	7.9	51		
28	18	50	16	111	193	70	53	34	16	11	7.9	32		
29	17	79	16	103	---	67	50	33	17	11	8.2	24		
30	16	39	14	95	---	62	47	32	16	11	8.6	21		
31	16	---	14	85	---	60	---	30	---	11	9.0	---		
TOTAL	461.2	706	1669	4044	11429	4409	1437	1897	646	394	269.7	564.8		
MEAN	14.9	23.5	53.8	130	408	142	47.9	61.2	21.5	12.7	8.70	18.8		
MAX	39	79	284	519	1710	323	60	132	32	17	10	112		
MIN	9.1	15	14	22	80	60	39	30	16	11	7.5	7.2		
CFSM	.23	.36	.83	2.01	6.31	2.19	.74	.95	.33	.20	.13	.29		
IN.	.27	.41	.96	2.33	6.57	2.54	.83	1.09	.37	.23	.16	.32		
AC-FT	915	1400	3310	8020	22670	8750	2850	3760	1280	781	535	1120		
WTR YR 1986	TOTAL	27926.7	MEAN	76.5	MAX	1710	MIN	7.2	CFSM	1.18	IN.	16.06	AC-FT	55390

SOUTH UMPQUA RIVER BASIN

14308995 GALESVILLE RESERVOIR NEAR AZALEA, OR

LOCATION.--Lat 42°50'56", long 123°10'40", in NE¼ sec.28, T.31 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on the upstream face of Galesville dam to the right side of the spillway section, 1.2 mi downstream from McGinnis Creek, 5.6 mi northeast of Azalea, and at mile 60.2.

DRAINAGE AREA.--74.3 mi².

PERIOD OF RECORD.--October 1985 to September 1986.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Douglas County).

REMARKS.--Reservoir is formed by a roller compacted concrete dam; storage began Oct. 7, 1985. Capacity, 42,220 acre-ft between elevations 1,780.0 ft (bottom of evacuation outlet) and 1,881.5 ft (crest of spillway). Dead storage, 1,800 acre-ft below elevation 1,780.0 ft. Reservoir is used for irrigation, power generation, flood control, and recreation. Figures given herein represent total contents.

COOPERATION.--Elevations and capacity table furnished by Douglas County Water Resources Department.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 24,050 acre-ft June 3-10, elevation, 1,849.2 ft; no storage prior to Oct. 7.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,780	1,800	1,820	11,970	1,860	29,500
1,790	3,595	1,830	15,680	1,870	35,000
1,800	5,900	1,840	19,840	1,880	40,960
1,810	8,710	1,850	24,450	1,885	44,160

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	1846.40	1849.00	1848.60	1848.10	1846.60
2	---	---	---	---	---	---	---	1846.60	1849.10	1848.60	1848.00	1846.60
3	---	---	---	---	---	---	---	1846.60	1849.20	1848.60	1848.00	1846.50
4	---	---	---	---	---	---	---	1846.60	1849.20	---	1847.90	1846.40
5	---	---	---	---	---	---	---	1846.80	1849.20	---	1847.90	1846.30
6	---	---	---	---	---	---	---	1847.30	1849.20	---	1847.80	1846.20
7	---	---	---	---	---	---	---	1847.60	1849.20	1848.60	1847.80	1846.10
8	---	---	---	---	---	---	---	1847.90	1849.20	1848.60	1847.70	1846.00
9	---	---	---	---	---	---	---	1848.20	1849.20	1848.60	1847.70	1845.90
10	---	---	---	---	---	---	---	1848.40	1849.10	1848.60	1847.60	1845.80
11	---	---	---	---	---	---	---	1848.60	1849.10	1848.60	1847.60	1845.70
12	---	---	---	---	---	---	---	1848.70	1849.10	---	1847.50	1845.60
13	---	---	---	---	---	---	---	1848.80	1849.10	---	1847.40	1845.50
14	---	---	---	---	---	---	---	1848.90	1849.00	1848.60	1847.40	1845.40
15	---	---	---	---	---	---	---	1848.90	1849.00	1848.60	1847.30	1845.30
16	---	---	---	---	---	---	---	1849.00	1849.00	1848.60	1847.30	1845.20
17	---	---	---	---	---	---	---	1849.00	1849.00	1848.60	1847.20	1845.20
18	---	---	---	---	---	---	---	1849.00	1849.00	1848.60	1847.10	1845.20
19	---	---	---	---	---	---	---	1849.00	1848.90	---	1847.10	1845.20
20	---	---	---	---	---	---	---	1849.00	1848.90	---	1847.00	1845.20
21	---	---	---	---	---	---	---	1849.10	1848.80	1848.60	1847.00	1845.10
22	---	---	---	---	---	---	---	1849.10	1848.80	1848.60	1847.00	1845.00
23	---	---	---	---	---	---	---	1849.10	1848.80	1848.50	1846.90	1845.00
24	---	---	---	---	---	---	---	1849.10	1848.70	1848.50	1846.90	1845.00
25	---	---	---	---	---	---	---	1849.10	1848.60	1848.40	1846.90	1845.30
26	---	---	---	---	---	---	---	1849.10	1848.60	1848.40	1846.80	1845.70
27	---	---	---	---	---	---	---	1849.00	1848.60	1848.30	1846.80	1845.80
28	---	---	---	---	1834.90	---	---	1849.00	---	1848.30	1846.80	1845.80
29	---	---	---	---	---	---	1846.30	1849.00	---	1848.20	1846.70	1845.80
30	---	1780.00	---	---	---	---	1846.30	1849.00	1848.60	1848.20	1846.70	1845.80
31	1780.00	---	1785.20	1798.90	---	1846.90	---	1849.00	---	1848.10	1846.70	---
MAX	---	---	---	---	---	---	---	1849.10	---	---	1848.10	1846.60
MIN	---	---	---	---	---	---	---	1846.40	---	---	1846.70	1845.00
(†)	1800	1800	2580	5590	17600	22920	22630	23950	23750	23500	22820	22400
(‡)	+1800	0	+780	+3010	+12010	+5320	-290	+1320	-200	-250	-680	-420
CAL YR 1985	AC-FT†		+2580									
WTR YR 1986	AC-FT†		+22400									

† Contents in acre-feet, at 2400, on last day of month.

‡ Change in contents, in acre-feet.

SOUTH UMPQUA RIVER BASIN

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14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N-1/2 sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi upstream from Whitehorse Creek, 4.5 mi northeast of Azalea, and at mile 58.2.

DRAINAGE AREA.--78.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1926 to September 1928 (no winter records), April 1929 to December 1931, April 1932 to current year.

REVISED RECORDS.--WSP 984: 1933-36. WSP 1154: 1946(M), 1948(M). WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,694.32 ft above National Geodetic Vertical Datum of 1929 (Douglas County Road Department bench mark). Prior to July 19, 1949, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since Oct. 7, 1985 by Galesville Reservoir (see station 14308995). Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--56 years (water years 1930-31, 1933-86), 112 ft³/s, 19.50 in/yr, 81,140 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s Jan. 15, 1974, gage height, 16.40 ft, from high-water mark in well; minimum discharge, 1.1 ft³/s Aug. 12, 1981, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 757 ft³/s Feb. 22, gage height, 4.68 ft; minimum discharge, 8.5 ft³/s Oct. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	18	55	25	77	193	71	38	29	20	19	14
2	10	16	74	24	80	163	62	52	29	20	19	14
3	10	15	77	24	71	91	58	79	26	20	19	20
4	11	17	13	24	67	91	58	79	25	21	19	29
5	11	21	12	24	62	90	58	59	26	20	20	28
6	10	20	19	23	65	90	57	51	26	20	19	29
7	9.8	17	20	22	64	106	55	48	26	20	19	29
8	10	19	28	22	64	110	54	45	26	20	19	29
9	10	32	55	23	63	108	49	43	26	20	19	29
10	11	30	62	21	63	103	49	43	25	20	19	29
11	13	23	61	24	66	95	49	43	25	20	20	29
12	16	19	61	24	70	79	46	43	26	19	20	29
13	14	16	61	24	61	71	46	44	26	19	19	29
14	12	17	60	24	65	69	46	44	25	19	19	29
15	12	18	57	24	70	68	46	44	26	20	19	29
16	12	32	46	31	65	67	46	44	26	20	22	29
17	12	44	40	59	71	67	46	44	26	20	22	30
18	12	37	36	116	362	67	44	44	27	20	21	29
19	12	27	32	125	674	67	48	44	28	20	16	29
20	13	25	32	155	665	67	49	44	29	20	13	29
21	25	25	30	248	463	67	49	45	28	20	13	28
22	30	24	29	204	539	65	50	44	28	20	14	27
23	54	21	29	470	703	66	47	44	27	20	13	28
24	30	22	29	607	557	66	46	44	38	20	13	29
25	22	23	29	326	277	66	43	44	35	20	13	31
26	22	20	28	72	279	66	51	44	20	20	14	32
27	20	21	26	71	285	66	38	41	21	20	14	29
28	22	40	26	72	195	66	38	37	21	20	14	28
29	21	78	26	73	---	66	38	37	21	19	14	27
30	17	75	26	70	---	65	38	33	20	19	14	27
31	17	---	26	67	---	67	---	29	---	19	14	---
TOTAL	510.8	812	1205	3118	6143	2588	1475	1417	787	615	532	827
MEAN	16.5	27.1	38.9	101	219	83.5	49.2	45.7	26.2	19.8	17.2	27.6
MAX	54	78	77	607	703	193	71	79	38	21	22	32
MIN	9.8	15	12	21	61	65	38	29	20	19	13	14
AC-FT	1010	1610	2390	6180	12180	5130	2930	2810	1560	1220	1060	1640
MEAN†	45.7	27.1	51.6	149	436	170	44.4	67.2	22.9	15.8	6.2	20.5
CFSM†	0.59	0.35	0.66	1.92	5.58	2.18	0.57	0.86	0.29	0.20	0.08	0.26
IN.†	0.68	0.39	0.76	2.21	5.82	2.51	0.63	0.99	0.33	0.23	0.09	0.29
AC-FT†	2810	1610	3170	9190	24190	10450	2640	4130	1360	970	380	1220

CAL YR 1985 TOTAL 22405.6 MEAN 61.4 MAX 481 MIN 8.0 AC-FT 44440 MEAN† 64.9 CFSM† 0.83 IN.† 11.31 AC-FT† 47020
WTR YR 1986 TOTAL 20029.8 MEAN 54.9 MAX 703 MIN 9.8 AC-FT 39730 MEAN† 85.8 CFSM† 1.10 IN.† 14.94 AC-FT† 62130

† Adjusted for change in contents in Galesville Reservoir.

DISSOLVED OXYGEN: November 1985 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: Maximum recorded, 13.6 mg/l Nov. 27, 1985; minimum recorded, 3.2 mg/l July 18, 1986.

DISSOLVED OXYGEN: Maximum recorded, 13.6 mg/l Nov. 27; minimum recorded, 3.2 mg/l July 18.

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN
		OCTOBER				NOVEMBER					DECEMBER				JANUARY
1					---	---	---		---	---	---		12.2	11.9	12.0
2					---	---	---		---	---	---		12.1	11.9	12.0
3					---	---	---		---	---	---		12.3	12.0	12.1
4					---	---	---		---	---	---		12.1	11.9	12.0
5					---	---	---		---	---	---		12.0	11.9	11.9
6					---	---	---		---	---	---		12.4	12.0	12.2
7					---	---	---		---	---	---		12.3	12.0	12.2
8					---	---	---		---	---	---		12.2	12.0	12.1
9					---	---	---		---	---	---		12.2	11.9	12.0
10					---	---	---		---	---	---		12.2	11.9	12.0
11					---	---	---		11.6	11.1	11.4		12.3	11.9	12.0
12					---	---	---		11.6	11.2	11.4		12.2	11.7	12.0
13					---	---	---		11.6	11.1	11.4		12.0	11.7	11.8
14					---	---	---		11.6	11.2	11.5		12.0	11.7	11.8
15					---	---	---		11.6	11.3	11.5		12.0	11.7	11.8
16					---	---	---		11.7	11.5	11.6		11.8	11.6	11.7
17					---	---	---		11.7	11.5	11.6		12.0	11.7	11.9
18					---	---	---		---	---	---		11.9	11.6	11.7
19					---	---	---		---	---	---		11.7	11.6	11.6
20					---	---	---		---	---	---		11.7	11.5	11.6
21					---	---	---		---	---	---		11.7	11.5	11.6
22					---	---	---		---	---	---		---	---	---
23					---	---	---		---	---	---		11.5	11.4	11.4
24					---	---	---		---	---	---		11.5	11.3	11.4
25					---	---	---		---	---	---		12.0	10.7	11.2
26					---	---	---		---	---	---		10.9	10.3	10.5
27					13.6	12.4	12.9		12.4	12.1	12.2		11.5	10.3	10.7
28					12.8	12.0	12.4		12.3	12.1	12.2		12.0	10.2	10.7
29					---	---	---		12.3	11.9	12.2		---	---	---
30					---	---	---		12.3	12.1	12.2		---	---	---
31					---	---	---		12.2	11.9	12.1		---	---	---
MONTH					---	---	---		---	---	---		---	---	---

SOUTH UMPQUA RIVER BASIN

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14309000 COW CREEK NEAR AZALEA, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.1	10.9	11.0	12.1	11.6	11.9	11.4	11.1	11.2	10.7	10.4	10.6
2	11.0	10.8	10.9	12.1	11.6	11.9	11.4	11.2	11.3	10.7	10.4	10.6
3	---	---	---	12.1	11.6	11.8	11.4	10.9	11.1	10.8	10.5	10.6
4	---	---	---	12.1	11.2	11.6	11.1	10.9	11.0	10.7	10.5	10.6
5	---	---	---	11.3	10.8	11.0	11.1	10.7	10.9	11.0	10.4	10.6
6	---	---	---	11.1	10.5	10.8	11.1	10.6	10.8	10.9	10.4	10.6
7	12.1	11.8	11.9	---	---	---	10.9	10.5	10.7	10.7	10.4	10.6
8	12.1	11.9	12.0	---	---	---	10.8	10.5	10.6	10.7	10.3	10.5
9	12.2	11.8	12.0	---	---	---	11.6	10.6	11.1	10.9	10.4	10.6
10	12.2	11.8	12.0	---	---	---	11.7	11.0	11.4	10.7	10.3	10.5
11	12.0	11.7	11.9	---	---	---	11.6	11.2	11.4	10.3	9.6	9.9
12	12.0	11.8	11.9	---	---	---	11.4	11.2	11.3	9.9	9.5	9.7
13	12.1	11.8	11.9	11.5	11.0	11.3	11.4	10.9	11.2	10.3	9.7	10.1
14	12.0	11.5	11.8	11.4	11.0	11.3	11.2	10.7	11.0	10.3	9.9	10.1
15	11.9	11.6	11.8	11.4	11.0	11.2	11.0	10.8	10.9	10.9	9.8	10.6
16	12.0	11.7	11.9	11.5	11.3	11.4	10.9	10.6	10.8	11.1	10.5	10.7
17	12.1	11.5	11.8	11.6	11.5	11.6	11.0	10.2	10.7	11.1	10.5	10.8
18	11.8	11.4	11.6	11.7	11.3	11.5	10.5	10.1	10.4	11.0	10.4	10.8
19	11.6	11.3	11.5	11.7	11.2	11.4	10.6	10.2	10.4	10.8	10.4	10.6
20	11.4	11.2	11.3	11.6	11.1	11.4	10.4	9.8	10.2	10.8	10.7	10.8
21	11.3	10.6	11.0	11.7	11.4	11.5	10.3	9.8	10.0	11.2	10.6	10.9
22	10.7	9.9	10.4	11.6	11.3	11.4	10.6	10.0	10.3	11.0	10.3	10.7
23	10.3	9.8	10.0	11.4	11.1	11.3	10.5	10.2	10.4	11.3	10.4	10.9
24	10.0	9.5	9.7	11.5	11.2	11.4	---	---	---	11.4	10.8	11.1
25	11.3	8.5	10.4	11.6	11.1	11.4	---	---	---	11.0	10.2	10.7
26	12.4	11.2	11.9	11.4	10.8	11.1	10.7	10.1	10.4	10.9	10.1	10.5
27	12.0	11.2	11.6	11.2	10.8	11.0	10.7	10.3	10.5	---	---	---
28	12.0	11.5	11.9	11.2	10.8	11.0	11.1	10.7	10.9	---	---	---
29	---	---	---	11.2	10.9	11.0	10.9	10.6	10.7	---	---	---
30	---	---	---	11.4	10.9	11.2	10.8	10.4	10.6	---	---	---
31	---	---	---	11.4	11.0	11.2	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	10.5	10.0	10.2	9.5	9.0	9.2	---	---	---
2	---	---	---	10.5	10.1	10.3	9.4	9.0	9.2	---	---	---
3	---	---	---	10.6	10.1	10.4	9.5	9.1	9.3	---	---	---
4	---	---	---	10.5	10.1	10.3	10.0	9.2	9.5	---	---	---
5	---	---	---	10.8	10.2	10.5	10.3	9.6	10.0	---	---	---
6	---	---	---	10.9	9.9	10.5	10.2	9.0	9.5	---	---	---
7	---	---	---	10.7	10.0	10.4	9.4	8.9	9.1	---	---	---
8	---	---	---	10.5	9.1	10.0	9.3	8.8	9.1	---	---	---
9	---	---	---	10.0	8.3	9.5	9.3	8.8	9.1	---	---	---
10	---	---	---	10.1	8.4	9.1	9.3	8.9	9.2	---	---	---
11	---	---	---	10.0	8.7	9.5	9.5	8.8	9.2	---	---	---
12	---	---	---	10.2	9.7	9.9	9.4	9.0	9.2	---	---	---
13	---	---	---	10.3	9.6	9.9	9.5	8.9	9.2	10.4	10.0	10.2
14	---	---	---	10.0	9.5	9.7	9.4	8.7	9.1	10.4	9.9	10.1
15	---	---	---	10.7	9.4	9.9	9.3	8.8	9.1	10.2	9.7	10.0
16	---	---	---	9.9	9.6	9.8	9.3	8.9	9.1	9.9	7.5	9.0
17	---	---	---	9.9	9.5	9.7	9.4	8.9	9.2	8.0	7.6	7.8
18	10.1	8.8	9.6	9.9	3.2	9.2	9.4	5.6	7.5	8.1	7.8	7.9
19	10.4	9.2	9.8	9.8	9.3	9.6	9.0	5.6	7.3	8.1	7.9	8.0
20	10.7	9.7	10.4	9.6	9.2	9.4	8.5	6.3	7.2	8.2	8.0	8.1
21	10.3	9.3	9.9	9.8	9.2	9.5	7.1	6.6	6.8	8.3	7.6	7.9
22	10.1	9.0	9.4	9.8	9.3	9.6	8.0	6.6	7.4	8.0	7.5	7.7
23	9.9	8.9	9.5	9.9	9.5	9.7	7.0	6.5	6.8	8.4	8.0	8.2
24	10.4	9.2	9.7	9.9	9.1	9.5	7.9	6.8	7.6	8.8	4.3	8.5
25	9.7	9.2	9.5	9.5	9.1	9.3	8.5	7.5	8.1	9.3	8.6	9.1
26	10.0	8.4	9.3	9.5	9.0	9.3	9.5	6.4	8.6	9.6	8.1	9.4
27	10.1	8.4	9.4	9.5	9.1	9.3	9.4	7.9	9.0	9.4	9.2	9.3
28	10.9	10.1	10.7	9.6	9.0	9.3	8.7	8.1	8.4	9.5	9.2	9.3
29	10.8	9.8	10.4	9.4	9.1	9.3	8.7	8.0	8.3	9.5	9.1	9.3
30	10.4	9.6	10.1	9.4	8.9	9.2	8.6	7.9	8.2	9.4	9.2	9.3
31	---	---	---	9.7	9.0	9.4	9.2	7.6	8.1	---	---	---
MONTH	---	---	---	10.9	3.2	9.7	10.3	5.6	8.6	---	---	---

SOUTH UMPQUA RIVER BASIN

14309500 WEST FORK COW CREEK NEAR GLENDALE, OR

LOCATION.--Lat 42°48'15", long 123°36'35", in SW¼NE¼ sec.11, T.32 S., R.8 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.6 mi downstream from Bear Creek, 11 mi northwest of Glendale, and at mile 0.8.

DRAINAGE AREA.--86.9 mi².

PERIOD OF RECORD.--August 1955 to current year.

REVISED RECORDS.--WSP 1738: 1956, drainage area (former site). WSP 1935: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,018.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 8, 1964, at site 0.6 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--31 years, 275 ft³/s, 42.97 in/yr, 199,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 22, 1964, gage height, 18.59 ft, from floodmark, from rating curve extended above 2,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 3.7 ft³/s Aug. 17, 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1800	2,960	7.53	Feb. 22	1100	*4,150	*8.75
Feb. 19	0430	3,610	8.21				

Minimum discharge, 4.7 ft³/s Sept. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	8.1	30	147	76	357	310	150	140	53	21	9.7	5.9		
2	8.0	27	1310	91	1090	262	147	250	52	20	9.3	5.7		
3	7.8	24	1350	173	1360	227	129	340	51	20	8.8	5.3		
4	7.8	22	599	136	878	199	123	276	48	22	8.3	5.3		
5	7.8	22	413	164	642	181	116	254	48	25	7.9	5.2		
6	7.8	22	427	202	492	166	109	494	47	22	7.9	4.9		
7	7.7	21	662	168	398	619	102	578	45	20	7.9	4.7		
8	7.5	27	765	147	325	830	96	413	44	20	7.7	4.7		
9	7.5	127	572	187	268	910	93	314	42	19	7.2	5.0		
10	7.7	117	380	187	229	721	90	260	39	18	7.1	5.2		
11	9.5	69	268	157	201	817	84	233	37	18	6.8	5.3		
12	11	52	202	135	214	1060	98	195	35	17	6.8	5.3		
13	11	43	162	118	269	1200	158	171	34	17	6.8	5.3		
14	9.8	38	135	104	321	1000	150	152	33	16	6.7	5.3		
15	9.3	46	118	120	1330	693	137	136	34	15	6.5	5.6		
16	9.1	152	105	974	1920	507	159	123	33	15	6.4	6.7		
17	9.1	173	97	1470	1380	396	208	111	35	15	6.1	31		
18	9.1	158	90	660	2980	322	197	103	40	15	5.9	76		
19	9.1	111	85	672	3040	278	173	97	36	14	6.1	47		
20	16	106	79	693	1950	247	150	96	33	14	6.2	25		
21	78	121	74	473	1510	224	134	102	30	13	6.1	25		
22	85	114	69	862	3010	200	122	101	29	12	5.9	20		
23	125	91	66	1630	2490	224	111	89	28	12	5.9	17		
24	82	75	63	883	1350	400	101	82	26	12	5.7	59		
25	55	68	60	573	829	355	104	76	24	12	5.5	269		
26	52	61	57	411	601	289	103	73	24	12	5.6	635		
27	41	56	54	318	469	244	105	70	23	12	5.5	204		
28	55	230	51	257	374	208	113	67	22	11	5.3	99		
29	53	381	49	255	---	182	114	64	24	11	5.3	65		
30	41	193	47	286	---	163	110	60	23	11	5.7	49		
31	34	---	46	287	---	147	---	57	---	9.9	5.9	---		
TOTAL	881.7	2777	8602	12869	30277	13581	3786	5577	1072	490.9	208.5	1706.4		
MEAN	28.4	92.6	277	415	1081	438	126	180	35.7	15.8	6.73	56.9		
MAX	125	381	1350	1630	3040	1200	208	578	53	25	9.7	635		
MIN	7.5	21	46	76	201	147	84	57	22	9.9	5.3	4.7		
CFSM	.33	1.07	3.19	4.78	12.4	5.04	1.45	2.07	.41	.18	.08	.65		
IN.	.38	1.19	3.68	5.51	12.96	5.81	1.62	2.39	.46	.21	.09	.73		
AC-FT	1750	5510	17060	25530	60050	26940	7510	11060	2130	974	414	3380		
CAL YR 1985	TOTAL	45923.8	MEAN	126	MAX	1570	MIN	6.1	CFSM	1.45	IN.	19.66	AC-FT	91090
WTR YR 1986	TOTAL	81828.5	MEAN	224	MAX	3040	MIN	4.7	CFSM	2.58	IN.	35.03	AC-FT	162300

SOUTH UMPQUA RIVER BASIN

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14310000 COW CREEK NEAR RIDDLE, OR

LOCATION.--Lat 42°55'25", long 123°25'40", in NE¼ sec.32, T.30 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank 0.4 mi upstream from Council Creek, 3.8 mi southwest of Riddle, and at mile 6.7.

DRAINAGE AREA.--456 mi².

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 682.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Regulated since Oct. 7, 1985 by Galesville Reservoir (see station 14308995). Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--32 years, 895 ft³/s, 648,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 ft³/s Jan. 15, 1974, gage height, 28.17 ft; minimum discharge, 7.4 ft³/s Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft, present site and datum, from slope-area measurement, discharge, 41,100 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,000 ft³/s Feb. 18, gage height, 13.13 ft; minimum discharge, 15 ft³/s Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	88	416	174	751	1220	455	298	155	74	34	18
2	32	82	1710	231	2060	1050	463	462	146	69	33	18
3	31	78	3350	338	3650	879	414	617	200	69	32	19
4	31	76	1540	323	2370	737	400	600	174	72	30	19
5	35	76	970	323	1800	671	390	556	155	78	28	18
6	33	78	826	395	1450	623	368	904	145	76	27	16
7	32	80	1260	362	1210	1540	353	1260	141	70	24	20
8	32	82	1730	327	1010	2770	334	937	137	68	24	24
9	32	196	1380	366	837	3410	322	718	130	67	24	29
10	34	326	946	441	722	2510	312	608	124	64	23	33
11	41	203	692	396	639	2260	302	548	118	64	26	36
12	48	153	543	349	622	2550	316	468	111	62	26	35
13	48	126	449	313	713	2920	382	419	106	58	25	37
14	48	111	389	285	784	2680	371	384	102	56	24	38
15	51	105	349	299	2560	2100	351	352	103	55	23	40
16	49	213	317	1080	4480	1610	358	325	103	52	23	42
17	47	302	290	3670	3660	1260	416	302	106	53	23	64
18	46	409	262	1950	9530	1010	411	284	113	54	21	154
19	46	285	247	1850	9880	872	380	266	113	53	24	156
20	52	241	230	2400	6660	784	350	259	107	51	25	100
21	150	275	218	1640	5120	713	329	270	103	47	20	89
22	147	272	207	1820	7830	646	312	274	100	44	20	86
23	260	241	197	4820	8310	628	303	252	95	43	19	78
24	216	199	190	3010	4960	882	285	234	90	43	18	108
25	157	177	183	2190	3100	824	289	220	86	43	17	403
26	129	164	177	1300	2270	718	292	211	92	42	17	1420
27	113	151	172	953	1870	645	296	205	86	40	17	710
28	106	338	165	782	1500	584	301	201	76	39	17	353
29	120	927	159	717	---	531	302	191	76	39	16	230
30	107	582	155	728	---	494	291	179	78	39	17	179
31	95	---	151	686	---	463	---	168	---	36	18	---
TOTAL	2401	6636	19870	34518	90348	40584	10448	12972	3471	1720	715	4572
MEAN	77.5	221	641	1113	3227	1309	348	418	116	55.5	23.1	152
MAX	260	927	3350	4820	9880	3410	463	1260	200	78	34	1420
MIN	31	76	151	174	622	463	285	168	76	36	16	16
AC-FT	4760	13160	39410	68470	179200	80500	20720	25730	6880	3410	1420	9070
CAL YR 1985	TOTAL	140262	MEAN	384	MAX	4580	MIN	19	AC-FT	278200		
WTR YR 1986	TOTAL	228255	MEAN	625	MAX	9880	MIN	16	AC-FT	452700		

SOUTH UMPQUA RIVER BASIN

14311000 NORTH MYRTLE CREEK NEAR MYRTLE CREEK, OR

LOCATION.--Lat 43°02'30", long 123°15'30", in SW¼ sec.14, T.29 S., R.5 W., Douglas County, Hydrologic Unit 17100302, on left bank 300 ft downstream from Bilger Creek, 1.5 mi northeast of town of Myrtle Creek, and at mile 2.2.

DRAINAGE AREA.--54.2 mi².

PERIOD OF RECORD.--October 1955 to September 1986 (discontinued).

REVISED RECORDS.--WSP 1738: 1957. WDR OR-79-1: 1978.

GAGE.--Water-stage recorder. Datum of gage is 642.81 ft above National Geodetic Vertical Datum of 1929 (levels by City Engineer of Myrtle Creek). Oct. 1, 1955, to Aug. 31, 1977, at site 340 ft downstream on right bank. Oct. 1, 1955, to Sept. 30, 1975, at datum 1.63 ft lower and Oct. 1, 1975, to Aug. 31, 1977, at datum 1.33 ft lower.

REMARKS.--No estimated daily discharges. Records fair. No regulation. Several diversions for irrigation upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years, 73.2 ft³/s, 53,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft³/s Dec. 6, 1981, gage height, 10.08 ft, from floodmark, from rating curve extended above 1,300 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 11.58 ft Dec. 26, 1955 (backwater from debris), site and datum then in use; no flow at times in July 1973 and August 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*) from rating curve extended as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 19	0630	1,720	7.03	Feb. 23	0230	*1,750	*7.10

Minimum discharge, 0.61 ft³/s Aug. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	13	67	22	73	104	38	33	11	4.4	2.5	2.7
2	3.2	13	146	24	76	87	36	41	11	4.1	2.2	2.5
3	3.5	12	205	30	89	85	33	43	11	4.6	2.2	2.5
4	3.8	12	128	29	93	85	33	44	11	5.3	1.8	2.4
5	3.6	17	98	30	107	85	31	66	10	6.1	1.9	2.2
6	3.6	14	121	30	106	85	29	98	10	4.9	2.3	2.1
7	3.5	12	201	28	96	153	28	87	11	4.9	2.4	2.3
8	3.5	15	179	30	86	213	27	73	9.7	5.1	2.3	1.8
9	4.2	50	130	44	80	333	26	61	9.3	5.0	1.8	2.6
10	5.3	50	100	53	74	257	25	55	8.6	5.3	1.8	2.7
11	6.4	34	83	49	69	195	24	51	7.8	5.1	1.8	2.6
12	6.7	25	71	44	75	173	30	42	7.4	4.5	1.7	2.5
13	5.7	20	61	41	85	177	35	39	7.1	4.2	1.6	2.9
14	5.7	17	53	38	96	164	29	34	7.0	3.9	1.5	2.8
15	6.0	29	46	34	126	141	26	30	8.2	4.0	1.7	2.8
16	5.7	71	39	71	150	112	26	27	8.0	4.4	1.6	3.8
17	5.8	73	32	191	181	90	28	25	8.7	4.4	1.3	5.6
18	5.5	69	27	136	1240	82	27	23	11	4.1	1.2	13
19	5.5	46	25	217	1480	80	24	22	9.5	3.9	1.9	14
20	5.9	44	22	271	776	78	22	23	8.1	3.8	2.1	8.5
21	17	50	21	186	473	74	22	26	7.3	3.3	2.2	7.2
22	27	49	20	185	968	67	22	24	6.4	2.8	1.9	6.1
23	44	43	18	304	1310	65	21	22	5.8	2.8	1.8	6.5
24	27	42	17	216	598	64	20	20	5.0	3.3	2.0	24
25	19	38	17	152	386	58	26	18	4.7	3.4	1.7	45
26	19	32	16	117	279	54	25	16	4.9	3.4	1.8	73
27	15	28	16	96	191	51	47	16	4.9	3.2	1.8	56
28	19	72	15	84	138	46	53	16	5.0	3.0	1.9	35
29	18	121	14	82	---	43	45	15	6.4	2.6	1.8	21
30	14	75	14	80	---	41	38	14	4.8	2.5	2.3	16
31	15	---	14	76	---	38	---	12	---	2.5	2.8	---
TOTAL	330.3	1186	2016	2990	9501	3380	896	1116	240.6	124.8	59.6	372.1
MEAN	10.7	39.5	65.0	96.5	339	109	29.9	36.0	8.02	4.03	1.92	12.4
MAX	44	121	205	304	1480	333	53	98	11	6.1	2.8	73
MIN	3.2	12	14	22	69	38	20	12	4.7	2.5	1.2	1.8
AC-FT	655	2350	4000	5930	18850	6700	1780	2210	477	248	118	738
CAL YR 1985	TOTAL	14912.6	MEAN	40.9	MAX	325	MIN	1.0	AC-FT	29580		
WTR YR 1986	TOTAL	22212.4	MEAN	60.9	MAX	1480	MIN	1.2	AC-FT	44060		

SOUTH UMPQUA RIVER BASIN

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14311500 LOOKINGGLASS CREEK AT BROCKWAY, OR

LOCATION.--Lat 43°07'50", long 123°27'50", in SE¼SE¼ sec.13, T.28 S., R.7 W., Douglas County, Hydrologic Unit 17100302, on left bank 1.7 mi northwest of Brockway and at mile 2.85.

DRAINAGE AREA.--158 mi².

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2135: Drainage area (former site).

GAGE.--Water-stage recorder. Elevation of gage is 540 ft, from topographic map. Prior to Oct. 5, 1967, water-stage recorder at site 2.3 mi downstream at different datum. Oct. 5, 1967, to Oct. 5, 1976, water-stage recorder, at datum 1.00 ft lower.

REMARKS.--Estimated daily discharges: Mar. 11-26. Records good except for estimated daily discharges, which are poor. Some regulation by Ben Irving Reservoir 17 mi upstream on Berry Creek, capacity, 11,200 acre-ft since January 1980. Many diversions by pumping for irrigation upstream from station. Discharge not adjusted for storage or release from Ben Irving Reservoir as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--24 years (water years 1956-79), 282 ft³/s, 204,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s Dec. 26, 1955, gage height, 24.93 ft, site and datum then in use, from rating curve extended above 7,200 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 25.28 ft Dec. 23, 1964 (backwater from South Umpqua River, site and datum then in use); no flow at times each year prior to January 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,750 ft³/s Feb. 18, gage height, 13.08 ft; minimum discharge, 2.6 ft³/s July 30, Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	21	145	47	253	386	89	76	28	6.0	3.7	8.5
2	8.2	20	519	64	473	320	86	119	27	5.5	3.5	8.3
3	7.9	19	1000	117	905	272	79	128	30	5.3	4.3	8.0
4	8.3	19	491	116	669	237	77	130	30	5.4	4.6	7.3
5	9.3	19	387	131	668	212	77	132	28	7.1	3.5	7.1
6	9.6	18	402	138	628	195	71	393	27	7.1	6.2	6.6
7	9.8	18	581	124	505	779	67	352	27	6.8	6.8	6.4
8	10	19	902	114	397	980	63	270	25	6.8	5.4	6.0
9	11	35	710	155	316	997	60	208	24	6.6	5.3	7.4
10	12	91	482	158	261	753	58	171	23	8.0	5.0	7.3
11	15	53	372	135	224	720	55	150	22	8.7	5.0	8.0
12	14	39	312	119	348	800	68	127	20	8.0	5.5	7.9
13	13	32	268	106	635	900	74	112	20	7.7	5.7	8.6
14	13	29	163	96	641	600	65	97	16	8.1	6.1	8.7
15	13	31	145	94	1530	450	60	84	12	7.5	5.7	8.2
16	12	38	128	448	1670	380	60	75	12	7.7	5.6	9.5
17	12	60	79	1080	1300	300	75	68	11	7.3	5.5	15
18	12	110	69	574	5600	240	73	62	14	6.7	5.8	19
19	12	79	62	835	5320	200	65	58	13	6.9	6.0	20
20	12	73	57	818	3030	180	60	55	10	7.6	6.0	18
21	18	93	52	504	2060	160	56	56	9.8	6.8	5.8	17
22	24	124	48	673	4300	140	52	53	8.6	5.6	5.7	16
23	53	113	46	1730	4990	120	51	50	7.7	5.2	5.5	17
24	57	86	43	965	2340	140	47	45	6.5	4.8	6.1	20
25	37	67	40	600	1290	160	54	41	5.2	5.0	5.7	42
26	29	54	38	435	829	130	57	39	5.9	4.8	6.1	155
27	26	46	37	338	607	124	61	37	6.0	5.8	6.5	103
28	24	104	35	276	475	116	82	37	5.4	5.9	7.1	59
29	24	249	34	286	---	108	85	35	6.2	4.8	7.5	41
30	24	163	33	274	---	101	77	32	7.0	3.7	8.1	33
31	22	---	32	238	---	94	---	31	---	3.7	7.9	---
TOTAL	560.9	1922	7712	11788	42264	11294	2004	3323	487.3	196.9	177.2	698.8
MEAN	18.1	64.1	249	380	1509	364	66.8	107	16.2	6.35	5.72	23.3
MAX	57	249	1000	1730	5600	997	89	393	30	8.7	8.1	155
MIN	7.9	18	32	47	224	94	47	31	5.2	3.7	3.5	6.0
AC-FT	1110	3810	15300	23380	83830	22400	3970	6590	967	391	351	1390
CAL YR 1985	TOTAL	42962.72	MEAN	118	MAX	1690	MIN	.03	AC-FT	85220		
WTR YR 1986	TOTAL	82428.1	MEAN	226	MAX	5600	MIN	3.5	AC-FT	163500		

SOUTH UMPQUA RIVER BASIN

14312000 SOUTH UMPQUA RIVER NEAR BROCKWAY, OR

LOCATION.--Lat 43°08'00", long 123°23'50", in SW¼ sec.15, T.28 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on right bank 10 ft upstream from Winston Bridge on State Highway 99, 2.5 mi northeast of Brockway, 4.2 mi downstream from Lookingglass Creek, and at mile 132.8.

DRAINAGE AREA.--1,670 mi².

PERIOD OF RECORD.--December 1905 to June 1912, October 1923 to September 1926, January 1942 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1248: 1946(M), 1948(M), 1951. WSP 1448: Drainage area. WDR OR 72-1: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 462.52 ft above National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft of present site at various datums. June 24, 1949, to Oct. 1, 1970, at datum 461.84 ft National Geodetic Vertical Datum of 1929 (State Highway Department bench mark).

REMARKS.--No estimated daily discharges. Records excellent. Regulation from Ben Irving Reservoir, since January 1980, on Berry Creek during summer months. Many small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--52 years (water years 1907-11, 1924-26, 1943-86), 2,897 ft³/s, 23.56 in/yr, 2,099,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft³/s Dec. 23, 1964, gage height, 34.28 ft; minimum discharge, 16 ft³/s Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft, present site and datum, discharge (revised), 89,500 ft³/s. Discharge for flood of February 1890, which reached a stage 1.9 ft higher, according to local resident who lived nearby at time of both floods, has been found to be in error and should not be used.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1430	42,400	19.77	Feb. 23	1200	*45,600	*20.66

Minimum discharge, 53 ft³/s Aug. 17, 18, 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	461	2070	845	2420	5160	1460	1960	764	229	92	66
2	115	420	3540	1540	3300	4370	1470	1940	694	210	90	68
3	111	385	12600	1610	7990	3720	1360	2590	692	199	86	64
4	113	370	6880	1660	6350	3170	1280	2860	765	201	86	60
5	109	368	4830	1470	5740	2840	1240	2730	638	214	79	59
6	108	375	4630	1540	5180	2620	1170	4320	588	262	72	55
7	108	358	6650	1520	4290	4980	1110	4750	558	236	75	55
8	107	349	7740	1390	3560	9900	1070	3870	532	212	73	56
9	104	543	5710	1580	2970	12000	1040	3070	498	203	67	59
10	111	1170	4090	2740	2550	9000	1010	2660	468	197	69	57
11	123	904	3090	2250	2240	7130	970	2540	436	195	66	65
12	137	677	2470	1890	2220	7150	981	2320	399	193	62	71
13	153	556	2050	1620	2990	7860	1110	2080	373	195	60	78
14	178	487	1680	1440	3980	7410	1200	1890	355	179	62	83
15	169	461	1470	1320	6350	5980	1140	1690	355	163	58	85
16	161	1840	1340	1740	10300	4820	1120	1520	351	157	57	87
17	156	3090	1240	9560	10800	3930	1320	1380	343	157	55	107
18	153	2340	1220	6820	32500	3290	1760	1270	350	154	54	171
19	149	1650	1280	6150	37700	2860	1650	1210	401	156	57	411
20	154	1310	1320	8460	26800	2600	1500	1150	387	152	57	372
21	187	1280	1330	5790	19200	2390	1450	1240	343	148	60	283
22	372	1240	1280	5030	30100	2210	1380	1380	324	132	59	244
23	1760	1140	1250	12200	43200	2060	1320	1350	306	122	58	222
24	2990	941	1260	8460	26100	2350	1190	1240	285	121	61	231
25	1540	840	1270	5880	14900	2570	1140	1120	266	122	65	875
26	1220	815	1250	4330	10400	2280	1230	1050	254	121	62	5110
27	977	753	1170	3330	7920	2080	1330	1020	256	120	54	3870
28	717	929	1080	2890	6320	1920	2970	972	246	117	55	2260
29	673	3870	988	2700	---	1780	2810	923	237	111	58	1400
30	583	2980	903	2670	---	1660	2310	863	239	100	61	1000
31	505	---	831	2570	---	1560	---	814	---	96	61	---
TOTAL	14159	32902	88512	112995	338370	133650	42091	59772	12703	5174	2031	17624
MEAN	457	1097	2855	3645	12080	4311	1403	1928	423	167	65.5	587
MAX	2990	3870	12600	12200	43200	12000	2970	4750	765	262	92	5110
MIN	104	349	831	845	2220	1560	970	814	237	96	54	55
CFSM	.27	.66	1.71	2.18	7.23	2.58	.84	1.15	.25	.10	.04	.35
IN.	.32	.73	1.97	2.52	7.54	2.98	.94	1.33	.28	.12	.05	.39
AC-FT	28080	65260	175600	224100	671200	265100	83490	118600	25200	10260	4030	34960
CAL YR 1985	TOTAL	563714	MEAN	1544	MAX	12600	MIN	59	CFSM	.92	IN.	12.56
WTR YR 1986	TOTAL	859983	MEAN	2356	MAX	43200	MIN	54	CFSM	1.41	IN.	19.16
											AC-FT	1118000
											AC-FT	1706000

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR

LOCATION.--Lat 43°13'20", long 123°24'45", in NW¼SE¼ sec.16, T.27 S., R.6 W., Douglas County, Hydrologic Unit 17100302, on left bank, 3.7 mi west of Roseburg, and at mile 117.7.

DRAINAGE AREA.--1,798 mi².

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1970 to current year.

pH: August 1971 to current year.

DISSOLVED OXYGEN: October 1970 to current year.

WATER TEMPERATURES: October 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 423 microsiemens Sept. 18, 1971; minimum, 37 microsiemens Feb. 18, 1983.

pH: Maximum, 10.0 units Sept. 8, 9, 1971; minimum, 5.0 units Sept. 29, 1971.

DISSOLVED OXYGEN: Maximum, 18.5 mg/l Aug. 24, 1986; minimum, 0.4 mg/l Aug. 10, 1978.

WATER TEMPERATURES: Maximum, 35.0°C July 16, 1976; minimum, 0.0°C Dec. 14, 16, 1972, Jan. 9, 1974.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 207 microsiemens Sept. 4; minimum recorded, 68 microsiemens Feb. 18.

pH: Maximum recorded, 9.2 units Aug. 4, 11-13, Sept. 10; minimum recorded, 6.8 units Feb. 20-22, Aug. 20, 22, 26, 27.

DISSOLVED OXYGEN: Maximum, 18.5 mg/l Aug. 24; minimum, 2.6 mg/l Aug. 28.

WATER TEMPERATURES: Maximum, 29.5°C Aug. 15; minimum, 2.0°C Dec. 14-16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS NONCARB DISSOLV FIELD (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT										
02...	1200	174	8.1	17.0	10.4	--	--	16	19	6.0
30...	1530	106	7.9	10.5	11.3	140	29	4	9.0	5.0
DEC										
04...	1330	72	7.3	6.5	12.0	--	210	11	10	4.0
JAN										
08...	1500	100	7.7	5.0	12.2	K700	--	0	8.0	4.0
FEB										
19...	1315	75	7.0	6.5	11.5	K370	K330	0	6.0	5.0
MAR										
12...	1300	94	7.2	9.0	11.1	K1700	1100	--	--	--
APR										
16...	1430	116	8.1	12.5	11.0	390	76	0	10	5.0
MAY										
15...	1400	100	7.9	14.5	10.7	K1600	76	0	8.0	3.4
JUN										
12...	1115	124	8.4	24.5	8.8	97	79	0	10	4.0
JUL										
10...	1130	151	7.4	22.5	7.8	37	1700	--	--	--
30...	1300	168	8.7	24.5	11.0	K28	280	--	--	--
AUG										
28...	1230	200	7.6	25.0	9.0	K12	1000	0	13	7.0

DATE	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT									
02...	56	13	0.2	3.2	0.27	0.8	4.0	0.23	106
30...	39	6.4	<0.1	<0.1	0.15	0.4	--	0.09	56
DEC									
04...	30	3.0	0.2	0.2	0.07	0.5	0.7	0.07	56
JAN									
08...	45	5.3	--	--	--	0.4	--	0.04	58
FEB									
19...	37	2.0	0.2	0.2	0.12	0.6	0.8	0.12	41
MAR									
12...	37	--	--	0.1	0.04	0.3	0.4	0.06	--
APR									
16...	47	4.6	<0.1	<0.1	0.05	0.4	--	0.04	75
MAY									
15...	39	4.7	<0.1	<0.1	0.08	0.4	--	0.06	103
JUN									
12...	50	5.8	<0.2	<0.1	0.07	0.4	--	0.10	75
JUL									
10...	56	--	--	0.2	0.12	0.6	0.8	0.13	--
30...	57	--	0.2	0.2	0.18	0.6	0.8	0.26	--
AUG									
28...	61	17	0.6	--	--	--	--	--	130

K - Results based on colony count outside acceptable range (non-ideal colony count).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

		ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	IRON, DIS- SOLVED (UG/L AS FE)			
DATE											
JAN 08...		40	<1	<1	<100	<10	<10	70			
		LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)				
DATE											
JAN 08...		<10	<10	0.3	<1	<1	20				
DATE	PER- THANE TOTAL (UG/L)	ALDRIN, TOTAL (UG/L)	LINDANE TOTAL (UG/L)	CHLOR- DANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI- ELDRIN TOTAL (UG/L)	ENDO- SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	TOX- APHENE, TOTAL (UG/L)
OCT 02...	--	--	--	--	--	--	--	--	--	--	--
DEC 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	<0.1	<0.010	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1
FEB 19...	--	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.1	<0.010	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<1
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	--	--	--	--	--	--	--	--	--	--	--
DATE		HEPTA- CHLOR, TOTAL (UG/L)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L)	METH- OXY- CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	MIREX, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT 02...	--	--	--	--	--	--	0.06	<0.01	<0.01	--	<0.01
DEC 30...	--	--	--	--	--	--	--	--	--	--	--
JAN 04...	--	--	--	--	--	--	--	--	--	--	--
JAN 08...	<0.010	<0.010	<0.01	<0.1	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FEB 19...	--	--	--	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--	--	--	--
APR 16...	<0.010	<0.010	<0.01	<0.1	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 15...	--	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 28...	--	--	--	--	--	--	0.03	<0.01	<0.01	--	<0.01

SOUTH UMPQUA RIVER BASIN

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14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	176	170	174	123	118	120	99	91	94	108	100	103
2	177	171	175	126	122	124	109	99	106	110	107	108
3	179	174	176	129	125	127	104	70	80	110	101	105
4	179	174	177	135	127	130	77	70	73	101	96	97
5	181	174	178	137	129	132	82	77	80	99	97	98
6	183	175	179	142	137	140	87	82	85	99	98	99
7	185	178	182	147	140	143	84	76	81	100	99	100
8	186	180	184	148	143	146	77	75	76	101	99	100
9	187	180	184	152	146	148	81	77	79	106	100	103
10	187	181	185	154	150	152	86	81	84	104	96	100
11	188	183	186	152	145	148	89	86	87	96	91	93
12	189	184	187	145	140	142	92	89	90	95	92	94
13	191	184	188	140	135	136	95	92	93	99	95	97
14	192	186	189	137	133	135	97	95	96	101	99	100
15	192	188	190	138	135	137	101	97	99	104	101	102
16	193	188	191	140	134	137	103	100	102	119	104	108
17	194	190	192	---	---	---	105	103	104	124	80	98
18	195	191	193	---	---	---	106	104	105	84	79	81
19	196	191	194	---	---	---	106	105	105	97	84	91
20	197	192	195	101	96	99	105	100	102	94	87	90
21	196	186	190	106	101	104	100	97	98	92	87	89
22	189	183	186	114	106	111	97	94	95	99	92	95
23	191	184	186	116	113	115	95	93	94	102	81	89
24	---	---	---	117	115	116	95	93	94	86	82	84
25	---	---	---	120	116	118	94	93	93	92	86	90
26	---	---	---	122	120	120	93	92	92	97	92	95
27	---	---	---	122	120	120	92	91	92	101	97	99
28	---	---	---	133	120	124	93	91	92	103	100	102
29	---	---	---	132	108	123	95	93	94	108	103	105
30	---	---	---	108	89	93	98	94	96	107	106	106
31	119	114	116	---	---	---	100	97	98	106	103	104
MONTH	---	---	---	---	---	---	109	70	92	124	79	98
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	104	101	103	95	93	94	113	111	112	90	85	87
2	108	103	105	98	95	96	114	112	113	92	88	90
3	104	83	91	101	98	99	115	113	114	94	91	92
4	87	83	85	104	100	102	116	114	115	92	86	89
5	91	87	89	106	102	104	117	115	116	90	85	87
6	93	90	91	108	105	106	118	116	117	95	89	92
7	96	93	94	115	104	109	120	117	119	89	86	87
8	98	96	97	104	88	93	122	120	120	86	84	85
9	100	98	99	89	84	86	123	121	122	88	85	86
10	103	100	101	87	84	86	124	122	123	89	88	88
11	107	103	105	93	87	91	124	123	124	89	88	89
12	113	106	109	95	93	94	126	123	125	90	89	89
13	116	111	114	93	90	91	126	125	125	92	90	91
14	111	101	106	90	88	89	125	123	123	93	91	92
15	101	91	98	92	89	91	123	119	120	100	91	97
16	91	83	86	97	92	94	119	116	117	102	100	101
17	84	79	80	100	96	98	118	115	117	104	97	102
18	86	68	75	103	100	102	115	108	112	98	96	97
19	79	70	74	105	103	104	108	101	103	100	98	99
20	92	70	85	108	105	106	102	99	100	103	100	101
21	92	88	90	110	107	108	102	99	100	104	101	103
22	93	---	---	111	108	110	102	100	101	103	102	102
23	---	---	---	113	110	111	102	100	101	102	100	101
24	---	---	---	113	111	112	106	101	103	100	98	99
25	---	---	---	111	104	108	107	104	105	100	95	98
26	---	---	---	104	102	103	108	106	107	97	95	96
27	---	---	---	105	103	104	108	107	108	99	96	98
28	93	91	92	107	105	106	108	94	102	105	98	102
29	---	---	---	109	107	108	95	86	88	106	103	105
30	---	---	---	111	109	110	90	86	88	106	104	105
31	---	---	---	112	110	112	---	---	---	106	104	105
MONTH	---	---	---	115	84	101	126	86	111	106	84	95

SOUTH UMPQUA RIVER BASIN

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	106	101	103	149	144	147	179	171	175	202	196	199
2	105	102	103	150	146	147	184	173	178	203	197	200
3	106	104	104	150	145	147	182	173	177	204	198	202
4	107	105	105	151	147	149	184	175	179	207	199	204
5	111	105	108	153	147	150	186	---	---	206	198	203
6	113	110	112	154	149	152	---	---	---	206	197	201
7	115	112	114	154	150	152	---	---	---	204	196	199
8	116	114	116	155	151	153	---	---	---	202	196	199
9	118	114	116	157	152	155	---	---	---	203	196	199
10	121	116	118	157	153	155	---	---	---	202	196	198
11	122	118	120	157	153	155	---	---	---	202	195	198
12	---	---	---	158	152	155	196	188	191	200	193	197
13	---	---	---	159	153	156	196	189	192	199	191	195
14	---	---	---	159	153	156	200	192	195	198	192	195
15	---	---	---	160	153	157	203	191	197	201	194	198
16	---	---	---	161	154	158	200	191	196	203	194	199
17	---	---	---	162	154	158	202	191	196	202	196	199
18	---	---	---	163	155	160	200	190	195	200	195	197
19	---	---	---	164	157	161	201	192	197	197	193	195
20	---	---	---	163	156	160	201	192	197	196	191	194
21	---	---	---	164	157	161	201	193	198	192	188	190
22	---	---	---	166	158	163	203	192	198	193	191	192
23	---	---	---	167	160	164	200	193	198	192	186	188
24	---	---	---	168	160	165	200	192	197	186	176	180
25	---	---	---	170	162	166	201	193	198	176	169	173
26	142	137	139	172	163	168	201	193	198	---	---	---
27	143	138	141	172	164	169	201	195	199	---	---	---
28	144	140	142	173	166	170	205	197	202	---	---	---
29	144	140	143	175	167	172	205	199	202	---	---	---
30	148	142	145	177	166	173	203	195	200	---	---	---
31	---	---	---	177	168	173	202	196	200	---	---	---
MONTH	---	---	---	177	144	159	---	---	---	---	---	---

SOUTH UMPQUA RIVER BASIN

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14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	8.9	7.3	7.7	7.4	8.3	7.6	7.8	7.6	7.3	7.3	7.1	7.0
2	8.9	7.3	7.8	7.4	7.8	7.7	7.8	7.6	7.3	7.2	7.1	7.1
3	8.6	7.3	7.8	7.4	7.9	7.4	7.8	7.6	7.3	7.2	7.1	7.1
4	8.8	7.3	7.6	7.3	7.5	7.3	7.6	7.5	7.2	7.1	7.2	7.1
5	8.8	7.3	7.7	7.3	7.6	7.4	7.6	7.5	7.2	7.1	7.2	7.2
6	8.6	7.3	7.9	7.4	7.6	7.4	7.7	7.5	7.2	7.1	7.2	7.2
7	8.7	7.3	7.9	7.4	7.6	7.4	8.2	7.5	7.2	7.2	7.3	7.1
8	8.8	7.3	7.8	7.4	7.4	7.3	7.8	7.5	7.3	7.2	7.2	7.1
9	8.8	7.4	7.6	7.4	7.3	7.3	7.9	7.5	7.3	7.2	7.1	7.1
10	8.8	7.4	7.7	7.5	7.4	7.3	7.9	7.5	7.4	7.3	7.2	7.1
11	8.4	7.4	7.8	7.6	7.5	7.4	7.8	7.4	7.4	7.3	7.2	7.1
12	8.6	7.4	7.9	7.7	7.7	7.4	7.5	7.4	7.3	7.2	7.2	7.1
13	8.5	7.4	7.9	7.6	7.7	7.5	7.6	7.4	7.2	7.2	7.2	7.1
14	8.6	7.5	7.9	7.6	8.2	7.5	7.6	7.4	7.2	7.2	7.2	7.1
15	8.5	7.5	7.8	7.6	8.2	7.7	7.6	7.5	7.2	7.0	7.2	7.2
16	8.5	7.5	7.9	7.6	7.8	7.6	7.6	7.2	7.1	7.0	7.3	7.2
17	8.2	7.4	---	---	7.8	7.6	7.6	7.2	7.1	7.0	7.3	7.2
18	8.2	7.4	---	---	7.9	7.7	7.3	7.2	7.1	6.9	7.3	7.2
19	8.3	7.4	8.5	---	8.1	7.6	7.3	7.2	7.1	6.9	7.3	7.3
20	8.2	7.5	8.5	8.2	7.9	7.6	7.3	7.2	7.1	6.8	7.4	7.3
21	8.1	7.4	8.2	7.9	8.1	7.6	7.3	7.2	6.8	6.8	7.4	7.3
22	7.7	7.4	8.1	7.8	7.7	7.6	7.3	7.1	7.1	6.8	7.4	7.4
23	7.9	7.5	8.0	7.9	7.8	7.6	7.2	7.1	---	---	7.5	7.4
24	---	---	8.0	7.9	7.7	7.6	7.2	7.1	---	---	7.5	7.4
25	---	---	8.1	7.9	7.7	7.6	7.2	7.2	---	---	7.4	7.4
26	---	---	8.2	8.0	7.7	7.6	7.2	7.2	---	---	7.4	7.4
27	---	---	8.2	8.0	7.7	7.6	7.3	7.2	---	---	7.4	7.3
28	---	---	8.0	7.9	7.8	7.6	7.3	7.2	7.0	6.9	7.5	7.3
29	---	---	8.1	7.8	8.1	7.6	7.3	7.2	---	---	7.5	7.4
30	7.6	---	8.1	7.7	7.8	7.6	7.3	7.2	---	---	7.5	7.4
31	7.6	7.0	---	---	8.5	7.6	7.3	7.2	---	---	7.6	7.5
MONTH	---	---	---	---	8.5	7.3	8.2	7.1	---	---	7.6	7.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	7.7	7.5	7.5	7.4	8.0	7.3	8.7	7.1	9.1	7.2	9.1	6.9
2	7.7	7.5	7.7	7.4	8.1	7.2	8.5	7.1	9.1	7.2	9.1	7.0
3	7.7	7.5	7.9	7.5	7.9	7.2	8.6	7.1	9.1	7.2	9.1	7.0
4	7.8	7.5	7.6	7.4	8.0	7.2	8.3	7.1	9.2	7.2	9.0	7.0
5	7.8	7.6	7.5	7.3	8.1	7.2	8.6	7.1	---	7.3	9.0	7.0
6	7.9	7.6	7.4	7.3	8.1	7.2	8.6	7.2	---	---	9.1	7.0
7	7.9	7.6	7.4	7.3	8.3	7.2	8.4	7.2	---	---	9.1	7.0
8	7.8	7.6	7.5	7.3	8.4	7.3	8.6	7.1	---	---	9.0	7.1
9	7.9	7.6	7.5	7.3	8.5	7.2	8.5	7.1	---	---	9.0	7.1
10	8.0	7.6	7.6	7.4	8.7	7.3	8.2	7.1	---	---	9.2	7.2
11	8.0	7.7	7.8	7.4	8.8	7.2	8.5	7.1	9.2	---	9.1	7.2
12	8.0	7.7	7.9	7.4	---	---	8.5	7.1	9.2	7.3	9.1	7.3
13	8.1	7.7	7.8	7.4	---	---	8.5	7.1	9.2	7.2	9.1	7.4
14	8.1	7.7	7.8	7.4	---	---	8.5	7.1	9.1	7.1	9.1	7.4
15	8.2	7.6	7.7	7.0	---	---	8.6	7.1	9.0	7.0	8.9	7.4
16	8.1	7.6	7.7	7.3	---	---	8.5	7.2	8.8	6.9	8.9	7.3
17	8.1	7.6	7.7	7.3	---	---	8.7	7.1	9.0	6.9	8.7	7.3
18	8.0	7.6	7.8	7.3	---	---	8.7	7.2	8.8	6.9	8.4	7.2
19	7.9	7.6	7.8	7.3	---	---	8.8	7.2	9.0	6.9	7.7	7.2
20	7.9	7.4	7.6	7.3	---	---	8.8	7.2	9.0	6.8	7.8	7.4
21	8.0	7.5	7.6	7.3	---	---	8.8	7.2	9.0	6.9	7.9	7.2
22	7.8	7.5	7.7	7.3	---	---	8.9	7.2	8.9	6.8	8.1	7.3
23	8.0	7.5	7.7	7.3	---	---	8.6	7.1	9.0	6.9	7.7	7.3
24	8.0	7.5	7.7	7.3	---	---	8.7	7.1	9.1	6.9	7.8	7.2
25	8.0	7.5	7.7	7.2	8.7	---	8.8	7.1	9.1	6.9	7.6	7.2
26	8.1	7.6	7.7	7.2	8.6	7.1	8.9	7.1	8.8	6.8	---	---
27	8.2	7.5	7.7	7.2	8.6	7.1	8.9	7.2	9.0	6.8	---	---
28	7.8	7.5	7.7	7.2	7.7	7.0	8.9	7.2	8.7	6.9	---	---
29	7.5	7.3	7.9	7.3	8.5	7.1	8.9	7.1	8.3	6.9	---	---
30	7.6	7.3	7.9	7.3	8.6	7.1	9.0	7.1	9.0	6.9	7.4	---
31	---	---	8.0	7.3	---	---	9.1	7.2	8.7	6.9	---	---
MONTH	8.2	7.3	8.0	7.0	---	---	9.1	7.1	---	---	---	---

SOUTH UMPQUA RIVER BASIN

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	13.0	6.9	9.2	11.2	10.2	10.6	12.4	12.1	12.3	12.9	12.5	12.7
2	13.0	7.1	9.2	11.2	10.0	10.5	12.1	11.9	12.1	12.7	12.3	12.5
3	11.6	6.6	8.6	11.0	9.8	10.3	12.0	11.7	11.8	12.7	12.1	12.4
4	12.6	6.5	9.1	10.3	9.4	9.8	11.7	11.6	11.7	12.4	12.1	12.2
5	12.5	6.4	9.0	10.9	9.4	10.1	11.7	11.6	11.7	12.5	12.0	12.2
6	11.7	6.4	8.7	11.2	9.9	10.4	11.6	11.5	11.6	12.7	12.1	12.4
7	12.0	6.3	8.7	11.0	9.8	10.3	11.6	11.5	11.5	12.7	12.2	12.5
8	12.4	6.5	9.1	10.9	9.7	10.2	11.8	11.6	11.7	12.8	12.4	12.5
9	13.1	7.1	9.6	10.8	9.9	10.3	11.9	11.8	11.8	12.4	12.0	12.2
10	13.1	7.5	9.8	11.1	10.4	10.9	12.0	11.9	12.0	12.1	11.8	12.0
11	11.8	7.4	9.3	11.9	11.1	11.5	12.4	12.0	12.3	12.0	11.7	11.9
12	12.7	7.8	9.8	---	---	---	12.9	12.4	12.7	11.9	11.6	11.8
13	12.3	7.9	9.6	---	---	---	13.2	12.9	13.1	12.1	11.6	11.8
14	12.6	8.3	10.0	12.8	12.1	12.4	13.4	13.1	13.2	12.1	11.6	11.9
15	12.4	8.6	10.0	12.6	11.8	12.2	13.4	13.1	13.2	12.1	11.7	11.9
16	11.9	8.4	9.5	12.5	11.8	12.0	13.4	13.2	13.2	11.8	11.2	11.5
17	11.1	8.1	9.3	---	---	---	13.3	13.0	13.2	11.5	11.2	11.4
18	11.3	8.1	9.3	---	---	---	13.1	12.9	13.0	11.5	11.2	11.4
19	11.7	8.3	9.7	12.3	---	---	13.1	12.8	12.9	11.2	11.0	11.1
20	11.1	8.4	9.4	12.3	12.0	12.1	13.2	12.9	13.0	11.5	11.2	11.4
21	10.7	8.1	9.1	12.4	12.1	12.2	13.2	12.9	13.0	11.8	11.5	11.7
22	9.7	8.4	9.0	12.4	12.0	12.2	13.3	12.9	13.1	11.7	11.4	11.6
23	10.4	9.0	9.6	12.6	12.2	12.4	13.2	12.9	13.0	11.6	11.5	11.5
24	---	---	---	12.8	12.3	12.5	13.2	12.9	13.0	11.7	11.5	11.6
25	---	---	---	13.0	12.4	12.7	13.2	12.8	13.0	11.9	11.7	11.8
26	---	---	---	13.1	12.5	12.8	13.2	12.8	12.9	12.0	11.8	11.9
27	---	---	---	13.2	12.6	12.8	13.2	12.7	12.9	11.9	11.7	11.8
28	---	---	---	12.7	12.2	12.4	13.2	12.7	12.9	11.7	11.4	11.6
29	---	---	---	12.3	12.1	12.2	13.1	12.7	12.9	11.5	11.2	11.4
30	10.9	---	---	12.4	12.3	12.4	13.1	12.7	12.9	11.4	11.2	11.3
31	10.9	10.2	10.5	---	---	---	13.2	12.7	12.9	11.4	11.1	11.2
MONTH	---	---	---	---	---	---	13.4	11.5	12.6	12.9	11.0	11.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	11.6	11.2	11.4	10.8	10.6	10.7	10.6	10.0	10.3	11.1	10.4	10.7
2	11.5	11.3	11.4	10.9	10.7	10.8	11.1	10.4	10.8	11.4	10.5	10.9
3	11.7	11.4	11.6	10.8	10.6	10.7	11.3	10.6	10.9	11.3	10.5	10.9
4	11.8	11.7	11.8	10.9	10.6	10.7	11.1	10.5	10.8	11.1	10.3	10.7
5	11.9	11.8	11.9	10.8	10.4	10.6	11.2	10.5	10.8	11.0	10.3	10.6
6	12.1	11.9	12.0	10.6	10.2	10.4	11.3	10.2	10.8	10.7	10.4	10.6
7	12.2	12.1	12.1	10.3	10.0	10.1	11.0	9.8	10.5	11.0	10.7	10.9
8	12.5	12.2	12.3	10.8	10.2	10.6	10.5	9.7	10.0	11.3	10.9	11.1
9	12.8	12.5	12.6	11.2	10.8	11.1	10.6	9.6	10.1	11.0	10.5	10.8
10	13.0	12.7	12.8	11.2	11.0	11.1	11.0	9.9	10.4	11.3	10.5	10.9
11	13.0	12.5	12.8	11.1	11.0	11.0	11.0	9.9	10.5	11.6	10.7	11.1
12	12.6	12.1	12.4	11.1	10.9	11.0	11.2	10.0	10.6	11.6	10.7	11.1
13	12.1	11.8	12.0	11.2	11.0	11.1	11.4	10.2	10.7	11.1	10.2	10.7
14	11.8	11.6	11.7	11.5	11.2	11.4	11.3	10.2	10.6	10.9	9.9	10.4
15	11.7	11.4	11.5	11.3	11.2	11.3	11.3	10.1	10.6	10.7	9.7	10.2
16	11.5	11.4	11.5	11.4	11.3	11.3	11.3	10.0	10.5	10.6	9.5	10.1
17	11.6	11.4	11.4	11.4	11.2	11.3	11.3	10.1	10.7	10.5	9.1	9.8
18	11.8	11.4	11.6	11.5	11.2	11.4	11.3	10.4	10.8	10.4	8.9	9.6
19	12.2	11.4	11.7	11.5	10.9	11.2	11.1	10.1	10.6	10.3	8.7	9.5
20	12.2	11.2	11.5	11.2	10.7	10.9	10.7	9.5	10.1	10.0	8.7	9.3
21	11.4	11.2	11.3	10.9	10.6	10.8	10.3	8.9	9.6	10.5	8.9	9.7
22	11.9	10.9	11.3	10.9	10.5	10.7	9.9	8.9	9.3	10.9	9.5	10.1
23	---	---	---	10.7	10.5	10.6	10.7	9.3	10.0	10.7	9.5	10.0
24	---	---	---	10.9	10.5	10.7	11.0	9.6	10.3	10.6	9.0	9.8
25	---	---	---	11.1	10.6	10.8	11.3	9.9	10.6	10.3	8.3	9.3
26	---	---	---	10.9	10.3	10.7	11.6	10.1	10.8	9.6	8.1	8.7
27	---	---	---	10.6	10.1	10.4	11.6	10.3	10.9	9.8	8.1	8.8
28	10.7	10.4	10.6	10.3	9.8	10.1	11.3	10.4	10.8	9.8	8.1	8.7
29	---	---	---	10.2	9.7	9.9	11.2	10.7	10.9	9.7	7.9	8.7
30	---	---	---	10.2	9.6	9.9	11.5	10.6	11.0	9.5	7.4	8.3
31	---	---	---	10.5	10.0	10.2	---	---	---	9.0	6.8	7.8
MONTH	---	---	---	11.5	9.6	10.8	11.6	8.9	10.5	11.6	6.8	10.0

SOUTH UMPQUA RIVER BASIN

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14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.7	6.4	7.5	10.2	6.5	8.2	13.4	4.7	8.9	14.2	4.4	9.1
2	8.4	6.1	7.0	9.1	6.2	7.1	13.0	4.1	8.4	13.8	4.4	9.0
3	8.4	5.9	7.0	9.1	5.9	7.4	13.2	4.1	8.4	13.8	4.3	8.8
4	8.6	6.2	7.3	8.6	6.2	7.2	13.0	4.1	8.4	13.7	3.9	8.5
5	8.8	6.3	7.4	9.6	6.1	7.8	---	3.7	---	13.9	4.1	8.6
6	9.1	6.5	7.6	9.5	6.3	7.8	---	---	---	13.6	3.9	8.5
7	9.7	6.9	8.1	8.5	6.3	7.3	---	---	---	13.3	3.9	8.5
8	10.0	7.1	8.2	9.0	6.1	7.4	---	---	---	12.9	4.4	8.6
9	10.1	6.9	8.3	8.8	6.1	7.4	---	---	---	13.3	5.1	9.2
10	10.3	6.1	8.0	9.8	6.0	7.8	---	---	---	14.3	5.3	9.8
11	10.4	5.4	7.5	11.5	6.4	8.7	15.1	---	---	13.3	5.2	9.2
12	---	---	---	11.6	6.4	8.6	15.1	4.4	9.4	13.2	6.0	9.5
13	---	---	---	11.9	6.1	8.7	14.8	4.0	9.1	12.7	6.4	9.6
14	---	---	---	11.2	6.2	8.5	14.1	3.4	8.4	13.1	6.7	9.8
15	---	---	---	11.9	6.2	9.0	13.6	3.0	7.9	13.5	6.8	10.0
16	---	---	---	11.0	6.6	8.8	12.7	2.9	7.5	13.5	6.9	9.9
17	---	---	---	13.6	6.6	9.5	15.1	3.4	8.7	11.7	6.8	9.0
18	---	---	---	12.9	6.5	9.4	13.6	3.4	7.9	10.7	6.2	8.5
19	---	---	---	13.4	6.4	9.5	15.8	3.6	9.5	9.2	6.7	7.9
20	---	---	---	12.5	5.6	8.8	18.3	3.7	9.9	9.6	8.0	8.7
21	---	---	---	12.0	5.2	8.4	17.1	3.6	9.6	10.1	8.1	9.0
22	---	---	---	12.2	4.9	8.3	15.6	3.5	9.0	10.6	8.3	9.3
23	---	---	---	10.7	4.5	7.4	17.7	3.6	9.9	9.7	7.7	8.8
24	---	---	---	12.2	4.5	7.8	18.5	4.0	10.0	10.1	7.7	8.8
25	---	---	---	12.1	5.2	8.6	16.9	3.9	9.6	9.8	7.9	8.8
26	11.0	6.3	8.5	12.5	5.3	8.7	13.2	3.7	8.3	---	---	---
27	11.0	6.3	8.6	12.5	5.6	8.9	13.7	3.7	8.4	---	---	---
28	---	---	---	12.8	5.6	8.9	12.4	2.6	7.3	---	---	---
29	---	---	---	13.0	5.0	8.8	10.5	3.3	6.9	---	---	---
30	10.3	7.2	8.7	13.0	5.1	8.5	14.0	3.6	8.4	10.0	---	---
31	---	---	---	13.2	5.2	9.0	12.3	3.8	7.7	---	---	---
MONTH	---	---	---	13.6	4.5	8.3	---	---	---	---	---	---

SOUTH UMPQUA RIVER BASIN

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	18.5	15.5	17.0	11.0	10.0	10.5	4.5	4.0	4.0	4.0	3.5	4.0
2	19.0	15.5	17.5	12.0	10.5	11.0	4.5	3.5	4.0	5.0	4.0	4.5
3	18.5	16.5	17.5	12.5	11.0	12.0	6.5	4.5	6.0	5.0	4.5	5.0
4	18.5	15.5	17.0	12.0	11.5	12.0	6.5	6.5	6.5	5.0	4.5	5.0
5	19.0	16.0	17.5	11.5	11.0	11.5	7.0	6.5	7.0	5.5	4.5	5.0
6	17.5	16.5	17.0	12.0	10.5	11.5	7.5	7.0	7.0	5.5	5.0	5.0
7	17.5	15.5	16.5	12.0	11.0	11.5	7.5	7.0	7.0	5.0	4.5	5.0
8	16.0	13.5	14.5	11.0	10.0	10.5	7.0	6.5	6.5	5.5	4.5	5.0
9	15.0	12.0	13.5	10.0	8.5	9.5	6.5	6.0	6.5	6.0	5.5	6.0
10	15.0	12.0	13.5	8.5	7.5	8.0	6.0	5.5	6.0	6.5	6.0	6.0
11	14.5	13.0	13.5	7.5	6.0	6.5	5.5	4.0	5.0	7.0	6.5	6.5
12	14.0	12.0	13.0	6.0	5.0	5.5	4.0	3.0	3.5	7.0	7.0	7.0
13	13.5	12.0	12.5	6.0	4.5	5.0	3.0	2.5	2.5	7.0	6.5	6.5
14	14.0	11.5	13.0	5.5	4.5	5.0	2.5	2.0	2.5	6.5	6.0	6.5
15	14.5	12.0	13.0	6.0	5.0	5.5	2.5	2.0	2.5	6.5	6.0	6.5
16	14.0	13.0	13.5	6.0	5.5	5.5	2.5	2.0	2.5	7.5	6.5	7.0
17	14.0	12.5	13.0	---	---	---	3.0	2.5	2.5	7.5	7.0	7.0
18	13.5	12.5	12.5	---	---	---	3.0	2.5	3.0	8.5	7.5	8.0
19	13.0	12.0	12.5	6.0	---	---	3.0	3.0	3.0	8.5	8.0	8.0
20	13.0	12.0	12.5	6.0	6.0	6.0	3.0	2.5	3.0	8.0	7.0	7.5
21	13.0	11.5	12.5	6.0	5.5	5.5	3.0	2.5	3.0	7.0	6.0	6.5
22	12.0	11.5	12.0	5.5	5.0	5.5	3.0	2.5	2.5	6.5	6.0	6.0
23	12.5	11.5	12.5	5.0	4.0	4.5	3.0	2.5	3.0	7.0	6.5	6.5
24	---	---	---	4.0	4.0	4.0	3.0	2.5	3.0	7.0	6.5	7.0
25	---	---	---	4.0	3.5	3.5	3.0	2.5	3.0	6.5	6.0	6.5
26	---	---	---	3.5	3.5	3.5	3.0	3.0	3.0	6.5	6.0	6.0
27	---	---	---	3.5	3.5	3.5	3.0	3.0	3.0	7.0	6.0	6.5
28	---	---	---	4.0	3.5	4.0	3.0	3.0	3.0	7.5	7.0	7.0
29	---	---	---	4.0	3.5	3.5	3.5	3.0	3.0	8.0	7.5	7.5
30	10.5	---	---	4.5	3.0	3.5	3.0	3.0	3.0	8.5	8.0	8.5
31	10.5	10.0	10.0	---	---	---	3.5	3.0	3.5	8.5	8.5	8.5
MONTH	---	---	---	---	---	---	7.5	2.0	4.0	8.5	3.5	6.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.5	8.0	8.5	10.5	10.0	10.0	13.0	11.5	12.0	12.0	11.0	11.5
2	8.5	8.0	8.0	10.5	9.5	10.0	12.0	10.5	11.5	11.0	11.0	11.0
3	8.0	7.5	7.5	11.0	9.5	10.5	11.5	10.0	11.0	12.5	11.0	11.5
4	7.5	7.0	7.5	15.5	10.0	11.0	12.0	10.5	11.5	12.5	11.5	12.0
5	7.5	7.0	7.0	16.0	10.0	13.0	12.0	10.5	11.0	12.0	11.0	11.5
6	7.0	6.5	6.5	11.5	11.0	11.0	12.5	10.5	11.5	11.5	10.5	11.0
7	6.5	6.0	6.5	16.5	11.0	11.5	14.0	11.5	12.5	11.0	10.0	10.5
8	6.0	5.0	5.5	15.5	9.0	10.0	14.0	13.0	13.5	11.5	10.0	10.5
9	5.5	4.5	5.0	9.0	8.0	8.5	13.5	13.0	13.0	12.0	10.5	11.0
10	4.5	4.0	4.5	8.5	8.0	8.5	13.5	12.0	13.0	11.5	11.0	11.0
11	5.0	4.5	4.5	9.0	8.5	9.0	13.0	12.0	12.5	12.0	10.5	11.0
12	6.0	5.0	5.5	9.0	8.5	9.0	12.0	11.5	12.0	12.5	10.5	11.5
13	7.0	6.0	6.5	9.0	8.5	8.5	13.0	11.5	12.0	13.5	12.0	12.5
14	7.5	7.0	7.0	8.5	7.5	8.0	12.5	11.0	12.0	14.5	12.5	13.5
15	8.0	7.0	7.5	8.5	8.0	8.5	13.0	11.5	12.0	15.0	13.5	14.5
16	8.5	8.0	8.0	8.5	7.5	8.0	12.5	11.5	12.0	16.0	14.0	15.0
17	8.5	8.0	8.0	9.0	8.0	8.5	12.5	11.5	12.0	17.0	14.5	16.0
18	8.0	6.5	7.0	9.5	8.0	8.5	13.0	11.0	12.0	17.5	15.5	16.5
19	6.5	6.5	6.5	10.0	8.5	9.0	14.0	12.0	13.0	18.0	16.0	17.0
20	7.5	6.5	7.0	10.5	9.5	10.0	15.5	13.0	14.0	18.0	16.5	17.0
21	7.5	7.0	7.0	11.0	10.0	10.5	17.0	14.0	15.5	16.5	15.5	16.0
22	---	7.5	---	11.0	10.0	10.5	16.0	14.5	15.5	16.5	14.5	16.0
23	---	---	---	11.0	10.5	10.5	15.0	13.5	14.5	17.0	15.0	16.0
24	---	---	---	11.0	10.0	10.5	14.0	12.5	13.0	18.5	16.0	17.0
25	---	---	---	11.0	9.5	10.5	12.5	12.0	12.5	20.5	17.5	19.0
26	---	---	---	11.5	10.5	11.0	12.5	11.5	12.0	21.0	19.5	20.5
27	9.5	---	---	12.5	11.0	11.5	12.5	11.5	12.0	20.5	19.5	20.0
28	10.0	9.5	9.5	13.5	12.0	12.5	12.0	11.0	11.5	21.0	20.0	20.5
29	---	---	---	14.0	12.5	13.5	12.0	10.0	11.0	22.0	20.5	21.5
30	---	---	---	13.5	12.5	13.0	12.0	10.0	11.0	24.0	22.0	23.0
31	---	---	---	13.0	12.0	12.5	---	---	---	25.5	24.0	24.5
MONTH	---	---	---	16.5	7.5	10.0	17.0	10.0	12.5	25.5	10.0	15.0

SOUTH UMPQUA RIVER BASIN

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14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	26.0	25.0	25.5	27.0	23.0	25.0	27.5	23.5	25.5	25.0	22.0	23.5
2	27.0	25.5	26.0	26.5	23.5	25.0	28.5	24.5	26.5	26.0	22.5	24.0
3	25.5	24.0	25.0	26.0	23.0	24.5	28.0	24.5	26.0	26.5	22.5	24.5
4	25.0	23.5	24.5	24.0	22.0	23.0	27.5	24.0	26.0	26.5	23.0	25.0
5	24.0	22.5	23.5	25.0	21.0	23.0	---	24.0	---	26.0	22.5	24.5
6	22.5	21.0	22.0	25.5	21.5	23.5	---	---	---	26.0	22.5	24.5
7	22.0	20.5	21.0	23.5	22.0	22.5	---	---	---	25.0	22.5	23.5
8	22.0	20.0	21.0	25.5	22.0	23.5	---	---	---	24.0	21.5	22.5
9	22.5	19.5	21.0	24.0	22.0	23.0	---	---	---	22.5	20.5	21.5
10	24.0	21.0	22.5	23.5	22.5	23.0	---	---	---	23.5	20.0	21.5
11	25.5	22.0	24.0	26.5	22.5	24.0	28.5	---	---	22.5	20.0	21.5
12	---	---	---	26.0	22.5	24.0	28.0	25.0	26.5	21.5	19.0	20.0
13	---	---	---	26.0	22.5	24.0	28.5	24.5	26.5	21.0	18.5	19.5
14	---	---	---	24.5	22.0	23.5	29.0	25.0	27.0	20.5	18.0	19.5
15	---	---	---	25.0	21.5	23.0	29.5	26.0	27.5	19.5	18.0	18.5
16	---	---	---	23.0	21.0	22.0	27.0	25.0	26.0	19.0	17.0	18.0
17	---	---	---	24.5	20.0	22.0	27.0	23.5	25.5	19.0	17.5	18.0
18	---	---	---	24.5	20.5	22.5	26.0	23.5	24.5	18.5	17.0	17.5
19	---	---	---	26.0	21.0	23.5	26.5	23.0	25.0	18.0	17.0	17.5
20	---	---	---	27.0	22.5	24.5	27.0	23.5	25.0	17.5	16.5	17.0
21	---	---	---	27.5	23.5	25.5	27.0	23.5	25.5	17.5	16.0	16.5
22	---	---	---	27.5	23.5	25.0	26.0	23.5	24.5	18.5	15.5	17.0
23	---	---	---	26.0	23.5	24.5	25.5	22.5	24.0	17.0	16.0	16.5
24	---	---	---	26.5	22.5	24.5	26.0	22.0	24.0	17.0	15.5	16.0
25	28.5	---	---	26.5	22.5	24.5	27.0	23.0	25.0	16.0	15.0	15.5
26	28.0	24.5	26.5	26.0	22.5	24.0	26.0	23.5	25.0	---	---	---
27	28.0	24.5	26.5	26.0	22.0	24.0	27.5	24.0	25.5	---	---	---
28	26.0	23.5	24.5	26.5	22.0	24.5	25.5	24.0	24.5	---	---	---
29	26.0	23.0	24.0	26.5	22.5	24.5	24.0	23.0	23.5	---	---	---
30	26.5	22.0	24.5	26.5	22.5	24.5	26.0	22.5	24.0	14.0	---	---
31	---	---	---	27.0	22.5	25.0	24.5	22.5	23.5	---	---	---
MONTH	---	---	---	27.5	20.0	24.0	---	---	---	---	---	---

NORTH UMPQUA RIVER BASIN

14313000 LEMOLO LAKE NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'10", long 122°11'20", in SE¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, at Lemolo No. 1 diversion dam on North Umpqua River, 0.8 mi downstream from Lake Creek, 13.0 mi east of town of Toketee Falls, and at mile 93.01.

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--July 1954 to current year. Prior to October 1960, published as Lemolo Reservoir near Toketee Falls.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.).

REMARKS.--Lake is formed by Lemolo No 1 diversion dam. Storage began July 15, 1954. Usable capacity for normal operation, 12,520 acre-ft between elevations 4,097.0 ft and 4,148.5 ft. Dead storage below 4,097.0 ft, 1,040 acre-ft. Water is used for power generation. Figures given herein represent total contents.

COOPERATION.--Gage readings furnished by Pacific Power & Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 14,000 acre-ft Dec. 24, 1964, elevation, 4,149.5 ft; minimum observed, 11 acre-ft Mar. 5, 1955, elevation, 4,055.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 13,380 acre-ft June 1, elevation, 4,148.08 ft; minimum observed, 3,030 acre-ft Feb. 12, elevation, 4,114.15 ft.

MONTHEND ELEVATION AND CONTENTS AT 0900, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30.....	4,146.1	12,560	-
Oct. 31.....	4,136.8	9,140	-3,420
Nov. 30.....	4,132.6	7,790	-1,350
Dec. 31.....	4,119.8	4,210	-3,580
CAL YR 1985.....	-	-	-2,780
Jan. 31.....	4,122.6	4,910	+700
Feb. 28.....	4,141.1	10,640	+5,730
Mar. 31.....	4,142.8	11,270	+630
Apr. 30.....	4,144.4	11,890	+620
May 31.....	4,148.0	13,350	+1,460
June 30.....	4,146.8	12,850	-500
July 31.....	4,146.4	12,680	-170
Aug. 31.....	4,147.0	12,930	+250
Sept.30.....	4,143.5	11,540	-1,390
WTR YR 1986.....	-	-	-1,020

NORTH UMPQUA RIVER BASIN

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14313500 NORTH UMPQUA RIVER BELOW LEMOLO LAKE, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°19'20", long 122°11'40", in NW¼NW¼ sec.11, T.26 S., R.5 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 0.4 mi downstream from Lemolo Lake, 13 mi east of town of Toketee Falls, and at mile 92.6.

DRAINAGE AREA.--170 mi² (see REMARKS).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Records since October 1983 are equivalent to earlier records if diversion to Lemolo No. 1 power canal is added to flow past station. Published as "below Lake Creek" prior to October 1952, as "below Lake Creek, near Toketee Falls" October 1952 to September 1953, and as "below Lemolo Reservoir near Toketee Falls" October 1953 to September 1960.

REVISED RECORDS.--WSP 1448: Drainage area. WRD OR-75-1: 1964(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,025 ft, from river-profile map. Prior to July 15, 1954, at site 1 mi upstream at datum about 65 ft higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft upstream at datum 14.11 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since 1954 by Lemolo Lake (see station 14313000); also slightly regulated by Diamond Lake. Records given herein do not include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mi upstream from station for power generation with return flow 4.3 mi downstream.

AVERAGE DISCHARGE.--55 years (1928-83), 423 ft³/s, 33.79 in/yr, 306,500 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,600 ft³/s Dec. 25, 1964, from rating curve extended above 450 ft³/s on basis of slope-area measurement of peak flow, gage height, 9.20 ft, from floodmark; minimum discharge, 6.4 ft³/s July 17, 1954.

Combined flow, maximum discharge, 4,680 ft³/s Dec. 25, 1964, from river rating curve extended above 450 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 9.7 ft³/s May 13, 1955.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 528 ft³/s Mar. 11, gage height, 6.51 ft; minimum discharge, 19 ft³/s Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	26	25	28	30	40	31	32	282	32	29	30
2	20	26	25	28	30	40	31	31	280	32	29	30
3	20	26	25	28	29	40	31	31	280	32	30	30
4	20	26	25	28	29	40	31	31	213	32	30	29
5	20	26	25	27	29	39	31	31	142	32	30	30
6	20	26	25	27	29	39	31	32	69	32	30	30
7	20	26	25	27	28	45	31	32	32	196	30	30
8	20	26	25	27	28	44	31	31	32	342	30	30
9	19	26	25	28	27	90	31	31	32	378	30	29
10	27	26	24	28	26	466	31	31	32	389	30	29
11	31	26	24	28	26	414	31	31	32	389	30	29
12	29	26	24	28	26	331	31	31	32	388	32	29
13	28	26	24	27	26	329	31	31	32	388	32	29
14	28	26	24	27	27	274	30	31	32	389	32	29
15	27	26	24	27	27	238	30	31	32	388	33	29
16	26	26	24	29	28	196	30	31	32	390	33	29
17	26	26	23	29	30	144	30	31	32	390	34	29
18	26	26	23	30	31	113	30	31	32	391	33	30
19	26	26	23	31	90	104	29	33	31	391	33	30
20	26	26	29	31	219	58	29	36	32	392	32	30
21	26	26	31	32	217	31	29	86	32	393	32	30
22	26	26	30	32	37	31	29	105	32	392	32	30
23	29	25	30	32	43	31	29	63	32	392	31	31
24	27	25	30	32	42	32	30	35	32	391	30	31
25	27	25	29	31	42	31	30	35	32	273	30	30
26	27	25	29	31	41	31	30	35	32	33	30	30
27	27	25	29	31	40	32	31	37	32	32	30	30
28	26	25	29	31	40	32	31	97	32	31	30	29
29	26	25	29	31	---	32	31	138	32	30	30	29
30	26	25	28	31	---	32	31	136	32	30	30	29
31	26	---	28	30	---	31	---	170	---	29	30	---
TOTAL	773	772	813	907	1317	3430	912	1567	2033	7419	957	889
MEAN	24.9	25.7	26.2	29.3	47.0	111	30.4	50.5	67.8	239	30.9	29.6
MAX	31	26	31	32	219	466	31	170	282	393	34	31
MIN	19	25	23	27	26	31	29	31	31	29	29	29
AC-FT	1530	1530	1610	1800	2610	6800	1810	3110	4030	14720	1900	1760
CAL YR 1985	TOTAL	18718	MEAN	51.3	MAX	458	MIN	17	AC-FT	37130		
WTR YR 1986	TOTAL	21789	MEAN	59.7	MAX	466	MIN	19	AC-FT	43220		

NORTH UMPQUA RIVER BASIN

14314500 CLEARWATER RIVER ABOVE TRAP CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°14'40", long 122°17'10", in SW¼ sec.1, T.27 S., R.4 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 900 ft downstream from Clearwater No. 1 diversion dam, 0.4 mi upstream from Trap Creek, 8.7 mi east of town of Toketee Falls, and at mile 7.8.

DRAINAGE AREA.--41.6 mi². (See REMARKS.)

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. Records since October 1983 are equivalent to earlier records if diversion to Clearwater No. 1 power canal is added to flow past station. Monthly discharge only December 1927 to March 1928, published in WSP 1318. Prior to October 1952, published as "above Trap Creek."

REVISED RECORDS.--WSP 1124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,862.84 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Records after September 1983 do not include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft upstream from station for generation of power and returns water to Clearwater River 2.5 mi downstream from station.

AVERAGE DISCHARGE.--55 years (1928-83), 173 ft³/s, 125,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 848 ft³/s Dec. 23, 1964, gage height, 7.19 ft; maximum gage height, 7.87 ft Dec. 23, 1964, log jam; minimum discharge, 0.08 ft³/s Sept. 21, 1977, result of beavers plugging release gate at diversion dam 900 ft upstream.

Combined flow, maximum discharge, 1,020 ft³/s Dec. 23, 1964; minimum daily, 91 ft³/s Nov. 4-6, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 225 ft³/s May 20, gage height, 4.59 ft; minimum discharge, 1.9 ft³/s Aug. 16, 17, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.9	5.8	6.0	6.5	66	15	6.9	12	5.7	5.5	5.7
2	5.9	5.9	6.2	5.9	6.5	59	12	7.3	13	5.7	5.4	5.7
3	5.9	5.9	6.2	5.9	6.5	52	10	7.4	21	5.7	5.5	5.6
4	5.9	5.9	5.9	5.8	6.4	47	9.4	7.0	10	5.9	5.5	5.5
5	5.9	5.9	5.9	6.0	6.3	46	8.5	7.0	7.5	5.8	5.5	5.5
6	5.9	5.9	6.0	5.9	6.3	48	8.2	6.9	6.8	5.7	5.5	5.5
7	5.9	5.9	6.1	5.9	6.3	125	8.4	6.7	6.6	5.7	5.5	5.5
8	5.9	5.9	5.9	5.9	6.2	116	9.0	6.7	6.4	5.7	5.5	5.5
9	5.9	5.9	5.9	6.2	6.1	85	8.7	6.8	6.3	5.7	5.5	5.5
10	5.9	5.9	5.9	6.1	6.1	67	8.6	6.9	6.3	5.7	5.5	5.5
11	6.0	5.9	5.9	6.1	6.1	56	8.2	6.7	6.4	5.7	5.5	5.5
12	5.9	20	5.9	6.1	6.2	47	8.2	122	6.4	5.7	5.5	5.5
13	5.9	6.4	5.9	6.1	6.3	39	7.7	199	6.4	5.7	5.5	5.5
14	5.9	6.1	5.9	5.9	6.3	32	7.4	199	6.3	5.7	5.4	5.5
15	5.9	6.3	5.8	6.0	6.5	27	7.2	198	6.2	5.5	5.4	5.5
16	5.9	6.3	5.7	8.2	6.7	23	7.3	198	6.1	5.5	4.8	5.5
17	5.9	6.1	5.7	8.4	7.7	19	7.2	200	6.1	5.5	2.1	5.7
18	5.9	5.9	5.7	6.7	8.6	16	7.0	204	6.2	5.5	2.1	5.7
19	5.9	5.9	5.7	6.7	7.4	14	6.9	209	6.1	5.5	2.0	5.6
20	5.9	5.9	5.7	6.5	6.9	13	6.9	205	6.0	5.5	2.0	5.7
21	5.9	5.9	5.7	6.3	6.8	13	7.2	198	5.9	5.5	3.9	5.5
22	6.4	5.9	5.7	6.4	41	11	7.9	197	5.9	5.5	5.7	5.5
23	7.1	5.9	5.7	6.5	97	15	7.5	141	5.9	5.5	5.7	5.6
24	6.3	5.9	5.7	6.3	86	23	7.2	7.2	6.0	5.5	5.7	6.1
25	6.3	5.7	5.7	6.3	79	15	7.2	7.3	5.9	5.5	5.7	6.0
26	6.1	5.7	5.7	6.3	76	14	7.0	9.1	5.9	5.5	5.7	6.1
27	6.0	5.7	5.7	6.3	76	14	7.3	11	5.9	5.5	5.7	5.9
28	6.0	5.9	5.7	6.3	72	16	7.3	13	5.9	5.5	5.7	5.7
29	5.9	5.7	5.7	6.5	---	17	7.0	16	5.9	5.5	5.7	5.7
30	5.9	5.7	5.7	6.5	---	18	6.9	18	5.8	5.5	5.7	5.7
31	5.9	---	5.7	6.5	---	16	---	13	---	5.4	5.7	---
TOTAL	185.9	191.8	180.4	196.5	665.7	1169	244.3	2440.9	217.1	173.5	156.1	169.0
MEAN	6.00	6.39	5.82	6.34	23.8	37.7	8.14	78.7	7.24	5.60	5.04	5.63
MAX	7.1	20	6.2	8.4	97	125	15	209	21	5.9	5.7	6.1
MIN	5.9	5.7	5.7	5.8	6.1	11	6.9	6.7	5.8	5.4	2.0	5.5
AC-FT	369	380	358	390	1320	2320	485	4840	431	344	310	335
CAL YR 1985	TOTAL	5814.2	MEAN	15.9	MAX	267	MIN	5.1	AC-FT	11530		
WTR YR 1986	TOTAL	5990.2	MEAN	16.4	MAX	209	MIN	2.0	AC-FT	11880		

14316000 FISH CREEK AT BIG CAMAS RANGER STATION, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°13'50", long 122°26'45", in SE¼ sec.10, T.27 S., R.3 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, 0.2 mi upstream from Camas Creek, 0.7 mi east of Big Camas ranger station, 3.2 mi south of town of Toketee Falls, and at mile 4.7.

DRAINAGE AREA.--68.8 mi² (see REMARKS).

PERIOD OF RECORD.--October 1947 to current year. Records since October 1983 are equivalent to earlier records if diversion to Fish Creek power canal is added to flow past station. Prior to October 1952, published as "at Big Camas ranger station."

REVISED RECORDS.--WSP 1448: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,858.52 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Prior to July 10, 1951, water-stage recorder and July 10 to Aug. 10, 1951, nonrecording gage at site 1,000 ft upstream at datum 13.72 ft higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft higher.

REMARKS.--Estimated daily discharges: Nov. 11-14, 22-27, Dec. 11. Records good except for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Records given herein do not include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 mi upstream from station for power generation at Fish Creek powerplant; diversion discharged to North Umpqua River 600 ft downstream from Toketee powerplant.

AVERAGE DISCHARGE.--36 years (1947-83), 237 ft³/s, 46.78 in/yr, 171,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,100 ft³/s Dec. 22, 1964, gage height, 13.9 ft, from floodmark; minimum discharge, 2.3 ft³/s Sept. 25, 1957.

Combined flow, maximum discharge, 12,100 ft³/s Dec. 22, 1964; minimum daily, 19 ft³/s July 30, 1979, result of diversion dam manipulation.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 3,480 ft³/s Feb. 23, gage height, 7.98 ft; minimum discharge, 6.2 ft³/s Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	9.6	17	19	233	207	554	161	140	203	26	25	49		
2	9.2	15	98	194	211	473	134	208	269	24	26	48		
3	8.9	13	221	149	196	422	122	230	306	24	29	48		
4	8.5	14	111	116	169	395	109	206	218	44	28	47		
5	8.1	14	90	138	144	380	90	198	184	31	28	46		
6	7.8	12	141	142	115	386	90	181	161	26	27	46		
7	8.0	12	242	112	94	976	94	166	143	27	26	45		
8	7.9	17	167	120	76	803	104	157	128	26	28	46		
9	7.8	15	107	282	66	598	104	158	90	28	33	46		
10	8.3	13	77	270	58	474	103	157	52	35	32	46		
11	16	9.0	64	220	53	421	97	142	48	34	31	45		
12	16	9.0	51	179	60	379	94	120	44	31	31	45		
13	10	8.0	44	161	112	348	89	168	41	29	30	44		
14	9.0	8.0	37	141	149	283	83	117	41	27	30	45		
15	8.2	94	34	130	214	227	80	111	36	26	29	48		
16	7.8	135	31	394	396	198	83	152	33	26	28	51		
17	7.7	77	29	597	554	172	83	262	32	25	28	85		
18	7.2	52	34	458	669	154	106	280	41	28	27	71		
19	6.6	39	43	382	577	146	95	294	34	36	27	56		
20	6.5	33	54	299	468	142	116	321	28	34	26	64		
21	17	27	60	234	440	131	161	202	27	33	26	55		
22	133	26	64	236	2020	110	202	160	26	31	26	50		
23	500	20	72	261	2840	156	144	143	25	29	25	57		
24	217	16	84	182	1610	253	106	143	26	28	34	143		
25	127	12	94	152	1180	194	99	166	29	27	52	185		
26	76	10	93	127	1000	175	86	193	26	26	51	211		
27	46	10	85	139	873	177	172	197	28	26	51	137		
28	44	20	75	173	697	186	207	204	32	26	51	120		
29	27	20	64	227	---	193	162	239	30	28	50	116		
30	22	17	55	250	---	206	147	247	28	29	50	139		
31	19	---	52	219	---	208	---	225	---	26	50	---		
TOTAL	1407.1	784.0	2492	6917	15248	9920	3523	5887	2409	896	1035	2234		
MEAN	45.4	26.1	80.4	223	545	320	117	190	80.3	28.9	33.4	74.5		
MAX	500	135	242	597	2840	976	207	321	306	44	52	211		
MIN	6.5	8.0	19	112	53	110	80	111	25	24	25	44		
CFSM	.66	.38	1.17	3.24	7.92	4.65	1.70	2.76	1.17	.42	.49	1.08		
IN.	.76	.42	1.35	3.74	8.24	5.36	1.90	3.18	1.30	.48	.56	1.21		
AC-FT	2790	1560	4940	13720	30240	19680	6990	11680	4780	1780	2050	4430		
CAL YR 1985	TOTAL	35625.0	MEAN	97.6	MAX	540	MIN	6.5	CFSM	1.42	IN.	19.26	AC-FT	70660
WTR YR 1986	TOTAL	52752.1	MEAN	145	MAX	2840	MIN	6.5	CFSM	2.11	IN.	28.52	AC-FT	104600

14316500 NORTH UMPQUA RIVER ABOVE COPELAND CREEK, NEAR TOKETEE FALLS, OR

LOCATION.--Lat 43°17'45", long 122°32'10", in NW¼ sec.24, T.26 S., R.2 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on left bank 0.6 mi upstream from Copeland Creek, 4.7 mi west of town of Toketee Falls, and at mile 67.2.

DRAINAGE AREA.--475 mi².

PERIOD OF RECORD.--September 1949 to current year. Monthly discharge only September 1949, published in WSP 1318. Prior to October 1952, published as "above Copeland Creek."

REVISED RECORDS.--WSP 1448: 1953(M), 1954, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,580 ft, from river-profile map. Prior to Aug. 1, 1976, on right bank at same datum.

REMARKS.--Estimated daily discharges: May 21-23. Records excellent. Considerable fluctuation caused by powerplants upstream; flow slightly regulated by Diamond Lake and by Lemolo Lake (see station 14313000). No diversion upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years, 1,519 ft³/s, 1,101,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft³/s Dec. 22, 1964, gage height, 19.1 ft, from floodmark, from rating curve extended above 7,200 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 370 ft³/s Sept. 30, 1981; minimum daily, 565 ft³/s Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,700 ft³/s Feb. 23, gage height, 12.95 ft; minimum discharge, 623 ft³/s Oct. 18, 19; minimum daily, 640 ft³/s Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	965	959	1130	1720	1780	3520	1800	1750	1890	1090	912	843
2	998	1020	1390	1540	1770	3120	1700	1790	1860	1100	933	829
3	996	1020	1950	1610	1810	2870	1650	2030	2100	1100	879	834
4	984	961	1640	1490	1770	2700	1630	1890	1900	1070	851	836
5	941	963	1550	1410	1730	2540	1620	1940	1640	1060	907	837
6	938	918	1920	1610	1640	2530	1570	1970	1620	1060	938	802
7	942	845	2390	1420	1570	4040	1530	1880	1420	1030	913	803
8	968	929	1940	1330	1430	3930	1570	1770	1390	891	892	819
9	975	990	1660	1880	1420	3460	1560	1760	1440	926	851	840
10	967	1050	1430	1950	1360	2950	1560	1800	1340	1010	863	841
11	947	998	1310	1870	1300	3120	1550	1730	1280	1010	867	840
12	956	901	1270	1730	1310	2900	1560	1720	1350	955	865	841
13	962	928	1230	1670	1530	2810	1570	1620	1350	935	833	821
14	959	910	1200	1480	1990	2570	1520	1660	1330	947	826	780
15	945	1170	1160	1470	1930	2410	1510	1640	1240	1000	829	788
16	937	1720	1140	1820	2290	2290	1450	1540	1240	943	887	823
17	865	1470	1040	2710	2740	2100	1470	1510	1240	934	827	934
18	695	1280	1210	2240	3540	2010	1500	1570	1180	976	832	928
19	640	1160	1270	2130	3320	1930	1420	1540	1140	950	911	803
20	682	1150	1360	1940	3050	1900	1520	1800	1200	951	913	851
21	763	1110	1440	1880	3100	1820	1660	1750	1200	948	872	861
22	1000	1110	1450	1890	7780	1800	1640	1700	1160	945	837	843
23	2210	1050	1420	1980	10700	1750	1660	1670	1110	945	833	813
24	1670	1050	1450	1920	6760	2040	1530	1630	1060	939	828	1200
25	1370	1050	1540	1860	5510	1620	1550	1600	1080	936	826	1400
26	1300	992	1520	1750	4770	1560	1530	1730	1090	964	863	1660
27	1110	988	1470	1710	4330	1870	1810	1760	1140	1020	868	1350
28	1060	1020	1390	1760	3900	1870	1980	1780	1100	1020	850	1250
29	1050	1110	1350	1830	---	1830	1840	1900	1030	938	855	1170
30	1070	1100	1270	1850	---	1920	1750	1860	1060	913	842	1230
31	1020	---	1160	1810	---	1830	---	1830	---	907	813	---
TOTAL	31885	31922	44650	55260	86130	75610	48210	54120	40180	30413	26816	28470
MEAN	1029	1064	1440	1783	3076	2439	1607	1746	1339	981	865	949
MAX	2210	1720	2390	2710	10700	4040	1980	2030	2100	1100	938	1660
MIN	640	845	1040	1330	1300	1560	1420	1510	1030	891	813	780
AC-FT	63240	63320	88560	109600	170800	150000	95620	107300	79700	60320	53190	56470
CAL YR 1985	TOTAL	491872	MEAN	1348	MAX	2810	MIN	640	AC-FT	975600		
WTR YR 1986	TOTAL	553666	MEAN	1517	MAX	10700	MIN	640	AC-FT	1098000		

NORTH UMPQUA RIVER BASIN

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14316700 STEAMBOAT CREEK NEAR GLIDE, OR

LOCATION.--Lat 43°21'00", long 122°43'40", in N-1/2 sec.32, T.25-1/2 S., R.1 E., Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank in Canton Creek Forest Service Park, 200 ft downstream from Canton Creek, 19 mi northeast of Glide, and at mile 0.5.

DRAINAGE AREA.--227 mi².

PERIOD OF RECORD.--Annual maximum, water year 1956, June 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,128.55 ft above National Geodetic Vertical Datum of 1929 (levels by Federal Highway Administration). October 1955 to June 1956, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 19-24. Records excellent except for estimated daily discharges, which are fair. No regulation or diversion upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--30 years, 749 ft³/s, 44.81 in/yr, 542,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s Dec. 22, 1964, gage height, 25.6 ft, from floodmark, from rating curve extended above 13,000 ft³/s on basis of slope-area measurement at 17.96 ft; minimum discharge, 30 ft³/s Sept. 15-17, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 22	0830	21,100	15.55	Feb. 23	0400	*21,800	*15.83

Minimum discharge, 37 ft³/s Sept. 10-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	45	198	409	999	825	1240	421	764	213	88	55	41		
2	45	180	2110	1070	771	997	385	846	202	84	54	41		
3	44	161	3680	1190	1090	836	350	1110	201	84	52	41		
4	44	153	2040	859	1330	731	330	948	183	134	51	41		
5	43	181	1830	815	1430	656	312	1040	172	142	50	40		
6	42	159	3720	956	1150	619	291	1330	164	104	50	39		
7	43	158	4580	738	900	1710	280	1310	159	93	49	39		
8	42	294	2810	751	742	2070	273	1020	152	89	49	39		
9	41	502	1670	2540	627	2910	264	851	144	86	48	39		
10	41	386	1130	1940	549	1850	252	810	138	86	46	38		
11	60	294	839	1250	487	1570	242	875	132	89	46	37		
12	79	241	670	917	541	1620	288	868	126	84	45	37		
13	62	209	557	743	1660	1670	345	808	122	79	45	37		
14	54	193	481	624	1980	1550	369	707	124	76	45	38		
15	50	708	437	562	1970	1240	382	597	123	74	45	43		
16	48	2270	463	1880	3190	990	459	515	118	74	44	48		
17	48	1430	545	4220	3490	831	838	458	122	76	43	82		
18	47	806	707	2320	5140	712	795	429	202	73	43	149		
19	47	568	753	2070	3970	639	676	400	166	72	43	114		
20	47	492	744	2240	3310	615	658	402	132	69	43	83		
21	100	417	678	1640	4300	590	619	412	121	66	43	65		
22	450	376	621	1840	16700	534	537	397	114	65	42	56		
23	2600	307	632	3110	16500	560	441	367	109	64	42	62		
24	1550	281	647	2330	6560	1190	378	335	104	62	42	362		
25	877	261	649	1540	3870	1010	439	316	100	61	42	1580		
26	683	236	565	1190	2690	823	477	309	96	60	42	2220		
27	411	220	483	1000	2090	702	1410	291	95	60	42	1010		
28	422	296	414	889	1590	617	1880	275	93	59	41	575		
29	336	435	363	893	---	551	1220	258	94	57	41	356		
30	262	371	323	1180	---	499	925	246	91	57	42	459		
31	229	---	299	981	---	447	---	230	---	56	42	---		
TOTAL	8892	12783	35849	45277	89452	32579	16536	19524	4112	2423	1407	7811		
MEAN	287	426	1156	1461	3195	1051	551	630	137	78.2	45.4	260		
MAX	2600	2270	4580	4220	16700	2910	1880	1330	213	142	55	2220		
MIN	41	153	299	562	487	447	242	230	91	56	41	37		
CFSM	1.26	1.88	5.09	6.44	14.1	4.63	2.43	2.78	.60	.34	.20	1.15		
IN.	1.46	2.09	5.87	7.42	14.66	5.34	2.71	3.20	.67	.40	.23	1.28		
AC-FT	17640	25360	71110	89810	177400	64620	32800	38730	8160	4810	2790	15490		
CAL YR 1985	TOTAL	197663	MEAN	542	MAX	4580	MIN	39	CFSM	2.39	IN.	32.39	AC-FT	392100
WTR YR 1986	TOTAL	276645	MEAN	758	MAX	16700	MIN	37	CFSM	3.34	IN.	45.34	AC-FT	548700

NORTH UMPQUA RIVER BASIN

14318000 LITTLE RIVER AT PEEL, OR

LOCATION.--Lat 43°15'10", long 123°01'30", in NW¼ sec.2, T.27 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on left bank 0.6 mi southeast of Peel, 0.9 mi downstream from Cavitt Creek, and at mile 6.3.

DRAINAGE AREA.--177 mi².

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. No regulation. Small diversions for rural domestic use and irrigation upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--32 years, 476 ft³/s, 36.52 in/yr, 344,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s Dec. 11, 1956, gage height, 19.63 ft, from rating curve extended above 5,900 ft³/s on basis of slope-area measurement at gage height 16.55 ft; minimum discharge, 14 ft³/s at times in 1967, 1974, 1977, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft, from floodmark, discharge, 22,700 ft³/s, from rating curve extended above 5,900 ft³/s on basis of slope-area measurement at gage height 16.55 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	0500	*10,300	*13.88	No other peak greater than base discharge.			

Minimum discharge, 14 ft³/s Sept. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	23	156	539	372	388	720	264	622	140	55	28	18		
2	22	135	2160	420	455	594	259	693	132	52	26	17		
3	22	118	2760	449	703	503	239	807	132	53	25	16		
4	22	115	1500	360	812	438	223	729	122	73	25	16		
5	22	149	1250	357	884	393	211	996	116	81	24	16		
6	22	125	1990	405	728	368	196	1240	112	61	24	15		
7	21	113	2500	337	579	1100	186	1070	110	56	24	14		
8	20	213	1710	344	474	1510	178	831	105	56	23	15		
9	21	423	1060	832	399	2170	175	669	100	53	22	16		
10	21	323	754	747	349	1340	166	603	95	54	21	16		
11	29	234	566	560	310	1140	159	594	90	57	21	16		
12	47	189	451	439	346	1050	200	544	85	52	21	16		
13	34	164	375	370	667	1020	291	491	81	47	20	16		
14	28	150	323	323	832	973	309	433	81	46	20	16		
15	27	520	292	296	1010	812	306	378	84	44	19	17		
16	26	1390	277	732	1510	658	314	335	79	43	19	21		
17	26	1090	276	1680	1510	565	546	301	84	44	19	38		
18	26	666	298	1030	4320	492	593	275	128	42	18	112		
19	25	460	312	1650	5240	439	500	256	107	41	19	86		
20	26	427	317	1650	3270	404	456	252	87	39	19	54		
21	110	370	308	1080	2500	389	415	285	79	38	18	41		
22	464	326	294	1140	7030	354	364	337	75	35	17	33		
23	1610	264	297	1680	8290	359	316	295	70	35	18	37		
24	877	235	301	1120	3670	617	275	260	67	35	17	323		
25	515	225	302	826	2170	560	324	236	64	34	17	798		
26	426	203	281	644	1520	473	373	217	62	32	16	1360		
27	278	187	253	545	1140	409	1220	204	60	31	16	1090		
28	361	611	228	487	892	361	1630	190	59	31	16	549		
29	261	862	207	458	---	322	1120	176	63	30	17	334		
30	202	516	190	456	---	293	812	163	60	29	19	302		
31	184	---	178	397	---	268	---	151	---	28	19	---		
TOTAL	5798	10959	22549	22186	51998	21094	12620	14633	2729	1407	627	5418		
MEAN	187	365	727	716	1857	680	421	472	91.0	45.4	20.2	181		
MAX	1610	1390	2760	1680	8290	2170	1630	1240	140	81	28	1360		
MIN	20	113	178	296	310	268	159	151	59	28	16	14		
CFSM	1.06	2.06	4.11	4.05	10.5	3.84	2.38	2.67	.51	.26	.11	1.02		
IN.	1.22	2.30	4.74	4.66	10.93	4.43	2.65	3.08	.57	.30	.13	1.14		
AC-FT	11500	21740	44730	44010	103100	41840	25030	29020	5410	2790	1240	10750		
CAL YR 1985	TOTAL	121296	MEAN	332	MAX	2760	MIN	19	CFSM	1.88	IN.	25.49	AC-FT	240600
WTR YR 1986	TOTAL	172018	MEAN	471	MAX	8290	MIN	14	CFSM	2.66	IN.	36.15	AC-FT	341200

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR

LOCATION.--Lat 43°16'20", long 123°24'40", in NW¼NE¼ sec.33, T.26 S., R.6 W., Douglas County, Hydrologic Unit 17100301, on left bank 400 ft downstream from county bridge, 3.0 mi west of Winchester, and at mile 1.8.

DRAINAGE AREA.--1,344 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1908 to December 1913, October 1923 to September 1929, August 1954 to current year. Prior to December 1908, monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1909-12, drainage area. WDR OR-72-1: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 372.97 ft above National Geodetic Vertical Datum of 1929 (Douglas County Road Department bench mark). Oct. 1, 1908, to Dec. 31, 1913, and Oct. 1, 1923, to Sept. 30, 1929, nonrecording gage at site 4.8 mi upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Diurnal fluctuation caused by upstream powerplants; slight regulation by Lemolo Lake and Diamond Lake. Several small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--43 years, 3,796 ft³/s, 38.36 in/yr, 2,750,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s Dec. 22, 1964, gage height, 34.2 ft, from floodmark; minimum discharge, 374 ft³/s Sept. 18, 1983; minimum daily, 578 ft³/s Sept. 14, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of 23.2 ft, from floodmark, at site 4.8 mi upstream at different datum, discharge, 88,000 ft³/s. Flood of Nov. 23, 1953, reached a stage of 28.4 ft, from floodmarks, present site and datum, discharge, 93,300 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0900	34,700	14.10	Feb. 23	0900	(a)	*23.02
Feb. 23	0900	*68,300	22.65				

Minimum discharge, 607 ft³/s Oct. 20.

(a) From outside gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1070	1730	2690	2090	4390	7550	3150	4490	2570	1360	1050	901		
2	1090	1580	6180	4080	4250	6510	3100	4340	2580	1380	1060	927		
3	1130	1570	15200	4320	5160	5660	2880	5390	2660	1380	1070	907		
4	1130	1530	9160	4430	5860	5090	2740	5320	2660	1420	1010	913		
5	1110	1540	7130	3750	6460	4700	2680	5300	2470	1550	954	910		
6	1060	1520	10300	3790	5950	4430	2590	7670	2210	1430	1040	912		
7	1060	1420	15100	4030	4970	7590	2500	6880	2120	1370	1060	862		
8	1060	1380	11800	3540	4370	11100	2440	5770	1930	1350	1020	873		
9	1090	2450	7390	3360	3910	13400	2460	4830	1890	1100	1010	901		
10	1090	2690	5390	7490	3590	9990	2410	4560	1900	1200	949	928		
11	1120	2160	4650	6750	3350	8500	2370	4560	1770	1310	974	923		
12	1180	1840	4040	5210	3060	8620	2430	4370	1720	1290	968	925		
13	1180	1610	3560	4340	3440	8380	2790	4160	1760	1220	960	924		
14	1140	1610	3170	3860	5870	8030	2850	3810	1740	1170	924	896		
15	1120	1570	2850	3360	7670	6820	2770	3580	1730	1180	909	859		
16	1090	7300	2660	3240	9730	5900	2800	3310	1650	1230	906	908		
17	1090	7120	2520	10100	12600	5150	3620	3020	1660	1170	976	993		
18	1010	4690	2490	12400	27600	4590	4150	2900	1770	1150	911	1370		
19	813	3420	2720	8590	26100	4170	3750	2850	1780	1200	927	1380		
20	711	3020	3010	10900	19300	3990	3480	2830	1620	1170	1020	1120		
21	946	2880	3110	9260	16500	3820	3470	3120	1610	1160	1010	1110		
22	1320	2680	3130	6970	44400	3640	3350	3260	1590	1140	962	1040		
23	8400	2370	3060	9760	59200	3500	3150	3080	1520	1130	920	1030		
24	8140	2130	3000	11100	30700	4710	2930	2850	1460	1140	921	1400		
25	4030	2030	3040	8080	18700	5000	2870	2720	1400	1120	912	3520		
26	3760	1930	3130	6200	13600	4020	3120	2680	1400	1100	904	8430		
27	2750	1770	3020	5190	11200	3880	4680	2710	1420	1150	959	5880		
28	2380	2150	2810	4700	9140	3810	8230	2680	1440	1210	960	3770		
29	2280	3590	2590	4470	---	3560	6530	2730	1410	1200	934	2660		
30	1970	3080	2400	4860	---	3450	5180	2720	1350	1090	955	2490		
31	1850	---	2250	4830	---	3330	---	2630	---	1060	932	---		
TOTAL	59170	76360	153550	185050	371070	182890	101470	121120	54790	38130	30067	50662		
MEAN	1909	2545	4953	5969	13250	5900	3382	3907	1826	1230	970	1689		
MAX	8400	7300	15200	12400	59200	13400	8230	7670	2660	1550	1070	8430		
MIN	711	1380	2250	2090	3060	3330	2370	2630	1350	1060	904	859		
CFSM	1.42	1.89	3.69	4.44	9.86	4.39	2.52	2.91	1.36	.92	.72	1.26		
IN.	1.64	2.11	4.25	5.12	10.27	5.06	2.81	3.35	1.52	1.06	.83	1.40		
AC-FT	117400	151500	304600	367000	736000	362800	201300	240200	108700	75630	59640	100500		
CAL YR 1985	TOTAL	1105267	MEAN	3028	MAX	15200	MIN	711	CFSM	2.25	IN.	30.59	AC-FT	2192000
WTR YR 1986	TOTAL	1424329	MEAN	3902	MAX	59200	MIN	711	CFSM	2.90	IN.	39.42	AC-FT	2825000

NORTH UMPQUA RIVER BASIN
14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-69, 1971 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1971 to current year.

INSTRUMENTATION.--Temperature recorder since 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.5°C Aug. 10, 1972, Aug. 8, 9, 1978, Aug. 9, 10, 1981; minimum, 0.0°C at times in 1971-72, 1974, 1977, 1980, 1984.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.5°C Aug. 8, 9; minimum, 2.0°C Dec. 12-14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	12.0	12.5				---	---	---	5.0	3.5	4.0
2	13.5	11.5	12.5				---	---	---	5.5	5.0	5.0
3	14.0	12.5	13.0				---	---	---	5.5	4.5	5.0
4	14.0	12.0	13.0				---	---	---	5.0	4.5	4.5
5	14.0	12.5	13.0				6.5	6.5	6.5	5.5	4.5	5.0
6	13.5	12.5	13.0				7.0	6.5	7.0	5.5	5.0	5.5
7	13.0	11.5	12.5				7.0	7.0	7.0	5.5	4.5	5.0
8	12.0	10.0	11.0				7.0	6.5	7.0	5.5	4.5	4.5
9	10.5	9.0	9.5				6.5	6.0	6.5	7.0	5.5	6.0
10	10.0	8.0	9.0				6.0	5.0	5.5	7.0	7.0	7.0
11	10.0	8.5	9.5				5.0	3.5	4.0	7.0	6.5	6.5
12	10.0	8.5	9.5				3.5	2.0	2.5	7.0	6.5	6.5
13	10.0	8.5	9.5				2.5	2.0	2.0	6.5	5.5	6.0
14	10.5	8.0	9.0				3.0	2.0	2.5	6.0	6.0	6.0
15	10.5	8.5	9.5				3.0	3.0	3.0	6.5	6.0	6.0
16	10.5	10.0	10.0				3.5	3.0	3.0	7.0	6.5	6.5
17	10.0	9.0	9.5				3.5	3.0	3.0	7.0	7.0	7.0
18	9.5	8.0	9.0				3.0	3.0	3.0	8.0	7.0	7.5
19	10.5	8.5	10.0				3.0	3.0	3.0	8.0	8.0	8.0
20	11.0	10.0	10.5				3.0	3.0	3.0	8.0	7.0	7.5
21	10.5	9.5	10.0				3.0	3.0	3.0	7.0	6.0	6.0
22	10.0	9.5	9.5				3.5	3.0	3.0	6.5	6.0	6.0
23	9.5	8.5	9.5				3.5	3.0	3.5	7.0	6.5	6.5
24	10.5	9.5	10.0				3.5	3.0	3.5	7.0	6.5	6.5
25	11.0	10.0	10.5				3.5	3.0	3.5	6.5	6.0	6.0
26	11.0	10.5	10.5				3.5	3.0	3.0	6.0	5.5	5.5
27	11.0	10.0	10.5				3.0	3.0	3.0	7.0	6.0	6.5
28	10.5	9.5	10.0				3.0	3.0	3.0	7.5	7.0	7.0
29	9.5	8.0	8.5				3.5	3.0	3.0	7.5	7.5	7.5
30	---	---	---				3.5	3.5	3.5	8.0	7.5	8.0
31	---	---	---				3.5	3.5	3.5	8.0	7.5	8.0
MONTH	---	---	---				---	---	---	8.0	3.5	6.0

NORTH UMPQUA RIVER BASIN

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14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.5	7.5	9.0	8.5	9.0	10.5	9.0	9.5	9.5	8.5	9.0
2	8.0	7.5	7.5	9.0	8.0	8.5	9.5	8.0	9.0	10.0	9.0	9.5
3	7.5	7.0	7.5	9.5	8.0	8.5	9.5	8.5	9.0	11.0	9.0	10.0
4	7.0	6.5	7.0	9.5	8.0	8.5	9.5	9.0	9.5	10.5	9.0	10.0
5	7.0	6.5	7.0	9.5	8.5	9.0	9.5	8.5	9.0	10.0	9.0	9.5
6	6.5	6.0	6.5	9.5	9.0	9.5	11.0	9.0	10.0	10.0	8.0	9.0
7	6.0	5.0	5.5	10.0	9.5	9.5	12.5	10.5	11.5	9.5	8.5	9.0
8	5.5	4.0	4.5	9.5	7.5	8.5	12.5	11.5	12.0	11.0	8.5	9.5
9	4.5	3.5	4.0	8.0	7.5	7.5	11.5	11.0	11.5	10.5	10.0	10.5
10	4.5	3.5	4.0	8.5	7.5	8.0	11.5	10.0	11.0	10.0	9.0	9.5
11	5.0	4.0	4.5	8.5	8.0	8.0	11.0	10.0	10.5	9.5	8.5	9.0
12	6.0	5.0	5.5	8.0	7.5	8.0	10.0	9.5	9.5	11.0	8.5	9.5
13	7.0	6.0	6.5	8.0	7.5	7.5	10.0	8.5	9.0	12.0	10.0	11.0
14	7.0	6.5	7.0	7.5	6.5	7.0	9.5	8.5	9.0	13.0	10.5	11.5
15	8.0	7.0	7.5	8.0	7.0	7.5	10.0	9.0	9.5	13.0	10.5	12.0
16	8.5	8.0	8.0	8.0	7.0	7.5	10.0	9.0	9.5	13.5	11.0	12.0
17	8.0	8.0	8.0	8.5	7.5	8.0	10.0	9.0	9.5	14.0	11.5	13.0
18	8.0	6.0	6.5	8.5	7.0	8.0	10.5	8.0	9.0	14.5	13.0	14.0
19	6.5	6.0	6.0	9.0	7.5	8.0	12.0	9.0	10.5	15.0	13.5	14.5
20	7.0	6.5	6.5	9.5	8.0	9.0	13.5	10.5	12.0	15.0	13.5	14.0
21	7.0	6.5	7.0	10.0	8.5	9.5	14.5	12.0	13.5	13.5	12.0	12.5
22	7.5	7.0	7.5	10.0	8.5	9.5	14.5	12.5	13.0	12.5	10.5	11.5
23	8.0	7.5	7.5	10.0	8.5	9.0	12.5	11.0	11.5	13.0	11.5	12.5
24	8.0	7.5	8.0	9.5	8.0	9.0	11.5	9.5	10.0	15.0	12.5	13.5
25	8.0	8.0	8.0	9.5	7.5	8.5	9.5	9.0	9.5	17.0	14.5	15.5
26	9.0	8.0	8.5	10.5	8.0	9.0	9.5	9.0	9.0	17.0	17.0	17.0
27	9.0	8.5	8.5	11.0	9.5	10.5	9.5	8.5	9.0	17.0	16.0	16.5
28	9.0	8.5	8.5	12.0	10.0	11.0	9.0	8.5	8.5	17.5	16.0	17.0
29	---	---	---	12.0	10.5	11.5	9.5	8.0	8.5	18.5	16.5	17.5
30	---	---	---	12.0	10.5	11.0	10.0	8.0	9.0	20.0	18.0	19.0
31	---	---	---	11.0	9.5	10.0	---	---	---	21.0	19.0	20.0
MONTH	9.0	3.5	7.0	12.0	6.5	9.0	14.5	8.0	10.0	21.0	8.0	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	21.0	19.0	20.0	22.0	19.5	20.5	22.5	20.5	21.0	20.0	18.0	18.5
2	20.5	19.5	20.0	21.5	20.5	21.0	23.5	21.5	22.0	21.0	18.5	19.5
3	20.0	18.5	19.0	21.0	19.0	20.0	23.5	21.5	22.0	21.5	19.5	20.0
4	19.0	17.0	18.0	20.0	18.5	19.5	23.0	21.5	22.0	21.5	19.5	20.0
5	18.0	17.5	18.0	19.5	17.0	18.0	23.0	21.0	22.0	21.0	19.0	20.0
6	18.0	16.5	17.0	20.5	17.5	19.0	23.5	21.5	22.0	21.0	19.0	19.5
7	16.5	16.5	16.5	19.0	18.0	19.0	24.0	21.5	22.5	20.5	18.5	19.5
8	17.0	16.0	16.5	19.5	17.0	18.5	24.5	22.0	23.0	19.0	17.5	18.5
9	17.5	15.5	16.5	20.0	19.0	19.5	24.5	22.5	23.0	18.0	16.5	17.5
10	19.5	17.5	18.0	19.5	19.0	19.0	24.0	22.0	22.5	18.0	16.0	16.5
11	21.0	18.5	19.5	20.5	18.5	19.5	23.5	21.5	22.5	17.5	16.0	16.5
12	22.0	20.0	20.5	21.0	19.5	20.0	23.0	21.5	22.0	16.5	15.0	15.5
13	22.0	20.0	21.0	21.0	19.0	20.0	23.5	21.5	22.0	15.5	14.5	15.0
14	20.5	18.5	20.0	20.5	19.5	20.0	24.0	21.5	22.5	15.5	14.0	14.5
15	19.5	17.5	18.0	20.0	18.5	19.5	24.0	22.0	22.5	14.5	14.0	14.5
16	18.5	17.0	18.0	19.0	18.5	18.5	22.0	21.0	22.0	14.5	13.5	14.0
17	17.0	16.0	16.5	19.5	17.5	18.0	21.5	20.0	20.5	13.5	13.5	13.5
18	16.5	15.0	15.5	19.5	18.0	18.5	21.5	19.5	20.0	13.5	13.0	13.0
19	17.0	15.5	16.0	20.0	18.0	19.0	21.5	19.5	20.0	13.5	12.5	13.0
20	18.5	16.0	17.0	21.5	19.0	20.0	22.0	20.0	20.5	13.0	12.5	13.0
21	19.5	17.0	18.0	22.5	20.0	21.0	22.0	20.0	20.5	13.5	12.5	13.0
22	20.5	18.0	19.5	22.5	20.5	21.5	21.0	20.0	20.5	14.5	12.5	13.5
23	22.0	19.5	20.5	22.0	20.5	21.0	21.0	19.0	19.5	13.5	13.0	13.5
24	22.5	20.5	21.5	21.5	20.0	20.5	20.5	18.5	19.5	13.0	12.0	12.5
25	23.0	20.5	22.0	21.5	19.5	20.5	21.5	19.0	19.5	12.0	10.5	11.5
26	23.0	21.0	22.0	21.5	20.0	20.5	21.0	20.0	20.0	10.5	10.0	10.0
27	23.0	21.0	21.5	21.0	19.5	20.0	22.0	20.0	20.5	10.5	9.5	10.0
28	21.5	19.0	20.5	21.5	19.0	20.0	20.5	19.5	20.0	11.0	10.0	10.5
29	20.0	17.5	18.5	21.5	19.5	20.0	19.5	18.5	19.5	11.0	10.5	11.0
30	21.0	18.5	19.5	21.5	19.5	20.5	20.0	18.0	19.0	11.0	10.5	11.0
31	---	---	---	22.0	20.0	20.5	20.0	18.5	19.0	---	---	---
MONTH	23.0	15.0	19.0	22.5	17.0	20.0	24.5	18.0	21.0	21.5	9.5	15.0

NORTH UMPQUA RIVER BASIN

14319900 CALAPOOYA CREEK AT NONPAREIL, OR

LOCATION.--Lat 43°25'04", long 123°09'13", in SW¼SE¼ sec.3, T.25 S., R.4 W., Douglas County, Hydrologic Unit 17100303, on left bank 0.3 mi upstream from county road bridge, 0.9 mi northeast of Nonpareil, and at mile 26.7.

DRAINAGE AREA.--88.6 mi².

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 699.22 ft above National Geodetic Vertical Datum of 1929 (Douglas County Survey bench mark).

REMARKS.--Estimated daily discharges: Nov. 30 to Dec. 6. Records good except those for periods of backwater Oct. 1-22 and June 22 to Sept. 30, which are fair. Only minor diversions by pumping for irrigation upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 210 ft³/s, 32.19 in/yr, 152,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,640 ft³/s Dec. 6, 1981, gage height, 11.16 ft; minimum discharge, 5.3 ft³/s Aug. 17-19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0700	3,420	7.88	Feb. 23	0500	*5,000	*9.30

Minimum discharge, 5.8 ft³/s Aug. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	11	145	300	124	193	301	119	233	72	30	13	8.9		
2	11	136	500	151	204	254	114	324	68	28	13	8.5		
3	11	128	950	210	301	217	104	459	65	28	13	8.1		
4	10	128	850	172	366	188	100	383	64	49	13	8.1		
5	9.7	153	750	175	417	167	96	436	59	50	12	7.9		
6	9.0	138	650	195	362	155	90	761	58	39	12	7.3		
7	8.4	131	933	171	304	341	85	574	57	33	11	6.7		
8	8.2	156	805	157	255	386	80	432	53	33	9.8	6.9		
9	7.8	317	528	219	220	625	79	346	49	31	9.4	8.0		
10	7.9	267	382	228	191	455	76	319	46	30	8.9	8.5		
11	19	198	292	205	169	393	72	329	44	32	8.9	8.4		
12	30	168	235	177	178	532	80	293	39	28	9.6	8.5		
13	24	150	195	153	286	523	115	262	38	24	9.5	8.5		
14	22	142	167	137	346	485	111	228	37	22	9.6	8.8		
15	21	219	145	135	405	403	107	196	44	21	9.0	9.1		
16	20	454	129	395	559	326	121	171	40	21	8.3	10		
17	21	450	118	758	669	278	212	151	42	22	8.5	13		
18	21	354	111	463	2720	235	228	135	64	21	8.5	27		
19	21	272	107	792	2120	207	192	125	54	20	9.1	29		
20	25	274	100	763	1340	186	161	125	44	18	8.9	24		
21	98	272	96	518	1120	173	139	149	39	18	8.3	23		
22	205	254	91	562	2990	155	124	168	37	17	7.2	21		
23	362	218	88	857	3720	172	110	139	36	17	6.8	21		
24	308	190	85	670	1610	311	100	123	35	17	6.8	82		
25	243	172	83	485	910	265	137	112	33	17	6.3	245		
26	224	154	79	371	621	226	150	105	31	16	6.0	373		
27	185	145	75	303	463	195	289	101	29	16	6.2	259		
28	269	317	70	254	365	170	409	95	29	14	6.1	165		
29	204	350	67	240	---	149	348	87	35	13	6.7	125		
30	172	250	65	236	---	135	282	82	33	13	7.8	123		
31	160	---	63	205	---	124	---	76	---	13	8.4	---		
TOTAL	2748.0	6702	9109	10481	23404	8732	4430	7519	1374	751	281.6	1662.2		
MEAN	88.6	223	294	338	836	282	148	243	45.8	24.2	9.08	55.4		
MAX	362	454	950	857	3720	625	409	761	72	50	13	373		
MIN	7.8	128	63	124	169	124	72	76	29	13	6.0	6.7		
CFSM	1.00	2.52	3.32	3.81	9.44	3.18	1.67	2.74	.52	.27	.10	.63		
IN.	1.15	2.81	3.82	4.40	9.83	3.67	1.86	3.16	.58	.32	.12	.70		
AC-FT	5450	13290	18070	20790	46420	17320	8790	14910	2730	1490	559	3300		
CAL YR 1985	TOTAL	54851.1	MEAN	150	MAX	1130	MIN	6.7	CFSM	1.69	IN.	23.03	AC-FT	108800
WTR YR 1986	TOTAL	77193.8	MEAN	211	MAX	3720	MIN	6.0	CFSM	2.38	IN.	32.41	AC-FT	153100

14321000 UMPQUA RIVER NEAR ELKTON, OR
(National stream quality accounting network station)

LOCATION.--Lat 43°35'10", long 123°33'15", in NW¼ sec.8, T.23 S., R.7 W., Douglas County, Hydrologic Unit 17100303, on left bank 3.5 mi south of Elkton, 8.3 mi upstream from Elk Creek, and at mile 56.9.

DRAINAGE AREA.--3,683 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to current year.

REVISED RECORDS.--WSP 1184: 1927(M), 1938(M), 1943(M), 1946(M). WSP 1448: 1911-13, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 90.42 ft above National Geodetic Vertical Datum of 1929. Prior to June 29, 1972, at site 2,400 ft downstream at same datum. See WSP 1931 or 2135 for history of changes prior to June 29, 1972.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Regulation by powerplants on North Umpqua River ordinarily does not affect discharge at this station. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--81 years, 7,537 ft³/s, 27.79 in/yr, 5,461,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft³/s Dec. 23, 1964, gage height, 51.95 ft, from floodmarks; minimum discharge observed, 640 ft³/s July 18, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least December 1861, that of Dec. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 52,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1900	94,600	27.56	Feb. 23	1700	*146,000	36.07
Feb. 20	0630	72,100	23.35	Feb. 23	1700	(a)	*36.40

Minimum discharge, 928 ft³/s Sept. 8-10.

(a) From crest-stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1190	2430	6260	3190	8200	15800	5280	7620	3610	1520	1140	1020		
2	1190	2200	6700	4940	8010	13300	5090	7060	3490	1500	1120	994		
3	1190	2000	25700	6600	12200	11500	4910	7870	3380	1500	1110	1020		
4	1200	1970	22800	6940	15000	10100	4620	9390	3470	1520	1120	1010		
5	1210	1930	14800	6340	14400	9040	4420	8820	3480	1540	1060	998		
6	1210	1920	13700	6180	14200	8280	4290	13700	3170	1680	1050	988		
7	1200	1880	21800	6560	12000	9710	4100	15000	2890	1600	1040	976		
8	1180	1810	25700	5850	10100	22500	3940	12600	2730	1570	1110	952		
9	1170	2020	18700	5720	8580	28300	3840	10100	2520	1580	1070	928		
10	1170	3920	13100	10900	7530	24900	3780	8690	2450	1260	1050	930		
11	1200	4090	9880	9850	6750	19100	3690	8170	2390	1340	1020	954		
12	1220	3280	7920	8040	6310	19100	3660	7770	2210	1430	1000	958		
13	1260	2660	6640	8860	9060	20000	3840	7220	2110	1440	1010	959		
14	1310	2260	5760	6110	13600	19800	4300	6510	2110	1370	1010	968		
15	1290	2190	5040	5490	17500	16900	4370	6160	2070	1330	985	977		
16	1280	3490	4600	5600	23200	14000	4280	5650	2040	1310	968	954		
17	1260	11000	4310	20600	29300	11600	4440	5170	2000	1340	947	1000		
18	1240	9360	4120	23200	60300	9960	5920	4730	2010	1310	992	1080		
19	1220	6830	4360	16900	56600	8750	6230	4530	2130	1280	980	1370		
20	1090	5290	4630	23400	63000	7930	5610	4390	2150	1310	960	1560		
21	1040	4930	4720	18400	45600	7420	5320	4450	2020	1280	1010	1570		
22	1190	4810	4720	14800	73900	6950	5220	4800	1940	1260	1040	1430		
23	2910	4560	4580	25600	135000	6550	4940	5000	1880	1240	1030	1340		
24	12500	3910	4470	26200	87500	6670	4660	4700	1780	1220	1000	1310		
25	8270	3430	4510	18000	45700	8640	4350	4350	1680	1220	988	1840		
26	5480	3140	4600	13700	31000	7750	4480	4080	1600	1210	992	7530		
27	4780	2950	4450	10900	23700	6840	4790	4010	1570	1190	998	13200		
28	3710	2950	4160	9360	19100	6600	9310	3960	1570	1210	1020	8380		
29	3320	4940	3850	8680	---	6190	11100	3870	1610	1250	1040	5620		
30	3020	8380	3580	8920	---	5770	8930	3890	1580	1260	1030	4020		
31	2630	---	3350	8960	---	5590	---	3750	---	1200	1020	---		
TOTAL	73130	116530	273510	352790	857340	375540	153710	208010	69640	42270	31910	66836		
MEAN	2359	3884	8823	11380	30620	12110	5124	6710	2321	1364	1029	2228		
MAX	12500	11000	25700	26200	135000	28300	11100	15000	3610	1680	1140	13200		
MIN	1040	1810	3350	3190	6310	5590	3660	3750	1570	1190	947	928		
CFSM	.64	1.05	2.40	3.09	8.31	3.29	1.39	1.82	.63	.37	.28	.60		
IN.	.74	1.18	2.76	3.56	8.66	3.79	1.55	2.10	.70	.43	.32	.68		
AC-FT	145100	231100	542500	699800	1701000	744900	304900	412600	138100	83840	63290	132600		
CAL YR 1985	TOTAL	1841610	MEAN	5046	MAX	26800	MIN	1030	CFSM	1.37	IN.	18.60	AC-FT	3653000
WTR YR 1986	TOTAL	2621216	MEAN	7181	MAX	135000	MIN	928	CFSM	1.95	IN.	26.48	AC-FT	5199000

UMPQUA RIVER BASIN

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to September 1986 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1971 to current year.

INSTRUMENTATION.--Temperature recorder since April 1971.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 30.0°C July 14, 1971; minimum, 0.0°C Jan. 7, 8, 11, 12, and probably Jan. 9, 10, 1974.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.5°C Aug. 8, 9, 14, 15; minimum recorded, 2.5°C Dec. 14-16, 20-28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCARB DIS- SOLVED (MG/L AS CAC03)	
OCT 30...	1130	3030	67	7.6	9.5	10.9	K23	K13	25	0	
JAN 09...	1000	5470	70	7.4	5.0	12.8	34	28	26	0	
FEB 21...	1100	46000	62	7.0	7.5	11.7	430	350	24	0	
APR 17...	1000	4350	86	7.3	11.0	11.1	--	K7	--	--	
JUN 12...	1430	2220	73	7.8	23.5	8.8	93	39	25	0	
JUL 31...	1100	1200	77	7.9	22.5	8.6	K2	72	24	0	
DATE		CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WATER DISSOLV FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 30...	6.6	2.1	3.8	0.9	30	7.0	2.7	<0.1	0.03	<0.1	
JAN 09...	6.6	2.3	3.9	0.5	28	5.5	3.1	<0.1	0.02	<0.1	
FEB 21...	5.6	2.4	3.1	0.6	32	9.1	2.0	<0.1	0.06	0.1	
APR 17...	--	--	--	--	35	--	--	--	0.05	<0.1	
JUN 12...	6.4	2.3	4.2	0.9	33	3.0	2.5	<0.1	0.03	<0.1	
JUL 31...	5.6	2.4	5.3	1.0	32	2.7	3.2	<0.1	0.01	<0.1	
DATE		NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	
OCT 30...	0.2	0.03	0.04	0.05	17	50	59	409	4.0		
JAN 09...	0.2	0.02	0.02	0.03	16	42	55	620	5.4		
FEB 21...	0.4	0.01	0.02	0.06	16	50	59	6210	60		
APR 17...	0.3	0.04	0.04	0.03	--	--	--	--	--		
JUN 12...	0.3	0.04	0.04	0.03	17	80	56	480	1.5		
JUL 31...	0.5	<0.01	<0.01	0.02	18	56	58	181	1.0		

K - Results based on colony count outside acceptable range (non-ideal colony count).

UMPQUA RIVER BASIN

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14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 30...	120	<1	17	<0.5	<1	<1	<3	2	88	<1
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 21...	--	<1	19	<0.5	<1	<1	<3	3	--	1
APR 17...	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--
JUL 31...	10	1	17	<0.5	<1	<1	<3	1	23	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	<4	3	0.1	<10	<1	<1	<1	48	<6	6
JAN 09...	--	--	--	--	--	--	--	--	--	--
FEB 21...	<4	5	0.2	<10	4	<1	<1	41	<6	15
APR 17...	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--
JUL 31...	<4	1	0.3	<10	1	<1	<1	51	<6	<3

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	9.5	9.5	9.5	---	---	---	4.0	3.5	3.5
2	---	---	---	10.5	9.5	10.0	---	---	---	4.5	4.0	4.0
3	---	---	---	10.5	10.0	10.5	---	---	---	5.0	4.5	4.5
4	---	---	---	10.5	10.5	10.5	---	---	---	5.0	4.5	5.0
5	---	---	---	10.5	10.0	10.5	---	---	---	5.0	4.5	5.0
6	---	---	---	10.5	10.5	10.5	7.5	7.0	7.0	5.0	4.5	5.0
7	---	---	---	10.5	10.5	10.5	7.5	7.0	7.5	5.0	5.0	5.0
8	---	---	---	10.5	9.5	10.0	7.5	7.0	7.5	5.5	5.0	5.0
9	---	---	---	9.5	8.0	9.0	7.0	6.5	7.0	5.5	5.0	5.5
10	---	---	---	---	---	---	6.5	6.0	6.0	6.5	5.5	6.0
11	12.5	---	---	---	---	---	6.0	5.0	5.5	6.5	6.5	6.5
12	12.5	12.0	12.5	---	---	---	5.0	3.5	4.0	7.0	6.5	6.5
13	12.5	11.5	12.0	---	---	---	3.5	3.0	3.0	7.0	6.5	7.0
14	12.5	11.0	12.0	---	---	---	3.0	2.5	2.5	7.0	6.5	6.5
15	12.5	11.5	12.0	---	---	---	2.5	2.5	2.5	6.5	6.5	6.5
16	12.5	12.0	12.5	---	---	---	3.0	2.5	2.5	7.0	6.5	6.5
17	12.5	11.5	12.0	---	---	---	3.0	3.0	3.0	7.5	7.0	7.0
18	12.0	11.5	11.5	---	---	---	3.0	3.0	3.0	8.0	7.5	8.0
19	12.0	11.5	11.5	---	---	---	3.0	3.0	3.0	8.5	8.0	8.5
20	11.5	11.5	11.5	---	---	---	3.0	2.5	3.0	8.5	7.5	8.0
21	11.5	10.5	11.0	---	---	---	3.0	2.5	2.5	7.5	7.0	7.5
22	11.0	10.5	11.0	---	---	---	3.0	2.5	3.0	7.0	6.5	6.5
23	11.5	11.0	11.0	---	---	---	3.0	2.5	3.0	7.0	6.5	7.0
24	11.0	10.0	10.5	---	---	---	3.0	2.5	2.5	7.0	7.0	7.0
25	11.0	10.5	11.0	---	---	---	3.0	2.5	2.5	7.0	7.0	7.0
26	---	---	---	---	---	---	3.0	2.5	3.0	7.0	6.5	6.5
27	---	---	---	---	---	---	3.0	2.5	2.5	6.5	6.5	6.5
28	---	---	---	---	---	---	3.0	2.5	2.5	7.5	6.5	7.0
29	---	---	---	---	---	---	3.0	3.0	3.0	8.0	7.5	7.5
30	10.0	---	---	---	---	---	3.0	3.0	3.0	8.5	8.0	8.0
31	9.5	9.5	9.5	---	---	---	3.5	3.0	3.0	8.5	8.5	8.5
MONTH	---	---	---	---	---	---	---	---	---	8.5	3.5	6.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	8.5	8.5	8.5	10.5	10.0	10.0				---	---	---
2	8.5	8.5	8.5	11.0	10.0	10.5				---	---	---
3	8.5	8.0	8.5	11.0	10.0	10.5				---	---	---
4	8.5	7.5	8.0	11.0	10.5	10.5				---	---	---
5	7.5	7.5	7.5	11.0	10.5	11.0				---	---	---
6	7.5	7.0	7.0	11.0	11.0	11.0				---	---	---
7	7.0	6.5	7.0	11.5	11.0	11.0				---	---	---
8	6.5	6.0	6.5	11.0	10.0	10.5				---	---	---
9	6.0	5.5	5.5	10.0	8.5	9.5				---	---	---
10	5.5	5.0	5.0	9.0	8.5	8.5				---	---	---
11	5.0	5.0	5.0	9.0	9.0	9.0				---	---	---
12	5.5	5.0	5.0	9.0	9.0	9.0				---	---	---
13	6.5	5.5	6.0	9.0	8.5	9.0				---	---	---
14	7.0	6.5	7.0	8.5	8.5	8.5				---	---	---
15	7.5	7.0	7.5	8.5	8.0	8.5				---	---	---
16	9.0	7.5	8.5	9.0	8.5	8.5				---	---	---
17	9.0	8.5	9.0	9.0	8.5	8.5				---	---	---
18	8.5	7.0	8.0	9.5	8.5	9.0				---	---	---
19	7.0	6.5	6.5	10.0	9.0	9.5				17.5	---	---
20	7.0	6.5	7.0	---	---	---				17.0	16.0	16.5
21	7.5	7.0	7.5	---	---	---				16.0	15.0	15.5
22	8.0	7.5	7.5	---	---	---				16.5	14.5	15.5
23	8.5	8.0	8.5	---	---	---				16.0	15.0	15.5
24	8.5	8.5	8.5	---	---	---				17.5	15.0	16.0
25	9.0	8.5	9.0	---	---	---				19.0	16.5	18.0
26	9.5	9.0	9.0	---	---	---				19.0	18.5	18.5
27	10.0	9.5	9.5	---	---	---				19.0	18.0	18.5
28	10.0	10.0	10.0	---	---	---				20.5	19.0	19.5
29	---	---	---	---	---	---				21.5	19.0	20.5
30	---	---	---	---	---	---				22.5	20.5	21.5
31	---	---	---	---	---	---				23.5	21.5	22.5
MONTH	10.0	5.0	7.5	---	---	---				---	---	---

UMPQUA RIVER BASIN

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14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.5	22.5	23.5	24.0	22.0	23.0	25.5	23.0	24.5	22.5	21.0	22.0
2	25.0	23.0	24.0	23.5	22.5	23.0	25.5	24.0	25.0	23.0	22.0	22.5
3	24.0	23.0	23.5	23.5	21.5	22.5	25.5	24.0	25.0	23.5	22.0	23.0
4	23.0	22.0	22.5	23.0	21.5	22.0	25.5	24.0	25.0	23.5	22.5	23.0
5	22.0	20.5	21.5	22.5	20.5	21.5	25.0	24.0	24.5	23.5	22.5	23.0
6	20.5	19.5	20.0	23.0	21.0	22.0	25.5	24.0	25.0	23.5	22.5	23.0
7	20.0	19.0	19.5	22.5	21.0	21.5	26.0	24.5	25.0	22.5	22.0	22.5
8	20.5	19.0	19.5	21.5	20.0	21.0	26.5	25.0	26.0	22.0	21.0	21.5
9	21.0	19.0	20.0	21.5	20.5	21.0	26.5	25.0	26.0	21.0	20.5	20.5
10	22.5	20.0	21.5	21.0	20.5	21.0	26.0	24.5	25.5	20.5	19.5	20.0
11	24.0	21.5	22.5	22.5	20.5	21.5	25.5	24.5	25.0	20.0	19.0	19.5
12	25.0	22.5	23.5	23.0	21.5	22.0	25.5	24.5	25.0	19.5	18.5	19.0
13	25.5	23.5	24.0	23.5	21.5	22.5	26.0	24.5	25.5	19.0	18.0	18.0
14	24.5	23.0	23.5	23.5	22.0	22.5	26.5	25.0	25.5	18.0	17.5	18.0
15	23.0	22.0	22.5	22.5	21.0	21.5	26.5	25.0	26.0	18.0	17.0	17.5
16	22.5	21.5	22.0	21.5	20.5	21.0	26.0	24.5	25.0	17.5	16.5	17.0
17	21.5	20.0	20.5	22.0	19.5	21.0	24.5	23.5	24.0	17.0	16.5	16.5
18	20.0	19.0	19.5	22.0	20.5	21.5	23.5	23.0	23.5	16.5	16.0	16.5
19	21.0	19.0	20.0	23.0	21.0	22.0	23.5	22.5	23.0	16.5	16.0	16.5
20	21.5	19.5	20.5	24.0	22.0	23.0	24.0	23.0	23.5	16.5	16.0	16.0
21	22.0	20.0	21.0	24.5	22.5	23.5	24.0	23.0	23.5	16.0	15.5	16.0
22	23.5	20.5	22.0	24.5	23.0	23.5	24.0	22.5	23.0	16.0	15.0	15.5
23	25.0	22.0	23.5	24.0	22.5	23.5	23.0	22.0	22.5	16.0	15.5	15.5
24	25.5	23.0	24.0	23.5	22.0	23.0	22.5	22.0	22.5	15.5	15.0	15.0
25	25.5	23.0	24.5	24.0	22.5	23.5	23.0	21.5	22.5	15.0	14.5	15.0
26	25.5	24.0	24.5	24.0	22.5	23.0	23.5	22.5	23.0	14.5	12.5	13.5
27	25.0	23.5	24.0	23.5	21.5	22.5	24.0	23.0	23.5	12.5	11.5	12.0
28	24.0	22.5	23.0	23.5	22.0	23.0	23.5	22.0	23.0	12.0	11.5	12.0
29	23.0	21.0	22.0	24.0	22.0	23.5	22.0	21.5	22.0	12.0	12.0	12.0
30	24.0	21.5	22.5	24.0	22.5	23.5	22.0	21.0	21.5	13.0	12.0	12.5
31	---	---	---	24.5	22.5	23.5	22.0	21.5	22.0	---	---	---
MONTH	25.5	19.0	22.0	24.5	19.5	22.5	26.5	21.0	24.0	23.5	11.5	18.0

14324580 PONY CREEK AT COOS BAY, OR

LOCATION.--Lat 43°22'50", long 124°14'25", in NE¼NE¼ sec.28, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304, on right bank, 10 ft upstream from outlet to Lower Pony Creek Dam, and at mile 2.2. Prior to Oct. 1, 1982, at site 260 ft downstream.

DRAINAGE AREA.--3.90 mi².

PERIOD OF RECORD.--July 1975 to current year.

GAGE.--Water-stage recorder. Datum of gage is at National Geodetic Vertical Datum of 1929 (Coos Bay-North Bend Water Board bench mark). Prior to Oct. 1, 1982, at site 260 ft downstream at datum 12.23 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Upper and Lower Pony Creek Reservoirs (see stations 14324550 and 14324560) and diversion upstream from station from Lower Pony Creek Reservoir to municipal water supply of Coos Bay-North Bend (station 14323570). Approximately 4.6 ft³/s is diverted to the Coos Bay-North Bend water treatment plant, maximum capacity, 10.8 ft³/s.

AVERAGE DISCHARGE.--11 years, 10.8 ft³/s, 37.61 in/yr, 7,820 acre-ft/yr, adjusted for Coos Bay-North Bend diversion and change in contents of Upper and Lower Pony Creek Reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s Dec. 6, 1981, gage height, 6.19 ft, former site and datum; minimum, 0.01 ft³/s several days in 1977, 1985, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101 ft³/s Feb. 23, gage height, 31.02 ft; minimum discharge, 0.01 ft³/s Oct. 6.

MONTHLY DISCHARGE OF PONY CREEK, PONY CREEK DIVERSION AND MONTHLY CHANGE IN CONTENTS
OF RESERVOIRS NEAR COOS BAY, OR, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	14324580 Pony Creek at Coos Bay (acre-feet)	14324570 Diversion from Lower Pony Cr. Reservoir to City of Coos Bay (acre-feet)	14324560 Lower Pony Creek Reservoir Change in Contents (acre-feet)	14324550 Upper Pony Creek Reservoir Change in Contents (acre-feet)	Pony Creek adjusted for diversion and change in contents (acre-feet) (inches)
October.....	1.9	385	-1.9	-69	316 1.52
November.....	2.8	373	-0.2	+35	411 1.98
December.....	2.2	414	+10	+242	668 3.21
CAL YR 1985.....	658	4,977	-34	-740	4,862 23.38
January.....	13	380	+26	+536	955 4.59
February.....	1,310	293	+6.0	+278	1,887 9.07
March.....	484	384	+3.2	+254	1,125 5.41
April.....	197	419	-5.9	-4.0	606 2.91
May.....	296	386	-7.7	-6.0	668 3.21
June.....	4.4	388	-5.1	-135	252 1.21
July.....	7.8	504	+2.7	-287	228 1.10
August.....	3.7	497	-11	-324	166 0.80
September.....	3.1	382	-1.1	-133	251 1.21
WTR YR 1986.....	2,331	4,806	+16	+387	7,540 36.26

COOS RIVER BASIN

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14324580 PONY CREEK AT COOS BAY, OR--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.04	.04	.05	1.2	6.6	1.9	.02	.03	.03	.06
2	.03	.03	.05	.03	2.2	.69	5.4	5.1	.02	.03	.03	.06
3	.05	.03	.04	.03	3.5	.42	4.7	6.5	.02	.06	.03	.06
4	.02	.04	.03	.03	1.9	.51	5.2	3.9	.02	3.0	.88	.03
5	.02	.05	.04	.04	1.5	.02	3.8	11	.02	.06	.04	.03
6	.02	.04	.06	.03	.16	.02	2.2	23	.02	.04	.03	.03
7	.02	.08	.07	.02	.99	5.0	3.6	15	.02	.04	.03	.03
8	.02	.08	.08	.03	5.6	8.6	.50	10	.02	.05	.03	.03
9	.02	.08	.06	.03	5.7	1.4	2.6	7.5	.02	.03	.03	.03
10	.04	.07	.06	.03	6.5	1.1	.13	7.5	.02	.03	.03	.03
11	.02	.04	.05	.03	5.8	7.7	2.0	6.1	.02	.03	.03	.03
12	.02	.03	.03	.02	8.9	13	3.6	6.0	.02	.03	.03	.03
13	.02	.05	.03	.02	19	16	6.7	4.9	.02	.03	.03	.06
14	.02	.04	.03	.02	17	13	5.4	4.2	.05	.03	.03	.04
15	.02	.07	.03	.03	20	15	3.7	2.9	.05	.02	.03	.04
16	.02	.06	.03	.03	33	10	7.6	3.0	.06	.03	.03	.04
17	.03	.06	.03	.02	46	9.6	7.1	3.0	.05	.03	.03	.05
18	.03	.06	.03	.04	64	9.6	5.1	2.9	.04	.02	.03	.45
19	.03	.05	.03	.08	66	8.5	4.7	3.4	1.2	.02	.04	.04
20	.07	.06	.03	.05	40	8.0	2.8	4.8	.03	.03	.05	.03
21	.03	.05	.03	.04	36	11	3.2	6.2	.03	.03	.03	.03
22	.06	.04	.03	.04	72	7.2	.21	1.5	.03	.03	.03	.03
23	.06	.03	.03	3.0	84	18	1.6	2.0	.03	.03	.03	.05
24	.04	.03	.02	1.4	50	19	.04	2.0	.03	.02	.03	.04
25	.04	.03	.02	.32	37	14	1.8	1.1	.03	.02	.03	.05
26	.04	.03	.02	.02	27	12	.54	1.1	.03	.03	.03	.05
27	.04	.03	.02	.03	7.6	9.2	3.0	1.8	.05	.03	.03	.03
28	.03	.05	.02	.02	1.4	7.5	2.8	.58	.05	.03	.03	.03
29	.03	.03	.02	.20	---	6.7	1.9	.07	.15	.03	.03	.03
30	.03	.04	.02	1.0	---	4.5	.94	.02	.03	.03	.05	.03
31	.02	---	.02	.02	---	5.8	---	.02	---	.03	.06	---
TOTAL	.96	1.40	1.10	6.74	662.80	244.26	99.46	148.99	2.20	3.95	1.87	1.57
MEAN	.03	.05	.03	.22	23.7	7.88	3.32	4.81	.07	.13	.06	.05
MAX	.07	.08	.08	3.0	84	19	7.6	23	1.2	3.0	.88	.45
MIN	.02	.02	.02	.02	.05	.02	.04	.02	.02	.02	.03	.03
AC-FT	1.9	2.8	2.2	13	1310	484	197	296	4.4	7.8	3.7	3.1
CAL YR 1985	TOTAL	331.74	MEAN	.91	MAX	24	MIN	.02	AC-FT	658		
WTR YR 1986	TOTAL	1175.30	MEAN	3.22	MAX	84	MIN	.02	AC-FT	2330		

COQUILLE RIVER BASIN

14325000 SOUTH FORK COQUILLE RIVER AT POWERS, OR

LOCATION.--Lat 42°53'30", long 124°04'10", in SE¼ sec.12, T.31 S., R.12 W., Coos County, Hydrologic Unit 17100305, on left bank 0.6 mi downstream from highway bridge at Powers, 0.9 mi upstream from Woodward Creek, and at mile 64.5.

DRAINAGE AREA.--169 mi².

PERIOD OF RECORD.--September 1916 to September 1926, October 1928 to current year.

REVISED RECORDS.--WSP 1184: 1946(M). WSP 1448: 1917-18(M), 1919, 1920(M), 1925.

GAGE.--Water-stage recorder. Datum of gage is 197.42 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1938, nonrecording gage at various sites within 1 mi of present site at different datums.

REMARKS.--No estimated daily discharges. Records good. No regulation. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--67 years (water years 1917-26, 1930-86), 795 ft³/s, 63.88 in/yr, 576,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft³/s Dec. 22, 1964, gage height, 26.51 ft, from floodmarks, from rating curve extended above 19,000 ft³/s on basis of contracted-opening measurement at gage height 18.14 ft and slope-area measurement of peak flow; minimum discharge, 12 ft³/s Sept. 22-25, 27-30, 1939, Oct. 5, 1961, Oct. 16-20, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 19	0430	9,720	9.90	Feb. 22	0930	*11,000	*10.66

Minimum discharge, 13 ft³/s Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	30	188	838	320	1560	927	527	943	186	74	40	18		
2	29	163	4610	391	2890	795	500	2140	177	72	39	18		
3	28	145	4780	664	4130	699	448	2230	170	71	38	17		
4	27	140	2320	496	3440	618	425	1450	161	75	37	16		
5	27	153	1820	754	2440	556	398	1460	155	84	36	14		
6	26	133	2380	917	1740	514	369	2360	152	74	34	14		
7	25	122	3090	674	1330	2380	347	1960	149	70	34	14		
8	25	148	3250	721	1080	2400	326	1510	143	69	34	15		
9	24	504	2310	1290	890	2490	314	1230	134	67	32	15		
10	24	549	1570	1050	755	1940	299	1070	127	66	31	16		
11	27	360	1150	806	663	2310	286	976	119	65	31	16		
12	32	270	900	643	860	3250	430	829	111	63	30	17		
13	31	220	730	551	1410	3710	672	720	104	60	30	17		
14	29	190	613	489	1320	2970	604	626	101	58	30	17		
15	27	587	527	585	4040	2080	570	543	103	56	29	19		
16	27	1260	464	4330	5980	1570	1130	481	98	56	30	24		
17	27	1100	418	4820	4330	1280	1480	431	111	56	30	105		
18	27	915	387	2420	7370	1090	1270	390	140	55	29	408		
19	26	669	357	3250	7820	950	1020	359	124	53	29	228		
20	154	591	328	2620	4420	848	857	370	110	52	28	118		
21	598	554	300	1740	4020	812	736	401	102	51	28	106		
22	1370	621	275	3160	9050	714	634	394	97	51	26	79		
23	1710	505	255	5390	7250	984	551	347	93	50	26	67		
24	948	419	238	3080	3750	1790	493	311	89	50	25	148		
25	594	367	223	1970	2400	1400	530	288	85	49	25	1260		
26	462	312	208	1410	1720	1120	523	268	82	49	24	2090		
27	337	281	194	1110	1340	930	492	258	80	48	24	905		
28	438	1150	180	903	1090	790	541	241	79	48	22	484		
29	351	1580	169	1050	---	689	554	225	80	46	22	323		
30	269	990	160	1590	---	608	528	210	76	40	21	242		
31	223	---	153	1460	---	546	---	196	---	39	19	---		
TOTAL	7972	15186	35197	50654	89088	43760	17854	25217	3538	1817	913	6830		
MEAN	257	506	1135	1634	3182	1412	595	813	118	58.6	29.5	228		
MAX	1710	1580	4780	5390	9050	3710	1480	2360	186	84	40	2090		
MIN	24	122	153	320	663	514	286	196	76	39	19	14		
CFSM	1.52	2.99	6.72	9.67	18.8	8.36	3.52	4.81	.70	.35	.17	1.35		
IN.	1.75	3.34	7.75	11.15	19.61	9.63	3.93	5.55	.78	.40	.20	1.50		
AC-FT	15810	30120	69810	100500	176700	86800	35410	50020	7020	3600	1810	13550		
CAL YR 1985	TOTAL	170836	MEAN	468	MAX	4780	MIN	24	CFSM	2.77	IN.	37.60	AC-FT	338900
WTR YR 1986	TOTAL	298026	MEAN	817	MAX	9050	MIN	14	CFSM	4.83	IN.	65.60	AC-FT	591100

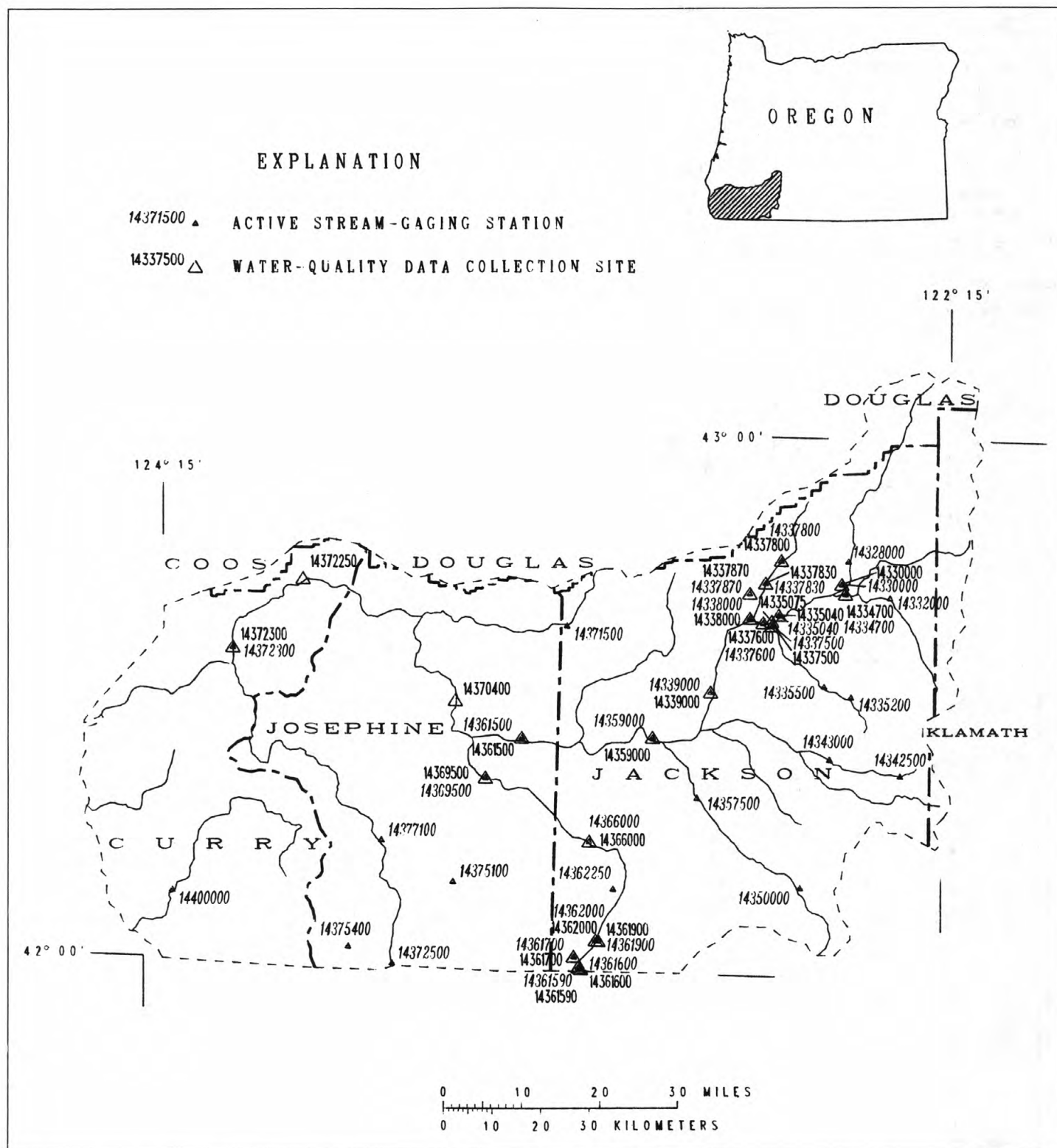


Figure 6.--Location of surface-water and water-quality stations in the Rogue River, Applegate River, Illinois River, and Chetco River basins.

UPPER ROGUE RIVER BASIN

14328000 ROGUE RIVER ABOVE PROSPECT, OR

LOCATION.--Lat 42°46'30", long 122°29'55", in SE¼NE¼ sec.19, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, Rogue River National Forest, on left bank 1.4 mi upstream from Pacific Power and Light Co. diversion dam, 1.8 mi northwest of Prospect, and at mile 173.4.

DRAINAGE AREA.--312 mi².

PERIOD OF RECORD.--January 1908 to February 1912, October 1923 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1925, published as "near Prospect."

REVISED RECORDS.--WSP 1248: 1925, 1927(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,620 ft, from river-profile map. Prior to Feb. 17, 1912, nonrecording gage at several sites within a few hundred feet upstream at various datums.

REMARKS.--Estimated daily discharges: Dec. 2-11, Dec. 14 to Jan. 14, Feb. 2 to Mar. 20, July 3-15. Records good except for estimated daily discharges, which are fair. No regulation or diversion upstream from station.

AVERAGE DISCHARGE.--66 years (water years 1909-11, 1924-86), 831 ft³/s, 36.17 in/yr, 602,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s Dec. 22, 1964, gage height, 11.55 ft, from floodmark, from rating curve extended above 9,000 ft³/s on basis of slope-area measurement at 16,600 ft³/s; minimum observed discharge, 200 ft³/s Nov. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 17	0200	2,770	3.91	Feb. 23	unknown	*6,960	a*6.38
Feb. 18	unknown	unknown	unknown	Mar. 7	unknown	unknown	unknown

Minimum discharge, 405 ft³/s Nov. 26.

a From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	432	526	528	900	1290	2200	1080	963	1250	542	440	427		
2	432	513	700	880	1500	2100	1030	1090	1170	536	436	426		
3	428	504	1100	840	1500	2000	982	1260	1130	530	434	426		
4	426	497	800	800	1400	1900	954	1150	1040	520	436	424		
5	426	513	700	800	1300	1900	920	1170	982	510	433	422		
6	426	492	740	860	1200	1900	938	1140	930	500	432	421		
7	426	484	900	820	1100	3000	981	1120	884	500	442	421		
8	426	524	850	780	1000	3100	1020	1080	841	490	434	421		
9	423	531	800	1000	960	2700	998	1070	806	490	431	421		
10	421	507	700	980	940	2300	1010	1080	787	480	429	421		
11	435	475	620	940	920	2100	993	1040	779	480	428	421		
12	451	479	638	900	900	2000	962	1000	771	480	430	421		
13	432	508	631	860	960	1900	918	995	754	470	431	421		
14	426	510	620	840	1100	1700	883	989	742	470	430	421		
15	424	614	620	878	1300	1600	859	958	728	470	428	426		
16	421	1020	600	1380	1900	1500	854	948	703	468	426	445		
17	421	814	580	2320	2400	1400	865	953	696	467	424	522		
18	421	678	600	1810	3200	1300	835	1000	750	459	426	582		
19	421	611	620	1580	2800	1200	835	1010	716	460	426	474		
20	420	603	640	1400	2300	1100	896	1090	674	458	427	498		
21	473	568	660	1180	2100	1060	1010	1100	654	454	429	463		
22	593	553	700	1150	3500	1040	1090	1020	636	450	424	445		
23	1460	554	740	1180	6000	1060	1010	977	626	446	425	450		
24	1140	551	780	1070	3500	1320	940	956	614	445	427	764		
25	886	527	800	1010	3000	1120	925	1010	608	444	428	908		
26	817	480	800	966	2700	1080	882	1080	597	446	426	1150		
27	674	514	780	959	2500	1110	1020	1090	583	445	429	821		
28	643	545	740	1070	2300	1140	1160	1100	572	444	432	709		
29	583	558	700	1220	---	1200	1050	1130	565	441	430	640		
30	550	527	680	1440	---	1220	985	1170	556	440	432	718		
31	538	---	660	1280	---	1110	---	1170	---	441	430	---		
TOTAL	16895	16780	22027	34093	55570	51360	28885	32909	23144	14676	13335	15929		
MEAN	545	559	711	1100	1985	1657	963	1062	771	473	430	531		
MAX	1460	1020	1100	2320	6000	3100	1160	1260	1250	542	442	1150		
MIN	420	475	528	780	900	1040	835	948	556	440	424	421		
CFSM	1.75	1.79	2.28	3.53	6.36	5.31	3.09	3.40	2.47	1.52	1.38	1.70		
IN.	2.01	2.00	2.63	4.06	6.63	6.12	3.44	3.92	2.76	1.75	1.59	1.90		
AC-FT	33510	33280	43690	67620	110200	101900	57290	65280	45910	29110	26450	31600		
CAL YR 1985	TOTAL	285036	MEAN	781	MAX	2290	MIN	420	CFSM	2.50	IN.	33.99	AC-FT	565400
WTR YR 1986	TOTAL	325603	MEAN	892	MAX	6000	MIN	420	CFSM	2.86	IN.	38.82	AC-FT	645800

UPPER ROGUE RIVER BASIN

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14330000 ROGUE RIVER BELOW PROSPECT, OR

LOCATION.--Lat 42°43'50", long 122°30'55", in SE¼NW¼ sec.6, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 600 ft downstream from Prospect No. 1 powerplant, 1.4 mi downstream from Mill Creek, 2.0 mi southwest of Prospect, 2.1 mi upstream from South Fork Rogue River, and at mile 169.4.

DRAINAGE AREA.--379 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1930, October 1968 to current year.

REVISED RECORDS.--WSP 1518: 1914-23, 1924(M), 1925, 1928.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,964.56 ft above National Geodetic Vertical Datum of 1929 (Pacific Power and Light Co. bench mark). Prior to September 1927 nonrecording gage at site 1,000 ft upstream, above powerplants, at different datum, also concurrent nonrecording gage on headrace to obtain equivalent combined flow.

REMARKS.--No estimated daily discharges. Water-discharge records good. Fluctuations caused by powerplant 600 ft upstream from station. Small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--35 years, 1,299 ft³/s, 941,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft³/s Jan. 18, 1971, gage height, 7.62 ft, from high-water mark; minimum discharge, 205 ft³/s Sept. 17, 22, 24, 1980, caused by regulation of diversion gates upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 12.4 ft Dec. 22, 1964, from floodmarks, discharge, 25,000 ft³/s, from records for station upstream from Prospect (see station 14328000) and for station downstream from South Fork Rogue River near Prospect (see station 14335000) after adjusting for estimated intervening tributary inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,400 ft³/s Feb. 23, gage height, 6.65 ft, caused by regulation of diversion gates upstream, 7.75 ft, from outside gage; minimum discharge, 281 ft³/s Oct. 15, caused by regulation of diversion gates upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	945	1140	1630	1870	2970	1950	1760	1950	1250	1080	997
2	962	947	1270	1610	1980	2790	1890	1890	1910	1250	1080	985
3	956	1010	1760	1510	1970	2640	1850	2040	1880	1250	1070	990
4	953	992	1440	1430	1900	2530	1810	1950	1800	1300	1080	979
5	920	928	1350	1480	1770	2520	1780	1960	1680	1300	1070	969
6	922	955	1420	1580	1700	2520	1780	1930	1620	1250	1060	969
7	960	1020	1640	1450	1600	4010	1810	1910	1610	1240	1070	970
8	937	1040	1540	1420	1540	4110	1860	1880	1560	1230	1060	915
9	935	1050	1370	1770	1490	3350	1840	1860	1530	1220	1060	870
10	959	1010	1270	1760	1450	2880	1830	1870	1460	1220	1050	866
11	978	967	1190	1650	1430	2730	1800	1820	1520	1220	1050	872
12	994	926	1170	1580	1420	2570	1770	1770	1510	1180	1040	871
13	966	994	1200	1540	1590	2470	1730	1770	1490	1190	1030	873
14	946	1000	1210	1500	1700	2330	1700	1760	1480	1180	1040	869
15	912	1160	1170	1470	1840	2210	1690	1720	1460	1170	1040	891
16	879	1540	1150	1930	2650	2090	1720	1720	1430	1170	1030	888
17	891	1350	1180	2860	2890	2000	1720	1720	1410	1150	1030	1020
18	945	1180	1200	2360	4020	1920	1690	1770	1460	1130	1020	1090
19	940	1100	1220	2070	3660	1920	1690	1790	1410	1160	1020	977
20	926	1070	1280	1910	3030	1910	1740	1860	1390	1150	1010	1080
21	991	1100	1300	1790	2750	1930	1830	1890	1370	1140	1010	1020
22	1170	1110	1310	1760	4940	1890	1920	1800	1360	1130	1010	991
23	1970	1060	1360	1800	7700	1900	1820	1740	1360	1120	1010	1000
24	1730	1100	1400	1680	5320	2140	1760	1720	1340	1110	1000	1300
25	1450	1080	1440	1600	3960	2000	1740	1780	1330	1070	1000	1560
26	1380	1050	1430	1560	3560	1980	1700	1860	1320	994	1000	1820
27	1240	1080	1400	1540	3320	2010	1830	1870	1310	1010	996	1440
28	1220	1160	1370	1660	3170	2030	1950	1910	1300	1030	1000	1310
29	1110	1170	1330	1790	---	2070	1850	1900	1280	1060	993	1230
30	1070	1110	1290	1990	---	2080	1770	1950	1270	1100	996	1330
31	1090	---	1260	1870	---	1980	---	1920	---	1090	992	---
TOTAL	33265	32204	41060	53550	76220	74480	53820	57090	44800	36064	31997	31942
MEAN	1073	1073	1325	1727	2722	2403	1794	1842	1493	1163	1032	1065
MAX	1970	1540	1760	2860	7700	4110	1950	2040	1950	1300	1080	1820
MIN	879	926	1140	1420	1420	1890	1690	1720	1270	994	992	866
AC-FT	65980	63880	81440	106200	151200	147700	106800	113200	88860	71530	63470	63360
CAL YR 1985	TOTAL	511368		MEAN	1401	MAX	2950	MIN	866	AC-FT	1014000	
WTR YR 1986	TOTAL	566492		MEAN	1552	MAX	7700	MIN	866	AC-FT	1124000	

UPPER ROGUE RIVER BASIN

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1976 to September 1981.

pH: November 1976 to September 1981.

WATER TEMPERATURES: October 1968 to current year.

DISSOLVED OXYGEN: October 1979 to September 1981.

SUSPENDED SEDIMENT DISCHARGE: November 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year).

INSTRUMENTATION.--Water-quality monitor since November 1976. Automatic pumping sediment sampler November 1976 to April 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 73 microsiemens Sept. 22, 1980; minimum recorded, 28 microsiemens Jan. 13, 1980, may have been lower during period of missing record Jan. 14-17, 1980.

pH: Maximum recorded, 8.3 units Aug. 10, 1981, may have been higher during period of no record in July and August 1981; minimum, 7.0 units Nov. 30, 1976.

WATER TEMPERATURES: Maximum, 20.5°C July 20, 1979 (result of regulation); minimum, 0.0°C Jan. 1, 2, 4, 5, 1970, Mar. 1, 1971, Jan. 26, 29-31, Feb. 2, 1979, Jan. 29, 30, 1980, Nov. 23, Dec. 12, 1985.

DISSOLVED OXYGEN: Maximum, 13.6 mg/l Dec. 8, 1980, Feb. 21, 1981; minimum, 7.2 mg/l June 21, 1980, result of regulation.

SEDIMENT CONCENTRATIONS: Maximum daily mean (water years 1977-79), 1,270 mg/l (estimated) Jan. 11, 1979; minimum, 0 mg/l on many days each year. Maximum daily mean (period October 1979 to April 1981), 716 mg/l Oct. 25, 1979; minimum daily mean, 0 mg/l on several days in October and December 1979, Nov. 15-21, 28, Dec. 1, 1980, Jan. 19, 1981.

SEDIMENT DISCHARGE: Maximum daily (water years 1977-79), 17,790 tons Dec. 15, 1977; minimum daily, 0 tons on many days each year. Maximum daily (period October 1979 to April 1981), 5,570 tons Jan. 13, 1980; minimum daily, 0 tons on several days in October and December 1979, Nov. 15-21, 28, Dec. 1, 1980, Jan. 19, 1981.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 14.0°C on several days in June, July, August; minimum, 0.0°C Nov. 23, Dec. 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	6.5	7.5	7.0	4.5	5.5	2.0	1.5	1.5	---	---	---
2	9.0	6.5	7.5	6.5	5.0	5.5	2.0	1.5	2.0	---	---	---
3	9.0	7.0	8.0	6.0	5.0	5.5	3.0	2.0	2.5	3.0	---	---
4	9.0	6.5	8.0	5.0	4.5	5.0	3.0	2.5	3.0	3.0	2.5	2.5
5	9.0	6.5	7.5	5.5	4.0	4.5	3.5	3.0	3.5	3.5	3.0	3.5
6	7.5	6.5	7.0	5.5	4.0	5.0	3.5	3.5	3.5	3.5	2.5	3.0
7	7.0	6.0	6.5	6.0	5.0	5.5	3.5	3.0	3.5	3.0	2.5	2.5
8	6.0	4.5	5.0	5.5	4.0	5.0	3.0	2.5	3.0	3.5	2.5	3.0
9	4.5	3.0	4.0	4.0	1.5	2.5	2.5	2.0	2.5	4.0	3.5	4.0
10	5.0	3.0	4.0	2.0	1.5	1.5	2.0	1.0	1.5	3.5	3.0	3.5
11	5.5	4.5	5.0	1.5	1.0	1.0	1.0	.5	.5	4.0	3.5	3.5
12	6.0	4.5	5.5	1.5	.5	1.0	.5	.0	.5	3.5	3.0	3.5
13	5.5	4.0	4.5	1.5	.5	1.0	1.0	.5	.5	3.5	3.5	3.5
14	5.5	4.0	4.5	1.5	.5	1.0	1.0	.5	1.0	3.5	3.5	3.5
15	8.5	4.5	5.5	2.5	1.0	1.5	2.0	1.0	1.5	4.0	3.5	4.0
16	6.0	5.0	5.5	3.0	2.5	2.5	2.5	1.5	2.0	4.0	3.5	4.0
17	6.0	4.5	5.5	3.0	2.0	2.5	2.0	1.5	2.0	---	---	---
18	6.0	4.5	5.5	2.0	1.5	1.5	2.0	1.5	2.0	---	---	---
19	6.0	5.0	5.5	2.0	1.5	1.5	2.0	1.5	2.0	---	---	---
20	6.0	5.0	5.5	2.0	1.5	1.5	---	1.5	---	---	---	---
21	5.5	5.0	5.5	1.5	1.0	1.5	---	---	---	3.0	---	---
22	5.0	4.5	5.0	1.0	.5	1.0	---	---	---	3.5	3.0	3.5
23	---	5.0	---	1.0	.0	.5	---	---	---	3.5	3.0	3.5
24	6.0	---	---	2.0	1.0	1.5	---	---	---	3.5	3.0	3.0
25	6.0	5.5	6.0	2.5	2.0	2.0	---	---	---	4.5	2.5	3.0
26	6.5	5.5	6.0	2.0	.5	1.0	---	---	---	4.0	3.0	3.5
27	6.0	5.0	5.5	1.5	1.0	1.0	---	---	---	5.0	4.0	4.0
28	6.0	5.0	5.5	1.5	1.0	1.5	---	---	---	5.0	4.5	4.5
29	5.0	4.0	4.5	2.0	1.0	1.5	---	---	---	4.5	4.5	4.5
30	4.5	4.0	4.5	1.5	1.5	1.5	---	---	---	5.0	4.5	5.0
31	5.0	4.0	4.5	---	---	---	---	---	---	5.0	4.5	4.5
MONTH	---	---	---	7.0	.0	2.5	---	---	---	---	---	---

UPPER ROGUE RIVER BASIN

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14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	5.0	4.5	4.5	---	---	---	5.5	4.0	5.0	7.5	6.0	6.5
2	4.5	4.0	4.5	---	---	---	5.0	3.5	4.5	7.0	5.5	6.5
3	4.0	3.5	4.0	5.0	---	---	5.5	4.0	5.0	6.0	5.0	5.5
4	4.0	4.0	4.0	5.0	4.5	5.0	6.0	5.0	5.0	6.0	5.5	5.5
5	4.0	3.5	3.5	5.5	4.5	5.0	6.5	4.5	5.5	5.5	4.5	5.0
6	3.5	2.5	3.0	5.5	5.0	5.0	7.5	5.5	6.5	5.5	3.5	5.5
7	2.5	2.0	2.5	5.5	5.0	5.0	7.5	6.0	7.0	6.0	5.0	5.5
8	2.5	1.5	2.0	---	---	---	7.0	6.0	6.5	7.5	5.0	6.0
9	2.5	1.5	2.0	---	---	---	7.0	6.0	6.5	6.5	6.0	6.5
10	3.0	1.5	2.0	---	---	---	8.0	6.5	7.0	6.0	5.0	5.5
11	3.5	2.5	3.0	---	---	---	6.5	5.0	5.5	6.0	4.5	5.0
12	3.5	3.0	3.0	---	---	---	5.0	3.5	4.5	7.0	4.5	6.0
13	4.0	2.5	3.0	---	---	---	5.0	3.5	4.0	8.0	6.5	7.0
14	4.0	3.5	4.0	---	---	---	5.5	4.5	5.0	7.5	6.0	6.5
15	4.5	4.0	4.0	---	---	---	6.0	5.0	5.5	8.0	6.0	7.0
16	4.5	4.0	4.5	---	---	---	5.5	4.5	5.0	8.5	6.5	7.5
17	4.5	4.0	4.0	---	---	---	5.5	4.0	4.5	9.5	7.5	8.5
18	---	3.5	---	---	---	---	6.5	4.5	5.5	9.5	8.5	9.0
19	---	---	---	---	---	---	7.5	5.0	6.0	9.0	8.0	8.5
20	4.0	---	---	6.0	---	---	8.5	6.5	7.5	8.5	7.0	8.0
21	3.5	3.5	3.5	6.0	5.0	5.5	9.5	7.5	8.5	---	---	---
22	5.5	3.0	4.0	5.5	4.5	5.0	8.5	6.0	7.5	---	---	---
23	---	5.0	---	5.5	5.5	5.5	6.5	5.0	5.5	---	---	---
24	---	---	---	5.5	4.5	5.0	5.5	5.0	5.0	---	---	---
25	---	---	---	5.5	4.0	4.5	5.5	4.5	5.0	---	---	---
26	---	---	---	6.5	5.0	5.5	5.0	4.0	4.5	---	---	---
27	---	---	---	6.5	5.5	6.0	5.5	5.0	5.0	---	---	---
28	---	---	---	7.0	6.0	6.5	6.0	5.0	5.5	---	---	---
29	---	---	---	7.0	6.0	6.5	6.0	5.0	5.5	---	---	---
30	---	---	---	6.5	5.0	6.0	6.5	4.5	5.5	---	---	---
31	---	---	---	6.0	4.5	5.0	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	9.5	3.5	5.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	---	---	---	13.0	10.0	11.5	13.5	10.5	11.5	11.5	9.0	10.5
2	---	---	---	13.0	10.5	11.5	14.0	11.0	12.0	12.0	9.5	10.5
3	---	---	---	13.0	10.5	11.5	14.0	11.0	12.5	12.5	10.0	11.0
4	---	---	---	11.0	9.5	10.5	13.5	11.0	12.0	12.5	10.0	11.5
5	---	---	---	10.5	7.5	9.0	13.5	10.5	12.0	12.5	10.0	11.0
6	---	---	---	12.0	8.5	10.0	13.5	10.5	12.0	12.0	10.0	11.0
7	---	---	---	11.5	9.5	10.5	13.5	11.0	12.0	12.0	10.0	11.0
8	---	---	---	12.5	9.5	10.5	14.0	11.0	12.0	11.5	9.5	10.5
9	---	---	---	11.5	10.0	11.0	14.0	11.0	12.5	10.0	8.5	9.5
10	---	---	---	10.5	10.0	10.5	14.0	11.5	12.5	10.0	7.5	9.0
11	---	---	---	13.0	9.5	11.0	13.5	11.0	12.0	10.0	7.5	8.5
12	---	---	---	13.0	10.0	11.0	13.0	10.5	11.5	9.5	8.0	8.5
13	---	---	---	13.0	9.5	11.0	13.0	10.5	11.5	9.0	7.5	8.5
14	---	---	---	13.0	10.0	11.0	13.5	10.5	12.0	8.5	7.0	7.5
15	---	---	---	12.0	9.5	10.5	13.5	11.0	12.0	8.0	7.0	7.5
16	---	---	---	11.0	9.0	10.0	13.5	11.0	12.0	8.0	7.0	7.5
17	---	---	---	11.0	8.0	9.5	13.0	10.5	12.0	7.5	7.5	7.5
18	9.5	---	---	12.0	9.0	10.0	13.0	10.5	11.5	7.5	7.0	7.5
19	9.5	7.0	8.0	12.5	9.5	11.0	12.5	10.0	11.5	7.5	7.0	7.5
20	10.0	7.5	9.0	13.5	10.0	11.5	11.5	10.0	11.0	7.5	7.0	7.0
21	11.0	8.0	9.5	14.0	11.0	12.0	12.5	10.0	11.0	8.0	6.5	7.0
22	12.5	9.5	10.5	14.0	11.0	12.0	11.5	9.5	10.5	8.0	6.0	7.0
23	13.0	10.0	11.5	13.0	10.5	11.5	12.0	9.5	10.5	7.0	6.5	7.0
24	14.0	10.5	12.0	13.0	10.0	11.5	12.0	9.5	10.5	7.0	6.5	7.0
25	14.0	11.0	12.5	12.5	10.0	11.0	12.0	9.5	10.5	6.5	6.5	6.5
26	13.0	11.0	12.0	12.5	10.0	11.0	11.5	9.5	10.5	6.5	5.5	6.0
27	12.0	10.5	11.5	12.5	9.5	11.0	12.5	10.0	11.0	6.5	5.5	6.0
28	13.0	10.5	11.5	12.5	9.5	10.5	13.0	10.5	11.5	7.5	6.0	6.5
29	13.0	10.5	11.5	12.5	9.5	11.0	12.0	10.5	11.0	7.0	6.0	6.5
30	12.5	9.5	11.0	12.5	9.5	11.0	11.5	9.5	10.5	7.0	6.0	6.5
31	---	---	---	13.0	9.5	11.0	11.5	9.0	10.0	---	---	---
MONTH	---	---	---	14.0	7.5	11.0	14.0	9.0	11.5	12.5	5.5	8.5

14332000 SOUTH FORK ROGUE RIVER NEAR PROSPECT, OR

LOCATION.--Lat 42°42'30", long 122°23'30", in SE¼SW¼ sec.7, T.33 S., R.4 E., Jackson County, Hydrologic Unit 17100307, in Rogue River National Forest on left bank 0.3 mi downstream from South Fork dam and intake of South Fork power canal, 0.31 mi downstream from Imnaha Creek, 5.6 mi southeast of Prospect, and at mile 10.2.

DRAINAGE AREA.--83.8 mi². Drainage area at site upstream from Imnaha Creek used October 1931 to September 1949, 61.3 mi²; and Imnaha Creek near Prospect, 22.2 mi².

PERIOD OF RECORD.--April 1924 to September 1931, October 1949 to current year. Equivalent records for period October 1931 to September 1949 may be obtained from combined flow of South Fork Rogue River above Imnaha Creek, near Prospect and Imnaha Creek near Prospect. Records since October 1983 equivalent to earlier records if South Fork Rogue River power canal diversion is added to flow past station.

REVISED RECORDS.--WSP 1318: 1925(M), 1927(M), 1930(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,300 ft, from topographic map. Prior to Sept. 10, 1965, at site 1,000 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-10. Records good except those below 6.0 ft³/s, which are fair. All records given herein do not include flow in South Fork power canal (completed in March 1932) which diverts 1,500 ft upstream from station and returns water to Rogue River upstream from South Fork Rogue River; practically no storage upstream from diversion dam.

AVERAGE DISCHARGE.--59 years (water years 1925-83), 178 ft³/s, 129,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 7,010 ft³/s Dec. 22, 1964, gage height, 11.1 ft, from floodmark, from rating curve extended above 410 ft³/s on basis of measurement of flow over dam of 3,180 ft³/s; no flow Jan. 31, 1950, Sept. 29, 30, 1967 (entire flow diverted to canal).

Combined flow, maximum discharge, 7,010 ft³/s Dec. 22, 1964 (no flow in canal); minimum daily, about 38 ft³/s Aug. 1-31, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,510 ft³/s Feb. 23, gage height, 5.22 ft; minimum discharge, 2.2 ft³/s Oct. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.2	4.9	7.1	77	393	100	64	202	5.0	4.5	3.6
2	2.5	4.0	8.1	7.6	79	352	89	84	163	4.6	4.4	3.4
3	2.5	3.7	21	8.4	72	316	81	95	122	4.6	4.6	4.5
4	2.5	3.5	10	7.0	65	324	75	91	109	5.1	5.0	4.9
5	2.5	3.8	9.4	11	56	256	68	94	96	5.0	4.7	4.6
6	2.5	3.3	10	16	44	259	67	87	85	4.6	4.7	4.3
7	2.6	3.2	19	11	38	550	70	85	73	4.3	4.4	4.2
8	2.6	3.6	12	10	32	546	82	83	62	4.4	4.2	4.9
9	2.7	3.5	10	16	25	417	84	82	52	4.3	4.0	82
10	2.8	3.5	10	15	20	350	77	95	47	4.2	4.0	82
11	3.1	3.3	10	13	16	326	74	81	44	11	3.9	81
12	3.2	5.5	11	11	30	322	69	73	38	15	4.1	81
13	3.0	3.7	12	12	66	263	62	72	32	4.1	4.7	81
14	3.0	3.6	9.4	11	62	230	57	71	29	4.0	4.4	81
15	2.9	7.3	5.0	11	67	211	51	68	25	4.0	4.1	83
16	2.7	22	4.6	63	156	189	50	66	20	11	4.0	84
17	2.4	11	4.5	181	214	169	49	70	16	36	3.7	97
18	2.3	8.5	4.2	173	589	153	41	81	24	34	3.5	90
19	2.3	6.0	4.0	145	559	144	39	89	15	9.1	3.4	59
20	2.5	5.3	4.0	115	455	138	43	111	5.6	5.4	4.0	11
21	3.5	5.1	4.0	58	404	134	60	129	4.6	5.4	4.4	5.1
22	15	4.8	3.9	52	809	124	81	98	4.5	5.3	4.0	4.8
23	135	4.7	3.8	47	1320	126	68	93	4.4	6.1	3.9	5.6
24	113	4.5	4.0	37	919	179	55	86	8.6	6.4	3.7	22
25	44	4.2	4.6	30	683	139	51	106	8.0	5.7	3.6	7.6
26	21	4.0	4.8	25	583	125	42	133	5.2	5.3	3.5	21
27	7.8	4.7	4.6	24	524	123	111	137	5.0	5.1	3.7	4.1
28	7.9	6.4	4.6	37	460	125	121	150	5.1	5.0	4.1	3.5
29	5.5	5.7	4.6	63	---	127	90	170	5.1	4.9	4.1	3.3
30	4.8	4.9	4.4	86	---	125	71	179	5.1	4.8	4.1	3.3
31	4.6	---	4.4	78	---	109	---	176	---	4.6	3.9	---
TOTAL	417.7	161.5	230.8	1381.1	8424	7344	2078	3099	1315.2	238.3	127.3	1070.8
MEAN	13.5	5.38	7.45	44.6	301	237	69.3	100	43.8	7.69	4.11	35.7
MAX	135	22	21	181	1320	550	121	179	202	36	5.0	97
MIN	2.3	3.2	3.8	7.0	16	109	39	64	4.4	4.0	3.4	3.3
AC-FT	829	320	458	2740	16710	14570	4120	6150	2610	473	252	2120
CAL YR 1985	TOTAL	16995.42	MEAN	46.6	MAX	371	MIN	.38	AC-FT	33710		
WTR YR 1986	TOTAL	25887.7	MEAN	70.9	MAX	1320	MIN	2.3	AC-FT	51350		

UPPER ROGUE RIVER BASIN

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14334700 SOUTH FORK ROGUE RIVER, SOUTH OF PROSPECT, OR

LOCATION.--Lat 42°42'45", long 122°30'20", in NW¼SE¼ sec.7, T.33 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 200 ft upstream from unnamed tributary, 0.6 mi upstream from Smith Creek, 1.2 mi downstream from Beaver Creek, 2.8 mi southwest of Prospect, and at mile 2.4.

DRAINAGE AREA.--246 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,030 ft, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Some regulation by South Fork canal dam upstream. Power diversions upstream from station from South Fork Rogue River, Middle Fork Rogue River, and Red Blanket Creek divert water to Rogue River via Main Canal. During summer base flow all of streamflow is diverted for power except that for fish life. Base flow at station is principally from springs downstream from power diversions.

AVERAGE DISCHARGE.--18 years, 405 ft³/s, 293,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,880 ft³/s Mar. 3, 1972, gage height, 12.71 ft, from floodmark; minimum discharge, 54 ft³/s Sept. 24-30, 1970, but may have been lower during period of no record Sept. 24-30, 1970, Aug. 16-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 20.1 ft, Dec. 22, 1964, from floodmarks at gage, discharge, 28,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,060 ft³/s Feb. 23, gage height, 10.83 ft, 11.07 ft, from outside gage; minimum discharge, 95 ft³/s Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	103	254	158	244	521	1330	500	368	864	187	120	103
2	102	261	257	257	561	1170	450	451	811	177	118	103
3	108	186	435	281	577	1030	425	502	673	172	118	102
4	111	193	336	245	556	972	409	473	628	198	118	103
5	133	254	312	268	554	894	396	501	625	189	118	103
6	128	213	332	295	457	915	393	509	587	171	116	103
7	109	155	404	267	424	1730	409	482	499	156	115	104
8	114	180	382	262	394	1910	413	445	461	152	114	139
9	119	194	341	296	366	1490	417	443	418	150	114	201
10	102	191	305	281	340	1280	434	478	451	152	114	197
11	104	187	256	266	309	1180	452	443	371	162	115	190
12	116	178	236	258	358	1130	446	412	363	171	114	191
13	101	150	221	254	451	1040	431	411	354	146	110	191
14	99	146	194	252	485	975	415	406	342	141	110	191
15	98	186	189	249	509	917	389	392	321	138	109	197
16	166	344	170	445	788	871	317	393	312	140	107	226
17	164	282	133	865	1320	817	328	410	313	164	107	271
18	103	262	136	748	2340	749	305	450	331	181	105	263
19	100	252	136	674	2400	677	297	481	324	139	105	222
20	120	248	133	600	2050	650	303	573	276	135	105	166
21	161	208	134	454	1770	628	342	607	263	133	107	142
22	224	172	134	444	2970	609	426	504	253	130	106	140
23	1050	163	140	455	5280	616	408	486	243	128	106	143
24	606	167	163	404	3480	752	353	467	235	127	105	365
25	369	161	178	384	2570	615	357	527	230	171	105	279
26	313	128	187	363	2090	544	335	645	215	242	105	403
27	248	144	195	358	1800	542	450	666	210	231	105	280
28	243	190	190	386	1550	546	558	673	204	194	104	251
29	220	220	185	468	---	557	449	764	200	168	105	199
30	209	177	181	570	---	561	396	823	196	124	106	167
31	175	---	177	525	---	523	---	830	---	121	106	---
TOTAL	6118	6046	6930	12118	37270	28220	12003	16015	11573	4990	3412	5735
MEAN	197	202	224	391	1331	910	400	517	386	161	110	191
MAX	1050	344	435	865	5280	1910	558	830	864	242	120	403
MIN	98	128	133	244	309	523	297	368	196	121	104	102
AC-FT	12140	11990	13750	24040	73930	55970	23810	31770	22960	9900	6770	11380
CAL YR 1985	TOTAL	119523	MEAN	327	MAX	1110	MIN	98	AC-FT	237100		
WTR YR 1986	TOTAL	150430	MEAN	412	MAX	5280	MIN	98	AC-FT	298400		

UPPER ROGUE RIVER BASIN

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1968 to current year.

SEDIMENT RECORDS: October 1976 to April 1981 (October to April only 1980 water year, November to April only 1981 water year).

INSTRUMENTATION.--Water temperature recorder since October 1968.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.0°C July 18, 19, 1979; minimum, 0.0°C on several days during winter periods.

SEDIMENT CONCENTRATIONS: Maximum daily, 654 mg/l Nov. 26, 1977; minimum daily, 0 mg/l on several days each year.

SEDIMENT DISCHARGE: Maximum daily, 6,180 tons Nov. 26, 1977; minimum daily, 0 tons on several days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 14.0°C Aug. 10, 11; minimum, 0.5°C Nov. 13, Dec. 12, 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.0	7.0	7.5	5.5	5.0	5.5	2.5	2.5	2.5	4.0	3.0	3.5
2	8.5	8.0	8.0	5.5	5.5	5.5	3.0	2.5	3.0	4.0	3.5	3.5
3	8.5	8.5	8.5	5.5	5.0	5.5	3.5	3.0	3.5	3.5	3.5	3.5
4	8.5	8.5	8.5	5.5	5.0	5.5	3.5	3.5	3.5	3.5	3.0	3.0
5	8.5	8.0	8.5	5.5	5.0	5.0	4.0	3.5	3.5	4.0	3.5	4.0
6	8.5	8.0	8.0	5.0	4.0	4.5	4.0	4.0	4.0	4.0	3.5	4.0
7	8.0	7.5	8.0	5.5	5.0	5.0	4.0	4.0	4.0	3.5	3.0	3.0
8	7.5	5.5	7.0	6.0	5.5	5.5	4.0	3.5	4.0	4.0	3.0	3.5
9	6.0	4.0	5.5	5.5	4.0	5.0	3.5	3.0	3.0	4.5	4.0	4.5
10	5.0	4.0	4.5	4.0	3.0	3.5	3.0	1.5	2.0	5.0	4.0	4.5
11	6.0	5.0	5.5	3.0	2.0	2.5	1.5	1.0	1.0	4.5	4.0	4.0
12	6.5	6.0	6.0	2.0	1.0	1.5	1.0	.5	.5	4.0	4.0	4.0
13	6.0	5.5	6.0	1.0	.5	1.0	1.0	.5	.5	4.5	4.0	4.0
14	5.5	4.5	5.0	1.5	1.0	1.0	1.5	1.0	1.0	4.5	4.5	4.5
15	5.5	5.0	5.5	2.5	1.5	2.0	2.0	1.5	1.5	4.5	4.5	4.5
16	6.0	5.5	6.0	3.5	2.5	3.0	2.0	2.0	2.0	5.0	4.5	5.0
17	6.0	5.5	6.0	3.5	3.0	3.0	2.0	2.0	2.0	5.0	4.5	5.0
18	6.0	5.5	5.5	3.0	2.5	2.5	2.0	2.0	2.0	5.0	4.5	4.5
19	6.0	6.0	6.0	2.5	2.5	2.5	2.0	2.0	2.0	5.0	4.5	5.0
20	6.5	6.0	6.0	2.5	2.5	2.5	2.0	2.0	2.0	4.5	4.5	4.5
21	6.5	6.0	6.5	2.5	2.5	2.5	2.0	2.0	2.0	4.5	3.5	4.0
22	6.0	6.0	6.0	2.5	2.0	2.0	2.0	2.0	2.0	4.0	3.5	4.0
23	6.0	5.5	5.5	2.0	1.5	2.0	2.0	2.0	2.0	4.5	4.0	4.5
24	6.0	5.5	5.5	2.5	1.5	2.0	2.5	2.0	2.0	4.5	4.0	4.0
25	6.5	6.0	6.5	3.0	2.5	3.0	2.5	2.5	2.5	4.0	3.5	3.5
26	6.5	6.0	6.5	3.0	2.0	2.5	2.5	2.0	2.5	4.0	3.5	4.0
27	6.5	5.5	6.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	4.0	4.5
28	6.0	5.5	6.0	2.5	2.0	2.0	2.0	2.0	2.0	5.5	5.0	5.5
29	5.5	4.5	5.0	3.0	2.5	2.5	2.5	2.0	2.0	6.0	5.5	5.5
30	5.0	4.5	4.5	3.0	2.5	3.0	2.5	2.5	2.5	6.0	5.5	6.0
31	5.0	4.5	5.0	---	---	---	3.0	2.5	2.5	6.0	5.5	5.5
MONTH	8.5	4.0	6.5	6.0	.5	3.0	4.0	.5	2.5	6.0	3.0	4.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.0	5.5	5.5	7.0	6.5	7.0	8.0	7.5	7.5	8.0	7.0	7.5
2	5.5	5.5	5.5	7.0	6.5	7.0	7.5	6.5	7.0	8.5	8.0	8.5
3	5.5	5.0	5.5	7.0	6.5	7.0	7.0	6.5	7.0	8.5	7.5	8.0
4	5.0	5.0	5.0	7.0	7.0	7.0	7.5	7.0	7.0	7.5	6.5	7.5
5	5.0	5.0	5.0	7.5	7.0	7.0	7.5	7.0	7.5	7.5	6.5	7.0
6	5.0	4.0	4.5	7.5	7.5	7.5	8.5	7.5	8.0	7.0	6.0	6.5
7	4.5	3.5	4.0	7.5	7.5	7.5	9.0	8.0	8.5	7.0	6.5	7.0
8	3.5	3.0	3.5	7.5	6.5	7.0	9.5	9.0	9.5	7.5	7.0	7.0
9	3.5	3.0	3.5	7.0	6.5	6.5	9.0	8.5	9.0	8.0	7.5	8.0
10	3.5	3.0	3.5	6.5	6.5	6.5	9.0	8.5	9.0	7.5	6.5	7.5
11	4.0	3.5	3.5	7.0	6.5	7.0	9.0	8.0	8.5	7.0	6.0	6.5
12	4.5	4.0	4.5	7.0	6.5	6.5	8.0	6.5	7.0	7.5	6.5	7.0
13	5.5	4.5	5.0	6.5	6.5	6.5	7.0	6.0	6.5	8.0	7.5	8.0
14	5.5	5.5	5.5	6.5	6.0	6.5	7.0	6.5	6.5	8.5	7.5	8.0
15	6.0	5.5	5.5	6.5	6.5	6.5	7.0	6.5	7.0	8.0	7.5	8.0
16	6.0	6.0	6.0	6.5	6.5	6.5	7.5	7.0	7.0	8.5	8.0	8.0
17	6.0	6.0	6.0	7.0	6.5	6.5	7.5	7.0	7.0	9.5	8.5	9.0
18	6.0	5.5	5.5	7.0	6.5	6.5	7.5	7.0	7.0	10.0	9.5	9.5
19	5.5	5.5	5.5	7.5	7.0	7.0	8.0	7.0	7.5	10.0	9.5	9.5
20	5.5	5.5	5.5	7.5	7.0	7.5	9.5	8.0	9.0	10.0	9.0	9.5
21	5.5	5.5	5.5	8.0	7.5	8.0	10.5	9.5	10.0	9.0	7.0	8.0
22	6.0	5.5	6.0	8.0	7.5	7.5	11.0	10.0	10.5	7.0	6.0	6.5
23	6.0	5.5	6.0	8.0	7.5	8.0	10.0	7.0	8.5	8.0	7.0	7.5
24	6.0	5.5	6.0	8.0	7.5	8.0	8.0	6.5	7.5	9.0	8.0	8.0
25	6.5	6.0	6.0	7.5	7.0	7.5	7.0	6.5	7.0	10.0	9.0	9.5
26	6.5	6.5	6.5	8.0	7.5	7.5	7.0	6.5	6.5	10.5	10.0	10.0
27	7.0	6.5	7.0	8.5	7.5	8.0	7.0	7.0	7.0	10.0	9.5	10.0
28	7.0	6.5	7.0	8.5	8.0	8.5	7.0	7.0	7.0	10.5	9.5	10.0
29	---	---	---	9.0	8.5	8.5	7.5	7.0	7.0	10.5	10.0	10.0
30	---	---	---	9.0	8.5	8.5	7.0	6.0	6.5	10.5	10.0	10.5
31	---	---	---	8.5	7.5	8.0	---	---	---	10.5	9.5	10.0
MONTH	7.0	3.0	5.5	9.0	6.0	7.5	11.0	6.0	7.5	10.5	6.0	8.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.5	10.0	10.5	12.0	11.5	11.5	12.5	11.5	12.0	12.0	12.0	12.0
2	11.0	10.0	10.5	12.5	11.5	12.0	13.0	12.5	12.5	12.0	12.0	12.0
3	10.5	9.5	10.0	12.5	12.0	12.0	13.5	13.0	13.0	12.5	12.0	12.5
4	10.5	10.0	10.5	12.5	11.0	11.5	13.5	13.0	13.0	13.0	12.5	12.5
5	11.0	10.0	10.5	11.0	9.5	10.0	13.5	12.5	13.0	13.0	12.5	13.0
6	10.5	10.0	10.0	10.5	9.5	10.0	13.0	12.5	13.0	12.5	12.5	12.5
7	10.0	9.0	9.5	11.0	10.5	10.5	13.5	13.0	13.0	12.5	12.0	12.5
8	9.5	8.5	9.0	11.0	10.5	11.0	13.5	13.0	13.0	12.0	12.0	12.0
9	10.0	9.0	9.5	11.5	11.0	11.5	13.5	13.0	13.5	12.0	10.5	11.0
10	10.5	10.0	10.0	11.5	11.0	11.0	14.0	13.5	13.5	10.5	9.0	9.5
11	11.5	10.5	11.0	11.5	10.5	11.0	14.0	13.0	13.5	9.0	9.0	9.0
12	11.5	11.0	11.5	12.0	11.0	11.5	13.5	12.5	13.0	9.0	9.0	9.0
13	12.0	11.0	11.5	11.5	11.0	11.0	13.0	12.5	12.5	9.0	9.0	9.0
14	12.0	11.0	11.5	11.5	11.0	11.0	13.0	12.5	13.0	9.0	8.0	8.5
15	11.0	10.0	10.5	11.5	10.5	11.0	13.5	13.0	13.0	8.0	8.0	8.0
16	11.0	10.0	10.5	11.0	10.0	10.5	13.5	13.0	13.5	8.0	8.0	8.0
17	10.0	9.5	9.5	10.0	9.0	9.5	13.5	12.5	13.0	8.0	8.0	8.0
18	9.5	9.0	9.5	10.0	9.5	10.0	13.0	12.5	13.0	8.0	8.0	8.0
19	9.5	8.0	9.0	10.5	10.0	10.5	13.0	12.0	12.5	8.0	8.0	8.0
20	9.5	8.5	9.0	11.5	10.5	11.0	12.5	12.0	12.5	8.0	8.0	8.0
21	10.0	9.0	9.5	12.5	11.5	12.0	12.5	12.0	12.0	8.0	7.5	8.0
22	11.0	10.0	10.5	13.0	12.0	12.5	12.5	11.5	12.0	8.0	7.5	8.0
23	12.0	11.0	11.5	12.5	12.0	12.0	12.0	11.5	11.5	8.0	7.5	8.0
24	13.0	12.0	12.5	12.5	11.5	12.0	12.0	11.5	11.5	7.5	7.5	7.5
25	13.0	12.5	13.0	12.0	11.0	11.5	12.0	11.5	11.5	7.5	7.0	7.5
26	13.5	12.5	13.0	11.5	10.5	11.0	12.0	11.5	12.0	7.0	7.0	7.0
27	13.0	12.0	12.5	10.5	10.0	10.5	12.0	12.0	12.0	7.0	7.0	7.0
28	12.5	11.0	12.0	10.5	10.0	10.0	13.0	12.0	13.0	7.0	7.0	7.0
29	12.5	11.5	12.0	10.5	10.0	10.5	13.5	13.0	13.0	7.5	7.0	7.5
30	12.5	11.0	11.5	11.5	10.5	11.0	13.0	12.0	12.5	7.5	7.0	7.5
31	---	---	---	11.5	11.0	11.5	12.0	12.0	12.0	---	---	---
MONTH	13.5	8.0	10.5	13.0	9.0	11.0	14.0	11.5	12.5	13.0	7.0	9.5
YEAR	14.0	.5	7.5									

UPPER ROGUE RIVER BASIN

14335040 LOST CREEK LAKE NEAR MCLEOD, OR

LOCATION.--Lat 42°40'16", long 122°40'25", in SW¼ sec.26, T.33 S., R. 1 E., Jackson County, Hydrologic Unit 17100307, in outlet structure of Lost Creek Dam on Rogue River, 1.0 mi northeast of McLeod and at mile 157.2.

DRAINAGE AREA.--686 mi².

PERIOD OF RECORD.--February 1977 to current year.

REVISED RECORDS.--WDR OR-85-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Nov. 28, 1977, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam completed in October 1976. Storage began in February 1977. Total capacity, 465,000 acre-ft between elevations 1,551.0 ft and 1,872.0 ft, maximum pool elevation. Elevation of gated spillway crest, 1,823.0 ft. Usable storage, 315,000 acre-ft between elevation 1,751.0 ft and 1,872.0 ft. Water is used for flood control, recreation, power generation, pollution abatement, domestic use and other purposes.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,100 acre-ft May 21, 1979, May 25, 1981, elevation, 1,872.02 ft; minimum contents since first filling, 100,800 acre-ft Oct. 29, 1977, elevation, 1,720.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 463,400 acre-ft May 21, elevation, 1,871.54 ft; minimum contents, 288,800 acre-ft Dec. 12, elevation, 1,813.45 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,720	100,100	1,850	393,100
1,750	148,200	1,872	465,000
1,800	254,600		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1822.22	1822.04	1815.22	1815.15	1822.65	1852.55	1861.89	1870.93	1871.46	1866.83	1848.19	1826.25
2	1822.04	1821.97	1814.63	1815.55	1823.18	1852.21	1862.57	1871.08	1871.38	1866.17	1847.53	1825.50
3	1821.88	1821.89	1814.97	1815.85	1823.82	1852.04	1863.25	1871.11	1871.23	1865.56	1846.87	1824.72
4	1821.70	1821.82	1814.86	1816.11	1824.64	1852.30	1863.90	1871.03	1871.10	1865.07	1846.22	1823.95
5	1821.53	1821.74	1814.62	1816.36	1825.43	1852.62	1864.53	1871.11	1871.01	1864.53	1845.56	1823.18
6	1821.35	1821.65	1814.49	1816.77	1826.09	1852.96	1865.15	1871.15	1870.99	1863.95	1844.90	1822.39
7	1821.18	1821.55	1814.63	1817.03	1826.77	1855.05	1865.49	1871.15	1870.97	1863.36	1844.24	1821.61
8	1820.98	1821.48	1814.65	1817.27	1827.49	1856.86	1866.43	1871.13	1870.93	1862.78	1843.55	1820.89
9	1820.80	1821.47	1814.46	1817.82	1828.14	1857.30	1867.09	1871.15	1870.91	1862.18	1842.87	1820.27
10	1820.62	1821.41	1814.17	1818.27	1828.72	1856.96	1867.72	1871.20	1870.99	1861.60	1842.21	1819.69
11	1820.49	1821.31	1813.75	1818.53	1829.28	1856.47	1868.09	1871.18	1871.06	1861.02	1841.53	1819.20
12	1820.35	1821.17	1813.45	1818.73	1829.91	1855.86	1868.24	1871.15	1871.04	1860.42	1840.85	1818.79
13	1820.19	1821.05	1813.50	1818.88	1830.73	1855.65	1868.36	1871.15	1870.96	1859.77	1840.14	1818.46
14	1819.99	1820.94	1813.55	1818.98	1831.67	1855.65	1868.43	1871.19	1870.87	1859.15	1839.44	1818.20
15	1819.80	1821.01	1813.55	1819.09	1832.71	1855.68	1868.51	1871.21	1870.73	1858.49	1838.73	1818.09
16	1819.63	1821.45	1813.53	1819.76	1834.64	1855.76	1868.58	1871.22	1870.60	1857.84	1838.02	1818.02
17	1819.47	1821.73	1813.50	1820.98	1837.25	1856.00	1868.63	1871.22	1870.45	1857.21	1837.31	1818.11
18	1819.29	1821.81	1813.49	1821.28	1841.21	1856.69	1868.64	1871.30	1870.34	1856.65	1836.59	1818.21
19	1819.10	1821.87	1813.49	1821.52	1843.96	1857.11	1868.65	1871.40	1870.19	1856.10	1835.86	1818.21
20	1818.96	1821.92	1813.53	1821.66	1845.54	1857.50	1868.68	1871.49	1870.02	1855.52	1835.14	1818.21
21	1818.89	1821.92	1813.59	1821.58	1846.42	1857.89	1868.91	1871.53	1869.79	1854.94	1834.40	1818.13
22	1819.15	1821.99	1813.66	1821.55	1850.41	1858.25	1869.31	1871.41	1869.58	1854.35	1833.68	1818.05
23	1820.44	1820.98	1813.76	1821.57	1857.84	1858.65	1869.61	1871.29	1869.35	1853.76	1832.95	1818.01
24	1821.21	1820.38	1813.90	1821.39	1859.54	1859.26	1869.86	1871.17	1869.11	1853.17	1832.22	1818.35
25	1821.60	1819.70	1814.09	1821.12	1858.05	1859.70	1870.13	1871.14	1868.87	1852.56	1831.47	1818.87
26	1821.89	1819.00	1814.28	1820.77	1856.06	1860.07	1870.35	1871.27	1868.60	1851.97	1830.74	1819.70
27	1822.03	1818.45	1814.44	1820.57	1854.52	1860.73	1870.72	1871.36	1868.33	1851.35	1829.99	1820.13
28	1822.13	1818.11	1814.58	1820.98	1853.04	1861.04	1871.00	1871.37	1868.04	1850.74	1829.25	1820.36
29	1822.14	1817.49	1814.70	1821.49	---	1861.29	1870.94	1871.36	1867.77	1850.10	1828.51	1820.48
30	1822.13	1816.32	1814.71	1822.04	---	1861.55	1870.93	1871.40	1867.40	1849.46	1827.77	1820.66
31	1822.09	---	1814.77	1822.33	---	1861.65	---	1871.42	---	1848.83	1826.98	---
MAX	1822.22	1822.04	1815.22	1822.33	1859.54	1861.65	1871.00	1871.53	1871.46	1866.83	1848.19	1826.25
MIN	1818.89	1816.32	1813.45	1815.15	1822.65	1852.04	1861.89	1870.93	1867.40	1848.83	1826.98	1818.01
(+)	311900	296400	292300	312500	402600	430300	461300	463000	449400	389500	325300	308000
(#)	-700	-15500	-4100	+20200	+90100	+27700	+31000	+1700	-13600	-59900	-64200	-17300
CAL YR 1985	MAX	1871.09	MIN	1811.36	AC-FT†	+9000						
WTR YR 1986	MAX	1871.53	MIN	1813.45	AC-FT†	-4600						

† Contents, in acre-feet, at 2400, on last day of month.

Change in contents, in acre-feet.

UPPER ROGUE RIVER BASIN

315

14335075 ROGUE RIVER AT MCLEOD, OR

LOCATION.--Lat 42°39'35", long 122°41'30", in SW¼NW¼ sec.34, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.3 mi upstream from Big Butte Creek, 0.1 southwest of McLeod, and at mile 155.6.

DRAINAGE AREA.--689 mi².

PERIOD OF RECORD.--May 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1976 to September 1981.

pH: November 1976 to September 1981.

WATER TEMPERATURES: November 1976 to current year.

DISSOLVED OXYGEN: November 1976 to September 1981.

SUSPENDED SEDIMENT DISCHARGE: October 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year).

INSTRUMENTATION.--Water-quality monitor since November 1976. Automatic pumping sediment sampler November 1976 to April 1981.

REMARKS.--Water-discharge records, obtained by subtracting Big Butte Creek near McLeod (station 14337500) from Rogue River near McLeod (station 14337600), are used for computation of daily sediment loads.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 76 microsiemens Nov. 11, 1977; minimum, 45 microsiemens Dec. 24, 25, 1977.

pH: Maximum, 9.2 units May 8, 9, 11, 12, 1981; minimum, 6.7 units Nov. 8-13, 1978.

WATER TEMPERATURES: Maximum, 15.5°C June 23, 1985; minimum, 0.5°C Jan. 9, 1977; minimum since full operation of Lost Creek Lake, 3.5°C Feb. 1-9, 15, 1979, Feb. 26, 27, 1985, but may have been lower during period of missing record Feb. 1-20, 1985.

DISSOLVED OXYGEN: Maximum, 15.7 mg/l Jan. 8, 1977; minimum, 6.8 mg/l Aug. 20, 1977.

SEDIMENT CONCENTRATIONS: Maximum recorded daily mean, 75 mg/l Dec. 14, 1977; minimum daily, 0 mg/l many days.

SEDIMENT DISCHARGE: Maximum recorded daily, 1,570 tons Dec. 14, 1977; minimum daily, 0 tons many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 14.0°C on several days in August; minimum, 4.0°C on many days in December and January.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.0	6.0	6.0	6.0	5.5	5.5	5.5	5.5	5.5	4.5	4.0	4.5
2	6.5	5.5	6.0	6.0	5.5	6.0	5.5	5.5	5.5	4.0	4.0	4.0
3	6.5	5.5	6.0	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.0	4.0
4	6.5	5.5	6.0	6.0	5.5	6.0	5.5	5.0	5.5	4.5	4.0	4.0
5	6.5	5.5	6.0	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.0	4.0
6	6.0	5.5	6.0	6.0	5.5	6.0	5.5	5.0	5.5	4.5	4.0	4.0
7	6.0	5.5	5.5	6.0	5.5	6.0	5.5	5.0	5.0	4.5	4.0	4.0
8	6.0	5.5	5.5	6.0	5.5	6.0	5.5	5.0	5.0	4.5	4.0	4.0
9	6.0	5.0	5.5	6.0	5.5	6.0	5.5	5.0	5.0	4.5	4.0	4.0
10	6.0	5.0	5.5	6.0	5.5	6.0	5.5	5.0	5.0	4.5	4.0	4.0
11	5.5	5.0	5.5	6.0	5.5	5.5	5.0	5.0	5.0	4.5	4.0	4.5
12	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	5.0	4.5	4.0	4.5
13	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	5.0	4.5	4.0	4.5
14	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	5.0	4.5	4.0	4.5
15	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	4.5	4.5	4.5	4.5
16	5.5	5.0	5.5	6.0	5.5	5.5	5.0	4.5	4.5	4.5	4.5	4.5
17	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	4.5	4.5	4.5	4.5
18	6.0	5.0	5.5	6.0	5.5	5.5	5.0	4.5	4.5	4.5	4.5	4.5
19	5.5	5.0	5.5	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
20	6.0	5.0	5.5	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
21	5.5	5.0	5.5	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
22	5.5	5.5	5.5	6.0	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
23	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.0	4.5	4.5	4.5	4.5
24	6.0	5.5	5.5	5.5	5.5	5.5	4.5	4.0	4.5	4.5	4.5	4.5
25	6.0	5.5	5.5	5.5	5.5	5.5	4.5	4.0	4.5	4.5	4.5	4.5
26	6.0	5.5	5.5	5.5	5.0	5.5	4.5	4.0	4.5	4.5	4.5	4.5
27	6.0	5.5	5.5	5.5	5.0	5.5	4.5	4.0	4.0	4.5	4.5	4.5
28	6.0	5.0	5.5	5.5	5.0	5.5	4.5	4.0	4.0	4.5	4.5	4.5
29	6.0	5.5	5.5	5.5	5.5	5.5	4.5	4.0	4.0	4.5	4.5	4.5
30	5.5	5.5	5.5	5.5	5.0	5.5	4.5	4.0	4.0	5.0	4.5	4.5
31	6.0	5.5	5.5	---	---	---	4.5	4.0	4.0	5.0	4.5	4.5
MONTH	7.0	5.0	5.5	6.0	5.0	5.5	5.5	4.0	4.5	5.0	4.0	4.5

UPPER ROGUE RIVER BASIN

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.5	4.5	5.5	5.0	5.0	5.0	4.5	5.0	8.0	6.5	7.0
2	5.0	4.5	4.5	5.5	5.0	5.0	5.5	4.5	5.0	7.0	6.5	7.0
3	5.0	4.5	4.5	5.5	5.0	5.0	5.5	4.5	5.0	7.0	6.5	6.5
4	5.0	4.5	4.5	5.5	4.5	5.0	5.5	5.0	5.0	7.0	6.5	6.5
5	5.0	4.5	4.5	5.5	4.5	5.0	5.5	4.5	5.0	8.0	6.5	7.0
6	5.0	4.5	4.5	5.0	5.0	5.0	6.0	5.0	5.0	9.0	7.5	8.0
7	5.0	4.5	4.5	5.0	4.5	5.0	6.0	5.0	5.5	9.0	8.0	8.5
8	5.0	4.5	4.5	5.0	4.5	5.0	5.5	5.0	5.5	9.5	8.0	8.5
9	5.0	4.5	4.5	5.0	4.5	5.0	6.0	5.0	5.5	9.0	8.0	8.5
10	5.0	4.5	4.5	5.5	5.0	5.0	6.0	5.0	5.5	9.0	8.0	8.5
11	5.0	4.5	4.5	5.0	5.0	5.0	5.5	5.0	5.0	9.0	8.0	8.5
12	5.0	4.5	4.5	5.0	5.0	5.0	5.5	5.0	5.0	9.0	8.5	9.0
13	5.5	4.5	5.0	5.0	5.0	5.0	5.5	5.0	5.5	9.5	8.5	9.0
14	5.0	4.5	5.0	5.0	4.5	5.0	5.5	5.0	5.5	9.0	8.5	9.0
15	5.0	4.5	5.0	5.0	4.5	5.0	6.0	5.5	5.5	9.0	8.5	9.0
16	5.0	4.5	5.0	5.0	4.5	5.0	6.0	5.5	6.0	9.5	8.0	9.0
17	5.0	4.5	4.5	5.0	4.5	5.0	6.0	5.5	6.0	9.5	8.5	9.0
18	4.5	4.5	4.5	5.5	4.5	5.0	6.5	5.5	6.0	9.5	8.5	9.0
19	5.0	4.5	4.5	5.5	4.5	5.0	6.5	5.5	6.0	9.5	8.5	9.0
20	5.0	4.5	4.5	5.0	4.5	5.0	6.5	6.0	6.5	9.5	8.5	9.0
21	4.5	4.5	4.5	5.0	4.5	5.0	7.0	6.0	6.5	9.0	8.5	8.5
22	4.5	4.5	4.5	5.0	4.5	5.0	7.0	6.0	6.5	9.5	8.5	9.0
23	5.0	4.5	4.5	5.0	4.5	5.0	7.5	6.5	7.0	9.5	9.0	9.0
24	5.0	4.5	5.0	5.0	4.5	5.0	7.0	6.0	6.5	9.5	9.0	9.5
25	5.5	5.0	5.0	5.0	4.5	5.0	6.5	6.5	6.5	10.0	9.0	9.5
26	5.5	5.0	5.5	5.5	4.5	5.0	7.0	6.0	6.5	10.0	9.0	9.5
27	5.5	5.5	5.5	5.5	5.0	5.0	7.0	6.5	6.5	10.0	9.0	9.5
28	5.5	5.5	5.5	5.5	5.0	5.0	8.0	6.5	7.0	9.5	9.0	9.5
29	---	---	---	5.5	5.0	5.0	8.0	7.0	7.5	9.5	8.5	9.0
30	---	---	---	5.5	5.0	5.0	8.0	7.0	7.5	9.5	8.5	9.0
31	---	---	---	5.5	4.5	5.0	---	---	---	9.5	8.5	9.0
MONTH	5.5	4.5	4.5	5.5	4.5	5.0	8.0	4.5	6.0	10.0	6.5	8.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	9.5	8.5	9.0	---	---	---	13.0	12.0	12.5	13.0	12.5	13.0
2	9.5	9.0	9.0	---	---	---	13.0	12.0	12.5	13.5	12.5	13.0
3	9.5	8.5	9.0	---	---	---	13.0	12.0	12.5	13.0	11.5	12.0
4	9.5	8.5	9.0	---	---	---	13.0	11.5	12.5	12.0	11.5	12.0
5	9.5	8.5	9.0	---	---	---	13.0	12.0	12.5	12.0	11.5	12.0
6	9.5	8.5	9.0	---	---	---	13.0	11.5	12.5	12.0	11.5	12.0
7	9.5	8.5	9.0	---	---	---	13.0	12.0	12.5	12.5	11.5	12.0
8	9.5	8.5	9.0	---	---	---	13.0	12.0	12.5	12.0	11.0	11.5
9	9.5	8.5	8.5	---	---	---	13.0	12.0	13.0	11.5	11.0	11.0
10	9.0	8.0	8.5	---	---	---	13.5	12.0	13.0	11.5	9.5	10.5
11	9.5	8.0	9.0	---	---	---	13.5	12.5	13.0	10.5	9.5	10.0
12	9.5	8.5	9.0	---	---	---	13.5	12.5	13.0	10.0	9.0	9.5
13	9.5	8.5	9.0	---	---	---	13.5	12.5	13.0	10.0	9.0	9.5
14	9.0	8.0	8.5	---	---	---	14.0	12.5	13.5	10.0	9.0	9.5
15	9.0	8.0	8.5	---	---	---	14.0	12.5	13.5	9.5	9.0	9.5
16	---	---	---	---	---	---	14.0	12.5	13.5	9.5	7.5	8.5
17	---	---	---	---	---	---	14.0	13.0	13.5	7.5	6.5	7.0
18	---	---	---	---	---	---	14.0	13.0	13.5	6.5	6.5	6.5
19	---	---	---	---	---	---	14.0	13.0	14.0	7.0	6.5	6.5
20	---	---	---	---	---	---	14.0	12.0	13.0	7.0	6.5	6.5
21	---	---	---	---	---	---	12.5	11.5	12.0	7.0	6.5	6.5
22	---	---	---	---	---	---	12.5	11.5	12.0	7.0	6.5	6.5
23	---	---	---	13.0	11.0	12.0	12.5	12.0	12.5	6.5	6.5	6.5
24	---	---	---	13.5	11.5	12.5	12.5	12.0	12.5	7.0	6.5	6.5
25	---	---	---	13.0	12.0	12.5	13.0	11.5	12.5	6.5	6.5	6.5
26	---	---	---	13.0	12.0	12.5	13.0	12.0	12.5	6.5	6.5	6.5
27	---	---	---	13.0	11.5	12.5	13.0	12.5	12.5	7.0	6.5	6.5
28	---	---	---	13.0	12.0	12.5	13.5	12.0	12.5	7.0	6.5	6.5
29	---	---	---	13.0	12.0	12.5	13.0	12.0	12.5	7.0	6.5	6.5
30	---	---	---	13.0	11.5	12.5	13.0	12.0	12.5	7.0	6.5	6.5
31	---	---	---	13.0	11.5	12.5	13.0	12.5	13.0	---	---	---
MONTH	---	---	---	---	---	---	14.0	11.5	13.0	13.5	6.5	9.0

UPPER ROGUE RIVER BASIN

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14335200 SOUTH FORK BIG BUTTE CREEK ABOVE WILLOW CREEK, NEAR BUTTE FALLS, OR

LOCATION.--Lat 42°31'15", long 122°29'05", in SE¼ sec.17, T.35 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank about 200 ft upstream from Willow Creek, 4.0 mi east of town of Butte Falls, and at mile 18.4.

DRAINAGE AREA.--67.6 mi².

PERIOD OF RECORD.--October 1985 to September 1986. Records prior to Oct. 1, 1978 published by the Oregon State Water Resources Department. Records for Oct. 1, 1978 to Sept. 30, 1985 available at the Oregon Water Resources Department, Salem, OR.

GAGE.--Water-stage recorder. May 1935 to October 1949, nonrecording gage and October 1949 to December 1964, water-stage recorder at different datum.

AVERAGE DISCHARGE.--49 years (1936-50, 1952-64, 1966-86), 81.0 ft³/s, 58,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,560 ft³/s Mar. 3, 1972, gage height, 7.03 ft; minimum observed discharge, 22 ft³/s Dec. 3, 1955, Oct. 1-4, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 19	2330	376	4.02	Feb. 23	0430	*662	*4.90

Minimum discharge, 34 ft³/s Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	49	72	68	66	193	96	86	74	51	45	40
2	46	47	84	68	72	174	93	108	74	50	44	42
3	46	47	84	74	74	159	90	113	71	50	43	39
4	45	48	80	70	72	148	87	114	69	52	43	36
5	43	49	74	74	77	139	85	117	66	52	42	36
6	45	47	76	72	72	136	82	115	65	51	43	37
7	46	47	84	70	69	194	78	112	64	51	44	38
8	46	50	82	72	67	215	80	107	62	50	44	39
9	46	53	76	74	65	201	79	106	61	50	42	41
10	46	51	74	72	64	185	77	116	60	51	42	40
11	49	47	72	72	62	187	75	106	58	51	42	40
12	49	46	70	72	68	182	78	101	57	50	39	40
13	47	46	70	72	75	179	78	97	57	49	41	40
14	46	48	68	72	71	170	77	94	58	49	42	40
15	46	54	66	72	74	162	76	90	58	51	41	42
16	46	65	64	85	98	155	76	87	58	51	40	44
17	46	59	64	89	180	145	80	85	58	50	42	52
18	46	55	64	80	331	134	76	83	60	50	43	47
19	46	53	62	79	342	128	73	83	57	49	43	56
20	46	53	62	77	321	124	72	86	57	48	43	55
21	55	51	64	71	285	121	72	105	56	46	42	46
22	74	51	62	72	398	117	74	96	56	44	42	45
23	94	50	60	72	596	116	77	92	55	44	43	47
24	61	53	62	67	417	131	74	87	55	44	43	67
25	55	54	64	65	320	117	79	84	54	45	43	65
26	53	49	62	64	272	111	77	83	53	46	42	80
27	50	51	60	64	238	108	93	82	52	45	41	61
28	54	70	62	68	213	105	97	81	52	45	41	53
29	51	86	62	68	---	101	92	79	53	45	42	50
30	50	72	62	68	---	98	89	78	52	45	44	50
31	50	---	62	66	---	95	---	80	---	45	43	---
TOTAL	1569	1601	2130	2229	5059	4530	2432	2953	1782	1500	1314	1408
MEAN	50.6	53.4	68.7	71.9	181	146	81.1	95.3	59.4	48.4	42.4	46.9
MAX	94	86	84	89	596	215	97	117	74	52	45	80
MIN	43	46	60	64	62	95	72	78	52	44	39	36
AC-FT	3110	3180	4220	4420	10030	8990	4820	5860	3530	2980	2610	2790
WTR YR 1986	TOTAL	28507	MEAN	78.1	MAX	596	MIN	36	AC-FT	56540		

14335500 SOUTH FORK BIG BUTTE CREEK NEAR BUTTE FALLS, OR

LOCATION.--Lat 42°32'25", long 122°33'15", in NE¼SW¼ sec.11, T.35 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on right bank 10 ft downstream from Ginger Creek, 0.6 mi east of town of Butte Falls, and at mile 14.0.

DRAINAGE AREA.--138 mi².

PERIOD OF RECORD.--September 1910 to October 1911 (published as "at Butte Falls"), August to October 1915, October 1917 to September 1922, March 1925 to current year. Monthly discharge only August, September 1915, published in WSP 1318.

REVISED RECORDS.--WSP 1288: 1911, 1918-19, 1921-22, 1929. WSP 1318: 1918-19. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1968. Elevation of gage is 2,360 ft, from river-profile map. Sept. 21, 1910, to Sept. 30, 1922, nonrecording gage at site 300 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1. Records good. Flow slightly regulated since 1952 by Willow Creek Reservoir, capacity, 7,320 acre-ft. Diversions for irrigation upstream from station and for municipal water supply for Medford (since 1927) and Butte Falls.

AVERAGE DISCHARGE.--67 years (water years 1911, 1918-22, 1926-86), 155 ft³/s, 112,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s Dec. 22, 1964, gage height, 7.65 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 29 ft³/s Sept. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1200	905	2.59	Mar. 8	2400	517	2.09
Feb. 23	0500	*1,440	*3.14				

Minimum discharge, 60 ft³/s Oct. 3, 7, 9.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1984 and 1985 have been revised as shown in the following table. They supersede figures published in the reports for 1984 and 1985.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Water Year 1984				Water Year 1984			
Dec. 15	0630	*2,200	*3.74	Apr. 9	2330	600	2.21
Dec. 29	2000	550	2.14	Water Year 1985			
Feb. 13	0400	614	2.23	Nov. 30	1900	*442	*1.97
Mar. 26	0800	966	2.66				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	79	105	83	101	375	161	152	134	79	91	92
2	65	77	128	84	116	332	159	185	127	78	91	92
3	64	77	126	89	125	294	153	203	121	86	89	94
4	64	78	113	84	120	270	149	209	115	90	89	92
5	62	79	110	89	128	250	145	235	112	91	90	92
6	63	77	111	88	118	241	140	255	109	89	90	91
7	64	77	124	85	113	389	136	243	107	89	90	92
8	64	80	118	85	109	488	137	227	104	87	90	93
9	64	84	109	90	106	485	136	219	101	86	87	95
10	64	84	102	86	107	432	132	232	99	87	87	94
11	70	79	97	85	110	441	129	211	96	88	86	94
12	70	76	93	83	122	428	138	196	94	86	85	94
13	67	78	92	83	149	414	137	187	93	85	86	94
14	65	78	90	83	143	389	134	177	95	85	86	95
15	64	86	87	82	147	358	129	168	93	86	86	96
16	65	103	86	137	217	331	128	162	93	87	86	98
17	64	96	84	156	428	304	141	156	94	86	87	107
18	64	89	83	132	858	273	138	149	96	85	87	101
19	64	85	82	130	839	253	136	146	93	84	93	109
20	65	84	82	125	808	238	134	151	91	84	93	104
21	78	83	81	114	713	224	132	181	91	83	93	92
22	111	83	80	115	920	213	134	177	90	89	92	86
23	139	80	80	115	1300	210	135	167	89	88	93	75
24	93	84	80	107	940	234	131	156	88	89	92	99
25	85	85	80	103	713	207	142	149	86	90	92	98
26	82	80	79	100	580	195	137	146	84	91	93	120
27	80	81	79	100	494	186	160	142	84	90	93	94
28	87	123	78	106	426	178	168	138	82	90	92	84
29	81	132	77	103	---	171	160	132	83	91	93	79
30	80	105	77	103	---	164	156	130	81	91	93	78
31	80	---	77	100	---	161	---	160	---	91	93	---
TOTAL	2294	2582	2890	3125	11050	9128	4247	5541	2925	2701	2788	2824
MEAN	74.0	86.1	93.2	101	395	294	142	179	97.5	87.1	89.9	94.1
MAX	139	132	128	156	1300	488	168	255	134	91	93	120
MIN	62	76	77	82	101	161	128	130	81	78	85	75
AC-FT	4550	5120	5730	6200	21920	18110	8420	10990	5800	5360	5530	5600
CAL YR 1985	TOTAL	45300	MEAN	124	MAX	275	MIN	62	AC-FT	89850		
WTR YR 1986	TOTAL	52095	MEAN	143	MAX	1300	MIN	62	AC-FT	103300		

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR

LOCATION.--Lat 42°39'05", long 122°41'25", in NE¼NW¼ sec.3, T.34 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 225 ft upstream from county road bridge, 0.9 mi south of McLeod, and at mile 0.64.

DRAINAGE AREA.--245 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1957. October 1967 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,525.95 ft above National Geodetic Vertical Datum of 1929. Oct. 9, 1945, to Sept. 30, 1957, nonrecording gage at site 260 ft downstream at datum 0.53 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Slight regulation by fish hatchery 600 ft upstream from station. Several diversions in the vicinity of Butte Falls, the two largest being the city of Medford diversion and Eagle Point Irrigation District Canal.

AVERAGE DISCHARGE.--31 years, 282 ft³/s, 204,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft³/s Dec. 22, 1955, gage height, 12.75 ft, site and datum then in use, from rating curve extended above 3,300 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 6.4 ft³/s June 23, 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 18.6 ft, present site, from floodmark by local resident, discharge, 16,800 ft³/s, from rating curve, at former site, extended above 9,000 ft³/s and field estimate of overflow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	2330	2,870	8.11	Feb. 19	0600	2,590	7.74
Feb. 18	1130	2,570	7.71	Feb. 23	0300	*3,450	*8.77

Minimum discharge, 51 ft³/s Oct. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	58	152	74	157	608	279	142	119	57	57	60
2	139	56	325	74	261	518	281	191	109	55	56	60
3	138	55	281	92	299	448	238	242	104	57	55	62
4	138	56	192	80	234	400	183	238	95	61	55	61
5	138	59	171	88	282	365	172	298	91	62	57	60
6	140	55	179	97	225	347	165	344	91	60	58	58
7	143	54	236	82	194	700	150	305	89	67	57	59
8	142	57	224	83	173	852	146	277	84	67	56	60
9	140	72	171	108	155	795	146	256	80	61	55	62
10	139	82	143	94	146	693	133	279	78	62	55	61
11	145	68	118	85	143	732	129	252	76	62	55	61
12	148	58	105	80	188	771	142	225	74	59	54	63
13	141	57	97	76	267	716	150	211	72	59	54	62
14	125	56	86	76	266	749	141	195	72	58	54	62
15	109	72	83	75	250	683	136	178	72	57	54	66
16	62	125	78	382	567	621	136	164	71	58	55	71
17	52	118	75	430	1110	566	153	154	72	58	55	86
18	51	97	73	268	2220	500	142	145	74	59	55	80
19	51	79	71	267	2070	463	133	139	71	57	58	96
20	55	75	69	264	1850	435	128	140	72	57	59	95
21	89	75	68	197	1600	411	124	181	70	56	89	72
22	113	74	68	224	2490	389	119	203	70	58	60	68
23	196	68	101	303	2980	382	122	170	69	58	60	68
24	102	73	69	201	1800	370	115	150	69	58	60	108
25	77	79	67	167	1250	294	132	139	68	58	60	116
26	70	70	66	148	992	341	128	131	62	58	62	198
27	63	68	65	140	829	328	150	128	62	58	60	118
28	72	249	63	153	707	313	171	122	63	57	59	79
29	63	304	63	164	---	299	158	111	62	55	62	69
30	60	158	63	154	---	289	149	104	61	55	62	66
31	60	---	64	136	---	280	---	139	---	56	62	---
TOTAL	3297	2627	3686	4862	23705	15658	4651	5953	2322	1820	1810	2307
MEAN	106	87.6	119	157	847	505	155	192	77.4	58.7	58.4	76.9
MAX	196	304	325	430	2980	852	281	344	119	67	89	198
MIN	51	54	63	74	143	280	115	104	61	55	54	58
AC-FT	6540	5210	7310	9640	47020	31060	9230	11810	4610	3610	3590	4580
CAL YR 1985	TOTAL	62032	MEAN	170	MAX	793	MIN	51	AC-FT	123000		
WTR YR 1986	TOTAL	72698	MEAN	199	MAX	2980	MIN	51	AC-FT	144200		

UPPER ROGUE RIVER BASIN

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1970 to current year.

INSTRUMENTATION.--Temperature recorder since August 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.0°C at times in 1973, 1977, 1979-81; minimum, 0.0°C at times in 1971, 1972, 1977-80.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.5°C June 1, 23-25; minimum, 1.0°C Nov. 12, 13, Dec. 11, 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	8.5	10.0	9.5	7.0	8.5	4.5	4.0	4.5	6.0	4.5	5.5
2	12.5	9.0	10.5	10.0	7.5	8.5	6.0	4.5	5.0	4.5	3.5	4.0
3	12.5	9.0	10.5	9.5	6.5	8.0	6.5	5.5	6.0	5.5	4.0	4.5
4	12.5	9.0	10.5	8.0	6.5	7.5	6.0	5.0	5.5	5.5	3.5	4.5
5	12.5	9.0	10.5	8.0	6.5	7.0	7.0	6.0	6.5	6.0	5.0	5.5
6	10.5	9.5	10.0	8.5	6.0	7.0	7.5	6.5	7.0	5.0	3.5	4.5
7	10.0	8.0	9.0	8.5	7.0	7.5	7.0	6.0	6.5	4.5	3.0	3.5
8	8.5	6.0	7.0	8.0	6.5	7.0	6.0	5.0	5.5	6.0	3.5	5.0
9	8.0	4.5	6.0	6.5	4.5	6.0	5.0	4.0	4.5	6.5	6.0	6.5
10	8.0	5.0	6.5	6.0	4.0	4.5	4.5	2.5	3.5	6.0	4.0	5.0
11	9.0	7.5	8.0	4.5	2.5	3.5	2.5	1.0	2.0	6.5	5.0	5.5
12	9.0	6.5	8.0	3.5	1.0	2.5	2.5	1.0	1.5	6.0	4.5	5.0
13	9.0	6.0	7.5	4.0	1.0	2.0	3.0	1.5	2.0	7.0	5.5	6.0
14	9.0	5.5	7.0	4.5	1.5	3.0	3.0	1.5	2.5	6.5	5.0	6.0
15	9.5	6.0	8.0	5.5	4.0	5.0	4.0	2.0	3.0	7.0	6.0	6.5
16	9.5	7.0	8.0	6.0	5.0	5.5	3.5	2.0	2.5	6.5	6.5	6.5
17	10.0	6.5	8.5	5.0	4.0	4.5	3.5	2.0	2.5	7.0	6.0	6.5
18	10.5	6.5	8.5	5.0	4.0	4.5	4.0	2.0	3.0	7.0	5.5	6.5
19	9.0	7.0	8.0	4.5	3.5	4.0	3.5	1.5	2.5	6.5	5.5	6.0
20	9.0	7.0	8.0	5.0	4.0	4.5	3.5	1.5	2.5	6.0	5.0	5.5
21	9.0	7.5	8.0	4.5	4.0	4.0	3.5	1.5	2.5	5.0	4.0	4.5
22	8.5	7.5	8.0	5.0	3.5	4.0	4.0	2.0	3.0	5.5	5.0	5.5
23	9.5	8.5	9.0	3.5	2.5	3.0	4.0	2.0	3.0	6.0	5.0	5.5
24	11.5	9.0	10.0	5.0	3.5	4.5	4.0	2.0	3.0	5.5	4.0	4.5
25	11.0	9.5	10.5	5.5	3.5	4.5	4.0	2.0	3.0	5.0	3.5	4.5
26	10.5	8.5	9.5	3.5	2.0	3.0	3.5	2.0	3.0	5.5	3.5	4.5
27	10.0	7.5	8.5	4.0	3.0	3.5	3.5	2.0	2.5	7.0	5.5	6.0
28	10.0	7.5	8.5	4.5	3.0	4.0	3.5	2.0	2.5	7.5	6.5	7.0
29	8.5	5.5	7.0	5.0	4.0	4.5	4.0	2.0	3.0	7.5	7.0	7.5
30	7.0	6.0	6.5	4.5	3.5	4.0	4.0	2.5	3.0	8.0	7.0	7.5
31	8.0	6.5	7.5	---	---	---	5.5	3.5	4.5	7.5	6.5	7.0
MONTH	12.5	4.5	8.5	10.0	1.0	5.0	7.5	1.0	3.5	8.0	3.0	5.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.5	7.0	7.0	9.0	7.5	8.5	9.0	7.0	8.0	13.0	8.0	10.5
2	7.0	6.5	6.5	9.0	7.0	8.5	9.5	6.0	7.5	11.5	10.0	11.0
3	6.5	5.5	6.0	9.5	7.0	8.5	9.5	6.0	8.0	12.0	9.0	10.5
4	6.5	6.0	6.5	10.0	7.5	9.0	10.0	7.0	8.5	11.5	8.5	10.0
5	6.5	5.5	6.0	10.0	7.5	9.0	11.5	6.5	9.0	9.5	8.0	9.0
6	5.5	4.5	5.0	10.0	9.0	9.5	13.0	8.0	10.5	11.0	7.0	8.5
7	5.0	3.0	4.0	10.0	8.0	9.5	14.0	9.0	11.5	10.0	7.0	8.5
8	4.5	2.5	3.5	8.5	7.5	8.0	12.0	10.0	10.5	12.5	7.5	10.0
9	4.5	2.0	3.5	8.0	7.0	7.5	12.0	9.0	10.5	10.5	8.5	9.5
10	4.5	2.0	3.5	8.5	6.5	7.5	13.5	9.0	11.0	10.0	8.0	9.0
11	5.5	4.0	4.5	8.0	7.0	8.0	9.5	7.5	8.5	10.5	7.0	9.0
12	6.0	5.5	5.5	8.0	6.0	7.5	9.0	7.5	8.0	12.0	7.5	9.5
13	7.5	5.5	6.5	8.0	7.0	7.5	11.0	7.0	8.5	12.0	9.5	10.5
14	7.5	6.0	6.5	7.5	5.0	6.5	10.0	6.5	8.5	12.5	7.5	10.0
15	7.5	6.5	7.0	7.5	6.0	7.0	11.5	7.5	9.0	13.5	8.0	10.5
16	7.5	6.5	7.0	8.0	6.0	7.0	9.5	7.5	8.5	14.0	8.5	11.5
17	7.0	6.0	6.5	8.0	5.5	7.0	10.5	7.5	9.0	15.5	10.0	12.5
18	6.5	5.5	6.0	8.0	5.0	7.0	12.0	6.5	9.0	15.0	11.0	13.0
19	7.0	6.0	6.5	9.5	6.0	8.0	13.5	8.0	10.5	15.0	11.5	13.0
20	7.0	5.5	6.5	9.5	7.0	8.5	15.5	9.5	12.5	13.0	11.0	12.0
21	6.5	5.5	6.0	10.0	8.0	9.0	17.0	11.0	14.0	11.0	8.5	9.5
22	7.5	6.5	7.0	9.5	6.5	8.0	14.5	9.5	12.0	13.0	7.0	10.0
23	8.0	7.0	7.5	9.0	8.5	9.0	12.0	7.0	9.5	14.0	10.0	12.0
24	8.5	6.0	7.5	9.5	7.5	8.5	9.5	6.5	8.5	16.0	11.0	13.5
25	8.5	7.5	8.0	9.5	6.0	8.0	10.5	7.5	9.0	18.5	12.0	15.0
26	9.5	7.5	8.5	10.5	7.0	9.0	10.0	7.0	8.5	17.5	14.0	16.0
27	9.5	7.5	9.0	11.0	8.5	10.0	11.0	8.5	9.5	19.0	13.5	16.0
28	9.0	7.0	8.5	12.0	9.0	10.5	12.0	8.5	10.0	19.5	14.0	16.5
29	---	---	---	12.5	9.0	10.5	11.0	8.0	9.5	20.5	14.0	17.0
30	---	---	---	10.5	8.5	9.5	12.5	7.0	9.5	20.5	15.5	18.0
31	---	---	---	10.5	7.0	9.0	---	---	---	20.5	14.5	17.5
MONTH	9.5	2.0	6.5	12.5	5.0	8.5	17.0	6.0	9.5	20.5	7.0	12.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.5	16.0	18.5	20.0	14.0	17.0	20.5	14.5	17.5	18.0	12.5	15.0
2	18.5	16.0	17.0	19.5	15.0	17.0	21.0	15.0	18.0	18.5	13.0	15.5
3	20.0	14.5	17.0	20.0	15.0	17.0	21.0	15.5	18.0	19.0	13.5	16.0
4	18.5	14.5	16.5	17.5	14.0	15.5	20.0	15.0	17.5	19.0	14.0	16.5
5	19.5	14.5	16.5	18.0	11.0	14.5	20.0	14.0	17.0	18.5	13.5	16.0
6	16.0	14.0	15.0	19.5	12.5	15.5	20.5	14.5	17.5	18.0	13.0	15.5
7	17.0	12.0	14.0	17.5	13.5	15.5	20.5	15.0	18.0	18.0	13.0	15.0
8	18.0	11.5	14.5	20.0	13.5	16.5	21.0	15.0	17.5	16.0	12.5	14.0
9	19.0	12.0	15.0	18.0	14.5	16.5	21.0	15.5	18.0	14.5	10.5	12.5
10	20.0	13.5	16.5	17.0	15.0	16.0	21.0	15.5	18.0	15.0	10.0	12.5
11	21.0	14.5	17.5	20.5	14.5	17.0	20.0	14.5	17.0	15.0	10.5	12.5
12	21.0	15.0	18.0	19.5	13.5	16.5	20.0	14.0	17.0	14.0	10.5	12.5
13	20.5	14.5	17.5	19.5	13.5	16.5	20.0	14.0	17.0	13.5	9.5	11.5
14	17.5	15.0	16.0	19.5	13.5	16.0	20.5	14.5	17.5	13.5	9.5	11.0
15	19.5	13.0	15.5	18.5	13.0	15.5	20.5	15.0	17.5	12.0	10.5	11.0
16	15.0	13.0	14.5	17.0	13.0	14.5	20.0	15.0	17.5	12.5	9.5	11.0
17	14.0	12.5	13.0	18.0	11.0	14.5	20.0	14.5	17.0	12.0	10.5	11.0
18	16.0	11.5	13.5	18.5	13.0	15.5	19.5	14.0	16.5	12.0	10.0	11.0
19	17.0	10.5	13.5	20.0	13.5	16.5	19.0	13.5	16.0	11.5	10.5	10.5
20	17.5	11.5	14.5	21.0	14.5	17.5	18.0	14.0	16.0	12.5	9.5	10.5
21	18.5	12.0	15.0	21.0	15.0	18.0	18.5	12.5	15.5	12.5	8.5	10.5
22	20.0	13.5	17.0	20.5	14.5	17.5	16.5	13.0	15.0	13.5	8.5	11.0
23	21.5	15.0	18.0	20.0	14.0	17.0	18.0	12.5	15.0	10.5	9.0	10.0
24	21.5	16.0	18.5	20.0	13.5	16.5	18.0	12.5	15.0	11.5	9.5	10.5
25	21.5	15.5	18.5	19.0	13.5	16.5	18.5	13.0	15.5	10.0	9.5	10.0
26	20.0	16.0	18.0	19.0	13.5	16.0	15.5	13.0	14.5	10.5	9.0	9.5
27	18.0	15.5	17.0	18.5	13.0	15.5	19.0	13.0	16.0	11.0	9.0	10.0
28	20.5	15.0	17.5	19.0	13.0	16.0	19.5	14.5	16.5	12.5	9.0	10.5
29	20.0	14.5	17.0	19.5	13.5	16.5	16.0	14.0	15.0	11.5	9.0	10.0
30	20.0	13.5	16.5	19.5	13.0	16.0	17.0	12.0	14.5	12.0	10.0	11.0
31	---	---	---	20.0	13.5	16.5	17.5	12.0	14.5	---	---	---
MONTH	21.5	10.5	16.0	21.0	11.0	16.0	21.0	12.0	16.5	19.0	8.5	12.0
YEAR	21.5	1.0	10.0									

UPPER ROGUE RIVER BASIN

14337600 ROGUE RIVER NEAR MCLEOD, OR

LOCATION.--Lat 42°39'20", long 122°42'50", in SW¼ sec.33, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on left bank at Obstinate J Ranch, 1.3 mi downstream from Big Butte Creek, 1.6 mi southwest of McLeod, and at mile 154.0.

DRAINAGE AREA.--938 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,489.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Diversions for irrigation upstream from station; most of low flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--21 years, 2,186 ft³/s, 1,584,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s Mar. 3, 1972, gage height, 12.24 ft; minimum discharge, 468 ft³/s Feb. 18, 1977, result of closure of Lost Creek Dam, minimum prior to that time, 604 ft³/s Sept. 5, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 20.35 ft Dec. 22, 1964, from floodmarks, discharge, 74,300 ft³/s, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,500 ft³/s Feb. 25, gage height, 7.22 ft, recorded, 7.37 ft, from outside gage; minimum discharge, 1,090 ft³/s Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	1360	3050	1490	2300	6020	2440	2230	2830	2370	2150	2140
2	1430	1360	2760	1490	2420	5300	1580	2400	2930	2530	2150	2140
3	1430	1360	2310	1500	2250	4610	1400	2790	2900	2440	2160	2140
4	1430	1360	2210	1490	1800	3660	1350	2820	2660	2320	2130	2140
5	1430	1360	2190	1500	1690	3410	1350	2700	2470	2340	2140	2130
6	1430	1360	2200	1510	1630	3400	1350	2770	2240	2340	2140	2150
7	1430	1370	2260	1490	1360	3770	1340	2720	2160	2340	2150	2150
8	1430	1380	2250	1490	1160	4410	1370	2610	2100	2340	2150	2010
9	1430	1380	2200	1530	1150	5390	1370	2540	1950	2340	2150	1940
10	1430	1390	2180	1600	1130	5730	1360	2540	1800	2340	2130	1820
11	1430	1380	2150	1710	1130	5780	1770	2540	1790	2320	2130	1730
12	1430	1370	1940	1690	1180	5830	2120	2430	1970	2330	2130	1620
13	1430	1370	1490	1700	1270	4840	2130	2290	1980	2340	2130	1550
14	1430	1370	1470	1710	1270	4230	2120	2240	1980	2320	2130	1410
15	1410	1380	1470	1710	1260	3950	2120	2230	1990	2340	2150	1280
16	1370	1430	1460	2150	1670	3570	2120	2200	1980	2340	2140	1240
17	1370	1440	1460	2920	2480	3120	2130	2190	1990	2280	2140	1220
18	1370	1410	1460	3180	4050	2110	2130	2180	1990	2140	2140	1240
19	1370	1390	1440	2930	5250	2440	2110	2190	1990	2140	2140	1290
20	1370	1390	1440	2760	5520	2420	2120	2410	1980	2150	2140	1280
21	1370	1390	1450	2690	5500	2390	1970	2610	2000	2180	2170	1270
22	1400	1800	1450	2720	5700	2380	1810	2630	2000	2140	2150	1260
23	1470	1980	1490	2820	5280	2360	1810	2550	1990	2150	2150	1260
24	1380	1980	1460	2690	8530	2360	1800	2490	1980	2140	2150	1260
25	1370	1970	1460	2660	11000	2280	1810	2410	1980	2130	2150	1300
26	1370	2010	1460	2660	10200	2330	1800	2340	1970	2140	2130	1370
27	1370	2090	1440	2430	8840	1850	1820	2460	1960	2140	2130	1330
28	1370	2250	1440	1730	7910	2450	2220	2650	1960	2140	2140	1280
29	1370	2600	1440	1870	---	2590	2570	2740	1960	2140	2140	1260
30	1360	3090	1520	2120	---	2580	2310	2760	2070	2140	2140	1250
31	1360	---	1480	2270	---	2700	---	2830	---	2150	2140	---
TOTAL	43450	48770	55480	64210	104930	110260	55700	77490	63550	69990	66410	47460
MEAN	1402	1626	1790	2071	3748	3557	1857	2500	2118	2258	2142	1582
MAX	1470	3090	3050	3180	11000	6020	2570	2830	2930	2530	2170	2150
MIN	1360	1360	1440	1490	1130	1850	1340	2180	1790	2130	2130	1220
AC-FT	86180	96740	110000	127400	208100	218700	110500	153700	126100	138800	131700	94140
CAL YR 1985	TOTAL	696388	MEAN	1908	MAX	4440	MIN	951	AC-FT	1381000		
WTR YR 1986	TOTAL	807700	MEAN	2213	MAX	11000	MIN	1130	AC-FT	1602000		

UPPER ROGUE RIVER BASIN

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14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1970 to current year.

INSTRUMENTATION.--Temperature recorder since August 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 18.0°C July 17, 18, Aug. 7, 1973; minimum, 0.5°C Jan. 3-5, 14, 15, 1971. Maximum since full operation of Lost Creek Lake, 15.0°C July 1, 1980; minimum, 3.0°C Feb. 2, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 12.5°C Sept. 5-8; minimum, 4.0°C Dec. 28.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.0	6.5	6.5	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5
2	6.5	6.0	6.5	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5
3	6.5	6.0	6.5	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5
4	6.5	6.0	6.5	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5
5	6.5	6.0	6.5	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5
6	6.5	6.0	6.5	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5
7	6.5	6.0	6.0	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5
8	6.0	5.5	6.0	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5
9	6.0	5.5	5.5	6.0	5.5	6.0	5.5	5.0	5.0	4.5	4.5	4.5
10	6.0	5.5	5.5	6.0	5.5	5.5	5.0	5.0	5.0	4.5	4.5	4.5
11	6.0	5.5	5.5	5.5	5.5	5.5	5.0	5.0	5.0	4.5	4.5	4.5
12	6.0	5.5	5.5	5.5	5.5	5.5	5.0	5.0	5.0	4.5	4.5	4.5
13	6.0	5.5	5.5	5.5	5.5	5.5	5.0	4.5	5.0	4.5	4.5	4.5
14	5.5	5.5	5.5	5.5	5.5	5.5	5.0	4.5	5.0	4.5	4.5	4.5
15	6.0	5.5	5.5	5.5	5.5	5.5	5.0	5.0	5.0	4.5	4.5	4.5
16	5.5	5.5	5.5	6.0	5.5	5.5	5.0	4.5	5.0	5.0	4.5	4.5
17	6.0	5.5	5.5	5.5	5.5	5.5	5.0	4.5	4.5	5.0	5.0	5.0
18	6.0	5.5	5.5	5.5	5.5	5.5	5.0	4.5	4.5	5.0	4.5	5.0
19	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	5.0
20	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	4.5
21	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
22	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	4.5
23	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	4.5
24	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	4.5
25	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
26	6.0	6.0	6.0	5.5	5.5	5.5	4.5	4.5	4.5	4.5	4.5	4.5
27	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.5	4.5	5.0	4.5	5.0
28	6.0	5.5	6.0	5.5	5.5	5.5	4.5	4.0	4.5	5.0	5.0	5.0
29	6.0	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	5.0	5.0	5.0
30	5.5	5.5	5.5	5.5	5.5	5.5	4.5	4.5	4.5	5.0	5.0	5.0
31	6.0	5.5	5.5	---	---	---	4.5	4.5	4.5	5.0	5.0	5.0
MONTH	7.0	5.5	6.0	6.0	5.5	5.5	5.5	4.0	5.0	5.0	4.5	4.5

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	5.0	5.0	5.0	6.0	5.5	6.0	6.0	6.0	6.0	8.0	8.0	8.0
2	5.0	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.0	8.0	7.5	7.5
3	5.0	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.0	7.5	7.5	7.5
4	5.0	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.0	7.5	7.5	7.5
5	5.0	5.0	5.0	6.0	5.5	5.5	6.5	6.0	6.5	8.0	7.5	7.5
6	5.0	5.0	5.0	6.0	5.5	5.5	7.0	6.0	6.5	8.5	8.0	8.0
7	5.0	4.5	5.0	6.0	6.0	6.0	7.0	6.5	6.5	9.0	8.5	9.0
8	5.0	4.5	4.5	6.0	6.0	6.0	7.0	6.5	6.5	9.5	9.0	9.0
9	5.0	4.5	4.5	6.0	6.0	6.0	7.0	6.5	6.5	9.5	9.0	9.5
10	4.5	4.5	4.5	6.0	5.5	6.0	7.0	6.5	6.5	9.5	9.0	9.0
11	5.0	4.5	5.0	6.0	6.0	6.0	7.0	6.5	6.5	9.0	8.5	9.0
12	5.0	5.0	5.0	6.0	6.0	6.0	6.5	6.0	6.0	9.5	9.0	9.5
13	5.5	5.0	5.0	6.0	6.0	6.0	6.5	6.0	6.0	9.5	9.5	9.5
14	5.5	5.5	5.5	6.0	5.5	6.0	6.5	6.0	6.0	9.5	9.0	9.5
15	5.5	5.5	5.5	6.0	5.5	6.0	6.5	6.0	6.5	9.5	9.0	9.5
16	6.0	5.5	5.5	6.0	6.0	6.0	6.5	6.5	6.5	10.0	9.0	9.5
17	6.0	5.5	5.5	6.0	5.5	6.0	7.0	6.5	6.5	10.0	9.5	9.5
18	6.0	5.5	6.0	6.0	5.5	6.0	7.0	6.5	7.0	10.0	9.5	9.5
19	6.0	5.5	5.5	6.5	6.0	6.0	7.0	6.5	7.0	10.0	9.5	10.0
20	5.5	5.5	5.5	6.5	6.0	6.0	7.5	7.0	7.0	10.0	9.5	9.5
21	5.5	5.5	5.5	6.5	6.0	6.0	8.0	7.0	7.5	9.5	9.0	9.5
22	6.5	5.5	5.5	6.0	6.0	6.0	7.5	7.5	7.5	9.5	9.0	9.5
23	6.5	6.5	6.5	6.0	6.0	6.0	8.0	7.0	7.5	10.0	9.5	9.5
24	6.5	6.0	6.0	6.0	6.0	6.0	7.5	7.0	7.5	10.0	9.5	10.0
25	6.0	5.5	6.0	6.0	5.5	6.0	7.5	7.5	7.5	10.5	10.0	10.0
26	6.0	5.5	5.5	6.5	6.0	6.0	7.5	7.0	7.5	10.5	10.0	10.0
27	6.0	6.0	6.0	6.5	6.0	6.5	7.5	7.5	7.5	10.5	10.0	10.0
28	6.0	6.0	6.0	6.5	6.0	6.5	8.0	7.5	7.5	10.5	10.0	10.5
29	---	---	---	6.5	6.0	6.5	8.0	7.5	8.0	10.5	10.0	10.0
30	---	---	---	6.5	6.0	6.5	8.5	8.0	8.0	10.0	9.5	9.5
31	---	---	---	6.5	6.0	6.0	---	---	---	10.0	9.5	9.5
MONTH	6.5	4.5	5.5	6.5	5.5	6.0	8.5	6.0	7.0	10.5	7.5	9.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	10.0	9.5	10.0	10.5	10.0	10.5				---	---	---
2	10.0	9.5	10.0	10.5	10.0	10.5				---	---	---
3	10.0	9.5	9.5	10.5	10.0	10.0				---	---	---
4	10.0	9.5	9.5	10.0	9.5	9.5				---	---	---
5	10.0	9.5	10.0	9.5	9.0	9.5				12.5	12.0	---
6	10.0	9.5	10.0	9.5	9.0	9.5				12.5	12.0	12.5
7	10.0	9.5	10.0	10.5	9.5	9.5				12.5	12.5	12.5
8	10.0	9.5	10.0	11.0	10.5	10.5				12.5	12.0	12.5
9	10.0	9.5	10.0	11.0	11.0	11.0				12.0	11.5	12.0
10	10.0	9.5	9.5	11.0	10.5	10.5				12.0	11.0	11.5
11	10.0	9.5	10.0	10.5	10.0	10.5				11.0	10.5	11.0
12	10.0	9.5	10.0	10.5	10.5	10.5				11.0	10.5	10.5
13	10.0	9.5	10.0	11.0	10.0	10.5				10.5	10.0	10.5
14	10.0	9.5	9.5	11.5	10.5	10.5				10.5	10.0	10.5
15	10.0	9.5	9.5	12.0	11.0	11.5				10.5	10.0	10.0
16	10.0	9.5	9.5	---	11.5	---				10.0	9.5	10.0
17	9.5	9.5	9.5	---	---	---				9.5	8.5	9.0
18	10.0	9.5	9.5	---	---	---				8.5	8.0	8.0
19	10.0	9.5	9.5	---	---	---				8.0	7.5	8.0
20	10.0	9.5	10.0	---	---	---				8.0	7.5	8.0
21	10.5	9.5	10.0	---	---	---				8.0	7.5	8.0
22	10.5	10.0	10.0	---	---	---				8.0	7.5	8.0
23	10.5	10.0	10.5	---	---	---				8.0	7.5	7.5
24	10.5	10.0	10.5	---	---	---				8.0	7.5	7.5
25	10.0	10.0	10.0	---	---	---				8.0	7.5	7.5
26	10.0	10.0	10.0	---	---	---				8.0	7.5	7.5
27	10.0	10.0	10.0	---	---	---				8.0	7.5	7.5
28	10.5	10.0	10.0	---	---	---				8.0	7.5	7.5
29	10.5	10.0	10.0	---	---	---				8.0	7.5	7.5
30	10.5	10.0	10.0	---	---	---				8.0	7.5	7.5
31	---	---	---	---	---	---				---	---	---
MONTH	10.5	9.5	10.0	---	---	---				---	---	---

14337800 ELK CREEK NEAR CASCADE GORGE, OR

LOCATION.--Lat 42°46'25", long 122°40'15", in NW¼ sec.23, T.32 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.1 mi downstream from Sugarpine Creek, 6.5 mi northwest of town of Cascade Gorge, and at mile 10.7.

DRAINAGE AREA.--78.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,813.83 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation. Many diversions upstream from station for irrigation.

AVERAGE DISCHARGE.--13 years, 155 ft³/s, 26.71 in/yr, 112,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft³/s Jan. 15, 1974, gage height, 8.9 ft, from floodmark; minimum daily discharge, 0.72 ft³/s Aug. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	0900	*3,550	*7.21	Feb. 23	0400	3,280	7.02
Feb. 19	0500	2,580	6.53				

Minimum discharge, 1.0 ft³/s Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	6.0	17	88	84	126	294	81	90	40	12	5.3	3.1		
2	6.0	16	469	86	265	243	81	136	37	12	5.4	2.8		
3	5.7	14	506	91	442	205	78	196	36	12	5.3	2.0		
4	5.5	14	260	82	359	179	74	171	33	13	4.6	3.0		
5	5.6	15	227	83	320	159	72	214	31	13	4.6	2.2		
6	5.5	14	271	84	246	147	69	253	30	12	4.5	2.3		
7	5.5	14	375	75	190	484	68	221	29	11	4.6	2.0		
8	5.6	16	309	73	154	519	67	184	27	11	4.7	1.2		
9	5.8	26	197	125	128	523	65	153	26	11	4.7	1.9		
10	6.1	25	142	116	111	408	63	138	25	11	4.2	1.8		
11	6.7	21	107	99	101	334	60	134	24	12	4.1	2.6		
12	7.8	19	86	85	112	327	66	128	22	9.9	4.0	2.9		
13	7.4	18	73	76	164	319	72	120	21	9.4	4.0	3.3		
14	7.0	18	63	68	236	287	71	107	20	9.0	4.1	3.1		
15	6.9	24	57	63	325	251	70	96	21	8.5	3.7	3.0		
16	6.9	97	53	337	815	212	72	88	20	8.7	3.7	3.5		
17	6.7	95	55	554	1030	186	87	82	21	9.0	3.7	5.8		
18	6.6	61	66	357	2520	165	90	77	25	8.6	3.4	12		
19	6.6	45	76	262	1850	148	88	73	23	8.1	3.2	14		
20	6.6	40	80	223	1260	138	86	75	20	7.3	3.3	10		
21	15	34	79	178	919	130	84	81	18	7.2	3.3	7.5		
22	40	32	77	230	2190	120	78	89	18	6.8	3.2	6.3		
23	111	28	77	419	2630	118	73	83	17	6.5	2.8	8.3		
24	63	28	78	285	1310	126	68	77	16	6.6	2.7	61		
25	45	31	78	207	785	110	69	72	16	6.6	2.5	144		
26	45	30	73	163	577	103	67	65	15	6.4	2.6	346		
27	31	28	65	140	447	100	94	60	14	6.3	3.1	153		
28	25	117	59	132	362	96	119	55	12	6.1	3.2	91		
29	21	190	52	129	---	92	112	50	13	5.6	3.3	62		
30	19	101	48	130	---	88	100	48	13	5.5	3.5	49		
31	17	---	44	115	---	84	---	44	---	5.4	3.7	---		
TOTAL	558.5	1228	4290	5151	19974	6695	2344	3460	683	277.5	119.0	1010.6		
MEAN	18.0	40.9	138	166	713	216	78.1	112	22.8	8.95	3.84	33.7		
MAX	111	190	506	554	2630	523	119	253	40	13	5.4	346		
MIN	5.5	14	44	63	101	84	60	44	12	5.4	2.5	1.2		
CFSM	.23	.52	1.75	2.11	9.05	2.74	.99	1.42	.29	.11	.05	.43		
IN.	.26	.58	2.03	2.43	9.43	3.16	1.11	1.63	.32	.13	.06	.48		
AC-FT	1110	2440	8510	10220	39620	13280	4650	6860	1350	550	236	2000		
CAL YR 1985	TOTAL	32840.3	MEAN	90.0	MAX	946	MIN	2.9	CFSM	1.14	IN.	15.50	AC-FT	65140
WTR YR 1986	TOTAL	45790.6	MEAN	125	MAX	2630	MIN	1.2	CFSM	1.59	IN.	21.62	AC-FT	90830

UPPER ROGUE RIVER BASIN

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1973 to October 1976, August 1977 to current year.

INSTRUMENTATION.--Temperature recorder August 1973 to October 1976 and since August 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C July 29, 30, 1973, Aug. 9-11, 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 26.0°C Aug. 9, 13-15; minimum recorded, 2.0°C Feb. 10, but was probably lower in December.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	14.0	9.0	11.5							---	---	---
2	14.5	9.5	11.5							---	---	---
3	15.0	9.5	12.0							4.0	---	---
4	14.5	9.5	12.0							4.5	2.5	3.5
5	14.5	9.5	12.0							5.5	4.5	4.5
6	13.0	10.0	11.5							4.5	2.5	3.5
7	11.5	8.5	10.0							4.5	2.5	3.0
8	9.0	5.5	7.0							5.5	3.0	4.5
9	8.0	3.0	5.5							6.0	5.0	5.5
10	8.5	4.0	6.0							5.5	4.0	5.0
11	10.0	7.5	8.5							6.0	4.5	5.0
12	9.5	5.5	7.0							6.0	4.0	5.0
13	9.0	4.5	6.5							6.5	4.5	5.0
14	9.0	4.5	6.5							6.0	4.5	5.0
15	10.0	5.0	7.5							6.0	5.0	5.5
16	10.5	6.0	8.0							6.0	5.5	5.5
17	9.5	5.5	7.5							6.5	6.0	6.0
18	10.0	5.5	7.5							7.5	6.0	6.5
19	9.0	6.0	7.5							6.5	5.5	6.5
20	9.0	5.5	7.5							6.5	4.0	5.5
21	9.0	7.0	7.5							5.0	4.0	4.5
22	7.5	7.0	7.0							5.5	5.0	5.0
23	8.5	7.5	8.0							6.0	5.5	5.5
24	11.0	8.5	9.5							5.5	4.5	5.0
25	10.5	9.0	10.0							5.5	4.0	4.5
26	11.0	8.5	9.5							6.0	4.0	5.0
27	10.5	7.0	8.5							7.0	5.5	6.5
28	9.5	6.0	7.5							7.5	6.5	7.0
29	7.5	4.0	6.0							7.5	7.0	7.0
30	7.0	4.5	6.0							8.0	6.5	7.0
31	7.0	5.0	6.0							7.5	6.0	6.5
MONTH	15.0	3.0	8.5							---	---	---

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.5	6.5	9.5	7.5	8.0	8.0	6.0	7.0	12.0	6.0	8.5
2	6.5	6.0	6.0	10.0	6.5	8.0	10.5	4.5	7.0	10.0	7.5	8.5
3	6.5	6.0	6.0	10.5	6.5	8.0	10.0	3.5	6.5	9.5	7.0	8.0
4	6.5	6.0	6.0	10.5	7.0	8.5	9.5	5.5	7.0	9.0	6.5	7.5
5	6.0	5.0	5.5	11.5	7.0	9.0	12.5	4.5	8.0	7.0	6.0	6.5
6	5.5	4.0	4.5	9.5	8.5	9.0	14.0	5.5	9.5	8.5	5.0	6.5
7	5.0	3.0	4.0	9.5	8.0	9.0	15.0	7.0	10.5	8.5	6.0	7.0
8	5.0	2.5	3.5	8.5	7.5	7.5	10.5	9.5	10.0	11.0	5.5	8.0
9	5.0	2.5	3.5	7.5	7.0	7.0	12.0	7.5	9.5	9.0	6.0	7.5
10	5.0	2.0	3.0	8.5	6.5	7.5	14.0	8.0	10.0	8.0	6.0	6.5
11	5.0	3.5	4.0	8.0	7.0	7.5	8.0	5.5	7.0	9.0	5.0	7.0
12	5.0	4.5	4.5	7.5	6.0	7.0	7.5	5.5	6.5	11.0	5.0	7.5
13	7.0	5.0	5.5	7.5	6.5	7.0	10.5	5.0	7.0	12.0	7.5	9.0
14	7.0	5.5	6.0	7.5	4.5	6.0	9.5	4.5	7.0	12.0	6.0	8.5
15	7.0	6.0	6.5	7.5	5.5	6.5	10.5	6.0	7.5	12.5	6.0	9.0
16	6.5	6.5	6.5	9.0	5.5	6.5	8.0	6.0	7.0	13.5	6.0	9.5
17	7.0	6.5	6.5	8.5	5.5	6.5	9.5	5.5	7.0	15.0	7.5	11.0
18	6.5	6.0	6.5	9.5	4.5	6.0	11.0	4.0	7.0	14.5	9.0	11.5
19	6.5	6.0	6.5	11.0	5.0	7.5	13.5	5.5	9.0	15.0	9.5	12.0
20	6.5	6.0	6.5	11.0	6.0	8.0	15.5	7.0	10.5	12.0	9.5	11.0
21	6.5	6.0	6.5	---	8.0	---	16.5	9.0	12.5	9.5	7.5	8.5
22	7.0	6.5	6.5	---	---	---	12.0	8.0	10.0	12.5	6.0	9.0
23	7.5	7.0	7.0	---	---	---	11.5	5.5	8.0	13.0	8.0	10.0
24	8.5	7.0	7.5	---	---	---	8.5	4.5	6.5	15.5	8.5	12.0
25	8.0	7.5	7.5	10.0	4.0	6.5	9.5	6.0	7.0	18.5	10.5	14.0
26	9.5	7.5	8.0	11.5	5.0	8.0	8.5	5.0	7.0	17.5	13.0	15.0
27	9.5	7.5	8.5	12.0	6.5	9.0	8.5	6.5	7.5	19.5	12.5	15.5
28	9.5	7.0	8.0	13.0	7.5	10.0	9.5	6.5	7.5	20.0	12.5	16.0
29	---	---	---	14.0	7.5	10.5	9.0	5.5	7.0	21.0	13.0	17.0
30	---	---	---	10.5	7.0	8.5	10.5	4.0	7.0	21.5	14.5	17.5
31	---	---	---	11.5	5.0	8.0	---	---	---	22.5	15.5	18.5
MONTH	9.5	2.0	6.0	---	---	---	16.5	3.5	8.0	22.5	5.0	10.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	23.0	16.0	19.5	22.5	14.5	18.5	24.0	15.5	19.5	22.0	14.0	17.5
2	19.5	16.0	18.0	21.5	15.5	18.5	25.0	17.0	20.5	22.0	14.5	18.0
3	22.0	16.0	18.5	22.0	16.0	18.5	25.0	17.5	20.5	23.5	15.5	19.0
4	20.0	15.5	17.5	17.0	14.5	16.0	24.5	17.0	20.0	23.0	15.5	19.0
5	21.0	15.0	17.0	19.0	11.0	15.0	24.0	16.0	19.5	23.5	15.0	18.5
6	18.5	14.0	15.5	21.0	12.5	16.5	24.5	16.0	20.0	22.0	15.0	18.0
7	18.0	12.0	14.5	19.0	14.0	16.5	25.0	17.0	20.5	22.0	15.0	18.0
8	18.5	10.5	14.5	22.0	14.0	17.5	25.5	17.0	21.0	20.5	13.0	16.0
9	19.5	11.0	15.0	19.5	15.5	17.5	26.0	17.5	21.5	18.0	12.0	14.5
10	21.0	13.0	17.0	19.0	16.0	17.5	25.5	18.0	21.0	18.0	11.0	14.0
11	22.0	14.5	18.0	23.0	16.0	19.0	24.0	16.0	20.0	18.0	11.5	14.5
12	22.5	15.5	18.5	22.0	14.0	18.0	24.0	16.0	19.5	15.5	11.0	13.5
13	22.0	14.5	18.0	22.0	14.0	17.5	26.0	16.0	20.0	15.5	10.5	12.5
14	18.5	15.5	16.5	21.5	14.0	17.5	26.0	17.0	21.0	15.5	10.0	12.5
15	20.0	13.5	16.5	20.5	13.5	16.5	26.0	17.5	21.0	14.0	12.0	13.0
16	16.0	14.0	15.0	18.5	13.5	15.5	25.0	17.0	20.5	14.5	10.5	12.5
17	15.5	13.5	14.5	20.0	11.5	15.5	25.0	16.5	20.0	12.0	11.0	11.5
18	15.5	12.5	14.0	19.5	13.5	16.5	24.0	16.5	20.0	12.0	10.0	11.0
19	17.5	10.0	13.5	22.5	14.0	18.0	24.5	15.0	19.5	12.0	10.5	11.0
20	17.5	11.5	14.5	23.5	15.0	19.0	24.0	16.0	19.5	13.0	10.5	11.5
21	19.0	12.0	15.5	24.0	16.0	19.5	24.5	16.5	20.0	13.5	9.0	11.0
22	21.0	14.0	17.5	24.0	15.5	19.0	21.0	15.0	18.0	14.0	8.5	11.0
23	22.5	15.5	18.5	23.0	15.0	18.5	22.5	14.5	18.0	11.0	9.5	10.0
24	23.5	17.0	20.0	23.0	14.5	18.5	22.5	14.0	18.0	10.0	9.0	9.5
25	23.5	16.0	19.5	22.5	14.5	18.0	23.0	14.5	18.5	9.0	9.0	9.0
26	22.5	17.0	19.5	22.5	14.5	18.0	20.0	15.0	18.0	9.0	8.5	9.0
27	20.5	17.0	19.0	22.0	14.0	17.5	24.0	16.0	19.5	10.0	8.5	9.0
28	22.5	16.5	19.0	22.0	13.5	17.5	23.5	17.0	20.0	10.5	8.0	9.0
29	21.5	15.0	17.5	22.5	14.5	18.0	21.5	16.0	18.0	10.5	7.5	9.0
30	22.0	14.0	17.5	22.5	14.5	18.0	20.5	13.5	17.0	10.5	8.5	9.5
31	---	---	---	23.5	14.5	18.5	21.0	13.5	17.0	---	---	---
MONTH	23.5	10.0	17.0	24.0	11.0	17.5	26.0	13.5	19.5	23.5	7.5	13.0

UPPER ROGUE RIVER BASIN

14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR

LOCATION.--Lat 42°40'46", long 122°42'37", in NW¼ sec.4, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on Corps of Engineers' Land, on right bank 500 ft downstream from Alco Creek, and 7.5 mi northeast of Trail.

DRAINAGE AREA.--111 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 1,680 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good except those below 5 ft³/s, which are fair. No regulation. Many diversions upstream from station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 660 ft³/s Sept. 26, 1986, gage height, 4.62 ft; minimum discharge, 0.60 ft³/s Aug. 16, 17, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period April to September, 660 ft³/s Sept. 26, gage height, 4.62 ft; minimum discharge, 0.60 ft³/s Aug. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	91	44	12	4.9	1.2
2							---	139	42	11	2.8	2.5
3							---	235	38	11	3.5	2.8
4							---	197	32	12	3.8	2.8
5							---	254	33	12	4.9	1.6
6							---	336	33	8.4	4.3	.98
7							---	292	33	8.6	3.0	1.7
8							---	229	31	8.9	3.8	1.3
9							---	185	30	9.8	3.2	1.5
10							---	170	27	12	2.2	1.3
11							57	173	26	8.7	2.7	3.2
12							62	158	23	7.1	2.7	3.4
13							69	141	22	8.4	1.8	3.5
14							68	123	22	8.5	2.7	3.7
15							68	107	23	7.1	2.7	4.4
16							71	96	22	5.5	1.3	5.1
17							94	87	22	7.4	.72	13
18							100	80	28	7.2	1.0	27
19							93	74	27	6.6	1.3	22
20							88	78	27	6.3	1.4	16
21							82	84	22	5.0	1.4	12
22							75	99	21	4.9	1.4	9.7
23							69	89	18	4.5	1.4	7.5
24							65	79	17	4.3	1.4	67
25							66	72	16	4.7	1.3	165
26							63	65	15	4.6	1.5	462
27							91	61	15	4.5	1.6	197
28							126	58	13	4.8	1.6	116
29							118	54	12	4.9	2.2	77
30							103	51	12	5.4	3.3	59
31							---	48	---	6.1	2.2	---
TOTAL							---	4005	746	232.2	74.02	1291.18
MEAN							---	129	24.9	7.49	2.39	43.0
MAX							---	336	44	12	4.9	462
MIN							---	48	12	4.3	.72	.98
CFSM							---	1.16	.22	.07	.02	.39
IN.							---	1.34	.25	.08	.02	.43
AC-FT							---	7940	1480	461	147	2560

UPPER ROGUE RIVER BASIN

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14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April to September 1986.

INSTRUMENTATION.--Temperature recorder since April 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 29.5°C July 21, 1986; minimum, 4.5°C Apr. 30, 1986.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 29.5°C July 21; minimum, 4.5°C Apr. 30.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1							---	---	---	12.5	7.0	10.0
2							---	---	---	10.5	8.5	9.5
3							---	---	---	10.5	7.5	9.0
4							---	---	---	9.5	7.0	8.5
5							---	---	---	8.0	6.5	7.5
6							---	---	---	9.5	5.5	7.5
7							---	---	---	10.0	6.0	7.5
8							---	---	---	12.0	6.0	9.0
9							---	---	---	9.5	6.5	8.0
10							14.0	---	---	8.5	6.5	7.5
11							10.5	7.0	8.5	10.0	5.5	7.5
12							8.5	6.5	7.5	11.5	5.5	8.5
13							10.0	6.0	8.0	13.0	8.0	10.0
14							10.0	5.5	8.0	13.0	6.5	9.5
15							11.0	7.0	9.0	13.5	6.5	10.0
16							9.0	7.0	8.0	14.0	7.0	11.0
17							11.5	6.0	8.5	16.0	8.5	12.5
18							11.5	5.0	8.5	15.5	10.5	13.0
19							13.5	6.5	10.5	16.0	11.0	13.5
20							16.0	8.0	12.0	14.0	10.5	12.5
21							17.5	10.0	14.0	10.5	8.5	9.5
22							14.0	9.0	11.0	14.0	7.0	10.0
23							12.5	6.5	9.0	14.0	9.0	11.5
24							9.0	5.5	7.5	16.5	10.0	13.5
25							9.5	6.5	8.0	19.5	11.5	15.5
26							9.5	6.5	8.0	19.5	14.5	17.0
27							9.5	7.5	8.5	21.0	14.0	17.5
28							11.0	7.0	8.5	21.5	14.5	18.0
29							10.5	6.0	8.0	22.5	15.0	19.0
30							11.5	4.5	8.0	23.0	17.0	20.0
31							---	---	---	24.5	17.5	21.0
MONTH							---	---	---	24.5	5.5	12.0

UPPER ROGUE RIVER BASIN

14337830 ELK CREEK BELOW ALCO CREEK, NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	25.0	18.5	22.0	---	---	---	27.5	19.5	23.5	22.5	17.0	---
2	22.0	19.0	20.0	---	---	---	27.5	21.0	24.0	23.5	18.0	---
3	24.5	17.5	21.0	---	---	---	26.0	21.0	24.0	24.0	---	---
4	22.5	17.5	20.0	---	---	---	25.5	20.5	23.0	24.5	---	---
5	23.5	16.5	19.5	---	---	---	25.5	19.0	22.5	23.5	18.5	21.0
6	19.5	16.0	17.5	---	---	---	26.0	19.5	23.0	24.5	18.0	21.0
7	20.5	14.0	17.0	---	---	---	26.5	20.5	23.5	23.5	18.5	21.0
8	21.0	13.0	17.0	---	---	---	26.5	20.5	24.0	21.0	17.0	19.0
9	22.0	13.5	17.5	23.5	---	---	27.0	21.0	24.0	19.0	15.0	17.0
10	24.0	15.0	19.5	22.5	19.0	20.5	26.0	21.0	24.0	19.5	14.0	17.0
11	25.0	16.5	21.0	27.0	18.5	22.0	25.5	19.5	23.0	19.5	14.5	17.5
12	25.5	17.5	21.5	27.0	17.5	22.0	26.0	19.0	23.0	18.5	14.0	16.5
13	25.0	16.5	21.0	26.0	17.0	21.5	25.0	19.5	22.5	17.0	13.0	15.5
14	21.5	17.5	19.0	25.0	17.5	21.0	27.0	20.0	23.5	17.0	12.5	15.0
15	23.0	15.0	19.0	24.5	16.5	20.0	27.0	20.5	24.0	16.0	14.0	15.5
16	19.0	16.0	17.5	23.0	16.0	19.0	25.5	20.0	23.0	16.5	13.0	14.5
17	18.0	15.0	16.5	24.5	14.5	19.0	21.5	20.5	21.0	15.0	13.5	14.0
18	18.5	14.0	16.0	24.5	16.5	20.5	25.0	20.0	22.5	14.0	12.0	13.0
19	20.5	12.0	16.0	27.0	17.0	21.5	24.5	19.0	22.0	14.0	12.0	13.0
20	21.0	13.0	17.0	28.5	18.5	23.0	25.5	20.0	22.5	15.5	12.5	13.5
21	---	---	---	29.5	19.5	24.0	25.0	20.0	22.5	16.0	11.0	13.0
22	---	---	---	29.0	19.0	23.5	23.0	18.5	20.5	16.5	11.5	13.5
23	---	---	---	27.5	18.5	22.5	22.5	18.0	20.0	14.0	12.0	12.5
24	---	---	---	28.0	18.0	22.5	23.0	17.0	20.0	12.0	10.0	11.0
25	---	---	---	26.5	18.0	22.0	23.0	18.0	21.0	10.0	9.0	9.5
26	---	---	---	27.0	18.5	22.0	22.5	19.0	21.0	9.5	9.0	9.5
27	---	---	---	26.0	17.5	21.5	24.5	19.5	22.5	11.0	9.0	10.0
28	---	---	---	26.0	17.5	21.5	24.5	20.0	22.5	11.5	9.0	10.0
29	---	---	---	26.5	18.5	22.5	21.5	19.0	20.5	11.5	8.5	10.0
30	---	---	---	26.5	18.5	22.5	22.5	16.0	19.5	12.0	10.0	11.0
31	---	---	---	26.5	19.0	22.5	---	16.5	---	---	---	---
MONTH	---	---	---	---	---	---	---	16.0	---	24.5	---	---

UPPER ROGUE RIVER BASIN

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14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR

LOCATION.--Lat 42°42'40", long 122°44'55", in SW¼ sec.7, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on Bureau of Land Management land, on left bank 300 ft upstream from Spot Creek and 5.3 mi northeast of Trail.

DRAINAGE AREA.--14.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to September 1976, October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,773.24 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Records good. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--12 years, 23.7 ft³/s, 22.67 in/yr, 17,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s Jan. 15, 1974, gage height, 5.30 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.26 ft³/s Sept. 16, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1000	*489	3.09	Feb. 22	1430	463	3.03
Feb. 18	1000	(a)	*3.67				

Minimum discharge, 0.59 ft³/s Aug. 8, 9.

(a) From crest-stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1.3	3.1	11	4.2	11	21	5.7	4.9	2.4	1.5	1.1	.91		
2	1.3	3.1	49	4.3	42	17	5.5	10	2.4	1.5	1.0	.85		
3	1.5	3.1	50	4.7	85	14	4.9	15	2.4	1.5	.98	.82		
4	1.6	3.3	23	4.6	51	13	4.9	14	2.2	1.7	.99	.85		
5	1.6	3.6	21	4.6	39	11	4.6	17	2.2	1.7	.97	.82		
6	1.4	3.1	25	4.5	30	10	4.6	26	2.3	1.5	.93	.80		
7	1.2	3.1	42	4.2	23	57	4.5	27	2.3	1.5	.93	.80		
8	1.5	3.8	30	4.4	18	77	4.3	19	2.1	1.5	.83	.84		
9	2.0	5.0	17	11	14	71	3.9	14	2.0	1.4	.80	.89		
10	2.1	4.8	12	11	12	53	4.0	13	2.0	1.5	.84	.91		
11	2.3	4.3	8.4	7.8	9.8	36	4.1	13	1.8	1.6	.81	.91		
12	2.5	3.7	7.0	6.1	12	39	4.8	12	1.7	1.4	.74	.91		
13	2.4	3.3	5.9	5.1	22	44	4.8	11	1.7	1.4	.74	.91		
14	2.4	3.3	5.3	4.5	41	42	4.5	8.6	1.9	1.4	.74	.94		
15	2.4	6.6	4.7	4.6	51	34	4.6	6.7	1.9	1.4	.74	1.2		
16	2.4	15	4.4	66	118	27	5.3	5.7	1.9	1.5	.70	1.3		
17	2.4	14	4.3	92	159	22	6.9	4.9	2.1	1.5	.70	3.0		
18	2.5	8.6	4.2	53	391	17	7.3	4.4	2.4	1.5	.74	2.4		
19	2.5	6.4	4.2	31	218	15	6.8	4.2	2.2	1.4	.78	2.0		
20	3.8	5.7	4.2	26	123	14	5.5	5.1	1.9	1.3	.72	1.9		
21	7.7	5.3	4.2	19	101	12	4.8	5.9	1.8	1.3	.72	1.6		
22	13	4.8	4.2	31	310	11	4.4	5.5	1.8	1.3	.67	1.5		
23	12	4.8	4.2	81	210	11	4.1	4.6	1.7	1.3	.69	2.0		
24	6.2	4.8	4.2	45	95	10	3.9	4.2	1.6	1.3	.70	6.2		
25	5.6	5.0	4.2	28	67	8.5	4.4	3.6	1.6	1.3	.72	18		
26	5.3	5.0	4.0	19	46	7.5	3.9	3.3	1.6	1.3	.70	45		
27	4.4	4.8	3.7	15	33	7.0	4.6	3.2	1.5	1.2	.76	18		
28	4.0	16	3.7	13	26	6.6	5.6	3.0	1.5	1.2	.79	8.4		
29	3.6	23	3.3	11	---	6.3	6.4	2.7	1.6	1.2	.84	4.7		
30	3.5	13	3.1	11	---	5.7	5.6	2.8	1.5	1.1	.94	3.7		
31	3.1	---	3.1	9.8	---	5.6	---	2.5	---	1.1	.91	---		
TOTAL	109.5	193.4	374.5	636.4	2357.8	725.2	149.2	276.8	58.0	43.3	25.22	133.06		
MEAN	3.53	6.45	12.1	20.5	84.2	23.4	4.97	8.93	1.93	1.40	.81	4.44		
MAX	13	23	50	92	391	77	7.3	27	2.4	1.7	1.1	45		
MIN	1.2	3.1	3.1	4.2	9.8	5.6	3.9	2.5	1.5	1.1	.67	.80		
CFSM	.25	.45	.85	1.44	5.93	1.65	.35	.63	.14	.10	.06	.31		
IN.	.29	.51	.98	1.67	6.18	1.90	.39	.73	.15	.11	.07	.35		
AC-FT	217	384	743	1260	4680	1440	296	549	115	86	50	264		
CAL YR 1985	TOTAL	4628.2	MEAN	12.7	MAX	209	MIN	1.1	CFSM	.89	IN.	12.12	AC-FT	9180
WTR YR 1986	TOTAL	5082.38	MEAN	13.9	MAX	391	MIN	.67	CFSM	.98	IN.	13.31	AC-FT	10080

UPPER ROGUE RIVER BASIN

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1977 to current year.

INSTRUMENTATION.--Temperature recorder since August 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 8, 1978; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.5°C June 1, Aug. 15; minimum, 0.0°C on several days during November and December.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	12.5	8.5	10.5	8.5	6.5	7.5	3.0	2.5	2.5	4.5	2.5	3.5
2	12.5	9.0	11.0	8.5	7.0	8.0	5.0	3.0	3.5	3.0	2.0	2.5
3	13.5	9.5	11.5	8.0	6.5	7.0	5.5	4.5	5.0	3.0	2.0	2.5
4	13.0	9.5	11.5	7.5	6.0	7.0	5.5	4.0	5.0	4.0	2.0	3.0
5	13.0	9.5	11.5	6.5	5.0	5.5	6.0	5.0	5.5	4.5	3.5	4.0
6	12.0	10.0	11.0	7.0	5.5	6.5	6.0	5.5	6.0	3.5	2.0	2.5
7	11.0	8.0	9.5	7.5	6.0	7.0	6.0	5.0	5.5	3.0	1.5	2.5
8	8.5	5.5	7.0	7.0	5.5	6.0	5.0	4.0	5.0	5.0	2.5	3.5
9	7.0	3.5	5.5	5.5	3.0	4.0	4.0	3.5	3.5	5.5	4.5	5.0
10	7.5	4.0	6.0	4.0	2.5	3.5	3.5	1.5	2.5	5.5	3.5	4.5
11	9.0	7.5	8.0	2.5	1.5	2.0	1.5	.0	.5	5.5	4.0	4.5
12	8.0	5.5	7.0	1.5	.0	.5	.5	.0	.0	5.0	3.5	4.5
13	7.5	4.5	6.5	1.0	.0	.5	.5	.0	.0	5.5	4.0	5.0
14	7.5	4.5	6.5	1.5	.0	1.0	1.0	.0	.5	5.5	4.5	5.0
15	8.5	5.5	7.0	3.0	1.5	2.5	2.0	.5	1.0	5.5	5.0	5.0
16	8.5	6.0	7.5	4.5	3.0	3.5	1.0	.0	.5	6.0	5.5	5.5
17	8.5	6.0	7.5	3.5	2.5	3.0	1.5	.0	.5	6.5	6.0	6.5
18	9.0	6.0	7.5	3.5	2.5	3.0	1.5	.5	1.0	7.0	6.0	6.5
19	8.5	6.5	7.5	3.0	2.5	3.0	1.5	.0	.5	6.5	5.5	6.5
20	8.5	6.0	7.5	3.5	2.5	3.0	1.0	.0	.5	5.5	4.0	5.0
21	7.5	6.5	7.0	2.5	2.0	2.5	1.5	.0	1.0	4.5	4.0	4.5
22	7.5	6.5	7.0	2.5	1.0	2.0	1.5	.5	1.0	5.5	4.5	5.0
23	9.0	7.5	8.5	1.5	.5	1.0	1.5	.5	1.0	6.0	5.0	5.5
24	10.5	8.5	9.5	3.0	1.5	2.5	2.0	.5	1.5	5.0	4.0	4.5
25	10.0	9.0	9.5	3.0	1.0	2.5	2.0	1.0	1.5	5.0	4.0	4.5
26	10.0	8.5	9.0	1.5	.0	1.0	1.5	.5	1.0	5.5	4.0	4.5
27	9.0	7.5	8.0	2.0	1.0	1.5	1.5	.5	1.0	6.5	5.5	6.0
28	8.5	6.5	7.5	3.0	1.5	2.0	1.5	.0	.5	7.5	6.5	7.0
29	7.0	5.0	6.0	4.0	2.0	3.0	2.0	.5	1.0	7.0	6.5	7.0
30	6.5	5.0	6.0	2.5	1.5	2.0	1.5	.5	1.0	8.0	6.0	7.0
31	6.5	5.0	6.0	---	---	---	3.0	1.0	2.5	7.0	6.0	6.5
MONTH	13.5	3.5	8.0	8.5	.0	3.5	6.0	.0	2.0	8.0	1.5	5.0

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.5	6.5	6.5	10.5	8.0	9.0	9.0	6.0	7.5	12.0	6.5	9.0
2	6.5	6.0	6.0	10.0	7.0	8.5	10.0	5.0	7.0	10.0	8.0	9.0
3	6.5	6.0	6.0	10.5	7.0	8.5	10.0	4.0	7.0	9.5	7.5	8.0
4	6.0	5.5	6.0	11.0	7.0	9.0	9.5	6.0	7.5	9.5	6.5	8.0
5	6.0	4.5	5.5	11.5	7.5	9.5	12.0	5.0	8.0	7.5	6.0	7.0
6	4.5	3.5	4.0	10.5	9.0	9.5	13.0	6.0	9.0	8.0	5.0	6.5
7	4.0	3.0	3.5	9.5	7.5	9.0	14.0	7.5	10.5	9.0	6.0	7.5
8	3.5	2.0	3.0	8.0	7.5	8.0	11.0	9.5	10.0	11.0	5.5	8.0
9	3.5	1.5	2.5	7.5	7.0	7.0	11.0	7.5	9.0	9.0	6.0	7.5
10	3.5	1.5	2.5	8.5	6.5	7.5	12.5	7.5	9.0	8.0	6.0	7.0
11	5.0	3.0	4.0	8.0	7.0	7.5	8.0	5.5	7.0	8.5	5.5	7.0
12	5.0	4.0	4.5	7.5	6.5	7.0	8.0	5.5	6.5	10.5	5.0	8.0
13	6.5	5.0	5.5	7.5	5.5	6.5	9.5	5.5	7.0	12.0	7.5	9.0
14	6.5	5.5	6.0	7.0	4.5	6.0	10.0	5.0	7.0	11.5	6.0	10.0
15	7.0	6.0	6.5	7.0	5.5	6.5	10.0	6.5	8.0	12.5	6.0	9.0
16	7.0	6.5	6.5	8.0	5.5	6.5	8.0	6.5	7.0	13.0	6.5	9.5
17	7.0	6.5	6.5	8.0	5.5	6.5	10.0	5.5	7.0	15.0	8.0	11.0
18	6.5	6.5	6.5	8.5	4.5	6.5	11.0	4.5	7.5	14.5	9.5	12.0
19	7.0	6.5	6.5	10.0	5.0	7.5	13.0	6.0	9.5	14.5	10.0	12.5
20	7.0	6.5	6.5	10.5	6.0	8.0	15.0	8.0	11.0	12.0	9.5	11.0
21	6.5	6.5	6.5	10.0	7.0	8.5	16.5	9.5	13.0	9.5	7.5	8.0
22	7.5	6.5	7.0	10.5	5.5	8.0	12.5	7.5	10.0	12.0	6.0	8.5
23	8.0	7.5	7.5	9.0	8.0	8.5	10.5	6.0	8.0	12.5	8.0	10.0
24	9.0	7.0	8.0	10.0	6.5	8.0	8.5	4.5	6.5	15.5	9.0	12.0
25	8.5	8.0	8.5	10.0	5.0	7.5	8.5	6.0	7.0	17.5	11.0	14.0
26	10.0	8.0	9.0	12.0	6.0	9.0	8.5	5.0	7.0	17.5	13.0	15.0
27	10.0	8.0	9.0	12.0	7.5	9.5	9.0	7.0	8.0	18.5	12.5	15.0
28	10.0	7.5	9.0	13.0	8.0	10.5	10.0	7.0	8.0	19.0	12.5	15.5
29	---	---	---	14.0	8.5	11.0	8.5	5.5	7.0	20.0	13.0	16.5
30	---	---	---	11.0	7.5	9.0	11.0	4.5	7.5	21.0	14.5	17.5
31	---	---	---	12.0	6.0	8.0	---	---	---	22.0	15.5	18.5
MONTH	10.0	1.5	6.0	14.0	4.5	8.0	16.5	4.0	8.0	22.0	5.0	10.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	22.5	16.0	19.0	---	---	---	---	---	---	19.0	14.0	16.5
2	19.5	16.5	17.5	---	---	---	---	---	---	20.0	14.5	17.0
3	21.0	16.0	18.0	---	---	---	---	---	---	21.0	15.5	18.0
4	18.5	15.0	16.5	---	---	---	---	---	---	21.0	16.0	18.5
5	19.5	14.5	16.5	---	---	---	---	---	---	20.5	15.0	17.5
6	17.0	13.5	15.0	---	---	---	---	---	---	20.5	15.0	17.5
7	17.0	12.0	14.0	---	---	---	---	---	---	20.0	15.0	17.5
8	17.5	10.5	13.5	---	---	---	---	---	---	18.0	14.0	15.5
9	18.5	10.5	14.5	---	---	---	---	---	---	16.0	12.0	14.0
10	20.0	12.5	16.0	---	---	---	---	---	---	16.0	11.0	13.5
11	21.0	13.5	17.0	---	---	---	21.0	---	---	16.0	11.5	14.0
12	21.0	14.0	17.5	---	---	---	21.0	15.5	18.0	15.5	11.5	13.0
13	21.0	13.5	17.0	---	---	---	21.5	15.5	18.5	14.0	10.5	12.0
14	17.0	14.5	15.5	---	---	---	22.0	16.0	19.0	14.0	10.0	12.0
15	18.5	12.5	15.5	---	---	---	22.5	16.5	19.5	12.5	11.0	12.0
16	14.5	12.5	14.0	---	---	---	22.0	16.5	19.0	13.0	10.5	11.5
17	---	---	---	---	---	---	21.5	16.0	18.5	11.5	11.0	11.5
18	---	---	---	---	---	---	21.0	15.5	18.0	12.0	10.0	11.0
19	---	---	---	---	---	---	20.5	15.0	17.5	11.5	10.5	11.0
20	---	---	---	---	---	---	20.0	15.5	17.5	12.5	10.0	11.0
21	---	---	---	---	---	---	21.0	16.0	18.0	12.0	8.5	10.0
22	---	---	---	---	---	---	18.5	14.5	17.0	12.0	8.0	10.5
23	---	---	---	---	---	---	19.5	14.5	17.0	10.0	8.5	9.5
24	---	---	---	---	---	---	19.5	14.0	16.5	10.0	9.5	9.5
25	---	---	---	---	---	---	19.5	14.5	17.0	9.5	9.0	9.0
26	---	---	---	---	---	---	18.0	15.0	17.0	9.5	9.0	9.0
27	---	---	---	---	---	---	21.5	16.0	18.5	10.0	9.0	9.5
28	---	---	---	---	---	---	21.5	16.5	18.5	10.5	8.0	9.0
29	---	---	---	---	---	---	18.0	15.5	16.5	10.5	8.0	9.0
30	---	---	---	---	---	---	18.0	13.5	16.0	10.5	9.0	9.5
31	---	---	---	---	---	---	18.5	13.5	16.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	21.0	8.0	12.5

UPPER ROGUE RIVER BASIN

14338000 ELK CREEK NEAR TRAIL, OR

LOCATION.--Lat 42°39'50", long 122°44'50", in SW¼ sec.30, T.33 S., R.1 E., Jackson County, Hydrologic Unit 17100307, on right bank 3.3 mi northeast of Trail and at mile 0.4.

DRAINAGE AREA.--133 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Prior to March 1946 monthly discharge only, published in WSP 1318.

GAGE.--Water-stage recorder. Datum of gage is 1,456.56 ft above National Geodetic Vertical Datum of 1929. Prior to July 5, 1946, nonrecording gage at various sites within 1.0 mi of present site at different datums. July 5, 1946, to June 22, 1950, nonrecording gage, and June 23, 1950, to May 23, 1954, water-stage recorder, at site 0.3 mi upstream at datum 12.14 ft higher.

REMARKS.--Estimated daily discharges: Aug. 1-8, 13-22. Water-discharge records good except those for August, which are fair. No regulation. Diversions for irrigation and dam construction upstream from station.

AVERAGE DISCHARGE.--41 years, 232 ft³/s, 168,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft³/s Dec. 22, 1964, gage height, 18.84 ft, from rating curve extended above 4,700 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.40 ft³/s Aug. 16, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	1130	*4,650	*8.91	Feb. 23	0530	4,080	8.40

Minimum discharge, 0.67 ft³/s Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	20	120	88	180	379	94	103	43	12	6.6	2.6
2	6.8	19	528	105	390	314	93	145	41	11	5.2	1.5
3	6.6	18	804	117	813	264	86	243	38	11	5.4	1.9
4	6.3	18	381	107	570	235	82	218	31	11	5.2	2.4
5	6.0	19	318	106	492	212	79	254	31	13	4.9	2.4
6	6.0	18	355	110	389	199	74	341	32	9.3	6.5	1.9
7	6.2	17	517	97	300	666	71	309	32	8.8	4.0	1.2
8	6.6	18	451	93	242	835	69	251	30	9.2	2.8	1.4
9	7.1	30	285	175	203	802	67	211	29	9.4	3.5	1.2
10	7.4	35	209	183	174	604	65	194	26	11	3.2	1.5
11	8.1	32	158	148	152	476	62	195	25	11	2.5	1.9
12	10	26	124	123	163	484	67	182	23	8.7	2.5	2.8
13	9.5	22	100	105	247	472	78	163	22	8.6	3.1	3.0
14	8.9	22	84	91	369	429	76	144	21	9.2	2.2	3.4
15	8.7	26	74	84	506	372	74	127	22	9.2	2.3	4.2
16	8.5	117	67	466	1220	309	78	114	20	7.3	1.9	4.7
17	8.5	147	66	992	1560	256	104	102	22	7.0	1.7	8.2
18	8.5	96	75	582	3670	223	115	93	26	8.4	1.5	22
19	8.3	70	87	398	2770	200	107	85	27	7.6	1.5	20
20	8.3	59	95	346	1930	184	97	88	25	7.2	1.4	15
21	19	53	95	270	1430	169	90	95	23	6.6	1.4	12
22	49	49	91	319	2930	155	84	115	20	6.2	1.4	10
23	150	42	91	745	3350	151	78	102	17	5.6	1.8	8.8
24	97	41	91	487	1750	160	71	90	16	6.1	1.7	54
25	63	45	91	336	1080	143	73	80	15	6.1	1.4	146
26	68	44	86	252	773	132	70	72	15	6.4	1.7	452
27	46	40	77	214	583	125	94	66	15	6.4	1.9	231
28	35	122	69	197	460	117	137	61	13	6.2	1.1	140
29	29	291	62	188	---	110	134	55	12	6.1	1.7	90
30	25	163	55	187	---	104	118	51	12	5.8	3.1	65
31	22	---	51	170	---	98	---	47	---	6.7	3.9	---
TOTAL	756.1	1719	5757	7881	28696	9379	2587	4396	724	258.1	89.0	1312.0
MEAN	24.4	57.3	186	254	1025	303	86.2	142	24.1	8.33	2.87	43.7
MAX	150	291	804	992	3670	835	137	341	43	13	6.6	452
MIN	6.0	17	51	84	152	98	62	47	12	5.6	1.1	1.2
AC-FT	1500	3410	11420	15630	56920	18600	5130	8720	1440	512	177	2600
CAL YR 1985	TOTAL	47511.4	MEAN	130	MAX	1590	MIN	2.8	AC-FT	94240		
WTR YR 1986	TOTAL	63554.2	MEAN	174	MAX	3670	MIN	1.1	AC-FT	126100		

UPPER ROGUE RIVER BASIN

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14338000 ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1973 to current year.

INSTRUMENTATION.--Temperature recorder since June 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 31.5°C July 17, 1979; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 28.0°C June 24, 25, Aug. 7-9; minimum, 0.0°C Dec. 12-14, 16-20.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	10.5	7.5	9.0	3.5	3.0	3.5	---	---	---
2	---	---	---	11.5	8.5	10.0	5.0	3.5	4.0	---	---	---
3	18.0	---	---	11.5	8.5	10.0	6.0	5.0	5.5	4.0	---	---
4	18.0	13.0	15.5	10.0	8.0	9.0	6.0	4.5	5.0	4.0	2.0	3.0
5	17.5	12.5	15.0	9.0	6.5	7.5	6.5	5.0	6.0	5.0	4.0	4.5
6	15.0	13.0	14.0	9.5	7.0	8.5	6.5	5.5	6.0	4.0	2.5	3.5
7	14.0	11.0	12.5	10.0	8.0	9.0	6.0	5.5	6.0	3.5	2.0	2.5
8	11.5	8.0	10.0	9.0	7.5	8.0	6.0	4.5	5.5	5.0	2.5	3.5
9	10.5	5.5	8.0	7.5	5.0	6.0	4.5	4.0	4.5	6.0	5.0	5.5
10	11.0	6.0	8.5	6.0	4.5	5.0	4.0	2.0	3.5	5.5	3.5	4.5
11	11.5	9.5	10.5	4.5	2.5	3.5	2.0	.5	1.5	6.5	5.0	5.5
12	12.0	8.0	10.0	3.5	1.5	2.5	1.5	.0	.5	5.5	4.0	5.0
13	11.5	7.0	9.0	3.0	.5	1.5	1.5	.0	.5	5.5	4.0	5.0
14	11.5	7.0	9.0	3.5	1.0	2.5	1.5	.0	1.0	5.5	4.5	5.0
15	12.5	7.5	9.5	5.0	3.5	4.0	2.5	.5	1.5	6.0	5.0	5.5
16	12.0	8.5	10.0	5.5	4.5	5.0	2.0	.0	1.0	6.5	5.5	6.0
17	12.5	8.0	10.0	4.5	3.5	4.0	2.0	.0	1.0	7.0	6.5	6.5
18	12.5	8.0	10.0	4.5	3.0	3.5	2.0	.0	1.0	7.5	6.5	7.0
19	11.0	8.5	10.0	4.0	3.5	4.0	2.0	.0	1.0	7.0	6.0	6.5
20	10.0	8.0	9.0	4.5	3.5	4.0	---	.0	---	6.5	5.0	6.0
21	10.0	8.5	9.0	3.5	3.0	3.5	---	---	---	5.0	4.0	4.5
22	9.0	8.5	8.5	4.0	2.5	3.0	---	---	---	6.0	5.0	5.5
23	9.5	8.0	9.0	2.5	1.5	2.0	---	---	---	6.5	5.5	6.0
24	11.5	9.0	10.0	3.5	2.0	3.0	---	---	---	6.0	4.5	5.0
25	12.5	10.5	11.0	4.0	3.0	3.5	---	---	---	6.0	4.0	5.0
26	12.5	10.0	11.0	3.0	.5	1.5	---	---	---	6.0	3.5	5.0
27	11.5	9.0	10.5	2.5	1.0	2.0	---	---	---	7.0	5.5	6.5
28	11.0	8.5	9.5	3.5	2.0	2.5	---	---	---	7.5	7.0	7.0
29	9.0	6.0	8.0	4.5	3.0	3.5	---	---	---	7.5	7.0	7.5
30	8.0	6.5	7.5	3.5	2.5	3.0	---	---	---	8.5	7.0	7.5
31	8.5	6.5	7.5	---	---	---	---	---	---	7.5	6.5	7.0
MONTH	---	---	---	11.5	.5	5.0	---	---	---	---	---	---

UPPER ROGUE RIVER BASIN

14338000 ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.5	7.0	7.0	9.5	7.5	8.5	10.0	8.0	9.0	13.0	8.0	10.5
2	7.0	6.5	6.5	10.0	7.0	8.5	11.5	6.5	8.5	11.5	10.0	11.0
3	7.0	6.0	6.5	10.5	6.5	8.5	11.0	6.0	9.0	11.5	8.0	9.5
4	7.0	6.0	6.5	10.5	7.0	9.0	11.0	7.5	9.0	11.0	7.5	9.0
5	6.5	5.0	6.0	11.0	7.5	9.5	13.0	7.0	10.0	9.0	7.5	8.0
6	5.5	4.0	5.0	10.0	8.5	9.5	14.5	8.0	11.5	10.0	6.0	8.0
7	5.0	3.0	4.0	9.5	8.0	9.0	15.5	10.0	13.0	10.0	6.5	9.0
8	5.0	2.5	3.5	8.5	7.5	8.0	13.5	11.5	12.5	12.5	6.5	9.5
9	5.0	2.0	3.5	7.5	6.5	7.0	13.5	10.0	11.5	10.0	7.0	9.0
10	5.0	1.5	3.5	9.0	6.5	7.5	15.0	10.0	12.0	9.0	7.0	8.0
11	5.0	3.5	4.5	8.0	7.0	7.5	11.5	8.5	9.5	10.0	6.0	8.0
12	5.5	4.5	5.0	8.0	6.5	7.0	9.5	7.5	8.5	12.0	6.0	9.0
13	7.5	5.0	6.0	7.5	6.0	7.0	12.0	7.0	9.5	13.0	8.5	10.5
14	7.0	5.5	6.5	7.5	4.5	6.0	11.0	7.0	9.0	13.0	7.5	10.5
15	7.5	6.0	7.0	7.5	5.5	6.5	11.5	8.0	9.5	14.0	7.5	11.0
16	7.0	6.5	7.0	9.0	5.0	7.0	10.0	8.5	9.0	15.0	8.5	12.0
17	7.0	6.5	7.0	8.5	5.5	7.0	11.5	7.5	9.0	16.5	10.0	13.5
18	7.0	6.5	6.5	9.0	4.5	7.0	12.0	6.5	9.5	16.5	12.0	14.5
19	7.0	6.5	6.5	10.5	5.0	8.0	14.5	8.0	11.0	16.5	12.5	14.5
20	7.0	6.5	6.5	10.5	6.0	8.5	16.5	10.0	13.5	15.0	12.0	13.5
21	7.0	6.5	6.5	11.0	8.0	9.0	18.0	12.0	15.0	12.0	9.5	10.5
22	7.5	6.5	7.0	10.5	6.0	8.5	16.0	11.0	13.0	14.5	8.0	11.0
23	8.0	7.0	7.5	9.5	8.5	9.0	13.0	8.0	10.5	15.0	10.5	12.5
24	9.0	7.0	8.0	10.0	7.5	9.0	10.5	7.5	9.0	17.5	11.5	14.5
25	8.5	7.5	8.0	10.5	5.5	8.0	10.5	7.5	9.0	20.5	13.5	17.0
26	10.0	7.5	8.5	12.0	6.5	9.5	10.5	7.5	9.0	20.5	17.0	18.5
27	10.0	7.5	8.5	13.0	8.5	10.5	10.5	8.5	9.5	22.0	15.5	18.5
28	10.0	7.0	8.5	14.0	9.5	11.5	11.5	8.0	9.5	22.5	16.0	19.5
29	---	---	---	15.0	9.5	12.5	11.0	7.0	9.0	24.0	17.0	20.5
30	---	---	---	12.5	9.5	11.0	12.0	6.0	9.0	24.5	18.5	21.5
31	---	---	---	12.5	7.0	10.0	---	---	---	26.0	19.5	22.5
MONTH	10.0	1.5	6.5	15.0	4.5	8.5	18.0	6.0	10.0	26.0	6.0	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	26.5	20.5	23.5	26.5	19.0	22.5	27.0	20.0	23.5	22.5	18.0	20.5
2	24.0	20.5	22.0	26.0	20.0	23.0	27.5	21.5	24.5	23.0	18.0	21.0
3	25.0	19.0	22.0	25.5	20.0	22.5	27.5	22.0	24.5	24.5	19.0	22.0
4	23.5	19.5	21.5	22.5	19.0	20.5	26.0	21.5	24.0	25.0	19.5	22.5
5	24.0	18.5	21.0	23.5	15.5	19.5	26.5	20.0	23.5	24.5	19.0	22.0
6	22.0	18.0	19.5	25.5	17.0	21.0	27.0	20.5	24.0	23.5	18.5	21.5
7	20.5	16.0	18.0	23.5	19.0	21.0	28.0	21.5	24.5	23.0	19.0	21.0
8	21.5	14.5	18.0	26.0	18.0	21.5	28.0	21.5	25.0	20.5	18.0	19.5
9	22.5	15.5	19.0	24.5	20.0	22.0	28.0	22.0	25.0	19.0	16.0	17.5
10	24.5	17.0	21.0	23.5	20.5	22.0	27.5	22.5	25.0	18.5	15.0	17.0
11	26.0	19.0	22.5	26.5	20.0	23.0	25.5	20.5	23.5	19.0	15.0	17.5
12	26.5	19.5	23.0	26.5	19.0	22.5	26.0	20.5	23.5	18.0	15.0	16.5
13	26.0	19.0	22.5	26.0	18.5	22.0	26.5	20.5	23.5	18.0	14.0	16.0
14	23.5	19.5	21.0	22.5	18.5	20.0	27.0	21.0	24.5	17.5	13.5	15.5
15	23.5	16.5	20.0	24.5	17.5	20.5	27.0	21.5	24.5	16.0	14.5	15.0
16	20.0	17.5	19.0	21.0	17.0	19.0	26.5	21.5	24.0	16.0	13.0	14.5
17	19.5	16.5	18.0	24.0	15.5	19.5	26.0	20.5	23.5	15.0	13.5	14.5
18	19.5	15.0	17.0	24.0	17.5	21.0	26.0	21.0	23.5	14.5	12.0	13.5
19	21.0	13.5	17.0	26.0	18.0	22.0	26.0	19.5	22.5	14.5	12.5	13.0
20	22.0	15.0	18.5	27.0	19.5	23.0	23.5	20.5	22.5	15.5	12.0	13.5
21	23.5	15.5	19.5	27.5	20.5	24.0	25.5	20.5	23.0	16.0	11.0	13.5
22	26.0	18.0	22.0	27.0	20.0	23.5	22.5	19.5	21.0	16.5	11.0	14.0
23	27.5	19.5	23.5	26.5	19.5	23.0	23.5	18.5	21.0	15.0	12.0	12.5
24	28.0	21.5	24.5	26.5	19.0	22.5	23.0	18.0	21.0	13.5	11.0	12.0
25	28.0	20.5	24.0	25.5	19.5	22.5	23.5	18.5	21.5	11.0	9.5	10.5
26	27.0	21.5	24.0	25.5	19.0	22.0	22.0	19.5	21.0	10.5	9.0	9.5
27	25.0	21.0	23.0	24.5	18.0	21.5	25.0	20.0	22.5	12.0	9.0	10.5
28	27.0	20.5	23.0	25.0	18.0	21.5	25.5	21.0	23.0	13.0	9.5	11.0
29	26.0	19.0	22.0	25.5	19.5	22.0	22.0	20.0	21.0	12.5	9.0	11.0
30	26.0	18.0	22.0	26.0	19.0	22.0	22.0	17.5	20.0	12.5	10.5	11.5
31	---	---	---	26.0	19.0	22.5	22.5	17.5	20.0	---	---	---
MONTH	28.0	13.5	21.0	27.5	15.5	22.0	28.0	17.5	23.0	25.0	9.0	15.5

UPPER ROGUE RIVER BASIN

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14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR

LOCATION.--Lat 42°31'30", long 122°50'30", in SE¼ sec.17, T.35 S., R.1 W., Jackson County, Hydrologic Unit 17100307, on right bank 50 ft upstream from Dodge Bridge, 0.7 mi downstream from Reese Creek, 4.3 mi northwest of Eagle Point, and at mile 138.61.

DRAINAGE AREA.--1,215 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1094: 1942(M), 1943, 1945(M), 1946. WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,271.39 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 21, 1938, nonrecording gage, Dec. 21, 1938, to Aug. 15, 1968, water-stage recorder, at datum 2.27 ft higher, Aug. 16, 1968, to Sept. 30, 1976, water-stage recorder, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Dec. 27-30. Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (see sta 14335040). Diversions for irrigation upstream from station; most of low flow of Big Butte Creek (see sta 14337500) is diverted near Butte Falls.

AVERAGE DISCHARGE.--48 years, 2,629 ft³/s, 1,905,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,600 ft³/s Dec. 22, 1964, gage height, 12.78 ft, datum then in use, from rating curve extended above 23,000 ft³/s; minimum discharge, 567 ft³/s Feb. 18, 1977, result of closure of Lost Creek dam, minimum prior to that time, 611 ft³/s Aug. 6, 14, 29, Sept. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,900 ft³/s Feb. 22, gage height, 7.98 ft; minimum discharge, 1,300 ft³/s Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1440	1410	3290	1530	2510	6820	2730	2380	2930	2350	2220	2210
2	1450	1400	3650	1560	3080	5950	1850	2560	2980	2550	2240	2200
3	1450	1400	3510	1570	3680	5270	1510	3090	3010	2500	2230	2210
4	1450	1400	2750	1570	2770	4090	1460	3170	2770	2370	2210	2210
5	1450	1400	2600	1570	2520	3760	1440	3060	2580	2390	2210	2200
6	1450	1400	2660	1580	2360	3720	1430	3280	2310	2380	2210	2210
7	1450	1400	3000	1570	2010	5040	1410	3190	2230	2390	2220	2210
8	1450	1410	2920	1550	1600	6010	1430	3010	2160	2380	2220	2130
9	1460	1440	2610	1700	1490	6730	1440	2860	2020	2380	2220	2000
10	1470	1480	2470	1790	1430	6860	1420	2850	1880	2380	2210	1930
11	1470	1450	2370	1870	1390	6750	1630	2830	1730	2380	2210	1770
12	1480	1420	2230	1820	1390	6910	2200	2710	1980	2380	2210	1700
13	1470	1410	1600	1800	1650	6010	2210	2560	1990	2380	2210	1580
14	1460	1400	1540	1770	1860	5130	2200	2450	2000	2380	2210	1520
15	1440	1420	1520	1770	2050	4770	2190	2420	2000	2380	2220	1400
16	1410	1530	1510	3240	3590	4120	2190	2380	2000	2380	2220	1320
17	1380	1630	1500	4760	5500	3720	2230	2360	2000	2390	2220	1300
18	1370	1580	1500	4110	11900	2560	2240	2340	2010	2230	2220	1310
19	1370	1520	1500	3620	11100	2810	2220	2330	2010	2220	2220	1380
20	1380	1490	1500	3340	9470	2750	2210	2480	1990	2230	2210	1390
21	1460	1480	1510	3070	8180	2680	2110	2800	2010	2230	2250	1360
22	1480	1770	1510	3350	12400	2640	1890	2870	2000	2210	2220	1330
23	1680	2190	1530	4370	11500	2610	1880	2750	1990	2210	2220	1320
24	1620	2250	1540	3470	11100	2630	1860	2640	1990	2210	2220	1380
25	1520	2340	1520	3150	12600	2530	1870	2580	1980	2200	2220	1480
26	1500	2330	1520	2990	12200	2540	1870	2480	1970	2210	2210	2030
27	1470	2150	1520	2830	9980	2060	1890	2540	1980	2210	2210	1760
28	1440	2500	1520	2040	9340	2580	2220	2730	1990	2200	2220	1530
29	1430	3030	1520	2100	---	2750	2740	2840	1990	2230	2220	1460
30	1420	3360	1530	2220	---	2740	2490	2850	2010	2220	2210	1410
31	1410	---	1530	2460	---	2810	---	2910	---	2230	2210	---
TOTAL	45180	52390	62980	76140	160650	128350	58460	84300	64490	71780	68750	51240
MEAN	1457	1746	2032	2456	5738	4140	1949	2719	2150	2315	2218	1708
MAX	1680	3360	3650	4760	12600	6910	2740	3280	3010	2550	2250	2210
MIN	1370	1400	1500	1530	1390	2060	1410	2330	1730	2200	2210	1300
AC-FT	89610	103900	124900	151000	318600	254600	116000	167200	127900	142400	136400	101600
CAL YR 1985	TOTAL	775650	MEAN	2125	MAX	4960	MIN	1180	AC-FT	1539000		
WTR YR 1986	TOTAL	924710	MEAN	2533	MAX	12600	MIN	1300	AC-FT	1834000		

UPPER ROGUE RIVER BASIN

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 20.0°C July 27, 28, 1975; minimum, 0.0°C Jan. 6-8, 10, 11, 1974, Jan. 6-9, 1977. Maximum since full operation of Lost Creek Lake, 19.5°C July 3, 1981; minimum, 1.0°C Feb. 4, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 18.0°C Aug. 13-17, 19; minimum recorded, 3.0°C several days in December and February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.0	6.5	8.0	8.0	6.0	7.0	5.5	5.0	5.5	5.5	4.0	5.0
2	10.0	6.5	8.0	8.0	6.0	7.0	6.0	5.5	5.5	4.5	4.0	4.5
3	10.0	6.5	8.0	8.0	5.5	6.5	6.0	5.5	5.5	5.0	4.0	4.5
4	10.0	6.5	8.0	7.0	5.5	6.0	6.0	5.0	5.5	5.0	3.5	4.5
5	10.0	6.5	8.0	7.0	5.5	6.0	6.5	5.5	6.0	5.0	4.5	5.0
6	8.5	6.5	7.5	7.5	5.5	6.5	6.5	5.5	6.0	5.0	3.5	4.5
7	8.5	6.0	7.0	7.5	6.0	6.5	6.0	5.5	6.0	5.0	3.5	4.0
8	8.0	5.0	6.5	6.5	5.5	6.0	6.0	5.0	5.5	5.5	4.0	4.5
9	8.0	4.5	6.0	6.0	5.0	5.5	5.5	5.0	5.0	5.5	5.0	5.0
10	8.0	5.0	6.5	7.0	5.0	5.5	5.5	4.0	5.0	5.5	4.0	5.0
11	7.5	6.5	6.5	6.0	4.5	5.0	5.0	3.5	4.0	6.0	4.5	5.0
12	8.5	5.0	6.5	5.5	3.5	4.5	5.0	3.5	4.0	5.5	4.0	4.5
13	8.0	5.0	6.5	6.0	3.5	5.0	4.5	3.0	4.0	5.5	4.5	4.5
14	8.0	5.0	6.5	6.0	4.0	5.0	4.5	3.0	4.0	5.5	4.5	4.5
15	8.5	5.0	7.0	6.0	5.5	6.0	5.0	3.5	4.0	5.0	4.5	5.0
16	8.0	5.5	6.5	6.5	5.0	6.0	4.5	3.0	4.0	6.0	5.0	5.5
17	8.5	5.5	6.5	6.0	5.0	5.0	4.5	3.0	4.0	6.0	5.5	6.0
18	8.5	5.5	7.0	6.0	5.0	5.5	4.5	3.0	4.0	6.0	5.0	5.5
19	7.0	5.5	6.5	5.5	4.5	5.0	4.5	3.0	3.5	5.5	5.0	5.5
20	7.5	5.5	6.5	6.0	5.0	5.5	4.5	3.0	3.5	5.5	4.5	5.0
21	7.5	6.0	6.5	5.5	4.5	5.0	4.5	3.0	3.5	5.0	4.0	4.5
22	6.5	6.0	6.5	6.0	5.0	5.0	4.5	3.0	3.5	5.0	4.5	5.0
23	7.5	6.5	7.0	5.5	4.5	5.0	4.5	3.0	3.5	5.5	5.0	5.5
24	8.5	7.0	7.5	6.0	5.0	5.5	4.5	3.0	4.0	5.5	4.5	5.0
25	8.0	6.5	7.0	6.0	4.5	5.5	4.5	3.0	4.0	5.0	4.0	4.5
26	8.5	6.5	7.5	5.5	4.5	5.0	---	---	---	5.0	4.0	4.5
27	8.0	6.0	7.0	5.5	4.5	5.0	---	---	---	5.5	4.5	5.0
28	7.5	6.0	7.0	5.5	5.0	5.0	---	---	---	6.0	5.0	5.5
29	7.0	5.0	6.0	6.0	5.0	5.0	---	---	---	6.0	5.5	5.5
30	6.5	5.0	6.0	5.5	4.5	5.0	---	---	---	6.0	5.5	5.5
31	7.0	5.5	6.5	---	---	---	5.0	---	---	6.0	5.0	5.5
MONTH	10.0	4.5	7.0	8.0	3.5	5.5	---	---	---	6.0	3.5	5.0

UPPER ROGUE RIVER BASIN

339

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	5.0	5.5	6.5	5.5	6.0	7.5	5.5	6.0	11.0	7.0	9.0
2	5.5	5.0	5.5	7.0	5.5	6.0	9.0	5.0	7.0	9.5	7.5	8.0
3	6.0	5.0	5.5	7.0	5.5	6.0	9.0	5.0	7.0	9.5	7.5	8.5
4	6.0	5.0	5.5	7.5	5.5	6.5	8.5	5.5	7.0	9.0	7.0	8.0
5	6.0	5.0	5.5	7.5	5.5	6.5	10.0	5.0	7.5	8.5	7.5	7.5
6	5.5	4.0	5.0	6.5	6.0	6.0	10.5	5.5	8.0	10.0	7.5	8.5
7	5.5	3.5	4.0	7.5	6.0	6.5	11.0	6.0	8.5	10.0	8.0	9.0
8	5.0	3.0	4.0	7.0	6.0	6.5	9.0	7.0	7.5	12.0	8.0	10.0
9	5.0	3.0	4.0	6.5	6.0	6.0	9.0	6.5	7.5	10.5	8.5	9.5
10	5.5	3.0	4.0	7.0	5.5	6.0	10.5	6.5	8.5	10.5	8.0	9.0
11	5.5	4.0	5.0	6.5	5.5	6.0	7.5	5.5	6.5	10.5	8.0	9.5
12	5.5	4.5	5.0	6.5	5.5	6.0	7.5	5.5	6.0	12.0	8.5	10.0
13	7.0	5.0	6.0	6.5	5.5	6.0	9.0	5.5	7.0	12.0	9.0	10.0
14	6.5	5.5	6.0	6.5	5.0	6.0	8.5	5.5	6.5	12.5	8.0	10.0
15	6.5	5.5	6.0	6.5	5.5	6.0	8.5	5.5	7.0	13.0	8.5	10.5
16	7.0	6.0	6.5	7.5	5.0	6.0	8.0	6.0	7.0	13.0	8.5	10.5
17	7.0	6.0	6.5	7.0	5.0	6.0	9.0	6.0	7.0	13.5	9.0	11.0
18	6.5	6.0	6.5	8.0	4.5	6.5	10.0	5.5	7.5	13.0	9.5	11.0
19	6.5	6.0	6.0	8.5	5.0	6.5	10.5	6.5	8.0	13.0	9.5	11.0
20	6.5	6.0	6.0	8.0	5.5	6.5	11.5	6.5	9.0	10.5	9.5	10.0
21	6.0	5.5	6.0	8.5	6.0	7.0	12.0	7.5	9.5	10.5	8.5	9.5
22	7.0	6.0	6.5	8.0	5.0	6.5	9.0	7.5	8.0	12.5	8.5	10.0
23	7.5	7.0	7.5	7.0	6.0	6.5	10.0	6.0	8.0	12.5	9.0	10.5
24	7.0	6.0	6.5	8.0	6.0	6.5	8.5	6.5	7.5	13.5	9.5	11.0
25	6.5	6.0	6.0	8.5	5.0	6.5	9.5	7.0	8.0	14.5	9.5	12.0
26	6.5	5.5	6.0	9.0	5.5	7.0	9.0	6.0	7.5	13.5	10.5	12.0
27	6.5	6.0	6.5	9.5	6.0	7.5	9.0	7.0	8.0	14.5	10.0	12.0
28	6.5	5.5	6.0	9.0	6.0	7.5	10.0	7.0	8.5	14.5	10.0	12.0
29	---	---	---	9.5	6.0	7.5	10.0	7.5	8.5	14.0	9.5	11.5
30	---	---	---	8.0	6.0	6.5	11.0	7.0	9.0	14.0	9.5	11.5
31	---	---	---	8.5	5.0	6.5	---	---	---	14.5	9.5	11.5
MONTH	7.5	3.0	5.5	9.5	4.5	6.5	12.0	5.0	7.5	14.5	7.0	10.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	14.0	9.5	11.5	14.5	9.5	12.0	17.0	12.0	14.5	16.5	12.5	14.5
2	12.5	9.5	11.0	14.0	9.5	11.5	17.5	12.5	15.0	17.0	12.5	14.5
3	13.5	9.5	11.0	14.0	10.0	11.5	17.5	12.5	15.0	16.5	13.0	14.5
4	13.0	9.0	11.0	11.5	8.5	10.0	17.0	12.0	14.5	16.0	11.5	13.5
5	13.5	9.5	11.5	13.0	8.5	10.5	17.0	12.0	14.5	16.0	11.5	13.5
6	12.5	9.5	11.0	13.5	8.0	10.5	17.0	12.0	14.5	16.0	11.5	13.5
7	13.5	9.0	11.0	12.5	8.5	10.5	17.5	12.0	14.5	16.0	11.5	13.5
8	14.5	9.0	11.5	15.0	9.5	12.5	17.5	12.5	14.5	15.0	11.5	13.0
9	14.5	9.0	11.5	14.0	10.0	12.0	17.5	12.5	15.0	14.5	10.5	12.0
10	14.5	9.0	11.5	12.5	9.5	11.0	17.5	12.5	15.0	15.0	10.5	12.5
11	15.5	9.5	12.0	14.5	10.0	12.0	17.5	12.0	15.0	14.0	9.5	11.5
12	15.0	9.5	12.0	14.5	9.5	11.5	17.5	12.5	15.0	13.5	9.5	11.0
13	14.5	9.0	11.5	15.0	9.0	11.5	18.0	12.5	15.0	13.0	9.0	11.0
14	12.0	9.5	10.5	14.5	9.5	12.0	18.0	13.0	15.5	13.5	9.0	11.0
15	14.5	9.0	11.5	15.0	10.0	12.5	18.0	13.0	15.5	11.5	9.5	10.5
16	12.0	9.0	10.5	14.0	10.5	12.0	18.0	13.0	15.5	12.0	9.5	10.5
17	11.0	9.0	10.0	15.0	10.0	12.5	18.0	13.0	15.5	10.0	8.5	9.0
18	12.5	9.0	10.5	15.0	10.5	13.0	17.5	13.5	15.0	9.0	7.5	8.0
19	14.0	8.5	11.0	16.0	10.5	13.5	18.0	13.0	15.5	9.0	7.5	8.0
20	14.0	9.0	11.5	16.5	10.5	13.5	17.0	13.5	15.0	10.0	7.5	8.5
21	15.0	9.0	11.5	16.5	11.0	13.5	16.5	12.0	14.0	10.0	6.5	8.5
22	15.0	9.5	12.0	16.5	11.0	13.5	15.5	11.5	13.5	11.0	6.5	8.5
23	15.5	9.5	12.5	16.5	10.5	13.5	16.5	11.5	13.5	8.5	7.0	7.5
24	15.5	9.5	12.5	17.5	12.0	14.5	16.5	11.5	14.0	9.0	7.5	8.0
25	15.0	9.5	12.0	17.0	12.0	14.5	16.5	11.5	14.0	8.5	7.5	8.0
26	14.0	9.5	11.5	17.0	12.0	14.5	15.0	12.0	13.5	9.5	8.0	8.5
27	13.5	10.0	11.5	17.0	11.5	14.0	17.0	12.5	14.5	10.0	7.5	8.5
28	15.0	9.5	12.0	17.0	12.0	14.5	17.0	12.5	14.5	10.5	7.5	9.0
29	14.5	9.0	12.0	17.0	12.0	14.5	15.5	12.5	13.5	10.0	7.0	8.5
30	15.0	9.0	11.5	17.0	12.0	14.5	16.0	12.0	14.0	9.5	7.5	8.5
31	---	---	---	17.5	12.0	14.5	16.5	12.5	14.0	---	---	---
MONTH	15.5	8.5	11.5	17.5	8.0	12.5	18.0	11.5	14.5	17.0	6.5	10.5

UPPER ROGUE RIVER BASIN

14342500 NORTH FORK LITTLE BUTTE CREEK AT FISH LAKE, NEAR LAKECREEK, OR

LOCATION.--Lat 42°22'35", long 122°21'20", in SE¼SW¼ sec.4, T.37 S., R.4 E., Jackson County, Hydrologic Unit 17100307, on right bank 0.5 mi downstream from Fish Lake dam, 14 mi east of Lakecreek, and at mile 15.2.

DRAINAGE AREA.--20.8 mi².

PERIOD OF RECORD.--October 1914 to July 1915, June 1916 to current year. Monthly discharge only November 1916 to May 1917, published in WSP 1318.

REVISED RECORDS.--WSP 654: Drainage area (former site). WSP 1218: 1917(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,571.41 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1914, to July 31, 1915, nonrecording gage at site 0.5 mi upstream at different datum. June 1, 1916, to July 9, 1918, nonrecording gage and July 10, 1918, to Oct. 28, 1932, water-stage recorder at site 0.25 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 11-30, Dec. 1-3, 9-31, Jan. 1-6, 27-31, Feb. 1-18, Apr. 29, 30. Records good. Since 1915, Fish Lake (see below) has stored water for irrigation by Medford Irrigation District. Cascade Canal diverts from Fourmile Lake in Klamath River basin and discharges into lava bed 1.0 mi upstream from Fish Lake; diversion began August 1923. No diversion from creek upstream from station.

AVERAGE DISCHARGE.--70 years (water years 1917-86), 36.2 ft³/s, 26,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 940 ft³/s June 5, 1917, computed from rate of change in contents of reservoir after break in dam occurred; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112 ft³/s July 24-26, gage height, 1.76 ft; minimum discharge, 1.8 ft³/s Oct. 15-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	4.8	11	14	17	26	32	32	33	87	107	63
2	62	5.1	11	14	17	26	32	32	33	87	105	63
3	61	5.4	11	14	17	26	32	32	33	87	105	62
4	61	5.7	11	14	17	27	32	32	33	87	104	61
5	60	5.8	11	14	18	27	32	33	33	86	100	61
6	60	6.0	11	14	18	27	32	33	33	85	97	61
7	59	6.2	12	14	18	31	32	33	33	85	96	60
8	58	6.8	12	14	18	32	32	33	33	90	95	60
9	32	7.0	12	14	18	32	32	33	33	96	93	59
10	11	7.2	12	14	19	32	32	33	34	95	92	58
11	11	7.4	12	14	19	32	32	33	41	95	92	58
12	11	7.6	12	14	19	32	32	33	55	95	90	57
13	11	7.8	12	15	19	33	32	33	67	95	89	56
14	8.2	8.0	12	15	19	33	32	33	67	95	88	56
15	1.8	8.2	12	15	20	33	32	33	67	95	87	50
16	1.8	8.4	13	16	20	33	32	33	67	94	87	45
17	1.8	8.6	13	16	20	33	32	33	67	93	86	38
18	1.8	8.8	13	16	20	32	32	33	67	93	85	29
19	1.9	9.0	13	16	20	32	32	33	67	93	84	29
20	1.9	9.2	13	16	20	32	32	33	67	93	83	29
21	2.2	9.4	13	16	20	32	32	33	67	93	83	29
22	3.5	9.6	13	16	23	32	32	33	67	92	81	29
23	4.1	9.8	13	16	24	32	32	33	67	92	81	29
24	3.1	10	13	16	24	32	32	33	67	102	79	29
25	3.1	10	13	16	25	32	32	33	67	112	79	20
26	3.1	10	13	16	25	32	32	33	81	112	78	9.7
27	3.3	10	13	16	25	32	32	33	87	111	78	9.7
28	3.9	10	13	16	26	32	32	33	87	111	77	9.6
29	3.8	11	13	16	---	32	32	33	87	110	76	9.6
30	4.2	11	14	17	---	32	32	33	87	110	70	9.6
31	4.5	---	14	17	---	32	---	33	---	109	64	---
TOTAL	618.0	243.8	384	471	565	963	960	1019	1727	2980	2711	1239.2
MEAN	19.9	8.13	12.4	15.2	20.2	31.1	32.0	32.9	57.6	96.1	87.5	41.3
MAX	63	11	14	17	26	33	32	33	87	112	107	63
MIN	1.8	4.8	11	14	17	26	32	32	33	85	64	9.6
AC-FT	1230	484	762	934	1120	1910	1900	2020	3430	5910	5380	2460
(†)	3000	a4050	4690	5220	a6070	a6990	7400	a7780	a7610	6530	3940	3510
CAL YR 1985	TOTAL	15022.8	MEAN	41.2	MAX	119	MIN	1.8	AC-FT	29800		
WTR YR 1986	TOTAL	13881.0	MEAN	38.0	MAX	112	MIN	1.8	AC-FT	27530		

† Monthend contents, in acre-feet, of Fish Lake.

a Interpolated.

14350000 EMIGRANT CREEK NEAR ASHLAND, OR

LOCATION.--43°09'50", long 122°36'15", in SE¼NE¼ sec.20, T.39 S., R.2 E., Jackson County, Hydrologic Unit 17100309, on left bank 0.1 mi downstream from Emigrant Dam, 6 mi southeast of Ashland, and at mile 29.2.

DRAINAGE AREA.--64.3 mi².

PERIOD OF RECORD.--January to June 1920, October 1921 to July 1922, February 1923 to May 1924 (incomplete), October 1924 to November 1925, February to August 1926, October 1926 to September 1928, April 1929 to September 1930, April 1931 to October 1932 (incomplete), April 1933 to September 1935, April 1936 to September 1939 (incomplete), April 1940 to September 1947, January 1948 to October 1952 (incomplete), December 1952 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1448: 1921, 1927-28, 1937, 1953(M).

GAGE.--Water-stage recorder and artificial control. Datum of gage is 2,042.80 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1926, water-stage recorder or nonrecording gage at several nearby sites at various datums. Oct. 1, 1926, to Feb. 24, 1959, water-stage recorder near present site at datum 10.93 ft higher. Feb. 25, 1959, to May 7, 1961, water-stage recorder at site 1.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 6, 7, Nov. 22 to Jan. 5, Feb. 20 to Mar. 2. Records for October to February poor, March fair, April to September good. Flow regulated since 1924 by Emigrant Lake (see below). Several diversions upstream from station for irrigation; the principal diversion canals are Ashland lateral (not included here) and East lateral (see below). Records for Ashland lateral and inflow to the basin from Green Springs powerplant can be obtained from the Oregon Water Resources Department. From June 1923 to August 1960, water diverted by Keene Creek Canal from Klamath River basin into Emigrant Creek upstream from station. Beginning May 1960, water from Klamath River basin diverted to Emigrant Creek upstream from station via Green Springs powerplant diversion.

AVERAGE DISCHARGE.--46 years (water years 1925, 1927-30, 1934-35, 1941-47, 1954-86), 34.0 ft³/s, 24,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft³/s Feb. 20, 1927, by computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 275 ft³/s Mar. 10; minimum, no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.10	.10	.10	.20	.55	46	11	15	55	80	57
2	.04	.10	.10	.10	.21	.55	47	7.4	16	62	82	58
3	.02	.10	.10	.10	.54	12	47	2.1	20	70	81	56
4	.10	.10	.10	.10	.90	25	47	.20	22	75	80	54
5	.10	.10	.10	.10	.62	52	33	5.5	24	70	80	53
6	.10	.10	.00	.13	.34	80	24	20	24	68	80	53
7	.10	.10	.10	.13	.24	130	20	49	23	76	80	53
8	.10	.08	.10	.18	.23	180	59	85	23	76	79	53
9	.05	.10	.10	.20	.23	230	99	73	23	75	79	53
10	.04	.10	.10	.18	.24	275	101	83	26	75	79	53
11	.10	.12	.10	.20	.26	185	40	83	33	74	79	52
12	.10	.11	.10	.17	.20	125	.10	38	38	73	78	52
13	.10	.10	.10	.19	.21	150	.10	11	38	73	77	51
14	.10	.06	.10	.19	.23	150	.10	8.8	39	75	77	50
15	.10	.10	.10	.19	.25	150	.20	9.3	39	77	77	57
16	.10	.10	.10	.27	.33	150	.10	9.7	37	78	77	43
17	.10	.10	.10	.20	.40	125	.10	9.3	36	79	76	38
18	.05	.10	.10	.20	.49	75	.10	9.9	33	79	76	31
19	.03	.10	.10	.24	.52	50	.10	9.3	33	79	74	27
20	.04	.10	.10	.20	.52	50	4.5	9.3	32	78	72	21
21	.10	.10	.10	.20	.55	50	11	9.3	34	77	73	17
22	.06	.10	.10	.20	.55	50	13	6.3	41	78	72	14
23	.05	.10	.10	.20	.55	50	14	3.4	41	78	70	12
24	.00	.10	.10	.20	.55	50	14	3.2	47	77	67	5.0
25	.00	.10	.10	.20	.55	50	9.4	2.9	50	78	65	.00
26	.00	.10	.10	.20	.55	48	5.6	2.9	55	79	59	.00
27	.00	.10	.10	.20	.55	46	5.6	2.9	55	78	58	.00
28	.00	.10	.10	.20	.55	46	5.6	2.7	56	77	57	.00
29	.00	.10	.10	.20	---	47	5.6	2.4	56	77	55	.00
30	.05	.10	.10	.20	---	47	7.0	5.7	54	80	55	.00
31	.10	---	.10	.19	---	46	---	15	---	80	54	---
TOTAL	1.93	2.97	3.00	5.56	11.56	2725.10	659.20	590.50	1063	2326	2248	1013.00
MEAN	.06	.10	.10	.18	.41	87.9	22.0	19.0	35.4	75.0	72.5	33.8
MAX	.10	.12	.10	.27	.90	275	101	85	56	80	82	58
MIN	.00	.06	.00	.10	.20	.55	.10	.20	15	55	54	.00
AC-FT	3.8	5.9	6.0	11	23	5410	1310	1170	2110	4610	4460	2010
(†)	a10130	a13090	a16880	a23340	38210	38680	a38670	a38170	30500	20250	9580	a4890
(‡)	0	0	0	0	0	1230	3210	5180	7070	7670	7990	4810
CAL YR 1985	TOTAL	8847.95	MEAN	24.2	MAX	201	MIN	.00	AC-FT	17550		
WTR YR 1986	TOTAL	10649.82	MEAN	29.2	MAX	275	MIN	.00	AC-FT	21120		

† Monthend contents, in acre-feet, of Emigrant Lake.

‡ Diversion, in acre-feet, by East Lateral.

a Interpolated.

MIDDLE ROGUE RIVER BASIN

14357500 BEAR CREEK AT MEDFORD, OR

LOCATION.--Lat 42°19'40", long 122°52'10", in NW¼ sec.30, T.37 S., R.1 W., Jackson County, Hydrologic Unit 17100308, on left bank 40 ft upstream from Main street Bridge, in Medford, and at mile 9.91.

DRAINAGE AREA.--289 mi².

PERIOD OF RECORD.--March 1915 to June 1920 (no low-flow records), October 1920 to September 1981, December 1983 to current year. Monthly discharge only for some periods, published in WSP 1318.

REVISED RECORDS.--WSP 1044: 1944. WSP 1448: 1916, 1917(M), 1918-20, 1922, 1924, 1927(M), 1928, 1930. WSP 1568: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,341.98 ft above National Geodetic Vertical Datum of 1929. Dec. 31, 1947, to Sept. 23, 1985, at datum 2.00 ft higher. See WSP 1738 for history of changes prior to Dec. 31, 1947.

REMARKS.--Estimated daily discharges: Apr. 21 to June 17. Records good except for estimated daily discharges, which are poor. Flow partly regulated since 1924 by Emigrant Lake (published with sta 14350000). Numerous diversions for irrigation and municipal use upstream from station.

AVERAGE DISCHARGE.--63 years (water years 1921-81, 1985-86), 114 ft³/s, 82,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s Dec. 2, 1962, gage height, 10.04 ft, present datum; maximum gage height, about 13.0 ft Feb. 20, 1927, from floodmarks, present datum, site then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,600 ft³/s Feb. 19, gage height, 6.38 ft; minimum discharge, 19 ft³/s Oct. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	39	54	44	68	192	146	65	75	44	51	74
2	25	37	123	44	101	178	135	80	70	37	50	62
3	23	36	99	43	98	167	114	90	70	35	50	58
4	20	37	71	41	90	184	121	110	70	43	50	60
5	23	42	72	39	121	236	127	120	70	56	50	56
6	26	37	70	39	106	266	109	120	62	55	54	54
7	29	36	76	42	90	552	98	120	62	54	54	51
8	38	38	64	42	78	726	116	110	62	54	53	56
9	38	50	56	48	72	595	183	100	62	55	59	58
10	32	45	53	46	71	488	181	94	62	46	67	67
11	36	36	47	43	69	431	155	86	62	41	64	76
12	36	36	46	36	81	335	101	80	62	39	56	75
13	32	36	46	36	86	348	100	80	62	41	64	75
14	31	36	46	40	89	333	92	80	62	46	63	76
15	31	41	41	42	132	329	80	80	62	50	60	99
16	31	46	44	161	209	320	73	80	62	63	56	102
17	31	48	44	192	676	303	70	80	62	66	57	141
18	30	47	45	112	1410	249	70	80	65	63	57	122
19	30	44	47	158	1640	210	68	80	58	57	48	161
20	36	42	45	132	1070	211	65	80	51	55	48	138
21	69	45	46	96	483	198	65	80	53	53	48	90
22	56	49	42	95	596	168	65	80	46	47	51	82
23	54	45	42	106	565	162	65	80	45	44	54	77
24	46	47	46	87	352	167	65	80	44	42	55	142
25	44	52	44	79	289	152	65	80	48	42	59	94
26	38	45	44	76	258	153	65	80	46	49	58	219
27	35	49	43	66	233	152	65	80	46	53	59	122
28	40	90	42	72	211	153	65	80	46	50	64	65
29	37	61	37	69	---	153	65	80	46	49	71	56
30	37	51	41	71	---	153	65	80	45	48	75	52
31	41	---	41	68	---	149	---	80	---	50	75	---
TOTAL	1097	1343	1657	2265	9344	8413	2854	2695	1738	1527	1780	2660
MEAN	35.4	44.8	53.5	73.1	334	271	95.1	86.9	57.9	49.3	57.4	88.7
MAX	69	90	123	192	1640	726	183	120	75	66	75	219
MIN	20	36	37	36	68	149	65	65	44	35	48	51
AC-FT	2180	2660	3290	4490	18530	16690	5660	5350	3450	3030	3530	5280
CAL YR 1985	TOTAL	33379	MEAN	91.4	MAX	403	MIN	20	AC-FT	66210		
WTR YR 1986	TOTAL	37373	MEAN	102	MAX	1640	MIN	20	AC-FT	74130		

MIDDLE ROGUE RIVER BASIN

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14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR

LOCATION.--Lat 42°26'15", long 122°59'10", in SW¼ sec.18, T.36 S., R.2 W., Jackson County, Hydrologic Unit 17100308, on right bank at Raygold, 0.1 mi downstream from Gold Ray Dam, 1.0 mi downstream from Bear Creek, 5.6 mi northwest of Central Point, and at mile 125.8.

DRAINAGE AREA.--2,053 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1905 to current year. Prior to October 1921, published as "near Tolo."

REVISED RECORDS.--WSP 1248: 1906, 1914(M), 1915. WSP 1398: 1910(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,121.78 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1914, nonrecording gage and Sept. 19, 1914, to Sept. 30, 1956, water-stage recorder, at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Feb. 9, 10, 14-18, 22-27. Water-discharge records good except for estimated daily discharges Feb. 14-18, 22-27, which are fair. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Slight regulation by Fish Lake (published with station 14342500) and Emigrant Lake (published with station 14350000). Many diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--81 years, 2,997 ft³/s, 2,171,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft³/s Dec. 23, 1964, gage height, 23.43 ft, from rating curve extended above 63,000 ft³/s on basis of slope-area measurement of 113,000 ft³/s; minimum discharge not determined; minimum daily, 616 ft³/s Sept. 6, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,800 ft³/s Feb. 18; maximum gage height, 11.20 ft Feb. 18, from floodmark; minimum discharge, 1,490 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	1610	3590	1820	2960	7900	3180	2660	3020	2310	2200	2270
2	1530	1600	4170	1880	3570	6880	2270	2990	3040	2470	2220	2240
3	1530	1590	4460	1920	4620	6190	1900	3800	3160	2470	2210	2240
4	1540	1590	3310	1900	3480	5060	1900	3960	2890	2370	2210	2250
5	1530	1610	3070	1890	3210	4650	1890	3790	2670	2430	2190	2250
6	1540	1600	3080	1920	2940	4580	1850	4240	2420	2410	2170	2260
7	1560	1590	3460	1890	2500	6400	1800	4050	2350	2390	2190	2250
8	1560	1610	3490	1880	2040	8440	1810	3810	2280	2370	2170	2200
9	1560	1700	3050	2090	1950	8530	1900	3540	2140	2370	2180	2100
10	1560	1770	2820	2130	1850	8220	1880	3620	1960	2370	2200	2070
11	1590	1690	2670	2230	1810	8000	1990	3570	1760	2370	2200	1910
12	1600	1640	2570	2140	1900	8120	2530	3400	2010	2360	2160	1870
13	1580	1620	1940	2110	2420	7260	2580	3080	2040	2360	2180	1720
14	1570	1620	1870	2100	2500	6230	2560	2900	2160	2380	2180	1660
15	1540	1650	1850	2110	3000	5780	2520	2790	2120	2400	2200	1600
16	1530	1830	1820	3380	5600	5110	2500	2710	2100	2430	2190	1560
17	1530	1930	1810	6410	10000	4740	2560	2620	2120	2440	2200	1630
18	1520	1840	1810	5170	22400	3350	2570	2550	2130	2300	2200	1650
19	1520	1750	1800	4650	18800	3450	2540	2540	2110	2270	2180	1890
20	1560	1720	1800	4560	16000	3390	2480	2630	2050	2280	2180	1770
21	1750	1720	1810	3840	11300	3270	2410	3150	2060	2280	2230	1630
22	1770	1900	1800	3870	16000	3190	2120	3390	2030	2220	2200	1580
23	2030	2390	1800	5320	17000	3140	2140	3140	2030	2220	2210	1580
24	1830	2450	1800	4240	15000	3210	2090	2940	2000	2230	2220	1790
25	1690	2560	1800	3780	14500	3090	2160	2860	2000	2210	2220	1890
26	1670	2550	1800	3550	14000	3050	2160	2740	1970	2240	2220	2740
27	1640	2370	1780	3380	12000	2560	2200	2730	2000	2240	2220	2320
28	1630	3020	1770	2520	10700	2980	2490	2870	2020	2240	2240	1860
29	1620	3510	1760	2590	---	3200	3100	2960	2020	2220	2250	1710
30	1620	3720	1810	2660	---	3160	2790	2950	2020	2210	2250	1640
31	1620	---	1780	2900	---	3190	---	3010	---	2210	2260	---
TOTAL	49840	59750	74150	92830	224050	156320	68870	97990	66680	72070	68330	58130
MEAN	1608	1992	2392	2995	8002	5043	2296	3161	2223	2325	2204	1938
MAX	2030	3720	4460	6410	22400	8530	3180	4240	3160	2470	2260	2740
MIN	1520	1590	1760	1820	1810	2560	1800	2540	1760	2210	2160	1560
AC-FT	98860	118500	147100	184100	444400	310100	136600	194400	132300	143000	135500	115300
CAL YR 1985	TOTAL	893180	MEAN	2447	MAX	7510	MIN	1470	AC-FT	1772000		
WTR YR 1986	TOTAL	1089010	MEAN	2984	MAX	22400	MIN	1520	AC-FT	2160000		

MIDDLE ROGUE RIVER BASIN

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 22.0°C July 25, 26, 1976; minimum, 0.0°C Jan. 7, 1974. Maximum since full operation of Lost Creek Lake, 20.5°C July 3, 4, 1981; minimum, 1.0°C Dec. 30, 1978, Jan. 30, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 19.0°C Aug. 9, 14, 15; minimum, 2.5°C Dec. 27, 28.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.0	9.5	10.5	8.5	7.0	7.5	5.5	5.0	5.0	5.5	4.5	5.0
2	11.0	9.5	10.0	9.0	7.5	8.0	6.0	5.5	5.5	5.0	4.0	4.5
3	11.0	9.5	10.5	8.5	7.0	8.0	6.5	6.0	6.0	4.5	4.0	4.5
4	11.0	9.5	10.0	8.5	7.0	7.5	6.0	5.5	6.0	5.0	4.0	4.5
5	11.0	9.0	10.0	7.0	6.0	6.5	7.0	6.0	6.5	5.5	5.0	5.0
6	10.5	9.0	9.5	8.0	6.5	7.0	6.5	6.0	6.5	5.0	4.0	4.5
7	9.0	8.0	8.5	8.0	7.0	7.5	6.5	6.0	6.5	4.5	3.5	4.0
8	8.5	7.0	7.5	8.0	6.5	7.0	6.0	5.5	6.0	5.5	4.0	4.5
9	8.0	6.0	7.0	7.0	6.0	6.0	5.5	5.0	5.0	6.0	5.5	5.5
10	8.5	6.5	7.5	6.5	5.0	5.5	5.5	4.5	5.0	6.0	5.0	5.5
11	8.5	8.0	8.0	6.0	4.5	5.5	4.5	3.0	3.5	6.0	5.0	5.5
12	9.0	6.5	7.5	5.5	4.0	4.5	4.0	3.0	3.5	5.5	4.5	5.0
13	8.5	7.0	8.0	5.0	3.5	4.0	4.0	3.0	3.5	5.5	4.5	5.0
14	8.5	7.0	7.5	5.5	4.0	4.5	4.0	3.0	3.5	5.5	4.5	5.0
15	9.0	7.0	8.0	6.0	5.5	6.0	4.0	3.0	3.5	5.5	5.0	5.5
16	9.0	7.5	8.0	6.5	6.0	6.5	4.0	3.0	3.5	6.0	5.5	5.5
17	9.0	7.5	8.0	6.0	5.0	5.5	3.5	3.0	3.5	6.0	6.0	6.0
18	9.0	7.5	8.0	6.0	5.0	5.5	4.0	3.0	3.5	6.0	5.5	6.0
19	8.5	7.0	8.0	5.5	4.5	5.0	3.5	3.0	3.5	6.0	5.5	5.5
20	8.0	7.0	7.5	5.5	5.0	5.0	3.5	3.0	3.0	6.0	5.0	5.5
21	8.0	7.5	8.0	5.5	4.5	5.0	4.0	3.0	3.5	5.0	4.0	4.5
22	8.0	7.0	7.5	5.5	5.0	5.0	3.5	3.0	3.0	5.0	4.5	5.0
23	8.5	7.5	8.0	5.0	4.0	4.5	3.5	3.0	3.0	6.0	5.0	5.5
24	10.0	8.0	9.0	5.5	4.5	5.0	4.0	3.0	3.0	5.5	4.5	5.0
25	9.5	8.5	9.0	6.0	5.0	5.5	4.0	3.0	3.5	5.0	4.0	4.5
26	9.5	8.0	8.5	5.0	4.0	4.5	4.0	3.0	3.5	5.0	4.0	4.5
27	9.0	7.5	8.0	5.0	4.5	5.0	3.5	2.5	3.0	5.5	5.0	5.0
28	8.5	8.0	8.0	5.5	4.5	5.0	3.5	2.5	3.0	6.5	5.5	6.0
29	8.0	6.5	7.0	6.0	5.0	5.5	3.5	3.0	3.0	6.5	6.0	6.0
30	7.0	6.0	6.5	5.5	4.0	5.0	3.5	3.0	3.5	7.0	6.0	6.5
31	7.5	6.5	7.0	---	---	---	4.5	3.5	4.0	6.5	5.5	6.0
MONTH	11.0	6.0	8.5	9.0	3.5	6.0	7.0	2.5	4.0	7.0	3.5	5.0

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.5	5.5	6.0	7.5	6.5	7.0	9.0	6.5	7.5	12.0	8.5	10.5
2	6.0	5.5	6.0	8.0	6.0	7.0	10.0	6.0	8.0	11.5	9.0	10.5
3	6.0	5.5	6.0	8.0	6.0	7.0	10.0	7.5	8.5	11.5	9.0	10.0
4	6.0	5.5	6.0	8.5	6.0	7.5	9.5	8.0	9.0	11.0	8.5	9.5
5	6.5	5.5	6.0	9.0	6.5	7.5	11.0	8.0	9.5	10.0	8.5	9.0
6	5.5	4.5	5.0	8.0	7.0	7.5	12.0	9.0	10.5	---	---	---
7	5.0	3.5	4.5	8.5	7.0	8.0	12.5	10.0	11.5	---	---	---
8	5.0	3.5	4.0	8.0	7.0	7.5	12.0	10.0	11.0	---	---	---
9	5.0	3.0	4.0	7.5	6.5	6.5	11.0	9.0	10.0	---	---	---
10	5.0	3.5	4.0	7.5	6.0	6.5	12.0	9.5	10.5	---	---	---
11	5.5	4.5	5.0	7.0	6.5	6.5	11.0	8.0	9.0	---	---	---
12	6.0	5.0	5.5	7.5	6.0	6.5	9.0	6.5	7.5	---	---	---
13	7.5	5.5	6.5	7.5	6.0	6.5	10.5	6.5	8.5	---	---	---
14	7.0	6.0	6.5	7.5	5.5	6.5	9.5	7.0	8.5	---	---	---
15	7.0	6.5	7.0	7.0	5.5	6.5	9.5	7.0	8.5	---	---	---
16	7.0	6.5	7.0	8.0	5.5	7.0	9.0	7.5	8.5	---	---	---
17	7.0	6.5	6.5	8.0	6.0	7.0	10.0	7.5	8.5	---	---	---
18	7.0	6.5	6.5	8.5	5.5	7.0	11.0	7.0	9.0	---	---	---
19	7.0	6.5	6.5	9.5	6.0	8.0	12.0	8.5	10.0	---	---	---
20	7.0	6.0	6.5	9.0	7.0	8.0	13.0	9.0	11.0	---	---	---
21	6.5	5.5	6.0	9.5	7.5	8.5	13.5	10.0	12.0	---	---	---
22	7.5	6.0	6.5	9.0	6.5	8.0	13.5	10.0	11.0	---	---	---
23	8.5	7.5	8.0	8.5	7.5	8.0	11.5	8.0	9.5	---	---	---
24	7.5	6.5	7.0	9.0	7.0	8.0	10.5	8.0	9.0	---	---	---
25	7.0	6.5	6.5	9.0	6.0	7.5	10.5	8.0	9.5	---	---	---
26	7.5	6.0	6.5	10.0	6.5	8.5	10.0	7.5	9.0	---	---	---
27	7.5	6.5	7.0	11.0	7.5	9.5	10.0	8.5	9.5	---	---	---
28	7.5	6.0	7.0	10.5	8.0	9.5	11.5	9.0	10.0	---	---	---
29	---	---	---	11.0	7.5	9.5	11.5	8.5	10.0	---	---	---
30	---	---	---	10.0	7.5	8.5	12.0	8.0	10.0	---	---	---
31	---	---	---	10.0	6.5	8.0	---	---	---	---	---	---
MONTH	8.5	3.0	6.0	11.0	5.5	7.5	13.5	6.0	9.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	---	---	---	16.0	12.0	14.0	18.5	14.5	16.5	17.5	14.0	15.5
2	---	---	---	15.5	11.5	13.5	18.5	15.0	16.5	17.5	14.0	16.0
3	---	---	---	15.5	11.5	13.5	18.5	15.0	17.0	18.0	14.5	16.5
4	---	---	---	15.0	10.5	12.5	18.5	14.5	16.5	17.0	13.5	15.5
5	15.5	---	---	14.5	9.5	12.0	18.0	14.0	16.0	16.5	13.0	15.0
6	15.0	11.5	13.5	15.5	10.5	13.0	18.5	14.5	16.5	16.5	13.0	15.0
7	14.5	11.0	13.0	15.0	11.0	13.0	18.5	14.5	16.5	16.5	13.0	15.0
8	15.5	11.0	13.5	16.5	12.0	14.0	18.5	14.5	16.5	16.0	13.0	14.5
9	16.5	11.5	14.0	16.0	12.5	14.5	19.0	14.5	17.0	15.0	12.0	13.5
10	16.5	12.0	14.0	15.5	12.0	13.5	18.5	15.0	17.0	15.0	11.5	13.5
11	17.0	13.0	15.0	16.0	12.0	14.0	18.5	14.5	16.5	15.0	11.5	13.5
12	17.0	12.5	15.0	16.0	11.5	14.0	18.5	14.5	16.5	14.5	11.5	13.0
13	16.5	12.0	14.5	16.0	11.5	13.5	18.5	14.5	16.5	13.5	11.0	12.5
14	16.5	12.5	14.0	16.0	11.5	14.0	19.0	15.0	17.0	13.5	11.0	12.0
15	15.5	11.5	13.5	16.0	12.0	14.0	19.0	15.0	17.0	13.5	11.5	12.5
16	15.0	11.5	13.0	15.5	12.0	14.0	18.5	15.0	17.0	12.5	11.0	12.0
17	13.0	11.0	12.0	16.5	12.0	14.0	18.5	15.0	17.0	12.5	11.0	11.5
18	14.5	10.5	12.5	16.5	13.0	14.5	18.0	15.0	17.0	11.5	10.0	10.5
19	15.0	10.5	13.0	17.5	13.0	15.0	18.5	14.5	16.5	10.5	10.0	10.0
20	15.5	11.5	13.5	18.0	13.5	15.5	18.5	15.0	16.5	12.0	10.0	10.5
21	16.0	11.5	14.0	18.0	14.0	16.0	17.5	14.0	16.0	11.5	9.5	10.5
22	17.0	12.5	14.5	17.5	13.5	16.0	17.0	13.0	15.0	12.0	10.0	10.5
23	17.0	13.0	15.0	17.5	13.5	15.5	17.0	13.0	15.0	11.5	9.0	10.0
24	17.0	13.0	15.0	18.0	14.0	16.0	17.0	13.0	15.0	10.5	9.0	9.5
25	17.0	12.5	15.0	18.0	14.0	16.0	17.0	13.5	15.5	10.5	9.5	9.5
26	16.5	12.0	14.5	18.0	14.0	16.0	17.0	14.0	15.0	10.5	9.0	9.5
27	15.5	12.5	14.0	18.0	14.0	16.0	17.5	14.0	15.5	11.5	9.0	10.0
28	16.0	12.0	14.0	18.0	14.0	16.0	17.5	14.5	16.0	11.5	9.5	10.5
29	16.5	12.0	14.5	18.0	14.5	16.0	17.0	14.0	15.5	11.0	9.0	10.0
30	16.5	12.0	14.0	18.0	14.0	16.0	17.0	13.5	15.0	10.5	9.5	10.0
31	---	---	---	18.0	14.0	16.0	17.0	13.5	15.5	---	---	---
MONTH	---	---	---	18.0	9.5	14.5	19.0	13.0	16.0	18.0	9.0	12.5

MIDDLE ROGUE RIVER BASIN

14361500 ROGUE RIVER AT GRANTS PASS, OR

LOCATION.--Lat 42°25'50", long 123°19'00", in NW¼ sec.20, T.36 S., R.5 W., Josephine County, Hydrologic Unit 17100308, on right bank at city of Grants Pass filter plant, 0.6 mi upstream from bridge on State Highway 99 at Grants Pass, and at mile 101.8. Prior to Sept. 3, 1983, at site 300 ft upstream.

DRAINAGE AREA.--2,459 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 884.28 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1957, at site 300 ft upstream at datum 4.00 ft higher and Aug. 8, 1957, to Sept. 2, 1983, at site 300 ft upstream at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (station 14355040), slight regulation by Fish Lake and Emigrant Lake. Large fluctuations at times caused by Savage Rapids Dam 5.5 mi upstream from station. Many diversions from Rogue River and tributaries upstream from station, the largest of which is at Savage Rapids Dam of Grants Pass Irrigation District, 5.5 mi upstream from station.

AVERAGE DISCHARGE.--48 years, 3,537 ft³/s, 2,563,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 152,000 ft³/s Dec. 23, 1964, gage height, 35.15 ft, present datum, from rating curve extended above 93,000 ft³/s; minimum discharge, 195 ft³/s Jan. 30, 1961; minimum daily, 606 ft³/s Sept. 10, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 43 ft, present datum (information furnished by Corps of Engineers). Flood in February 1890 reached a stage of about 36 ft, present datum, and that of Feb. 21, 1927, about 32 ft, present datum, according to local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,400 ft³/s Feb. 18, gage height, 13.56 ft; minimum discharge, 1,280 ft³/s Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	1760	4010	1900	3370	9300	3580	2730	3050	2130	2210	2370
2	1470	1760	4710	2000	4350	7850	2670	3000	3050	2460	2210	2330
3	1490	1740	5660	2030	6550	7070	2110	3880	3240	2470	2180	2300
4	1490	1740	3980	2030	4740	5730	2070	4200	3000	2330	2220	2300
5	1490	1770	3580	2010	4050	5150	2070	3890	2660	2350	2180	2280
6	1500	1750	3520	2030	3770	5000	2040	4590	2440	2390	2180	2330
7	1560	1750	4050	2000	3210	6870	1980	4360	2330	2390	2220	2300
8	1540	1780	4280	1970	2500	10100	1950	4100	2240	2340	2210	2300
9	1760	1880	3650	2230	2290	10000	2030	3810	2060	2300	2220	2120
10	1740	2000	3310	2410	2160	9620	2010	3810	1930	2310	2220	2160
11	1740	1890	3040	2410	2070	9220	2040	3760	1690	2350	2220	1950
12	1760	1810	2890	2310	2130	9770	2700	3560	1920	2300	2240	1930
13	1720	1780	2250	2270	2770	9020	2770	3270	1920	2280	2220	1760
14	1730	1770	2050	2240	3010	7520	2760	3000	2070	2340	2220	1670
15	1690	1810	2010	2250	3390	6990	2700	2810	2020	2300	2220	1610
16	1730	1980	1980	3550	5440	6020	2560	2730	2010	2370	2220	1560
17	1760	2160	1950	8870	9610	5650	2660	2700	2030	2390	2220	1610
18	1720	2080	1950	6490	27800	4210	2500	2560	2040	2240	2220	1690
19	1660	1950	1950	5510	23500	3810	2700	2520	2040	2240	2190	1950
20	1730	1900	1920	5770	19800	3870	2630	2630	2030	2220	2220	1870
21	1900	1890	1910	4580	15300	3710	2520	3160	1950	2220	2220	1740
22	1940	1920	1900	4520	21500	3600	2210	3530	1950	2180	2240	1610
23	2290	2620	1880	7900	22600	3520	2180	3400	1970	2160	2260	1640
24	2080	2670	1910	5630	15700	3620	2090	3050	1930	2180	2260	1780
25	1890	2820	1900	4620	15900	3460	2120	2900	1900	2120	2240	2180
26	1850	2840	1900	4170	15400	3380	2160	2730	1870	2180	2240	2730
27	1810	2630	1880	3930	12500	3000	2180	2630	1920	2180	2280	3050
28	1790	3230	1860	3040	11800	3070	2430	2850	1950	2210	2280	2180
29	1770	4000	1830	2960	---	3470	3240	2970	1930	2170	2300	1930
30	1780	4090	1830	2990	---	3450	2880	2960	1920	2220	2340	1830
31	1770	---	1920	3280	---	3430	---	3040	---	2190	2370	---
TOTAL	53650	65770	83460	109900	267210	180480	72540	101130	65060	70510	69270	61060
MEAN	1731	2192	2692	3545	9543	5822	2418	3262	2169	2275	2235	2035
MAX	2290	4090	5660	8870	27800	10100	3580	4590	3240	2470	2370	3050
MIN	1470	1740	1830	1900	2070	3000	1950	2520	1690	2120	2180	1560
AC-FT	106400	130500	165500	218000	530000	358000	143900	200600	129000	139900	137400	121100
CAL YR 1985	TOTAL	968520	MEAN	2653	MAX	11000	MIN	1470	AC-FT	1921000		
WTR YR 1986	TOTAL	1200040	MEAN	3288	MAX	27800	MIN	1470	AC-FT	2380000		

MIDDLE ROGUE RIVER BASIN

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14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C June 7, 1977; minimum, 0.5°C on several days in 1974, 1977, 1978, 1980. Maximum since full operation of Lost Creek Lake, 21.5°C July 4, 5, 1981.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.5°C Aug. 15; minimum, 2.5°C several days in December.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	11.0	12.0	9.0	7.5	8.0	5.5	5.0	5.0	5.5	4.5	5.0
2	13.0	11.0	12.0	9.5	8.0	8.5	6.0	5.5	6.0	5.5	4.5	5.0
3	13.0	11.0	12.0	9.5	8.0	9.0	6.5	6.0	6.5	5.0	4.0	4.5
4	13.0	11.0	12.0	9.5	8.0	8.5	6.5	6.0	6.5	5.5	4.5	5.0
5	13.0	11.0	12.0	8.5	7.0	7.5	7.0	6.0	6.5	5.5	4.5	5.0
6	12.5	10.5	11.5	8.0	6.5	7.0	7.0	7.0	7.0	5.5	4.5	5.0
7	11.0	9.5	10.5	8.5	7.0	8.0	7.0	7.0	7.0	4.5	3.5	4.0
8	12.5	8.0	9.0	8.5	7.5	8.0	7.0	6.0	6.5	5.0	3.5	4.5
9	8.5	7.5	8.0	8.0	6.5	7.0	6.0	5.5	6.0	6.5	5.0	6.0
10	8.0	7.5	7.5	6.5	6.0	6.0	5.5	5.0	5.5	6.5	6.0	6.5
11	9.0	8.0	8.5	6.5	5.5	6.0	5.0	3.5	4.0	6.5	6.0	6.5
12	9.0	8.5	9.0	6.0	4.0	5.0	3.5	3.0	3.5	6.0	5.5	6.0
13	9.0	8.0	8.5	5.0	3.0	4.0	3.5	3.0	3.0	5.5	4.5	5.5
14	9.0	8.0	8.5	5.0	3.5	4.0	3.5	2.5	3.0	6.0	5.5	5.5
15	9.0	8.5	8.5	6.5	4.5	5.5	4.0	3.0	3.5	6.0	5.5	5.5
16	9.5	8.5	9.0	7.0	6.0	6.5	4.0	3.0	3.5	6.5	6.0	6.0
17	9.5	8.5	9.0	6.5	6.0	6.5	3.5	3.0	3.5	7.0	6.5	6.5
18	9.5	8.5	9.0	6.0	5.0	5.5	3.5	3.0	3.5	6.5	6.5	6.5
19	9.5	8.0	9.0	6.0	5.0	5.5	3.5	3.0	3.5	6.5	6.0	6.5
20	9.0	7.5	8.0	5.5	5.0	5.0	3.5	2.5	3.0	6.0	5.5	6.0
21	9.0	7.5	8.5	5.5	5.0	5.0	3.5	3.0	3.0	6.0	5.0	5.5
22	9.0	8.0	8.5	5.5	5.0	5.0	3.5	3.0	3.5	5.5	5.0	5.0
23	9.0	8.0	8.5	5.5	4.5	5.0	3.5	3.0	3.5	6.0	5.5	6.0
24	10.5	8.5	9.5	5.5	4.5	5.0	3.5	2.5	3.0	6.0	5.5	5.5
25	11.0	9.5	10.0	5.5	5.0	5.5	3.5	2.5	3.5	5.5	5.0	5.0
26	10.5	9.5	10.0	5.5	5.0	5.0	4.0	3.0	3.5	5.0	5.0	5.0
27	10.5	8.5	9.5	5.0	4.5	5.0	3.5	3.0	3.5	5.5	5.0	5.5
28	10.0	8.0	9.0	5.5	4.5	5.0	3.5	2.5	3.0	6.5	5.5	6.0
29	9.0	7.5	8.5	6.0	5.0	5.5	3.5	2.5	3.0	7.0	6.5	7.0
30	8.0	7.0	7.5	5.5	5.0	5.0	4.0	3.0	3.5	7.5	7.0	7.0
31	8.0	7.0	7.5	---	---	---	4.5	3.0	4.0	7.0	6.5	7.0
MONTH	13.0	7.0	9.5	9.5	3.0	6.0	7.0	2.5	4.5	7.5	3.5	5.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	7.0	6.5	6.5	8.0	7.5	7.5	9.5	8.0	9.0	12.0	10.0	11.0
2	6.5	6.5	6.5	8.0	7.0	7.5	9.5	7.5	8.5	12.0	10.0	11.0
3	6.5	6.0	6.5	8.5	7.5	8.0	10.5	7.5	9.0	11.5	10.5	11.0
4	6.5	6.5	6.5	8.5	8.0	8.5	10.5	8.5	9.5	11.0	10.0	10.5
5	6.5	6.0	6.5	9.0	8.5	8.5	11.0	8.5	10.0	10.5	9.5	10.0
6	6.0	5.0	6.0	9.0	8.5	8.5	12.5	9.0	11.0	10.0	9.0	9.5
7	5.0	4.5	5.0	9.0	8.5	8.5	13.5	10.5	12.0	11.0	10.0	10.5
8	5.0	4.0	4.5	9.0	8.0	8.5	13.0	11.5	12.0	11.5	10.0	11.0
9	5.0	3.5	4.0	8.5	7.0	7.5	12.0	10.5	11.0	13.0	11.0	12.0
10	5.0	3.5	4.0	8.0	6.5	7.0	12.5	10.5	11.5	11.5	10.5	11.0
11	5.5	4.0	5.0	8.0	7.0	7.5	11.5	10.0	10.5	11.0	10.5	10.5
12	6.0	5.5	6.0	8.0	7.0	7.0	10.0	8.0	8.5	12.0	10.5	11.5
13	7.0	6.0	6.5	7.5	7.0	7.5	10.0	7.5	9.0	13.5	11.5	12.5
14	7.5	6.5	7.0	7.5	6.5	7.0	10.5	8.5	9.5	13.5	11.5	12.5
15	8.0	7.0	7.5	7.5	6.5	7.0	10.0	8.5	9.0	14.0	11.5	13.0
16	7.5	7.5	7.5	7.5	6.5	7.0	9.5	8.5	9.0	14.5	12.0	13.0
17	7.5	7.0	7.5	8.0	7.0	7.5	10.0	8.5	9.5	15.0	12.5	14.0
18	7.5	7.0	7.5	8.0	7.0	7.5	11.0	8.5	10.0	15.5	13.0	14.5
19	7.5	7.0	7.0	9.5	7.5	8.5	12.0	9.0	10.5	15.5	13.5	14.5
20	7.5	7.0	7.0	9.5	8.5	9.0	13.0	10.5	12.0	14.5	13.0	14.0
21	7.5	6.5	7.0	10.0	8.5	9.5	14.5	11.5	13.0	13.0	11.5	12.0
22	8.0	7.0	7.5	9.5	8.5	9.0	13.5	12.5	13.0	12.0	11.5	11.5
23	9.0	8.0	8.5	9.5	8.5	9.0	12.5	10.5	11.0	14.0	11.5	13.0
24	8.5	8.0	8.5	9.0	8.5	8.5	10.5	9.5	10.0	15.0	12.5	13.5
25	8.0	7.5	7.5	9.0	8.0	8.5	10.0	9.0	9.5	16.5	13.5	15.0
26	8.0	7.0	7.5	10.0	8.0	9.0	10.5	9.0	10.0	17.5	15.0	16.5
27	8.0	7.5	8.0	11.0	9.0	10.0	10.5	9.0	10.0	17.0	14.5	16.0
28	8.0	7.0	7.5	11.5	10.0	10.5	11.0	9.5	10.5	18.0	15.0	16.5
29	---	---	---	11.0	10.0	10.5	11.5	10.0	11.0	17.5	15.5	16.5
30	---	---	---	11.0	9.0	10.0	11.5	10.0	10.5	18.0	15.0	16.5
31	---	---	---	9.5	8.5	9.0	---	---	---	17.5	15.0	16.5
MONTH	9.0	3.5	6.5	11.5	6.5	8.5	14.5	7.5	10.5	18.0	9.0	13.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	18.0	15.5	16.5	18.0	15.5	17.0	19.5	16.5	18.0	18.0	15.5	17.0
2	18.0	15.0	16.5	17.5	15.0	16.5	20.0	17.5	18.5	18.5	16.0	17.5
3	15.5	13.5	14.5	17.0	14.5	15.5	20.0	17.5	19.0	19.0	16.5	18.0
4	16.5	14.0	15.5	16.5	14.0	15.5	19.5	17.5	19.0	19.0	16.5	18.0
5	16.5	13.5	15.0	15.0	12.5	14.0	19.0	17.0	18.5	18.0	16.0	17.0
6	16.5	14.0	15.5	16.0	12.5	14.5	19.5	17.0	18.5	17.5	15.5	17.0
7	15.5	14.0	14.5	16.5	13.5	15.0	20.0	17.0	18.5	17.5	15.5	17.0
8	16.0	13.5	14.5	16.0	13.5	15.0	20.0	17.5	19.0	17.0	15.0	16.0
9	16.5	13.5	15.5	18.0	15.0	16.5	20.0	17.5	19.0	16.0	14.0	15.0
10	17.5	15.0	16.5	17.5	15.5	16.5	20.0	17.5	19.0	15.5	13.5	14.5
11	17.5	16.0	17.0	17.0	14.5	16.0	19.5	17.5	18.5	15.5	14.0	15.0
12	18.5	17.0	18.0	17.5	15.0	16.5	19.5	17.0	18.5	14.5	14.0	14.5
13	18.5	16.5	17.5	17.0	14.5	16.0	19.5	17.0	18.5	14.0	13.5	13.5
14	18.0	15.5	16.5	17.0	14.5	16.0	20.0	17.5	19.0	14.0	13.0	13.5
15	16.5	14.5	15.5	16.5	14.0	15.5	20.5	18.0	19.5	13.5	13.0	13.5
16	16.0	14.5	15.0	17.0	14.0	15.5	20.0	18.0	19.0	14.0	12.5	13.0
17	15.5	13.5	14.0	16.5	13.5	15.0	20.0	17.5	19.0	13.5	13.0	13.0
18	14.0	13.0	13.5	17.5	14.5	16.0	19.5	17.5	18.5	13.5	12.0	12.5
19	15.5	13.0	14.0	18.0	15.0	16.5	19.5	17.0	18.5	12.0	11.5	11.5
20	16.0	13.5	15.0	18.5	16.0	17.5	19.5	17.0	18.5	12.0	11.5	11.5
21	16.5	14.5	15.5	19.0	16.5	18.0	19.0	17.0	18.0	12.5	11.5	12.0
22	18.0	15.0	16.5	19.0	16.5	18.0	18.0	16.5	17.0	13.0	11.5	12.0
23	18.5	16.0	17.5	18.5	16.5	17.5	17.0	15.0	16.5	12.5	11.0	11.5
24	19.0	17.0	18.0	18.5	16.0	17.5	18.0	15.5	17.0	11.5	10.0	11.0
25	19.0	16.5	18.0	19.0	16.5	18.0	18.0	15.5	17.0	11.0	10.5	10.5
26	18.5	16.5	17.5	18.5	16.5	18.0	18.0	16.0	17.0	11.0	10.0	10.5
27	18.0	16.0	17.0	18.5	16.5	17.5	18.0	16.0	17.0	11.5	10.0	11.0
28	17.5	15.5	16.5	18.5	16.0	17.5	18.5	16.5	17.5	12.5	10.5	11.5
29	17.5	15.5	16.5	19.0	16.5	18.0	18.0	16.5	17.0	12.0	11.0	11.5
30	17.5	15.5	16.5	19.0	16.5	18.0	17.5	15.5	16.5	12.0	11.5	11.5
31	---	---	---	19.0	16.5	18.0	18.0	15.5	17.0	---	---	---
MONTH	19.0	13.0	16.0	19.0	12.5	16.5	20.5	15.0	18.0	19.0	10.0	13.5
YEAR	20.5	2.5	10.5									

APPGATE RIVER BASIN

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14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°00'23", long 123°09'23", in W-1/2 sec.17, T.48 N., R.11 W., Mt. Diablo Meridian, Siskiyou County, CA, Rogue River National Forest, Hydrologic Unit 17100309, on left bank 0.2 mi upstream from Elliot Creek, 1.6 mi southwest of former town of Copper, and at mile 51.6.

DRAINAGE AREA.--50.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,001.74 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation or diversion.

AVERAGE DISCHARGE.--7 years, 189 ft³/s, 50.62 in/yr, 136,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,880 ft³/s Dec. 19, 1981, gage height, 9.74 ft; minimum discharge, 8.3 ft³/s Sept. 14-26, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 16	1730	2,150	6.79	Feb. 22	2000	2,660	7.30
Feb. 16	1400	1,450	5.97	Mar. 7	1330	2,010	6.64
Feb. 17	2400	*3,620	*8.14				

Minimum discharge, 8.6 ft³/s Aug. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	11	17	44	104	421	579	237	100	99	26	15	11		
2	10	16	136	108	517	513	206	180	93	25	14	11		
3	10	15	151	107	465	460	188	192	83	24	14	11		
4	10	15	94	89	335	430	174	160	72	25	13	11		
5	10	15	88	243	271	410	164	151	66	25	12	11		
6	10	15	85	197	227	449	159	146	62	24	14	11		
7	10	15	147	138	200	1340	168	139	59	24	15	11		
8	10	15	105	143	179	977	183	146	54	23	14	13		
9	10	17	78	210	162	713	178	154	51	22	13	13		
10	11	18	63	156	148	594	176	156	49	22	12	14		
11	11	16	53	131	138	547	166	143	46	21	9.5	13		
12	11	15	48	112	153	483	155	135	44	20	9.6	13		
13	11	14	43	100	188	430	141	140	42	20	9.6	13		
14	11	15	40	95	260	371	131	142	40	20	9.6	14		
15	11	23	39	98	599	328	125	135	39	20	9.5	16		
16	10	37	37	1040	1200	291	125	130	38	19	9.4	20		
17	10	31	36	892	2000	259	116	131	38	19	9.5	38		
18	10	25	37	605	3090	235	111	142	40	19	10	29		
19	9.8	21	40	460	1820	224	110	141	37	18	10	33		
20	16	20	46	333	1150	229	116	149	36	18	10	25		
21	34	19	50	256	821	240	149	138	34	17	10	21		
22	63	19	50	250	1840	234	171	116	33	17	10	19		
23	79	18	52	266	1750	279	142	104	33	17	9.9	18		
24	47	19	54	221	1190	379	124	101	32	16	9.8	42		
25	31	19	62	189	906	297	118	116	31	16	9.7	62		
26	25	17	64	171	785	271	107	129	30	16	9.7	93		
27	21	18	61	177	732	282	115	122	29	16	9.6	56		
28	20	38	58	212	639	301	117	118	28	15	9.7	40		
29	19	48	53	333	---	314	108	118	27	15	9.9	38		
30	18	33	50	421	---	299	101	122	26	15	10	42		
31	17	---	51	364	---	266	---	113	---	15	11	---		
TOTAL	586.8	623	2015	8221	22186	13024	4381	4209	1391	609	342.0	762		
MEAN	18.9	20.8	65.0	265	792	420	146	136	46.4	19.6	11.0	25.4		
MAX	79	48	151	1040	3090	1340	237	192	99	26	15	93		
MIN	9.8	14	36	89	138	224	101	100	26	15	9.4	11		
CFSM	.37	.41	1.28	5.23	15.6	8.28	2.88	2.68	.92	.39	.22	.50		
IN.	.43	.46	1.48	6.03	16.28	9.56	3.21	3.09	1.02	.45	.25	.56		
AC-FT	1160	1240	4000	16310	44010	25830	8690	8350	2760	1210	678	1510		
CAL YR 1985	TOTAL	32409.9	MEAN	88.8	MAX	551	MIN	9.5	CFSM	1.75	IN.	23.78	AC-FT	64290
WTR YR 1986	TOTAL	58349.8	MEAN	160	MAX	3090	MIN	9.4	CFSM	3.16	IN.	42.81	AC-FT	115700

APPLEGATE RIVER BASIN

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1979 to current year.

INSTRUMENTATION.--Temperature recorder since August 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 10-12, 1981; minimum, 0.0°C Dec. 24, 1983, Mar. 27, 1985, Dec. 12, 1985.

EXTREMES CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 21.0°C Aug. 8-10, 15, 16; minimum, 0.0°C Dec. 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER				NOVEMBER			DECEMBER			JANUARY		
1	13.0	10.5	11.5	7.5	6.0	7.0	3.5	3.0	3.5	5.0	4.0	5.0
2	13.5	10.0	11.5	7.5	6.0	7.0	4.5	3.5	4.0	4.5	4.0	4.5
3	13.5	10.5	12.0	7.0	6.0	6.5	5.5	4.5	5.0	4.5	3.5	4.0
4	13.0	10.5	12.0	7.5	6.5	7.0	5.5	4.5	5.0	5.0	3.5	4.0
5	13.5	10.5	12.0	7.0	6.0	6.5	5.5	5.0	5.5	5.5	4.5	5.0
6	12.5	11.0	12.0	6.0	4.5	5.5	6.0	5.0	5.5	4.5	3.5	3.5
7	11.5	9.5	10.5	7.0	5.0	6.0	6.0	4.5	5.0	4.0	3.5	3.5
8	10.0	7.5	8.5	7.0	5.5	6.0	4.5	4.0	4.5	5.0	4.0	4.5
9	8.0	5.5	6.5	6.0	3.5	5.0	4.5	3.0	4.0	5.5	4.5	5.0
10	8.5	5.5	7.0	4.0	3.5	3.5	3.0	1.5	2.5	5.0	4.0	4.5
11	9.5	8.0	8.5	4.0	3.0	3.5	1.5	.5	.5	5.0	4.5	5.0
12	9.0	7.5	8.5	3.0	1.0	1.5	.5	.0	.5	5.0	4.0	4.5
13	8.5	6.0	7.0	1.5	.5	1.0	1.0	.5	1.0	5.5	5.0	5.0
14	8.0	5.5	7.0	2.0	.5	1.0	2.0	1.0	1.5	5.0	5.0	5.0
15	8.5	6.0	7.5	3.5	2.0	2.5	2.0	1.5	1.5	5.0	5.0	5.0
16	9.0	6.5	8.0	4.5	3.5	4.0	1.5	1.0	1.5	5.0	5.0	5.0
17	9.0	7.0	8.0	4.0	3.0	3.5	1.5	1.0	1.5	5.5	5.0	5.5
18	9.0	7.0	8.0	3.5	2.5	3.0	2.0	1.5	1.5	6.0	5.5	6.0
19	9.0	7.0	8.0	3.0	1.5	2.0	2.0	1.5	1.5	6.0	4.5	5.5
20	9.0	8.0	8.5	3.0	2.0	2.5	2.0	1.5	1.5	4.5	4.0	4.0
21	8.0	7.0	7.5	2.5	2.0	2.5	2.0	1.5	2.0	4.0	3.5	4.0
22	8.0	7.5	7.5	3.0	2.0	2.5	2.0	2.0	2.0	4.5	4.0	4.0
23	9.0	8.0	8.5	2.0	1.5	2.0	2.0	1.5	2.0	4.0	4.0	4.0
24	10.0	8.5	9.0	3.0	2.0	2.5	2.5	2.0	2.0	4.0	3.0	3.5
25	10.0	8.0	9.0	3.0	2.0	2.5	3.0	2.5	2.5	4.0	3.5	3.5
26	9.0	7.5	8.5	2.0	.5	1.0	2.5	2.0	2.5	4.5	3.5	4.0
27	9.0	7.0	8.0	2.5	1.5	2.0	2.5	2.0	2.5	5.5	4.5	5.0
28	8.5	7.0	8.0	4.0	2.5	3.0	2.5	2.0	2.5	5.5	5.5	5.5
29	7.5	5.5	6.5	4.0	3.5	4.0	3.5	2.0	2.5	5.5	5.5	5.5
30	7.0	5.5	6.5	3.5	2.5	3.0	3.0	2.5	3.0	6.0	5.5	5.5
31	7.5	6.5	7.0	---	---	---	5.0	3.0	4.0	5.5	5.5	5.5
MONTH	13.5	5.5	8.5	7.5	.5	3.5	6.0	.0	2.5	6.0	3.0	4.5

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TEMPERATURE. WATER (DEG. C). WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	5.5	5.5	7.0	6.0	6.5	6.5	4.5	5.5	8.5	6.5	7.5
2	5.5	4.5	5.0	7.0	5.0	6.0	6.0	4.0	5.0	7.0	6.0	6.5
3	4.5	4.5	4.5	7.0	5.5	6.0	7.0	3.5	5.0	8.0	5.5	6.5
4	4.5	4.0	4.5	7.0	5.5	6.5	7.0	4.5	6.0	7.5	4.5	6.0
5	4.5	4.0	4.5	7.0	6.0	6.5	8.0	5.5	6.5	6.5	5.0	5.5
6	4.0	3.0	3.5	7.0	6.5	6.5	9.0	5.5	7.0	6.0	3.5	5.0
7	3.0	2.0	2.5	7.0	5.0	6.0	9.5	6.5	8.0	6.5	4.0	5.5
8	2.5	2.0	2.5	5.0	5.0	5.0	8.5	7.5	8.0	9.0	5.5	7.0
9	3.0	2.0	2.5	5.5	5.0	5.0	9.5	7.0	8.0	7.5	5.0	6.5
10	3.5	2.0	2.5	6.0	4.5	5.0	8.5	6.5	7.5	7.0	5.0	6.0
11	4.0	2.5	3.5	5.5	5.0	5.0	6.5	5.0	6.0	7.0	4.5	5.5
12	4.5	4.0	4.0	5.5	4.5	5.0	6.5	4.5	5.5	8.5	4.5	6.5
13	5.0	4.0	4.5	5.5	4.0	5.0	7.0	3.5	5.0	10.0	6.5	7.5
14	5.0	4.5	5.0	4.5	3.0	4.0	7.5	4.5	6.0	9.0	5.5	7.0
15	5.0	5.0	5.0	5.5	4.5	5.0	7.5	5.5	6.0	9.5	5.5	7.5
16	5.0	5.0	5.0	5.5	4.5	5.0	7.0	5.0	5.5	10.0	6.0	8.0
17	5.0	5.0	5.0	6.0	4.5	5.0	6.5	4.0	5.0	11.5	7.0	9.0
18	5.0	5.0	5.0	6.0	3.5	5.0	8.0	4.5	6.0	11.5	8.0	9.5
19	5.5	4.5	5.0	7.0	4.0	5.5	9.5	5.0	7.0	11.0	8.5	9.5
20	5.5	5.0	5.0	7.5	5.0	6.0	11.0	6.5	8.5	10.5	7.5	9.5
21	5.5	5.0	5.0	7.0	5.5	6.5	12.0	8.0	9.5	8.0	6.0	7.0
22	5.5	5.5	5.5	6.5	4.5	5.5	9.5	6.5	8.0	9.5	5.5	7.5
23	6.0	5.5	5.5	6.5	5.5	6.0	7.5	5.5	6.5	11.0	7.5	9.0
24	6.5	5.5	6.0	6.0	4.5	5.5	6.0	4.0	5.0	13.5	8.0	10.0
25	6.5	6.0	6.0	6.5	3.5	5.0	6.5	4.5	5.5	14.5	9.5	11.5
26	7.0	6.0	6.5	7.5	5.0	6.5	6.0	4.0	5.5	13.5	11.0	12.0
27	6.5	6.0	6.0	8.5	6.0	7.0	7.0	6.0	6.5	14.5	11.0	12.5
28	6.5	5.0	6.0	8.5	6.0	7.0	9.0	6.0	7.0	15.5	11.0	13.0
29	---	---	---	8.5	6.0	7.5	8.5	5.0	6.0	16.0	11.5	13.5
30	---	---	---	7.5	6.0	6.5	9.5	4.5	6.5	17.0	12.5	14.5
31	---	---	---	7.0	4.5	6.0	---	---	---	17.0	13.0	14.5
MONTH	7.0	2.0	4.5	8.5	3.0	6.0	12.0	3.5	6.5	17.0	3.5	8.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.0	14.0	15.5	19.5	14.0	16.5	20.0	14.5	17.0	17.5	14.0	16.0
2	17.5	14.0	15.0	19.0	14.5	16.5	19.5	15.5	17.5	18.0	14.5	16.0
3	16.5	12.0	14.0	19.0	14.5	16.5	20.5	15.5	18.0	18.5	15.0	16.5
4	16.0	12.5	14.0	17.0	13.5	15.0	20.5	16.0	18.0	19.0	15.5	17.0
5	16.5	12.5	14.0	17.0	11.5	14.0	19.5	15.0	17.5	19.0	15.5	17.0
6	15.0	12.0	13.5	18.0	12.0	14.5	20.0	15.5	17.5	18.5	15.0	17.0
7	15.5	11.5	13.0	17.5	13.0	15.0	20.5	15.0	17.5	18.5	14.5	16.5
8	15.0	10.5	12.5	18.5	13.0	15.5	21.0	16.0	18.5	17.0	14.5	15.5
9	16.0	10.0	12.5	17.5	13.5	15.5	21.0	16.5	19.0	15.5	12.5	14.0
10	17.5	11.5	14.0	18.5	14.0	16.0	21.0	17.0	19.0	15.0	11.5	13.5
11	18.0	12.0	15.0	19.5	14.0	16.5	20.0	16.0	18.0	15.0	12.0	13.5
12	18.5	13.0	15.0	19.5	13.5	16.0	20.0	16.0	18.0	14.5	12.5	13.5
13	18.5	13.5	15.5	19.0	13.0	16.0	20.0	15.5	18.0	13.5	10.5	12.0
14	15.0	13.5	14.0	19.0	13.5	16.0	20.5	16.0	18.0	12.5	11.0	12.0
15	16.5	11.5	13.5	18.0	12.5	15.0	21.0	16.5	19.0	12.0	11.0	11.5
16	16.0	12.0	13.5	17.0	13.0	14.5	21.0	17.0	19.0	12.5	10.5	11.5
17	13.5	12.0	12.5	17.5	12.0	14.5	20.5	16.5	18.5	12.0	10.5	11.0
18	13.0	10.5	12.0	16.5	12.5	14.5	20.0	16.0	17.5	10.5	10.0	10.0
19	15.0	9.5	12.0	18.5	13.0	15.5	19.0	15.0	17.0	10.0	9.0	9.5
20	16.0	11.0	13.0	19.5	14.0	16.5	19.0	16.0	17.5	11.0	9.0	10.0
21	17.0	11.0	13.5	20.0	14.5	17.0	19.0	15.5	17.0	10.5	8.0	9.5
22	18.5	12.0	14.5	20.0	14.5	17.0	18.0	15.0	16.5	11.5	8.0	9.5
23	19.5	13.0	16.0	19.5	14.0	16.5	18.5	14.5	16.5	10.5	8.5	9.0
24	20.0	14.5	17.0	19.0	13.5	16.0	18.5	14.5	16.5	10.0	8.5	9.5
25	20.0	14.5	17.0	19.0	14.0	16.5	18.5	14.5	16.5	8.5	7.5	8.0
26	19.5	14.5	16.5	19.0	14.0	16.5	18.0	15.5	17.0	7.5	7.0	7.5
27	18.0	14.5	16.0	19.0	14.0	16.5	19.5	16.0	17.5	8.5	6.5	7.5
28	18.5	14.0	16.0	19.0	14.0	16.0	19.0	16.0	17.5	9.0	7.5	8.0
29	18.5	14.0	16.0	19.0	14.0	16.5	18.0	15.5	17.0	9.5	7.0	8.0
30	19.0	13.0	15.5	19.0	14.0	16.5	18.0	14.5	16.5	9.5	8.5	9.0
31	---	---	---	19.5	14.0	16.5	18.0	14.0	16.0	---	---	---
MONTH	20.0	9.5	14.5	20.0	11.5	16.0	21.0	14.0	17.5	19.0	6.5	12.0
YEAR	21.0	.0	9.0									

APPLEGATE RIVER BASIN

14361600 ELLIOTT CREEK NEAR COPPER, OR

LOCATION.--Lat 42°00'16", long 123°09'00", in W-1/2 sec.17, T.48 N., R.11 W., Mt. Diablo Meridian, Siskiyou County, CA, Hydrologic Unit 17100309, Rogue River National Forest, on left bank 0.3 mi upstream from Middle Fork Applegate River and 1.5 mi south of former town of Copper.

DRAINAGE AREA.--51.8 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,023.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. No diversion or regulation.

AVERAGE DISCHARGE.--9 years, 114 ft³/s, 29.89 in/yr, 82,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,980 ft³/s Dec. 19, 1981, gage height, 7.13 ft; minimum discharge, 3.9 ft³/s Sept. 10, 1980; minimum daily, 7.1 ft³/s Sept. 14-16, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 16	1700	781	3.70	Feb. 22	1430	959	4.02
Feb. 16	1330	760	3.66	Mar. 7	1500	1,210	4.42
Feb. 17	2400	*1,970	*5.37				

Minimum discharge, 13 ft³/s Sept. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	16	20	39	30	113	322	161	96	125	30	18	15		
2	16	19	80	31	168	293	149	125	120	29	18	14		
3	16	19	61	32	157	278	140	112	112	29	18	14		
4	16	18	41	28	117	265	136	106	95	28	18	14		
5	16	21	41	52	98	261	130	101	89	28	17	14		
6	16	20	37	44	83	268	132	99	83	28	18	14		
7	16	20	50	35	74	797	138	95	77	27	19	14		
8	16	19	41	36	68	596	158	97	70	27	18	14		
9	16	20	34	59	64	426	147	99	66	26	17	14		
10	16	21	29	45	62	365	144	106	63	26	17	14		
11	16	20	26	40	59	328	138	95	61	25	16	14		
12	16	19	28	36	64	295	131	91	58	25	16	14		
13	16	19	26	34	75	275	123	93	55	24	16	14		
14	16	19	25	33	107	249	118	92	54	23	16	14		
15	16	26	25	34	200	232	114	91	52	23	16	15		
16	16	36	25	365	518	215	110	92	50	23	16	16		
17	16	27	24	257	852	201	107	99	50	23	16	35		
18	16	24	24	153	1770	186	102	109	49	24	15	24		
19	16	21	24	119	1250	180	101	110	47	23	15	28		
20	17	21	25	94	719	180	112	116	45	22	15	24		
21	38	21	25	77	460	175	136	112	42	21	15	19		
22	35	20	24	91	746	167	144	97	40	21	15	18		
23	51	20	24	109	714	174	121	93	39	21	15	16		
24	32	21	25	79	523	188	112	100	37	20	15	25		
25	25	21	26	68	441	163	107	117	36	20	15	27		
26	22	19	26	64	407	161	100	129	35	20	14	35		
27	21	20	26	65	394	168	101	127	33	20	14	25		
28	22	28	25	72	356	174	104	131	33	20	14	23		
29	21	29	24	118	---	183	98	136	32	19	14	21		
30	20	24	24	128	---	182	94	148	31	19	15	24		
31	20	---	24	110	---	170	---	142	---	19	15	---		
TOTAL	628	652	978	2538	10659	8117	3708	3356	1779	733	496	572		
MEAN	20.3	21.7	31.5	81.9	381	262	124	108	59.3	23.6	16.0	19.1		
MAX	51	36	80	365	1770	797	161	148	125	30	19	35		
MIN	16	18	24	28	59	161	94	91	31	19	14	14		
CFSM	.39	.42	.61	1.58	7.36	5.06	2.39	2.08	1.14	.46	.31	.37		
IN.	.45	.47	.70	1.82	7.65	5.83	2.66	2.41	1.28	.53	.36	.41		
AC-FT	1250	1290	1940	5030	21140	16100	7350	6660	3530	1450	984	1130		
CAL YR 1985	TOTAL	24699	MEAN	67.7	MAX	327	MIN	16	CFSM	1.31	IN.	17.74	AC-FT	48990
WTR YR 1986	TOTAL	34216	MEAN	93.7	MAX	1770	MIN	14	CFSM	1.81	IN.	24.57	AC-FT	67870

APPLEGATE RIVER BASIN

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14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1977 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 23.0°C Aug. 7, 8, 1978, Aug. 8, 10-12, 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 19.5°C Aug. 9, 10, 15, 16; minimum, 0.0°C Nov. 12-14, Dec. 11-14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	10.5	8.5	10.0	6.5	5.0	6.0	3.5	2.5	3.0	4.5	3.0	4.0
2	11.0	9.0	10.0	6.0	5.0	5.5	4.5	3.5	4.0	4.0	2.5	3.5
3	11.0	9.0	10.5	6.0	4.5	5.5	5.0	4.5	4.5	4.0	2.0	3.0
4	11.0	9.0	10.0	6.5	5.5	6.0	5.0	3.5	4.5	4.5	2.0	3.5
5	11.0	9.0	10.5	6.5	4.5	5.5	5.0	4.5	4.5	5.5	4.0	5.0
6	11.0	9.5	10.5	4.5	3.5	4.0	5.5	4.5	5.0	4.0	2.0	2.5
7	10.5	8.5	9.0	6.0	4.0	5.0	5.5	3.5	4.5	3.0	2.0	2.5
8	8.5	6.0	7.0	6.0	5.0	5.5	4.0	3.0	3.5	5.5	3.0	4.0
9	6.0	4.0	5.0	5.5	3.5	4.0	4.0	2.5	3.5	5.5	4.5	5.0
10	6.5	4.0	5.0	3.5	2.5	3.0	2.5	.5	1.5	5.0	3.0	4.0
11	8.0	6.5	7.5	3.0	2.0	2.5	.5	.0	.0	4.5	3.5	4.0
12	8.0	7.0	7.5	2.0	.0	.5	.0	.0	.0	4.0	3.0	3.5
13	7.0	5.0	6.0	.0	.0	.0	.0	.0	.0	5.5	4.0	4.5
14	6.0	4.5	5.5	1.5	.0	.5	1.0	.0	.5	5.0	4.5	4.5
15	6.5	5.0	6.0	4.0	1.5	2.5	1.0	.5	1.0	5.0	4.5	4.5
16	7.5	5.5	6.5	4.5	3.0	3.5	1.0	.5	.5	5.5	5.0	5.0
17	7.5	6.0	7.0	4.0	3.0	3.0	1.0	.5	.5	5.5	5.0	5.5
18	7.0	6.0	6.5	3.0	2.0	2.5	1.0	.5	.5	5.5	5.0	5.5
19	8.0	6.0	7.0	2.0	1.0	1.5	1.0	.5	.5	5.5	4.0	5.0
20	8.0	7.0	7.5	2.5	2.0	2.5	1.0	.5	.5	4.0	3.0	3.5
21	7.5	6.5	7.0	2.5	2.0	2.0	1.0	.5	1.0	4.0	2.5	3.5
22	8.0	6.5	7.0	2.5	1.5	2.0	1.0	.5	1.0	4.5	4.0	4.0
23	9.0	7.5	8.0	1.5	1.0	1.5	1.0	.5	1.0	4.5	3.5	4.0
24	9.0	8.0	8.5	3.0	1.5	2.0	1.5	.5	1.0	3.5	2.5	2.5
25	8.5	7.0	7.5	3.0	1.0	2.0	1.5	1.0	1.5	3.0	2.5	2.5
26	8.0	6.5	7.0	1.0	.0	.5	1.5	1.0	1.0	4.0	2.5	3.5
27	7.5	6.0	6.5	2.0	1.0	1.5	1.0	.5	1.0	6.0	4.0	5.0
28	7.5	6.0	7.0	4.0	2.0	3.0	1.0	1.0	1.0	6.0	5.5	6.0
29	6.0	4.5	5.0	4.0	3.0	3.5	2.5	1.0	1.5	6.0	5.5	5.5
30	6.5	4.5	5.5	3.0	1.5	2.5	2.5	1.5	2.0	6.5	5.0	6.0
31	7.0	5.5	6.5	---	---	---	4.5	2.0	3.0	6.5	5.5	6.0
MONTH	11.0	4.0	7.5	6.5	.0	3.0	5.5	.0	2.0	6.5	2.0	4.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.0	5.5	5.5	7.0	6.0	6.5	6.5	4.5	5.5	9.5	6.0	8.0
2	5.5	5.0	5.0	7.0	5.0	6.0	6.5	3.5	4.5	7.5	6.5	7.0
3	5.5	4.5	5.0	7.0	5.5	6.5	7.0	3.0	5.0	8.5	6.0	7.0
4	5.0	4.0	4.5	7.0	5.5	6.5	6.5	4.5	5.5	8.0	5.0	6.5
5	5.0	4.0	4.5	7.5	5.5	6.5	8.5	5.5	6.5	7.0	5.0	6.0
6	4.0	2.5	3.0	8.0	6.5	7.0	9.5	5.5	7.0	7.0	3.5	5.5
7	2.5	1.5	2.0	7.0	5.0	6.0	9.5	6.5	8.0	7.5	4.5	6.0
8	2.0	1.0	1.5	5.5	5.0	5.5	8.5	7.0	7.5	10.0	6.0	7.5
9	2.0	1.0	1.5	5.0	4.5	5.0	9.0	6.0	7.5	8.0	5.0	6.5
10	2.5	1.5	2.0	6.0	4.0	5.0	8.5	6.5	7.5	7.5	5.5	6.5
11	4.0	1.5	3.0	5.5	4.5	5.0	7.0	4.5	6.0	8.5	4.0	6.0
12	5.0	3.5	4.0	5.5	4.0	5.0	6.0	4.5	5.5	10.0	4.5	7.0
13	5.0	4.0	4.5	5.5	3.5	4.5	7.0	3.5	5.0	10.0	6.5	8.0
14	5.5	4.5	5.0	4.5	2.5	3.5	8.0	4.5	6.0	10.0	5.5	7.5
15	5.5	5.0	5.0	5.5	3.5	4.5	7.5	5.5	6.0	11.0	5.5	8.0
16	5.5	5.0	5.0	5.5	4.0	5.0	7.0	5.0	5.5	11.0	5.5	8.0
17	5.5	5.0	5.5	5.5	4.0	4.5	7.0	4.5	5.5	12.5	7.0	9.5
18	5.5	5.5	5.5	6.0	3.0	4.5	8.5	4.5	6.0	12.0	8.0	10.0
19	6.0	5.0	5.5	7.0	4.0	5.5	10.0	5.0	7.5	11.5	8.5	10.0
20	6.0	5.0	5.5	7.5	5.0	6.0	11.5	6.5	9.0	10.5	8.0	9.5
21	6.0	5.0	5.5	7.5	5.5	6.5	12.5	8.0	10.0	8.5	6.0	7.0
22	6.0	6.0	6.0	7.0	4.5	5.5	9.5	6.0	7.5	10.5	5.0	7.5
23	7.0	6.0	6.5	7.5	6.0	6.5	8.0	5.0	6.0	11.0	7.5	9.0
24	7.0	5.5	6.0	6.5	5.0	6.0	6.0	3.5	5.0	14.0	8.0	10.5
25	7.0	6.0	6.5	7.0	3.5	5.5	7.5	4.5	6.0	15.0	9.0	11.5
26	7.0	6.0	6.5	8.5	5.0	6.5	6.5	4.0	5.5	13.0	10.5	12.0
27	7.5	6.0	6.5	9.0	6.0	7.5	8.0	6.0	7.0	14.5	10.5	12.5
28	7.0	5.5	6.0	9.5	6.5	8.0	9.0	6.0	7.0	15.5	10.5	12.5
29	---	---	---	9.5	6.5	8.0	8.5	4.5	6.5	15.5	10.5	13.0
30	---	---	---	8.0	6.0	7.0	9.5	4.0	7.0	16.5	12.0	14.0
31	---	---	---	7.5	5.0	6.5	---	---	---	16.5	11.5	14.0
MONTH	7.5	1.0	4.5	9.5	2.5	6.0	12.5	3.0	6.5	16.5	3.5	9.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.0	12.5	15.0	18.5	13.0	16.0	18.0	15.0	17.0	16.0	13.5	15.0
2	15.5	13.0	14.5	18.0	14.0	16.0	18.5	15.5	17.5	16.5	13.5	15.0
3	16.0	11.0	13.5	18.0	14.0	16.0	18.5	15.5	17.5	17.0	14.0	16.0
4	15.0	11.5	13.5	15.5	13.0	14.5	18.5	16.0	17.5	17.5	15.0	16.5
5	15.0	12.0	13.0	15.5	10.5	13.0	18.0	15.0	17.0	17.5	14.5	16.0
6	15.0	11.5	12.5	16.5	11.0	14.0	18.5	15.0	17.0	17.0	14.5	16.0
7	14.5	10.5	12.0	16.0	12.5	14.5	18.5	14.5	16.5	16.5	14.0	15.5
8	14.5	9.0	11.5	17.5	12.5	15.5	19.0	15.5	17.5	15.5	13.5	14.5
9	12.5	9.5	10.5	17.0	13.5	15.5	19.5	16.0	18.0	14.0	11.5	12.5
10	16.5	11.0	14.0	18.0	14.0	16.0	19.5	16.5	18.0	13.5	10.5	12.0
11	17.5	12.0	14.5	18.0	14.0	16.5	18.5	15.0	17.0	13.5	11.0	12.5
12	17.5	12.5	15.0	17.5	13.0	15.5	18.5	15.0	17.0	13.0	11.5	12.5
13	18.0	12.5	15.0	17.5	12.5	15.5	18.5	15.0	17.0	12.0	10.0	11.0
14	15.5	13.0	14.0	17.0	13.0	15.5	19.0	15.5	17.5	11.5	10.0	11.0
15	15.5	10.5	13.0	15.5	12.0	14.5	19.5	16.5	18.0	11.5	10.5	11.0
16	13.5	11.0	12.5	15.5	12.5	14.5	19.5	16.5	18.0	11.5	10.0	10.5
17	13.5	11.0	12.0	15.5	11.5	14.0	19.0	16.0	17.5	11.0	10.0	10.5
18	13.0	10.5	11.5	16.0	12.5	14.5	18.5	15.0	17.0	10.0	9.0	9.5
19	14.5	9.0	12.0	17.0	13.0	15.5	17.5	14.0	16.0	9.5	8.5	9.0
20	15.0	10.5	12.5	18.0	14.0	16.5	18.0	15.0	16.5	10.5	8.5	9.5
21	16.0	10.0	13.0	18.0	14.5	17.0	17.5	15.0	16.5	10.0	8.5	9.0
22	17.5	11.5	14.5	18.0	14.5	17.0	16.5	14.5	16.0	10.0	8.0	9.5
23	18.5	13.0	15.5	17.5	14.0	16.0	17.0	14.0	15.5	10.0	8.0	9.0
24	19.0	14.0	16.5	17.0	13.0	15.5	17.0	13.5	15.5	10.0	9.0	9.5
25	19.0	14.0	16.5	17.0	14.0	16.0	17.0	14.0	15.5	9.0	8.0	8.5
26	18.0	14.5	16.5	17.0	14.0	16.0	17.0	14.5	16.0	8.5	8.0	8.0
27	17.0	14.0	15.5	17.0	13.5	15.5	18.0	15.0	17.0	9.0	7.0	8.0
28	17.5	13.0	15.5	16.5	13.5	15.5	18.0	15.5	17.0	9.5	8.0	8.5
29	17.0	13.0	15.5	17.0	14.0	16.0	17.0	14.5	16.0	9.5	7.0	8.5
30	17.5	12.0	15.0	17.0	13.5	16.0	16.5	14.0	15.5	10.0	9.0	10.0
31	---	---	---	17.5	14.0	16.0	16.0	13.0	15.0	---	---	---
MONTH	19.0	9.0	14.0	18.5	10.5	15.5	19.5	13.0	17.0	17.5	7.0	11.5
YEAR	19.5	.0	8.5									

14361700 CARBERRY CREEK NEAR COPPER, OR

LOCATION.--Lat 42°01'34", long 123°10'10", in SW¼SW¼ sec.3, T.41 S., R.4 W., Jackson County, Hydrologic Unit 17100309, Rogue River National Forest, on right bank, 1.2 mi west of former town of Copper and at mile 0.9.

DRAINAGE AREA.--68.9 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,990.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. No regulation. Diversion for irrigation of up to 8 ft³/s from Sturgis Fork into Thompson Creek upstream from station.

AVERAGE DISCHARGE.--8 years, 162 ft³/s, 31.93 in/yr, 117,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,680 ft³/s Feb. 18, 1983, gage height, 8.02 ft; maximum gage height, 8.10 ft Dec. 19, 1981; minimum discharge, 5.9 ft³/s Sept. 14-16, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 4.2 ft³/s was measured Sept. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	unknown	*2,230	*5.36	Mar. 7	unknown	unknown	unknown
Feb. 22	unknown	unknown	unknown				

Minimum discharge, 9.6 ft³/s Oct. 5, 6, Sept. 7, 8.

REVISIONS.--Revised figures of daily discharge, in cubic feet per second, for period in January 1978 are given below. These figures supersede those published in the report for 1978.

Jan. 1, 1978	320	Jan. 6	450
2	320	7	400
3	320	8	450
4	350	9	600
5	550		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	10	20	35	66	254	360	202	96	79	26	15	11		
2	10	18	140	72	302	320	187	138	76	26	15	11		
3	10	18	136	78	265	300	176	142	77	26	15	11		
4	10	18	87	63	240	280	168	120	67	26	14	11		
5	10	20	79	125	170	260	160	116	64	26	12	11		
6	10	19	74	122	150	280	153	116	62	25	12	11		
7	12	18	109	94	130	900	153	112	61	24	12	10		
8	12	18	92	92	120	650	157	111	58	23	12	10		
9	12	22	72	122	100	500	152	115	56	22	11	11		
10	12	23	59	102	90	400	148	122	54	22	11	11		
11	12	21	47	90	85	350	142	113	52	22	11	11		
12	13	19	45	81	90	300	138	106	50	21	11	11		
13	12	19	41	75	110	260	131	104	48	21	12	12		
14	13	19	38	72	200	220	125	103	47	20	11	12		
15	13	24	37	78	400	200	122	101	47	20	11	12		
16	12	43	36	600	800	180	120	99	46	19	11	15		
17	12	34	35	500	1500	160	118	97	47	19	11	23		
18	12	28	35	400	2000	150	115	101	52	19	11	22		
19	11	24	37	284	1500	140	112	100	47	18	11	26		
20	14	22	42	214	1000	150	113	105	43	18	11	19		
21	46	22	45	166	600	150	124	104	37	17	10	16		
22	48	21	45	179	1200	150	134	95	35	17	11	15		
23	57	20	45	206	1100	180	120	91	34	17	11	14		
24	39	21	47	159	900	290	110	88	32	17	11	21		
25	29	22	50	143	600	257	107	92	31	17	11	37		
26	25	22	52	131	550	235	102	96	28	16	11	78		
27	22	20	49	131	480	237	104	95	28	16	11	52		
28	21	31	47	142	420	246	105	92	27	16	11	34		
29	21	36	44	178	---	250	100	89	27	15	11	29		
30	20	28	42	228	---	237	97	89	27	15	11	28		
31	21	---	40	211	---	220	---	93	---	15	12	---		
TOTAL	581	690	1782	5204	15356	8812	3995	3241	1439	621	361	595		
MEAN	18.7	23.0	57.5	168	548	284	133	105	48.0	20.0	11.6	19.8		
MAX	57	43	140	600	2000	900	202	142	79	26	15	78		
MIN	10	18	35	63	85	140	97	88	27	15	10	10		
CFSM	.27	.33	.83	2.44	7.95	4.12	1.93	1.52	.70	.29	.17	.29		
IN.	.31	.37	.96	2.81	8.29	4.76	2.16	1.75	.78	.34	.19	.32		
AC-FT	1150	1370	3530	10320	30460	17480	7920	6430	2850	1230	716	1180		
CAL YR 1985	TOTAL	28499	MEAN	78.1	MAX	418	MIN	10	CFSM	1.13	IN.	15.39	AC-FT	56530
WTR YR 1986	TOTAL	42677	MEAN	117	MAX	2000	MIN	10	CFSM	1.70	IN.	23.04	AC-FT	84650

APPLEGATE RIVER BASIN
14361700 CARBERRY CREEK NEAR COPPER, OR--Continued
WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1977 to current year.

INSTRUMENTATION.--Temperature recorder since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 24.5°C Aug. 8-12, 1981; minimum, 0.0°C at times during most winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C Aug. 10; minimum, 0.0°C Dec. 12, 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	11.0	12.0	8.5	6.5	7.0	4.0	3.5	3.5	5.0	4.0	4.5
2	13.0	11.0	12.0	8.0	6.0	7.0	4.5	3.5	4.0	4.5	3.5	4.0
3	13.5	11.0	12.5	8.0	6.0	7.0	5.0	4.0	4.5	4.0	3.0	4.0
4	13.0	11.0	12.5	7.5	6.5	7.0	5.0	4.5	5.0	4.5	3.0	3.5
5	13.5	11.0	12.5	7.0	5.5	6.5	5.0	5.0	5.0	6.0	4.5	5.0
6	13.0	11.5	12.5	7.0	5.0	6.0	6.5	5.0	5.5	4.5	2.5	3.0
7	12.0	9.5	11.0	7.0	5.5	6.5	6.0	4.5	5.5	4.0	2.5	3.0
8	9.5	7.0	8.5	7.0	5.5	6.5	4.5	3.5	4.0	5.5	3.5	4.5
9	7.5	6.0	7.0	5.5	3.5	4.5	4.5	3.0	4.0	6.0	4.5	5.5
10	8.5	5.5	7.5	4.5	3.5	4.0	3.0	1.5	2.5	5.0	3.5	4.5
11	9.5	8.5	9.0	---	3.5	---	1.5	.5	.5	5.0	4.5	5.0
12	9.0	7.5	8.5	---	---	---	.5	.0	.0	4.5	3.5	4.0
13	8.0	6.5	7.5	---	---	---	1.5	.0	.5	5.0	3.5	4.5
14	8.0	6.0	7.5	---	---	---	2.0	.5	1.0	5.0	4.5	5.0
15	9.0	6.5	8.0	---	---	---	2.0	1.0	1.5	5.5	4.5	5.0
16	9.0	7.0	8.5	---	---	---	1.5	1.0	1.5	5.5	5.0	5.0
17	9.5	7.5	9.0	---	---	---	1.5	.5	1.0	6.0	5.0	5.5
18	9.5	7.5	8.5	---	---	---	1.5	.5	1.0	6.5	6.0	6.5
19	9.5	7.5	9.0	---	---	---	1.5	.5	1.0	6.5	5.0	6.0
20	9.5	7.5	9.0	---	---	---	1.5	.5	1.0	5.0	4.0	4.5
21	8.5	7.5	8.0	---	---	---	2.0	.5	1.0	4.5	3.5	4.0
22	8.5	7.5	8.5	---	---	---	2.0	1.0	1.5	5.0	4.0	4.5
23	10.5	8.5	10.0	---	---	---	2.0	1.0	1.0	4.5	3.5	4.0
24	11.5	9.0	10.0	---	---	---	2.0	1.0	1.5	4.0	3.0	3.5
25	10.5	9.0	9.5	---	---	---	2.0	1.0	1.5	4.0	3.0	3.5
26	10.0	8.0	9.0	---	---	---	2.0	1.0	1.5	4.5	3.0	4.0
27	9.5	7.5	8.5	---	---	---	2.0	1.0	1.5	6.0	4.5	5.5
28	9.0	6.0	8.0	---	---	---	2.0	1.0	1.5	6.5	5.5	6.0
29	8.0	5.5	6.5	4.5	---	---	3.0	1.5	2.0	6.0	6.0	6.0
30	7.0	5.5	6.5	3.5	2.5	3.0	3.0	2.0	2.5	7.0	5.5	6.0
31	7.5	6.0	7.0	---	---	---	4.5	2.5	3.5	6.0	5.0	6.0
MONTH	13.5	5.5	9.0	---	---	---	6.5	.0	2.5	7.0	2.5	4.5

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	6.0	5.5	5.5	8.0	6.5	7.0	7.5	5.5	6.5	10.5	7.0	9.0
2	5.5	5.0	5.0	8.0	5.5	6.5	7.5	4.5	6.0	9.0	7.5	8.0
3	5.0	4.5	5.0	8.0	6.0	7.0	8.0	4.0	6.0	9.0	6.5	7.5
4	5.0	4.0	4.5	8.0	6.0	7.0	7.5	5.5	6.5	8.0	5.5	7.0
5	5.0	4.5	5.0	8.5	6.0	7.5	9.5	6.0	7.5	8.5	6.5	7.0
6	4.5	3.0	4.0	8.5	7.0	8.0	10.5	6.0	8.0	8.0	5.0	6.5
7	3.5	2.0	2.5	8.0	5.5	7.0	11.0	7.0	9.0	8.5	5.0	7.0
8	3.0	1.5	2.5	6.5	5.5	6.0	9.0	8.0	8.5	11.0	6.5	8.5
9	3.5	1.5	2.5	6.0	5.0	5.5	11.0	7.5	9.0	9.5	6.0	8.0
10	3.5	2.0	2.5	7.0	5.0	5.5	10.0	8.0	8.5	8.5	6.5	7.5
11	4.5	2.5	3.5	6.0	5.0	5.5	8.0	5.5	7.0	9.0	5.5	7.0
12	5.5	4.0	4.5	6.5	4.5	5.5	7.0	5.5	6.5	10.5	5.0	8.0
13	5.5	4.5	5.0	6.0	4.5	5.5	8.5	4.5	6.5	11.5	7.5	9.0
14	5.5	4.5	5.0	5.5	3.0	4.5	9.0	5.0	7.0	11.0	6.5	9.0
15	6.0	5.0	5.5	6.0	4.5	5.0	9.0	6.5	7.5	11.5	6.5	9.0
16	5.5	5.0	5.0	6.5	4.5	5.5	7.5	5.5	6.5	12.0	7.0	9.5
17	6.0	5.5	5.5	6.5	4.5	5.5	8.0	5.5	6.5	13.5	8.0	11.0
18	6.0	5.5	6.0	7.0	4.0	5.5	9.5	5.5	7.5	13.0	9.5	11.5
19	6.0	4.5	5.0	8.0	4.5	6.0	11.0	6.0	8.5	13.5	10.0	11.5
20	6.5	5.0	5.5	8.5	5.0	7.0	12.5	7.5	10.0	12.0	9.5	11.0
21	6.0	5.0	5.5	8.0	6.0	7.0	14.0	9.0	11.5	10.5	7.5	9.0
22	6.0	6.0	6.0	8.0	5.0	6.5	11.5	7.5	9.5	11.5	6.5	9.0
23	7.5	6.0	6.5	8.0	6.5	7.0	9.5	6.5	7.5	12.5	9.0	10.5
24	7.5	5.5	6.5	---	6.0	---	7.5	5.0	6.5	15.0	9.5	12.0
25	7.0	6.0	6.5	---	---	---	8.5	6.0	7.0	16.5	11.0	13.5
26	8.0	6.5	7.0	9.0	---	---	7.5	5.0	6.5	15.5	13.0	14.0
27	8.0	6.5	7.0	10.0	6.5	8.0	9.0	7.0	8.0	17.0	12.5	14.5
28	8.0	5.5	6.5	10.0	7.0	8.5	10.0	6.5	8.0	17.5	12.5	15.0
29	---	---	---	10.5	7.0	8.5	10.0	6.0	7.5	18.0	13.0	15.5
30	---	---	---	9.0	6.5	8.0	10.5	5.5	8.0	19.0	14.5	16.5
31	---	---	---	9.0	5.5	7.5	---	---	---	19.5	14.5	17.0
MONTH	8.0	1.5	5.0	---	---	---	14.0	4.0	7.5	19.5	5.0	10.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.5	16.0	18.0	20.5	15.5	18.0	20.0	16.0	18.0	18.0	14.5	16.5
2	19.5	16.0	17.5	19.5	16.0	18.0	20.0	16.5	19.0	18.5	15.0	17.0
3	18.5	14.0	16.0	19.5	16.0	17.5	21.0	17.0	19.0	19.0	15.5	17.5
4	17.5	14.0	15.5	17.5	15.0	16.0	20.5	17.0	19.0	19.5	16.5	18.0
5	17.5	14.0	15.5	17.0	12.5	15.0	20.0	16.0	18.5	19.5	16.0	18.0
6	16.5	13.0	14.5	18.5	12.5	15.5	20.5	16.5	18.5	19.0	15.5	17.5
7	16.5	12.5	14.0	17.5	14.0	16.0	20.5	16.5	18.5	18.5	15.5	17.0
8	16.5	11.5	13.5	19.0	14.0	16.5	21.0	17.0	19.5	17.0	15.0	16.0
9	17.5	11.0	14.0	18.0	15.0	17.0	21.5	18.0	20.0	15.5	13.0	14.5
10	18.5	12.5	15.5	19.0	15.5	17.0	22.0	18.0	20.0	15.0	12.0	13.5
11	19.5	13.5	16.5	19.5	15.5	18.0	20.5	17.0	19.0	15.0	12.5	14.0
12	20.0	14.5	17.0	19.0	15.0	17.5	20.5	16.5	18.5	14.5	12.5	13.5
13	20.0	15.0	17.5	19.0	14.5	17.0	20.5	16.5	18.5	13.5	11.0	12.5
14	18.0	14.5	16.0	18.5	15.0	17.0	21.0	17.0	19.0	13.5	11.0	12.0
15	17.5	12.5	15.0	17.5	13.5	16.0	21.5	17.5	19.5	12.5	11.5	12.0
16	15.0	13.0	13.5	16.5	14.0	15.5	21.5	18.0	19.5	13.0	10.5	12.0
17	15.0	12.5	13.5	17.0	12.5	15.0	21.0	17.5	19.0	12.5	11.0	12.0
18	13.5	12.0	13.0	17.0	13.5	15.5	20.5	16.5	18.5	11.0	10.5	10.5
19	16.0	10.5	13.0	18.5	14.0	16.5	19.5	16.0	18.0	10.5	9.5	10.0
20	17.0	12.0	14.5	19.5	15.0	17.5	20.0	16.5	18.5	11.5	10.0	10.5
21	18.0	12.0	15.0	20.0	16.0	18.0	19.5	16.5	18.0	11.0	9.0	10.0
22	19.5	13.5	16.5	20.0	16.0	18.5	18.5	16.0	17.5	12.0	9.5	11.0
23	20.5	15.0	17.5	19.0	15.5	17.5	18.5	15.0	17.0	11.0	9.5	10.0
24	21.0	16.5	19.0	18.5	14.5	17.0	18.5	15.0	17.0	10.5	9.5	10.0
25	21.0	16.0	18.5	18.5	15.5	17.5	19.0	15.5	17.5	10.0	9.0	9.5
26	20.5	16.5	18.5	19.0	15.5	17.5	18.5	16.0	17.5	9.0	8.0	8.5
27	19.5	16.0	18.0	19.0	15.0	17.0	20.0	16.5	18.0	10.0	7.5	8.5
28	19.5	15.5	17.5	18.5	14.5	17.0	19.5	17.0	18.5	10.5	8.0	9.0
29	19.5	15.5	17.5	19.0	15.5	17.5	19.0	16.5	17.5	10.5	8.0	9.0
30	19.5	14.0	17.0	19.0	15.0	17.0	18.0	15.0	17.0	11.0	9.5	10.0
31	---	---	---	19.0	15.0	17.5	17.5	14.5	16.5	---	---	---
MONTH	21.0	10.5	16.0	20.5	12.5	17.0	22.0	14.5	18.5	19.5	7.5	12.5

APPLEGATE RIVER BASIN

14361900 APPLGATE LAKE NEAR COPPER, OR

LOCATION.--Lat 42°03'25", long 123°06'30", in SE¼ sec.25, T.40 S., R.4 W., Jackson County, Hydrologic Unit 17100309, in outlet structure of Applegate Dam on Applegate River, 2.5 mi northeast of former town of Copper, 13 mi south of Ruch and at mile 46.3.

DRAINAGE AREA.--223 mi².

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam completed in October 1980. Storage began Dec. 2, 1980. Total capacity, 82,200 acre-ft between elevations 1,763.0 ft and 1,987.0 ft, maximum pool elevation. Elevation of gated spillway crest, 1,943.7 ft. Usable contents, 75,200 acre-ft between elevations 1,854.0 ft and 1,987.0 ft. Water is used for flood control, recreation, pollution abatement, irrigation, and other purposes.

COOPERATION.--Capacity table furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 82,210 acre-ft May 6, 1982, elevation, 1,987.01 ft; minimum contents since first filling, 11,770 acre-ft Nov. 11, 1981, elevation, 1,873.12 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 79,460 acre-ft May 31, elevation, 1,984.19 ft; minimum contents, 12,810 acre-ft Jan. 1, elevation, 1,876.58 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)

1,860.0	8,330	1,920.0	30,960	1,987.0	82,200
1,880.0	13,890	1,940.0	43,090		
1,900.0	21,380	1,960.0	58,020		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1926.73	1897.32	1877.60	1876.90	1896.49	1931.18	1966.42	1979.00	1984.10	1970.10	1956.46	1945.87
2	1925.78	1896.50	1879.17	1877.24	1898.73	1932.42	1966.83	1979.41	1984.06	1969.73	1956.15	1945.50
3	1924.57	1895.66	1880.45	1877.63	1900.36	1933.78	1967.14	1979.80	1983.98	1969.31	1955.84	1945.14
4	1923.35	1894.84	1880.83	1877.77	1900.73	1935.00	1967.72	1980.03	1983.90	1968.89	1955.52	1944.77
5	1922.12	1893.98	1881.11	1879.49	1900.80	1936.22	1968.47	1980.29	1983.77	1968.47	1955.20	1944.40
6	1920.88	1893.10	1881.33	1880.83	1901.14	1937.57	1969.19	1980.62	1983.56	1968.04	1954.88	1944.02
7	1919.63	1892.20	1882.29	1881.70	1902.16	1944.25	1969.94	1980.97	1983.30	1967.60	1954.57	1943.64
8	1918.30	1891.32	1882.74	1882.70	1903.52	1947.97	1970.76	1981.33	1983.01	1967.17	1954.25	1943.26
9	1916.98	1890.50	1882.84	1884.43	1904.79	1949.00	1971.53	1981.63	1982.68	1966.71	1953.92	1942.88
10	1915.72	1889.63	1882.76	1885.55	1905.81	1948.61	1972.26	1981.93	1982.33	1966.23	1953.60	1942.51
11	1914.47	1888.71	1882.54	1886.40	1906.58	1947.84	1972.92	1982.24	1981.95	1965.76	1953.26	1942.13
12	1913.20	1887.76	1882.26	1887.04	1907.52	1946.67	1973.53	1982.48	1981.56	1965.28	1952.93	1941.75
13	1911.92	1886.79	1882.04	1887.56	1908.66	1945.97	1974.07	1982.69	1981.11	1964.78	1952.59	1941.35
14	1910.62	1886.04	1881.67	1888.08	1910.40	1945.70	1974.54	1982.87	1980.62	1964.29	1952.26	1940.95
15	1909.31	1885.51	1881.29	1888.68	1914.87	1945.76	1974.95	1982.99	1980.12	1963.79	1951.92	1940.49
16	1908.24	1885.25	1880.88	1896.99	1923.16	1945.96	1975.35	1983.03	1979.63	1963.29	1951.58	1939.91
17	1907.38	1884.83	1880.45	1898.27	1931.32	1946.61	1975.73	1983.05	1979.11	1962.79	1951.23	1939.36
18	1906.53	1884.31	1880.04	1895.96	1941.51	1947.86	1976.06	1983.12	1978.59	1962.29	1950.88	1938.68
19	1905.65	1883.73	1879.66	1894.50	1941.62	1949.28	1976.38	1983.22	1978.04	1961.79	1950.53	1938.01
20	1904.92	1883.15	1879.33	1892.18	1937.01	1950.66	1976.74	1983.38	1977.47	1961.28	1950.18	1937.24
21	1904.40	1882.53	1879.05	1890.89	1929.87	1952.06	1977.24	1983.50	1976.88	1960.77	1949.83	1936.43
22	1904.11	1881.92	1878.77	1891.12	1928.57	1953.38	1977.77	1983.55	1976.28	1960.30	1949.48	1935.60
23	1903.95	1881.30	1878.49	1891.29	1927.52	1954.90	1978.10	1983.57	1975.65	1959.85	1949.12	1934.69
24	1903.45	1880.72	1878.24	1890.52	1927.90	1956.77	1978.35	1983.59	1974.95	1959.41	1948.75	1933.95
25	1902.79	1880.10	1878.08	1890.21	1928.14	1958.23	1978.53	1983.70	1974.19	1958.97	1948.40	1933.36
26	1902.08	1879.45	1877.94	1890.42	1928.86	1959.37	1978.63	1983.84	1973.44	1958.53	1948.03	1933.12
27	1901.30	1878.84	1877.76	1891.04	1929.87	1960.73	1978.78	1983.92	1972.67	1958.09	1947.68	1932.48
28	1900.54	1878.50	1877.54	1892.32	1930.38	1962.15	1978.74	1983.99	1971.89	1957.69	1947.32	1931.73
29	1899.75	1878.25	1877.26	1894.21	---	1963.60	1978.84	1984.08	1971.12	1957.37	1946.95	1930.93
30	1898.94	1877.79	1876.95	1895.51	---	1964.97	1978.91	1984.15	1970.51	1957.07	1946.59	1930.16
31	1898.13	---	1876.63	1895.76	---	1965.86	---	1984.17	---	1956.77	1946.23	---
MAX	1926.73	1897.32	1882.84	1898.27	1941.62	1965.86	1978.91	1984.17	1984.10	1970.10	1956.46	1945.87
MIN	1898.13	1877.79	1876.63	1876.90	1896.49	1931.18	1966.42	1979.00	1970.51	1956.77	1946.23	1930.16
(+)	20590	13210	12850	19620	36880	62880	74450	79440	66880	55440	47460	36750
(-)	-14600	-7380	-360	+6770	+17260	+26000	+11570	+4990	-12560	-11440	-7980	-10710
CAL YR 1985	MAX	1986.61	MIN	1876.63	AC-FT#	-4070						
WTR YR 1986	MAX	1984.17	MIN	1876.63	AC-FT#	+1560						

+ Contents, in acre-feet, at 2400, on last day of month.

- Change in contents, in acre-feet.

APPLEGATE RIVER BASIN

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14362000 APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°03'50", long 123°06'37", in SW¼NW¼ sec.30, T.40 S., R.3 W., Jackson County, Hydrologic Unit 17100309, U.S. Corps of Engineers land, on left bank 0.1 mi downstream from Brushy Gulch, 0.6 mi downstream from Applegate Dam, 3.1 mi northeast of former town of Copper, and at mile 45.7.

DRAINAGE AREA.--225 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year. Prior to January 1939 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WDR OR-78-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,747.51 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at site 0.6 mi upstream at datum 12.15 ft higher.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (see station 14361900). Some storage during winter in Squaw Lakes Reservoir, capacity, 1,100 acre-ft on Squaw Creek upstream from station. Diversions upstream from station from Carberry Creek for irrigation in Thompson Creek basin.

AVERAGE DISCHARGE.--48 years, 455 ft³/s, 329,600 acre-ft/yr, adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft³/s Jan. 15, 1974, gage height, 25.38 ft, site and datum then in use, from high-water mark in well, from rating curve extended above 12,000 ft³/s on basis of four slope-area measurements of peak flows made in 1950, 1955, 1964, and 1974; minimum discharge, 1.5 ft³/s Dec. 20, 1980, result of regulation at Applegate dam, 0.6 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,510 ft³/s Feb. 18, gage height, 8.41 ft; minimum discharge, 27 ft³/s Feb. 7; minimum daily, 92 ft³/s Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	252	180	178	665	1200	404	281	346	271	180	176
2	343	250	181	178	671	905	402	294	359	251	180	176
3	411	250	182	178	675	742	403	293	313	267	180	176
4	408	250	182	178	677	717	255	291	283	269	180	176
5	406	249	182	179	614	660	167	266	298	269	178	176
6	404	253	182	181	452	659	167	234	342	269	175	176
7	402	252	182	145	241	779	167	199	340	267	173	176
8	413	250	183	125	112	1090	167	201	348	267	173	176
9	408	249	185	125	92	1500	174	241	352	275	173	176
10	385	247	184	125	118	1730	180	250	353	279	173	175
11	384	246	184	125	150	1730	180	225	352	277	173	175
12	381	244	183	125	155	1730	180	226	352	276	173	178
13	380	244	182	126	156	1440	180	248	370	276	173	180
14	378	208	182	126	157	1160	190	263	381	277	173	179
15	378	191	182	126	159	940	197	279	372	276	173	211
16	318	191	182	306	369	798	196	313	372	276	173	257
17	263	189	182	1520	1540	549	196	325	384	273	173	312
18	264	189	181	1660	3160	270	196	325	393	274	173	336
19	262	189	180	1230	4330	177	197	315	392	276	173	334
20	262	188	180	1150	4280	172	198	310	392	278	174	327
21	262	187	180	790	4180	173	203	304	392	277	174	325
22	259	187	178	542	4100	173	231	293	390	256	173	323
23	256	186	178	613	4100	174	246	285	390	245	173	341
24	258	184	178	658	2640	176	247	285	390	239	173	354
25	257	183	179	493	2160	177	267	285	390	236	173	352
26	256	182	178	355	1780	178	276	296	395	236	173	352
27	256	182	178	288	1570	180	276	308	395	236	173	351
28	255	181	178	223	1470	180	276	306	395	217	174	350
29	254	180	178	293	---	182	272	307	395	188	176	349
30	253	180	179	534	---	187	270	330	340	179	176	348
31	253	---	178	664	---	317	---	344	---	180	176	---
TOTAL	9974	6413	5603	13539	40773	21045	6960	8722	10966	7932	5410	7693
MEAN	322	214	181	437	1456	679	232	281	366	256	175	256
MAX	413	253	185	1660	4330	1730	404	344	395	279	180	354
MIN	253	180	178	125	92	172	167	199	283	179	173	175
AC-FT	19780	12720	11110	26850	80870	41740	13810	17300	21750	15730	10730	15260
MEAN†	84.2	89.7	175	547	1767	1102	427	363	154	69.8	44.7	76.5
AC-FT†	5180	5340	10750	33620	98130	67740	25380	22290	9190	4290	2750	4550
CAL YR 1985	TOTAL	98784	MEAN	271	MAX	584	MIN	85	AC-FT	195900	MEAN†	265
WTR YR 1986	TOTAL	145030	MEAN	397	MAX	4330	MIN	92	AC-FT	287700	MEAN†	400
											AC-FT†	191830
												289260

† Adjusted for change in contents of Applegate Lake.

APPLEGATE RIVER BASIN

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1980 to current year.

pH: September 1980 to current year.

WATER TEMPERATURES: January 1977 to current year.

DISSOLVED OXYGEN: September 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1980.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 188 microsiemens Sept. 13, 1980; minimum, 61 microsiemens Dec. 3, 1980, Dec. 20, 1981, June 19, 20, 1983.

pH: Maximum, 9.0 units Sept. 4, 1980; minimum, 7.2 units Oct. 26 to Nov. 3, 1983.

WATER TEMPERATURES: Maximum, 26.5°C Aug. 7, 1978; minimum, 0.0°C on many days during winter periods prior to filling of Applegate Lake.

DISSOLVED OXYGEN: Maximum, 15.2 mg/l Feb. 17, 18, 1986; minimum, 4.9 mg/l Sept. 28-30, 1981.

EXTREMES FOR CURRENT YEAR.--Results of stratified releases from Applegate Dam by Corps of Engineers and testing of the temperature-mixing outlet at the dam on Sept. 4, 1986, resulted in some of the annual extremes occurring on that date.

SPECIFIC CONDUCTANCE: Maximum, 144 microsiemens Nov. 29; minimum, 67 microsiemens Mar. 10, 11.

pH: Maximum, 8.2 units Sept. 4; minimum, 7.3 units Sept. 2-4.

WATER TEMPERATURES: Maximum, 18.5°C Sept. 4; minimum recorded, 3.5°C on several days in December and January.

DISSOLVED OXYGEN: Maximum, 15.2 mg/l Feb. 17, 18; minimum, 8.9 mg/l Sept. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT				
07...	1500	394	7	7.4
23...	1200	256	12	8.3
NOV				
08...	1130	247	4	2.7
25...	1230	182	3	1.5
DEC				
13...	1430	182	3	1.5
27...	1200	178	3	1.4
FEB				
21...	1230	4180	66	745
MAR				
26...	1230	180	6	2.9
APR				
22...	1330	242	3	2.0
MAY				
09...	1330	264	6	4.3
JUN				
20...	1400	392	9	9.5
JUL				
25...	1430	236	2	1.3
AUG				
21...	1400	173	3	1.4
SEP				
22...	1300	324	6	5.2

APPLEGATE RIVER BASIN

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14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	112	108	110	109	107	108	142	140	142	129	127	127
2	112	108	110	110	108	108	141	138	140	128	126	127
3	111	108	109	111	108	109	140	136	139	127	126	127
4	113	109	111	112	108	111	136	125	129	128	127	127
5	114	110	112	112	108	110	126	124	125	128	126	127
6	115	111	113	110	108	109	127	124	125	127	125	126
7	116	112	114	109	107	108	129	127	128	125	124	125
8	116	113	115	111	107	109	130	129	129	126	121	122
9	118	115	116	112	110	111	131	129	131	122	119	120
10	119	116	117	113	111	112	132	129	131	119	110	115
11	119	116	118	114	112	113	133	126	130	115	113	114
12	120	116	118	122	114	117	131	128	130	115	112	113
13	120	117	119	135	122	129	130	127	128	116	113	114
14	120	118	119	139	135	138	127	126	126	115	114	114
15	122	117	119	140	139	139	127	126	126	114	112	113
16	122	117	119	141	139	140	129	127	127	113	111	112
17	120	111	115	141	140	141	129	128	129	112	109	111
18	113	111	112	142	140	141	131	129	130	---	---	---
19	113	111	112	140	138	139	131	130	131	---	---	---
20	114	110	112	139	136	138	131	130	130	---	---	---
21	114	110	112	138	136	138	132	130	131	---	---	---
22	113	110	112	141	137	139	132	131	131	---	---	---
23	113	110	112	143	140	141	---	---	---	---	---	---
24	113	112	112	142	139	141	---	---	---	---	---	---
25	113	112	112	143	141	142	---	---	---	90	87	88
26	114	112	112	143	142	142	---	---	---	94	90	92
27	113	111	112	143	141	142	---	---	---	98	94	95
28	112	110	112	143	142	143	132	129	131	98	96	97
29	112	105	109	144	143	143	132	129	131	99	94	97
30	108	105	107	143	142	143	133	130	131	95	92	94
31	108	106	108	---	---	---	131	127	130	93	90	92
MONTH	122	105	113	144	107	128	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	92	90	90	75	73	74	81	79	80	85	84	85
2	91	89	90	76	74	75	82	79	80	86	84	85
3	90	86	88	77	75	75	81	79	80	85	83	84
4	90	85	88	76	72	74	86	80	83	85	85	85
5	86	84	86	74	72	72	86	82	84	86	84	85
6	88	86	87	74	72	73	85	83	84	86	84	85
7	105	87	90	75	72	74	85	83	85	86	85	85
8	92	86	89	76	74	75	87	84	85	86	85	86
9	95	88	91	76	71	74	86	85	85	86	84	85
10	96	92	94	71	67	69	87	84	85	85	84	85
11	95	90	92	69	67	68	86	85	86	86	85	86
12	95	91	93	70	68	69	86	83	85	87	85	86
13	96	91	94	73	70	71	86	84	86	87	85	87
14	96	94	95	74	71	73	86	83	84	88	86	87
15	97	95	96	78	73	76	85	83	84	88	86	87
16	97	87	93	81	78	80	85	84	84	88	86	87
17	94	88	91	82	75	78	86	83	85	88	87	88
18	91	86	88	77	74	75	86	82	84	89	87	88
19	87	74	80	82	74	78	85	82	84	90	88	89
20	76	73	75	82	81	81	---	---	---	91	89	89
21	75	73	73	84	81	82	---	---	---	91	89	90
22	75	72	74	83	81	82	---	83	---	92	90	90
23	75	72	74	83	80	82	85	80	83	91	89	90
24	77	74	76	84	81	83	82	79	80	90	89	90
25	79	75	77	84	81	83	80	79	80	90	89	89
26	79	76	77	83	80	82	82	80	80	89	88	89
27	76	73	74	83	81	82	82	81	81	89	88	89
28	75	73	74	83	82	83	85	82	83	89	88	89
29	---	---	---	84	82	83	87	85	85	89	88	89
30	---	---	---	83	82	83	87	85	86	89	88	89
31	---	---	---	85	79	81	---	---	---	89	88	88
MONTH	105	72	85	85	67	77	---	---	---	92	83	87

APPLEGATE RIVER BASIN

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	88	87	88	93	91	92	97	96	97	95	93	94
2	89	87	89	93	91	93	98	96	97	94	93	94
3	90	88	89	95	92	93	99	96	97	94	93	94
4	89	88	88	95	90	92	99	97	97	102	94	96
5	89	88	88	93	91	92	99	88	97	98	96	97
6	---	---	---	93	92	92	99	97	98	99	96	97
7	88	86	87	93	92	93	99	97	98	98	97	98
8	88	86	87	94	92	94	99	97	98	99	97	98
9	87	87	87	94	92	94	99	97	98	99	97	98
10	87	86	87	94	91	93	98	96	97	99	97	98
11	88	87	87	94	92	92	99	97	98	99	97	98
12	88	87	88	95	92	93	99	97	98	101	97	99
13	88	87	88	95	92	93	100	98	99	104	100	101
14	88	87	88	95	91	92	100	98	99	105	100	102
15	89	87	88	93	91	92	99	98	99	103	98	100
16	88	87	88	94	92	93	101	98	99	100	96	98
17	89	88	88	94	92	93	101	98	99	101	96	97
18	89	87	88	94	93	94	100	99	100	99	96	98
19	89	88	89	94	93	94	102	99	100	99	98	98
20	90	88	89	95	94	94	101	93	97	100	98	99
21	90	88	89	96	93	94	96	93	95	101	99	100
22	90	88	89	94	93	93	94	92	93	---	---	---
23	90	88	89	94	93	93	94	93	93	---	---	---
24	89	86	88	95	93	94	94	93	93	---	---	---
25	89	88	88	95	94	94	94	92	93	---	---	---
26	90	89	89	96	94	95	94	92	93	---	---	---
27	90	89	89	96	94	95	94	93	93	---	---	---
28	91	89	90	96	94	95	95	93	94	---	---	---
29	92	90	91	97	94	96	95	92	94	---	---	---
30	92	90	91	97	96	96	95	92	94	---	---	---
31	---	---	---	97	96	97	95	93	94	---	---	---
MONTH	---	---	---	97	90	94	102	88	96	---	---	---

APPLEGATE RIVER BASIN

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

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PH (STANDARD UNITS), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.9	7.7	7.6	7.4	7.8	7.7	7.9	7.7	7.7	7.7	7.6	7.6
2	7.9	7.6	7.6	7.4	7.9	7.8	7.9	7.7	7.7	7.6	7.6	7.6
3	7.8	7.6	7.6	7.4	7.9	7.8	7.9	7.7	7.7	7.7	7.7	7.6
4	7.8	7.6	7.6	7.4	7.9	7.7	7.8	7.7	7.7	7.7	7.7	7.6
5	7.8	7.6	7.7	7.4	7.8	7.7	7.9	7.7	7.8	7.7	7.7	7.6
6	7.8	7.7	7.5	7.4	7.8	7.7	7.9	7.7	7.8	7.7	7.7	7.6
7	7.9	7.7	7.5	7.4	7.8	7.7	7.9	7.7	7.9	7.7	7.6	7.6
8	7.9	7.6	7.4	7.4	7.8	7.7	7.9	7.7	7.9	7.7	7.7	7.6
9	7.9	7.7	7.5	7.4	7.8	7.7	7.9	7.6	7.9	7.7	7.6	7.6
10	7.9	7.7	7.5	7.4	7.8	7.7	7.9	7.7	7.9	7.7	7.6	7.6
11	7.8	7.7	7.5	7.4	7.9	7.7	7.9	7.7	7.8	7.7	7.6	7.6
12	7.9	7.7	7.5	7.4	7.9	7.8	7.9	7.7	7.9	7.8	7.7	7.6
13	7.9	7.7	7.7	7.4	7.9	7.8	7.9	7.7	7.9	7.8	7.7	7.6
14	7.9	7.7	8.1	7.7	7.9	7.8	7.9	7.7	7.8	7.8	7.7	7.7
15	8.0	7.7	8.0	7.8	7.9	7.8	7.9	7.7	7.9	7.7	7.7	7.7
16	7.9	7.7	8.0	7.8	7.9	7.8	7.8	7.6	7.8	7.7	7.7	7.7
17	7.8	7.6	8.0	7.7	7.9	7.8	7.6	7.6	7.7	7.7	7.8	7.7
18	7.8	7.6	8.0	7.7	7.9	7.8	---	---	7.7	7.7	7.8	7.7
19	7.8	7.6	7.9	7.7	7.9	7.8	---	---	7.7	7.7	7.8	7.7
20	7.8	7.6	7.9	7.7	7.9	7.8	---	---	7.7	7.6	7.8	7.7
21	7.8	7.6	7.9	7.7	---	---	---	---	7.6	7.6	7.8	7.7
22	7.8	7.6	7.9	7.7	---	---	---	---	7.6	7.6	7.9	7.7
23	7.7	7.5	7.8	7.7	---	---	---	---	7.6	7.6	7.9	7.7
24	7.8	7.5	7.8	7.7	---	---	---	---	7.6	7.6	7.9	7.7
25	7.8	7.5	7.9	7.7	---	---	7.7	7.7	7.6	7.6	7.9	7.7
26	7.8	7.5	7.9	7.8	---	---	7.8	7.7	7.6	7.6	7.9	7.7
27	7.8	7.5	7.9	7.8	---	---	7.8	7.7	7.6	7.6	7.9	7.7
28	7.7	7.5	8.0	7.7	7.9	7.7	7.8	7.7	7.6	7.6	7.9	7.7
29	7.8	7.4	7.9	7.8	7.9	7.7	7.8	7.7	---	---	7.9	7.7
30	7.6	7.4	7.9	7.7	7.8	7.7	7.7	7.7	---	---	7.9	7.7
31	7.6	7.4	---	---	7.8	7.7	7.7	7.7	---	---	7.9	7.7
MONTH	8.0	7.4	8.1	7.4	---	---	---	---	7.9	7.6	7.9	7.6
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.8	7.7	7.9	7.7	7.8	7.7	7.8	7.7	7.9	7.7	7.7	7.4
2	7.8	7.7	7.9	7.7	7.9	7.7	7.8	7.7	7.9	7.7	7.7	7.3
3	7.8	7.7	7.8	7.7	7.9	7.8	7.8	7.7	7.9	7.7	7.7	7.3
4	8.0	7.7	7.8	7.7	7.9	7.9	7.8	7.7	7.9	7.6	8.2	7.3
5	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.7	7.9	7.6	8.1	7.7
6	8.0	7.7	7.8	7.7	---	---	7.8	7.7	7.9	7.7	8.1	7.7
7	8.0	7.7	7.9	7.7	7.9	7.8	7.8	7.7	7.9	7.7	8.1	7.7
8	8.0	7.7	7.9	7.7	7.9	7.8	7.8	7.7	7.9	7.7	8.1	7.6
9	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.7	7.9	7.7	8.1	7.7
10	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.6	7.9	7.6	8.1	7.6
11	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.6	7.9	7.7	8.1	7.6
12	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.6	7.9	7.7	8.1	7.6
13	8.0	7.7	7.8	7.7	7.9	7.8	7.8	7.6	7.9	7.7	8.0	7.6
14	8.0	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.9	7.7	7.9	7.6
15	8.0	7.7	7.8	7.7	7.9	7.7	7.8	7.7	7.9	7.6	7.7	7.6
16	8.0	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.9	7.6	7.7	7.5
17	8.0	7.7	7.8	7.7	7.9	7.7	7.9	7.7	7.9	7.6	7.7	7.5
18	8.0	7.6	7.8	7.7	7.8	7.7	7.8	7.7	7.9	7.6	7.6	7.5
19	8.0	7.6	7.8	7.7	7.8	7.7	7.8	7.7	7.9	7.6	7.6	7.4
20	---	---	7.8	7.8	7.8	7.7	7.8	7.6	7.8	7.5	7.6	7.5
21	---	---	7.8	7.8	7.8	7.7	7.8	7.6	7.7	7.5	7.6	7.5
22	---	---	7.8	7.7	7.8	7.7	7.8	7.6	7.8	7.5	7.6	7.5
23	8.0	7.6	7.8	7.8	7.8	7.7	7.8	7.6	7.8	7.5	7.6	7.5
24	7.9	7.7	7.8	7.7	7.7	7.6	7.8	7.6	7.8	7.5	7.6	7.5
25	7.9	7.7	7.8	7.7	7.7	7.6	7.8	7.6	7.8	7.5	7.6	7.5
26	7.9	7.7	7.9	7.7	7.7	7.6	7.9	7.7	7.8	7.5	7.6	7.5
27	7.9	7.7	7.8	7.8	7.7	7.6	7.9	7.7	7.7	7.4	7.6	7.5
28	8.0	7.7	7.8	7.8	7.7	7.6	7.9	7.7	7.7	7.4	7.6	7.5
29	8.0	7.7	7.8	7.8	7.7	7.7	7.9	7.7	7.7	7.4	7.6	7.4
30	7.9	7.7	7.8	7.8	7.8	7.7	7.9	7.7	7.7	7.4	7.6	7.4
31	---	---	7.8	7.8	---	---	7.9	7.7	7.7	7.4	---	---
MONTH	---	---	7.9	7.7	---	---	7.9	7.6	7.9	7.4	8.2	7.3

APPLEGATE RIVER BASIN

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	12.5	11.5	12.0	7.5	6.5	7.0	6.0	5.5	5.5	4.0	3.5	4.0
2	12.5	10.0	11.5	7.5	7.0	7.0	6.5	6.0	6.0	4.0	3.5	4.0
3	11.0	10.0	10.5	7.5	7.0	7.5	6.0	6.0	6.0	4.0	3.5	4.0
4	11.0	10.5	11.0	7.5	7.0	7.5	6.0	5.0	5.5	4.0	3.5	4.0
5	11.5	10.5	11.0	8.0	6.0	7.0	5.5	5.0	5.0	4.5	4.0	4.0
6	11.5	11.0	11.5	6.5	6.0	6.0	5.5	5.0	5.5	4.0	3.5	4.0
7	11.5	11.0	11.5	6.5	6.0	6.0	5.5	5.0	5.5	4.5	4.0	4.0
8	11.5	10.0	11.0	6.0	6.0	6.0	5.5	5.0	5.5	5.0	4.0	4.5
9	11.5	11.0	11.0	6.5	6.0	6.0	5.5	5.5	5.5	5.0	4.5	4.5
10	11.5	11.0	11.5	6.5	6.5	6.5	5.5	5.5	5.5	4.5	4.5	4.5
11	11.5	11.0	11.0	7.0	6.5	6.5	6.0	5.5	5.5	5.0	4.0	4.5
12	11.5	11.0	11.0	7.5	7.0	7.0	5.5	5.0	5.5	4.5	4.0	4.5
13	11.0	10.5	11.0	8.0	7.5	7.5	5.5	5.0	5.0	5.0	4.0	4.5
14	11.0	10.5	11.0	8.0	7.5	7.5	5.0	4.5	4.5	5.0	4.5	4.5
15	11.0	10.5	11.0	7.5	7.5	7.5	5.0	4.5	4.5	5.0	4.5	5.0
16	11.0	10.0	10.5	7.5	7.0	7.0	4.5	4.5	4.5	5.5	5.0	5.5
17	10.0	8.0	9.0	7.5	7.0	7.0	4.5	4.0	4.5	6.0	5.0	5.5
18	8.5	8.0	8.0	7.5	7.0	7.0	4.5	4.0	4.5	7.0	6.0	6.5
19	8.5	8.0	8.0	7.5	7.0	7.0	4.5	4.0	4.5	6.0	5.5	6.0
20	8.5	7.5	8.0	7.5	7.0	7.0	4.5	4.0	4.0	---	---	---
21	8.0	7.5	8.0	7.0	6.5	7.0	4.5	4.0	4.0	---	---	---
22	8.0	7.5	8.0	7.0	6.5	7.0	4.5	4.0	4.0	---	---	---
23	8.0	8.0	8.0	7.0	6.5	6.5	---	4.0	---	---	---	---
24	8.5	8.0	8.0	6.5	6.5	6.5	---	---	---	---	---	---
25	8.0	7.5	8.0	6.5	6.0	6.5	---	---	---	5.0	4.5	5.0
26	8.0	7.5	8.0	6.5	6.0	6.0	---	---	---	4.5	4.5	4.5
27	8.5	7.5	8.0	6.0	6.0	6.0	---	---	---	4.5	4.0	4.5
28	8.0	7.5	8.0	6.5	6.0	6.0	4.0	3.5	4.0	4.5	4.0	4.0
29	8.0	6.5	7.0	6.0	5.5	6.0	4.0	3.5	3.5	4.5	4.0	4.5
30	7.0	6.5	6.5	6.0	5.5	5.5	4.0	3.5	3.5	4.5	4.5	4.5
31	7.0	6.5	7.0	---	---	---	4.0	3.5	3.5	4.5	4.5	4.5
MONTH	12.5	6.5	9.5	8.0	5.5	6.5	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	5.0	4.5	5.0	7.0	6.5	6.5	7.0	6.5	6.5	9.5	8.5	9.0
2	5.0	5.0	5.0	7.0	6.5	6.5	7.0	6.5	7.0	9.5	8.5	9.0
3	5.5	5.0	5.5	7.0	6.5	7.0	7.0	6.5	7.0	9.0	8.5	9.0
4	5.5	5.5	5.5	7.0	6.5	7.0	7.5	6.5	7.0	9.5	8.5	9.0
5	5.5	5.0	5.5	7.5	7.0	7.0	7.5	6.5	7.0	9.5	8.5	9.0
6	5.5	5.0	5.0	7.5	7.0	7.5	7.5	6.5	7.0	9.5	8.0	9.0
7	6.0	5.0	5.5	7.5	7.0	7.0	7.5	6.5	7.0	9.5	8.5	9.0
8	6.0	5.0	5.5	7.0	7.0	7.0	7.0	6.5	7.0	9.5	8.5	9.0
9	6.0	5.0	5.5	7.0	7.0	7.0	7.5	6.5	7.0	9.5	8.5	9.0
10	5.5	5.0	5.0	7.0	7.0	7.0	7.5	6.5	7.0	9.5	8.5	9.0
11	5.5	5.0	5.0	7.0	7.0	7.0	7.5	6.5	7.0	9.5	8.5	8.5
12	5.5	5.0	5.0	7.0	7.0	7.0	7.0	6.5	7.0	9.5	8.5	9.0
13	5.5	5.0	5.0	7.0	6.5	7.0	7.5	6.5	7.0	9.5	8.5	9.0
14	5.0	5.0	5.0	7.0	6.5	6.5	7.5	6.5	7.0	9.5	8.5	9.0
15	5.0	4.5	5.0	7.0	6.5	6.5	7.5	6.5	7.0	9.5	8.5	9.0
16	5.5	4.5	5.0	6.5	6.5	6.5	7.5	7.0	7.0	9.5	8.5	9.0
17	5.5	5.0	5.0	7.0	6.5	6.5	7.5	6.5	7.0	9.5	8.5	9.0
18	5.5	5.0	5.5	7.5	6.5	7.0	7.5	7.0	7.0	9.5	8.5	9.0
19	5.5	5.5	5.5	7.5	6.5	7.0	7.5	6.5	7.0	10.5	9.0	9.5
20	6.0	5.5	6.0	7.0	6.5	6.5	---	---	---	10.5	9.0	9.5
21	6.0	6.0	6.0	7.0	6.5	6.5	---	---	---	10.5	9.5	10.0
22	6.0	6.0	6.0	7.0	6.5	6.5	---	---	---	10.0	9.5	10.0
23	6.0	6.0	6.0	7.0	6.5	6.5	9.0	7.5	8.5	10.5	10.0	10.0
24	6.0	6.0	6.0	7.0	6.5	6.5	8.0	7.5	7.5	10.5	9.5	10.0
25	6.5	6.0	6.0	7.0	6.5	6.5	7.5	7.0	7.5	10.5	9.5	10.0
26	6.5	6.5	6.5	7.0	6.5	6.5	8.0	7.5	7.5	11.0	10.0	10.5
27	6.5	6.5	6.5	7.5	6.5	6.5	8.0	7.5	7.5	11.0	10.0	10.5
28	6.5	6.5	6.5	7.5	6.5	6.5	9.0	7.0	8.5	11.0	10.5	10.5
29	---	---	---	7.5	6.5	7.0	9.5	8.5	9.0	11.0	10.5	11.0
30	---	---	---	7.0	6.5	6.5	10.0	8.5	9.0	11.5	10.5	11.0
31	---	---	---	7.0	6.5	6.5	---	---	---	11.5	10.5	11.0
MONTH	6.5	4.5	5.5	7.5	6.5	6.5	---	---	---	11.5	8.0	9.5

APPLEGATE RIVER BASIN

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14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.5	11.0	11.0	14.0	13.5	14.0	14.0	13.0	13.5	11.5	10.5	11.0
2	12.5	11.0	12.0	14.0	13.5	14.0	14.0	13.5	13.5	11.5	10.5	11.0
3	13.0	12.0	12.5	15.0	13.5	14.0	14.0	13.5	14.0	11.5	10.5	11.0
4	13.0	12.0	12.5	15.0	11.5	13.0	14.0	13.5	14.0	18.5	10.5	13.0
5	13.0	12.5	12.5	13.0	12.0	12.5	14.0	8.5	13.0	14.5	13.5	14.0
6	13.0	---	---	13.0	12.5	13.0	14.5	14.0	14.0	14.5	13.5	14.0
7	13.0	12.0	12.5	13.5	12.0	13.0	14.5	14.0	14.5	14.5	13.5	13.5
8	13.0	12.0	12.5	13.5	12.5	13.0	14.5	14.0	14.0	14.0	13.0	13.5
9	13.5	12.5	13.0	14.0	13.0	13.5	15.0	14.0	14.5	13.5	13.0	13.0
10	13.5	13.0	13.0	14.0	12.0	13.0	15.0	14.0	14.5	13.5	13.0	13.0
11	13.5	13.0	13.5	13.0	12.0	12.5	15.0	14.0	14.5	13.5	12.5	13.0
12	14.0	13.0	13.5	13.0	12.0	13.0	15.0	14.5	14.5	15.5	12.5	13.5
13	14.0	13.0	13.5	13.5	12.5	13.0	15.0	14.5	14.5	16.0	15.0	15.5
14	15.0	12.5	13.5	13.5	12.5	13.0	15.5	14.5	15.0	16.5	15.0	16.0
15	14.0	12.0	13.0	13.5	12.5	13.0	15.5	14.5	15.0	15.5	13.0	14.0
16	13.5	12.0	12.5	13.5	12.5	13.0	15.5	14.5	15.0	13.5	11.5	12.5
17	14.5	13.0	13.5	14.0	13.0	13.5	15.5	15.0	15.0	13.0	11.5	12.0
18	14.0	12.0	13.0	14.0	13.0	13.5	15.5	15.0	15.0	12.0	11.5	12.0
19	13.5	13.0	13.0	14.0	13.5	13.5	15.5	15.0	15.0	12.0	11.5	12.0
20	13.5	13.0	13.5	14.0	13.5	13.5	15.5	11.5	13.5	12.5	12.0	12.0
21	14.0	13.5	13.5	14.0	12.5	13.0	12.0	11.5	11.5	12.5	12.0	12.0
22	14.0	13.5	14.0	13.0	12.0	12.5	12.0	11.5	11.5	12.0	11.5	12.0
23	14.5	13.0	13.5	12.5	12.0	12.5	12.0	11.0	11.5	13.0	12.0	12.5
24	13.5	11.5	12.5	13.0	12.0	12.5	12.0	11.0	11.5	12.5	12.5	12.5
25	12.5	11.5	12.0	12.5	12.0	12.5	11.5	11.0	11.5	12.5	12.0	12.5
26	12.5	12.0	12.5	13.0	12.0	12.5	11.5	11.0	11.5	12.0	12.0	12.0
27	13.0	12.0	12.5	13.0	12.5	12.5	11.5	11.0	11.5	12.0	12.0	12.0
28	13.5	12.0	12.5	13.0	12.0	12.5	11.5	11.0	11.0	12.0	11.5	12.0
29	14.0	12.5	13.0	13.5	12.5	13.0	11.5	10.5	11.0	12.0	11.5	12.0
30	14.0	12.5	13.5	14.0	13.0	13.5	11.5	10.5	11.0	12.0	11.5	12.0
31	---	---	---	14.0	13.0	13.5	11.5	10.5	11.0	---	---	---
MONTH	15.0	---	---	15.0	11.5	13.0	15.5	8.5	13.5	18.5	10.5	12.5

APPLEGATE RIVER BASIN

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.9	9.8	10.3	12.3	11.0	11.4	12.1	11.5	11.8	12.5	12.0	12.2
2	11.0	9.8	10.5	12.2	11.0	11.4	11.7	11.3	11.5	12.2	11.8	12.0
3	11.3	10.4	10.8	12.3	10.9	11.3	12.2	11.5	11.8	12.1	11.7	11.9
4	11.3	10.3	10.7	12.2	10.9	11.2	12.3	11.8	12.0	12.0	11.6	11.7
5	11.2	10.2	10.6	12.4	11.0	11.5	12.7	11.9	12.1	11.9	11.6	11.7
6	10.9	10.1	10.4	12.6	11.3	11.7	12.3	11.9	12.1	12.1	11.7	11.9
7	11.1	10.1	10.4	12.3	11.2	11.6	12.4	11.8	12.0	---	---	---
8	11.2	10.1	10.6	12.0	11.1	11.4	12.1	11.9	12.0	---	---	---
9	11.3	10.2	10.6	11.6	10.9	11.2	12.6	11.9	12.1	---	---	---
10	11.3	10.3	10.6	12.1	10.9	11.3	12.5	11.8	12.1	---	---	---
11	11.1	10.3	10.6	12.1	11.0	11.3	12.2	11.4	11.9	13.1	12.6	12.8
12	11.4	10.5	10.8	11.9	11.0	11.3	12.5	11.9	12.1	12.7	12.1	12.4
13	11.4	10.5	10.8	12.1	11.0	11.3	12.6	11.7	12.1	12.2	11.5	11.9
14	11.5	10.6	10.9	12.4	11.1	11.5	11.9	11.5	11.7	11.7	11.1	11.4
15	11.7	10.5	10.9	12.1	11.2	11.4	11.8	11.2	11.6	11.5	11.0	11.2
16	11.5	10.6	10.9	12.2	11.2	11.6	12.1	11.8	11.9	12.3	10.8	11.2
17	12.3	10.6	11.3	12.2	11.2	11.5	11.9	11.4	11.7	---	---	---
18	12.3	11.1	11.5	12.3	11.3	11.6	12.0	11.5	11.7	---	---	---
19	12.5	11.2	11.6	12.3	11.4	11.7	12.0	11.5	11.8	---	---	---
20	12.2	11.1	11.4	12.2	11.4	11.7	12.2	11.8	12.0	---	---	---
21	12.4	11.2	11.6	12.4	11.4	11.7	12.3	11.3	11.9	---	---	---
22	12.3	11.3	11.6	12.4	11.5	11.8	11.9	11.4	11.7	---	---	---
23	12.1	10.8	11.3	12.1	11.5	11.7	---	---	---	---	---	---
24	12.2	10.7	11.1	12.2	11.6	11.8	---	---	---	12.9	12.7	12.8
25	12.0	10.8	11.2	12.4	11.5	11.8	---	---	---	12.8	12.2	12.5
26	12.2	10.8	11.2	12.6	11.5	11.8	---	---	---	12.3	12.2	12.2
27	12.0	10.7	11.1	12.4	11.5	11.8	---	---	---	12.3	12.1	12.2
28	12.3	10.7	11.2	12.5	11.4	11.7	12.5	12.1	12.3	12.2	12.0	12.1
29	12.4	10.7	11.3	12.4	11.4	11.7	12.6	12.1	12.3	12.2	12.0	12.1
30	12.4	11.0	11.4	12.5	11.6	11.9	12.5	12.1	12.3	12.4	12.1	12.3
31	12.4	11.0	11.4	---	---	---	12.6	12.0	12.3	12.5	12.4	12.4
MONTH	12.5	9.8	11.0	12.6	10.9	11.6	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	12.6	12.4	12.6	13.5	13.4	13.4	12.4	12.1	12.2	12.7	11.6	12.2
2	12.5	12.4	12.5	13.4	13.1	13.3	12.5	12.2	12.4	12.4	11.3	12.1
3	12.7	12.5	12.6	13.2	13.2	13.2	12.5	12.2	12.3	12.4	11.5	12.1
4	12.8	12.7	12.8	13.3	13.0	13.2	12.3	11.8	12.1	12.4	11.5	11.8
5	12.9	12.7	12.8	13.3	13.0	13.0	12.3	11.8	12.0	12.1	11.2	11.7
6	12.9	12.5	12.7	13.2	12.9	13.0	12.3	11.8	12.0	12.1	11.2	11.5
7	12.6	12.4	12.5	13.5	12.8	13.1	12.3	11.8	12.1	11.7	11.3	11.6
8	12.9	12.6	12.8	13.6	13.2	13.3	12.5	11.9	12.1	11.9	11.4	11.6
9	13.2	12.8	13.0	13.7	13.5	13.6	12.5	11.9	12.2	11.8	11.3	11.6
10	13.3	13.0	13.1	13.9	13.5	13.7	12.5	12.0	12.2	11.8	11.6	11.8
11	13.4	13.0	13.2	13.9	13.8	13.8	12.6	12.0	12.3	11.9	11.7	11.8
12	13.4	13.1	13.2	13.9	13.8	13.9	12.7	12.1	12.4	11.8	11.6	11.7
13	13.6	13.2	13.4	13.8	13.7	13.7	12.8	12.1	12.4	11.8	11.6	11.7
14	13.6	13.3	13.5	13.7	13.5	13.6	12.7	12.0	12.3	11.7	11.6	11.7
15	13.8	13.5	13.6	13.5	13.3	13.4	12.6	12.0	12.2	11.8	11.6	11.7
16	14.3	13.8	14.0	13.4	13.3	13.3	12.6	11.9	12.2	11.8	11.6	11.7
17	15.2	14.2	14.8	13.4	12.7	13.0	12.7	12.0	12.3	11.8	11.6	11.7
18	15.2	14.1	14.9	12.7	12.1	12.4	12.7	12.0	12.3	11.8	11.6	11.7
19	14.6	13.9	14.2	12.4	12.1	12.2	12.7	11.9	12.2	11.6	11.1	11.4
20	14.2	13.1	13.6	12.4	12.1	12.2	---	---	---	11.5	11.1	11.4
21	13.3	13.2	13.2	12.4	12.1	12.2	---	---	---	11.4	11.1	11.3
22	13.3	13.3	13.3	12.3	12.0	12.1	---	---	---	11.4	11.2	11.3
23	13.4	13.3	13.3	12.2	11.9	12.0	---	---	---	11.4	11.1	11.2
24	13.4	13.3	13.4	12.3	11.9	12.1	---	---	---	11.4	11.2	11.3
25	13.5	13.4	13.4	12.2	11.9	12.0	---	---	---	11.4	11.2	11.3
26	13.7	13.5	13.6	12.2	11.7	11.9	---	---	---	11.4	11.1	11.2
27	13.8	13.5	13.6	12.1	11.7	11.8	---	---	---	11.3	11.0	11.2
28	13.5	13.3	13.5	12.1	11.7	11.9	---	---	---	11.3	11.0	11.2
29	---	---	---	12.1	11.8	11.9	---	---	---	11.3	11.0	11.2
30	---	---	---	12.2	11.8	12.0	12.6	11.9	12.3	11.2	10.9	11.1
31	---	---	---	12.3	11.8	12.1	---	---	---	11.3	11.0	11.1
MONTH	15.2	12.4	13.3	13.9	11.7	12.8	---	---	---	12.7	10.9	11.6

APPLEGATE RIVER BASIN

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14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	11.2	11.0	11.1	10.8	10.3	10.6	10.2	9.6	9.9	11.1	10.0	10.4
2	11.1	10.9	11.0	10.7	10.2	10.5	10.2	9.6	9.9	11.0	10.0	10.4
3	11.1	10.6	10.9	10.7	9.9	10.4	10.3	9.6	9.9	11.0	9.9	10.4
4	11.0	10.6	10.8	11.0	9.9	10.5	10.3	9.6	9.9	11.2	8.9	10.1
5	11.1	10.7	10.9	10.9	10.4	10.6	11.4	9.6	10.0	10.9	9.8	10.3
6	---	---	---	10.8	10.3	10.6	10.3	9.5	9.8	11.0	9.9	10.3
7	11.3	10.9	11.1	10.9	10.4	10.6	10.2	9.5	9.8	11.1	10.0	10.4
8	11.3	10.9	11.1	10.8	10.3	10.6	10.2	9.6	9.8	11.2	10.1	10.5
9	11.2	10.7	11.0	10.8	10.3	10.6	10.2	9.6	9.8	11.3	10.3	10.7
10	11.0	10.7	10.9	11.0	10.2	10.7	10.2	9.5	9.8	11.6	10.4	10.8
11	11.0	10.6	10.9	10.9	10.4	10.7	10.2	9.5	9.8	11.8	10.6	11.0
12	10.9	10.6	10.8	10.9	10.3	10.6	10.2	9.4	9.8	11.9	10.0	10.9
13	11.0	10.6	10.8	10.8	10.2	10.6	10.1	9.4	9.7	11.3	10.2	10.6
14	11.2	10.8	11.0	10.9	10.2	10.6	10.0	9.3	9.6	11.1	10.2	10.6
15	11.4	10.9	11.2	10.8	10.2	10.5	10.0	9.3	9.6	11.5	10.4	10.9
16	11.5	11.1	11.3	10.7	10.2	10.4	10.0	9.2	9.6	11.2	10.9	11.0
17	11.5	11.1	11.2	10.5	10.0	10.3	10.1	9.2	9.5	11.4	10.9	11.1
18	11.8	11.5	11.6	10.5	10.0	10.2	9.9	9.1	9.5	11.2	10.8	11.0
19	11.8	11.4	11.6	10.5	10.0	10.2	9.9	9.1	9.5	11.0	10.6	10.8
20	11.8	11.1	11.5	10.3	9.8	10.1	10.5	9.1	9.8	10.9	10.5	10.7
21	11.4	11.0	11.2	10.3	9.9	10.1	10.6	9.9	10.2	11.0	10.6	10.7
22	11.3	10.9	11.1	10.4	10.0	10.2	10.6	9.8	10.1	11.0	10.6	10.8
23	11.3	10.8	11.1	10.5	10.0	10.2	10.6	9.8	10.2	10.7	10.2	10.5
24	11.7	10.9	11.4	10.4	9.9	10.1	10.6	9.8	10.2	10.4	10.0	10.2
25	11.8	11.4	11.5	10.4	9.9	10.1	10.7	9.9	10.2	10.5	10.0	10.2
26	11.6	11.3	11.4	10.4	9.8	10.1	10.7	9.8	10.3	10.5	10.1	10.3
27	11.6	11.2	11.4	10.3	9.8	10.1	10.8	9.9	10.3	10.5	10.1	10.3
28	11.5	11.0	11.3	10.4	9.8	10.1	10.9	9.9	10.3	10.8	10.3	10.5
29	11.3	10.8	11.1	10.3	9.6	10.0	11.0	9.9	10.3	11.1	10.6	10.8
30	11.1	10.5	10.9	10.3	9.6	9.9	11.0	9.9	10.4	11.0	10.4	10.7
31	---	---	---	10.2	9.6	9.9	11.0	10.0	10.4	---	---	---
MONTH	---	---	---	11.0	9.6	10.4	11.4	9.1	9.9	11.9	8.9	10.6

APPLEGATE RIVER BASIN

14362250 STAR GULCH NEAR RUCH, OR

LOCATION.--Lat 42°09'15", long 123°04'27", in NE¼NE¼ sec.29, T.39 S., R.3 W., Jackson County, Hydrologic Unit 17100309, Bureau of Land Management land, on left bank 1.0 mi downstream from Benson Gulch, 6.0 mi southwest of Ruch, and at mile 1.1.

DRAINAGE AREA.--16.0 mi².

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,667.04 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No regulation or diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 153 ft³/s Dec. 14, 1983, Nov. 28, 1985, gage height, 3.11 ft; minimum discharge, 0.01 ft³/s Aug. 28, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 17	2400	*110	*2.86	Feb. 23	0130	47	2.31
Feb. 19	2230	86	2.68				

Minimum discharge, 0.01 ft³/s Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	1.3	2.0	.61	1.6	8.9	3.6	1.9	.82	.35	.12	.15
2	.62	1.2	7.9	.61	5.3	7.6	3.3	3.4	.97	.34	.09	.17
3	.61	1.2	5.3	.71	10	6.8	3.1	2.7	1.2	.34	.09	.17
4	.63	1.2	2.5	.63	8.5	6.2	3.0	2.3	1.0	.38	.08	.15
5	.63	1.3	1.9	1.1	6.4	5.9	3.0	2.3	.92	.40	.07	.12
6	.66	1.2	1.6	.84	4.8	5.5	2.9	2.6	.90	.38	.08	.11
7	.77	1.2	1.9	.72	3.9	8.3	2.8	2.6	.92	.35	.07	.10
8	.82	1.3	2.1	.70	3.2	11	2.7	2.3	.86	.34	.07	.12
9	.91	1.9	1.7	1.0	2.8	13	2.6	2.2	.80	.31	.06	.17
10	1.0	1.8	1.3	.88	2.4	13	2.6	2.3	.74	.30	.05	.22
11	1.0	1.5	1.2	.78	2.3	12	2.5	2.2	.67	.28	.05	.27
12	1.1	1.3	1.0	.72	2.4	12	2.6	2.0	.61	.27	.06	.27
13	1.1	1.2	.97	.67	2.3	12	2.5	1.9	.58	.27	.07	.29
14	1.0	1.2	.90	.67	2.6	11	2.4	1.8	.59	.27	.07	.32
15	1.0	1.4	.80	.69	4.9	11	2.3	1.7	.64	.27	.06	.36
16	.99	2.1	.73	5.2	16	9.4	2.4	1.6	.65	.28	.05	.40
17	1.0	2.1	.68	7.8	34	8.0	2.4	1.5	.75	.30	.04	.50
18	.99	1.7	.67	4.3	76	7.0	2.3	1.5	.88	.29	.04	.57
19	.94	1.4	.67	4.6	71	6.4	2.2	1.4	.75	.28	.04	1.3
20	1.3	1.4	.62	5.7	63	6.1	2.1	1.5	.66	.24	.04	.69
21	2.7	1.3	.62	3.9	35	5.7	2.0	1.6	.61	.20	.05	.52
22	1.9	1.3	.62	4.8	34	5.3	2.1	1.5	.54	.19	.04	.47
23	1.9	1.3	.62	11	43	5.3	2.2	1.4	.49	.17	.04	.47
24	1.4	1.6	.61	7.2	29	5.2	2.1	1.3	.45	.17	.04	.87
25	1.3	1.8	.59	4.9	20	4.7	2.2	1.2	.43	.16	.04	.86
26	1.2	1.5	.59	3.5	15	4.5	2.1	1.1	.41	.17	.04	2.4
27	1.2	1.5	.59	2.7	12	4.3	2.1	1.1	.39	.17	.03	1.4
28	1.3	2.8	.59	2.4	10	4.1	2.1	1.1	.37	.17	.03	.71
29	1.3	2.6	.59	2.2	---	3.9	1.9	1.0	.37	.17	.04	.55
30	1.3	2.1	.58	1.9	---	3.7	1.9	.97	.37	.16	.09	.53
31	1.3	---	.57	1.6	---	3.6	---	.92	.37	.16	.11	---
TOTAL	34.50	46.7	43.01	85.03	521.4	231.4	74.0	54.89	20.34	8.13	1.85	15.23
MEAN	1.11	1.56	1.39	2.74	18.6	7.46	2.47	1.77	.68	.26	.06	.51
MAX	2.7	2.8	7.9	11	76	13	3.6	3.4	1.2	.40	.12	2.4
MIN	.61	1.2	.57	.61	1.6	3.6	1.9	.92	.37	.16	.03	.10
AC-FT	68	93	85	169	1030	459	147	109	40	16	3.7	30
CAL YR 1985	TOTAL	1140.38	MEAN	3.12	MAX	34	MIN	.30	AC-FT	2260		
WTR YR 1986	TOTAL	1136.48	MEAN	3.11	MAX	76	MIN	.03	AC-FT	2250		

APPLEGATE RIVER BASIN

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14366000 APPLGATE RIVER NEAR APPLGATE, OR

LOCATION.--Lat 42°14'30", long 123°08'20", in NE¼ sec.26, T.38 S., R.4 W., Jackson County, Hydrologic Unit 17100309, on left bank 0.9 mi downstream from Keeler Creek, 1.8 mi southeast of Applegate, and at mile 26.7.

DRAINAGE AREA.--483 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WSP 1935: 1953(M). WDR OR-76-1: 1956(M), 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 1,285.33 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 23, 1938, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (see sta 14361900). Many diversions for irrigation upstream from station. McDonald Creek Canal diverts from McDonald Creek upstream from station for irrigation in Bear Creek basin. Thompson Creek Irrigation Association ditch diverts upstream from station for irrigation in Thompson Creek basin. Fowler-Keeler and Berryman ditches divert upstream from station for irrigation downstream.

AVERAGE DISCHARGE.--48 years, 561 ft³/s, 406,400 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s Jan. 15, 1974, gage height, 20.41 ft, from rating curve extended above 18,000 ft³/s on basis of slope-area measurements of flow at gage heights 18.00 ft and 19.57 ft; minimum discharge, 4.6 ft³/s Sept. 22-25, 1979. Minimum since first filling of Applegate Lake, 161 ft³/s Nov. 11, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 20, 1927, reached a stage of 18.7 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,160 ft³/s Feb. 19, gage height, 7.68 ft; minimum discharge, 118 ft³/s Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	274	264	199	194	710	1440	493	296	383	267	146	130
2	279	265	244	197	770	1180	488	345	407	208	135	126
3	370	260	261	197	783	937	485	356	388	226	132	130
4	373	262	231	194	764	909	400	357	323	228	132	128
5	369	268	229	205	693	827	255	335	330	232	132	132
6	366	260	223	205	549	821	250	313	344	229	128	130
7	369	259	228	186	380	1070	250	276	360	229	126	132
8	373	260	227	152	189	1410	255	253	355	226	125	136
9	380	267	220	152	163	1750	250	285	352	225	123	135
10	362	265	211	157	164	2050	256	318	363	233	126	134
11	365	259	202	154	199	2030	253	299	366	233	125	131
12	367	255	205	154	210	2010	255	277	361	231	129	130
13	364	254	208	154	212	1760	253	293	360	237	127	144
14	356	233	205	152	230	1400	253	308	378	240	128	142
15	356	201	205	150	311	1160	260	309	367	235	127	158
16	328	205	202	217	539	996	253	341	358	233	130	204
17	256	203	200	1500	1750	783	259	356	366	235	131	267
18	250	202	200	1830	4100	476	251	357	379	234	131	318
19	243	198	197	1290	5740	332	244	351	373	231	128	340
20	255	199	197	1220	5470	320	241	351	374	228	128	343
21	295	197	197	920	5000	316	237	359	367	230	127	337
22	279	197	197	637	4890	310	268	348	362	212	128	331
23	269	196	197	710	5010	307	285	329	362	197	126	341
24	259	201	194	734	3520	312	274	324	386	191	130	368
25	256	199	197	592	2610	303	284	323	402	186	134	373
26	254	194	197	410	2230	301	300	328	395	190	128	394
27	258	197	194	362	1880	302	304	344	396	194	126	383
28	259	206	194	282	1790	297	304	350	389	185	132	371
29	255	203	194	317	---	290	292	350	389	160	133	366
30	256	198	194	539	---	290	286	368	354	145	130	367
31	266	---	194	704	---	356	---	406	---	141	132	---
TOTAL	9561	6827	6443	14867	50856	27045	8738	10205	11089	6671	4015	7121
MEAN	308	228	208	480	1816	872	291	329	370	215	130	237
MAX	380	268	261	1830	5740	2050	493	406	407	267	146	394
MIN	243	194	194	150	163	290	237	253	323	141	123	126
AC-FT	18960	13540	12780	29490	100900	53640	17330	20240	22000	13230	7960	14120
CAL YR 1985	TOTAL	113359	MEAN	311	MAX	776	MIN	192	AC-FT	224800		
WTR YR 1986	TOTAL	163438	MEAN	448	MAX	5740	MIN	123	AC-FT	324200		

APPLEGATE RIVER BASIN

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: August 1973 to current year.

INSTRUMENTATION.--Temperature recorder since August 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C July 29, 30, Aug. 3, 4, 1974; minimum, 0.0°C on several days 1975-80. Maximum since full operation of Applegate Lake, 25.5°C July 5, 1984; minimum, 0.5°C Jan. 27, 30, 1985.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.0°C Aug. 7-10, 14, 15; minimum, 1.5°C Dec. 20, 27.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	15.0	10.5	13.0	9.5	7.0	8.0	5.0	4.5	5.0			
2	15.5	11.0	13.0	9.5	7.0	8.5	6.0	5.0	5.5			
3	14.5	10.5	12.5	9.5	7.0	8.0	7.0	5.5	6.0			
4	14.5	10.0	12.5	8.5	7.5	8.0	7.0	5.5	6.0			
5	14.5	10.5	12.5	9.0	7.0	8.0	7.0	6.0	6.5			
6	13.0	11.0	12.0	8.5	5.5	7.0	7.5	6.0	7.0			
7	13.0	10.0	11.5	8.0	6.0	7.5	7.0	5.5	6.5			
8	12.0	9.0	11.0	8.0	6.5	7.0	5.5	5.0	5.5			
9	11.5	7.5	9.5	6.5	5.5	6.0	6.0	5.0	5.5			
10	12.0	8.5	10.0	6.5	5.0	6.0	5.0	3.5	4.5			
11	12.0	10.5	11.5	6.5	5.0	5.5	3.5	2.0	3.0			
12	12.5	10.0	11.0	6.0	3.5	4.5	3.5	2.0	2.5			
13	12.0	8.0	10.5	6.0	3.5	4.5	4.0	2.5	3.0			
14	12.5	8.5	10.5	6.5	4.0	5.5	4.0	2.5	3.0			
15	12.5	9.0	10.5	7.5	6.5	7.0	4.0	2.5	3.0			
16	12.5	9.0	11.0	7.0	6.5	7.0	3.5	2.0	3.0			
17	12.5	9.5	11.0	6.5	6.0	6.0	4.0	2.0	3.0			
18	11.5	8.0	10.0	7.0	5.5	6.0	4.0	2.0	3.0			
19	10.0	8.0	9.0	5.5	4.0	5.0	3.5	2.0	2.5			
20	10.0	8.0	9.0	6.0	5.0	5.5	3.5	1.5	2.5			
21	10.0	8.0	9.0	6.0	5.0	5.5	4.0	2.0	3.0			
22	9.5	8.0	9.0	6.0	4.5	5.0	3.5	2.0	3.0			
23	10.5	9.0	9.5	4.5	4.0	4.5	3.5	2.0	2.5			
24	11.5	9.5	10.5	5.5	4.5	5.0	4.0	2.0	3.0			
25	11.0	9.0	10.0	6.0	4.5	5.5	4.0	2.0	3.0			
26	10.5	8.5	9.5	5.5	4.5	4.5	3.5	2.0	2.5			
27	10.5	7.5	9.0	5.0	4.5	4.5	3.5	1.5	2.5			
28	10.5	8.5	9.0	6.5	5.0	5.5	3.5	2.0	2.5			
29	9.0	6.5	8.0	6.5	5.0	6.0	3.0	2.0	2.5			
30	8.0	7.0	7.5	5.0	3.5	4.5	3.5	2.0	3.0			
31	9.0	7.5	8.0	---	---	---	5.0	3.0	4.0			
MONTH	15.5	6.5	10.5	9.5	3.5	6.0	7.5	1.5	4.0			

APPLEGATE RIVER BASIN

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14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	8.5	6.5	7.5	9.0	6.5	7.5	13.0	9.0	11.0
2	---	---	---	9.0	6.5	7.5	10.0	6.0	8.0	12.0	9.5	11.0
3	---	---	---	9.5	6.5	7.5	10.0	5.5	8.0	13.5	9.0	11.0
4	---	---	---	9.5	6.5	8.0	9.5	6.5	8.0	12.0	8.5	10.5
5	---	---	---	10.0	7.0	8.0	13.0	8.0	10.0	11.5	9.0	10.0
6	---	---	---	9.5	7.5	8.5	13.0	8.0	10.5	13.0	7.5	10.0
7	5.5	3.0	4.0	8.5	7.5	8.0	13.5	9.0	11.0	12.5	8.5	10.5
8	5.5	2.5	3.5	8.0	6.5	7.5	11.5	10.0	10.5	15.0	10.0	12.0
9	5.5	2.0	3.5	7.0	6.5	7.0	13.0	9.0	10.5	12.5	9.0	11.0
10	5.5	2.0	3.5	8.5	6.5	7.0	13.0	9.0	10.5	12.5	8.5	10.5
11	6.0	3.5	4.5	7.5	6.5	7.0	9.5	7.5	8.5	13.5	8.0	10.5
12	7.0	5.0	5.5	8.0	6.5	7.0	9.0	7.0	8.0	13.5	8.5	11.5
13	8.0	5.5	6.5	7.5	6.5	7.0	12.0	6.5	9.0	14.0	9.5	11.5
14	7.5	6.0	6.5	8.0	5.5	6.5	11.5	7.5	9.5	14.0	8.5	11.5
15	7.5	5.5	6.0	7.5	5.5	6.5	12.0	8.0	9.5	14.5	8.5	11.5
16	7.0	5.5	6.0	8.5	6.0	7.0	9.5	7.5	8.5	14.5	8.5	12.0
17	6.5	5.5	6.0	8.5	5.5	6.5	12.0	7.5	9.5	15.5	9.0	12.5
18	6.5	5.5	6.0	9.5	5.0	7.0	12.5	7.0	10.0	14.5	10.0	12.5
19	6.0	5.5	6.0	11.0	6.0	8.0	14.0	8.0	11.0	14.5	10.0	12.5
20	6.5	6.0	6.0	10.5	6.5	8.5	15.5	9.0	12.0	13.0	11.0	12.0
21	6.5	5.5	6.0	11.0	8.0	9.0	16.0	10.5	13.0	13.0	9.0	11.0
22	6.5	6.0	6.0	10.0	6.5	8.5	13.0	8.5	10.5	15.0	9.0	12.0
23	7.0	6.0	6.5	9.5	8.0	9.0	13.0	7.0	9.5	15.0	10.5	12.5
24	8.0	6.0	6.5	10.0	7.5	8.5	10.0	7.0	8.5	17.0	11.0	14.0
25	7.0	6.5	6.5	10.5	5.5	8.0	11.0	7.5	9.0	18.0	12.0	15.0
26	8.5	6.5	7.0	12.0	7.0	9.5	10.0	6.5	8.5	17.0	13.0	15.5
27	8.0	6.5	7.0	10.0	8.0	9.0	11.0	8.5	9.5	18.5	13.0	15.5
28	8.5	6.5	7.0	13.0	8.5	10.5	12.5	8.0	10.5	18.5	12.5	16.0
29	---	---	---	13.5	9.0	11.0	13.5	8.0	10.5	19.0	12.5	16.0
30	---	---	---	11.0	8.5	9.5	13.5	7.5	10.5	19.0	13.0	16.0
31	---	---	---	12.0	7.0	9.0	---	---	---	19.5	13.5	16.5
MONTH	---	---	---	13.5	5.0	8.0	16.0	5.5	9.5	19.5	7.5	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	20.0	14.0	17.0	19.5	13.0	16.5	21.0	15.5	18.0	18.5	14.0	16.5
2	---	13.5	---	19.0	14.5	17.0	21.5	16.5	19.0	19.5	14.5	17.0
3	---	---	---	19.0	14.0	16.5	21.5	17.0	19.0	20.0	15.5	17.5
4	---	---	---	18.0	13.0	15.5	21.0	16.5	18.5	20.0	15.5	17.5
5	---	---	---	17.5	11.0	14.5	20.5	15.5	18.0	20.0	15.5	17.5
6	---	---	---	18.5	12.0	15.5	21.0	15.5	18.0	19.5	15.0	17.0
7	---	---	---	17.0	13.0	15.5	22.0	16.5	19.0	19.0	15.0	17.0
8	---	---	---	19.0	13.0	16.0	22.0	17.0	19.5	18.0	14.0	16.0
9	---	---	---	18.0	14.0	16.0	22.0	17.5	19.5	17.0	13.0	14.5
10	---	---	---	18.5	14.0	16.0	22.0	17.5	19.5	16.5	12.5	14.5
11	---	---	---	19.0	13.5	16.5	21.0	16.0	18.5	16.5	12.5	14.5
12	---	---	---	18.5	13.0	16.0	21.0	16.5	18.5	16.0	12.5	14.0
13	---	---	---	18.5	12.5	15.5	21.5	16.0	18.5	16.0	11.0	13.5
14	---	---	---	18.5	13.0	15.5	22.0	16.5	19.0	15.5	13.0	14.0
15	---	---	---	18.0	12.0	15.0	22.0	17.5	19.5	14.5	13.5	14.0
16	---	---	---	18.0	12.5	15.0	21.5	17.5	19.5	14.0	11.5	13.0
17	---	---	---	18.0	12.0	15.0	21.5	17.0	19.0	13.0	11.5	12.5
18	---	---	---	18.5	13.5	16.0	20.5	16.0	18.5	12.5	11.0	12.0
19	---	---	---	19.5	13.5	16.5	21.0	15.5	18.0	12.5	11.0	11.5
20	---	---	---	20.0	14.0	17.0	21.0	16.5	18.5	14.0	11.0	12.5
21	---	---	---	20.0	14.5	17.5	19.5	16.5	18.0	14.0	10.5	12.0
22	---	---	---	19.5	14.5	17.0	17.5	14.5	16.0	15.0	11.0	13.0
23	20.0	---	---	19.0	13.5	16.0	19.0	14.0	16.0	13.0	10.5	11.5
24	19.0	13.0	16.0	19.0	13.5	16.0	19.0	14.0	16.5	13.5	11.5	12.0
25	18.5	11.5	15.0	19.0	14.0	16.5	19.5	14.5	16.5	12.0	11.0	11.5
26	17.5	12.0	14.5	19.0	14.0	16.0	18.0	15.0	16.5	12.0	11.0	11.5
27	16.5	12.0	14.0	18.5	14.0	16.0	20.5	15.0	17.5	13.5	10.5	12.0
28	17.5	12.0	14.5	19.0	13.5	16.0	19.0	15.5	17.0	14.5	11.0	12.5
29	18.0	12.0	15.0	19.5	14.5	17.0	18.5	15.0	16.5	13.5	10.0	12.0
30	19.0	11.0	15.0	20.0	14.5	17.0	18.5	14.5	16.5	14.0	12.0	13.0
31	---	---	---	20.5	15.0	17.5	18.5	14.0	16.0	---	---	---
MONTH	---	---	---	20.5	11.0	16.0	22.0	14.0	18.0	20.0	10.0	14.0

APLEGATE RIVER BASIN

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR

LOCATION.--Lat 42°21'15", long 123°24'20", in SE¼NE¼ sec.16, T.37 S., R.6 W., Josephine County, Hydrologic Unit 17100309, on left bank 0.3 mi downstream from Jackson Creek, 3.6 mi southeast of Wilderville, and at mile 7.6.

DRAINAGE AREA.--698 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to September 1955, September 1978 to current year.

REVISED RECORDS.--WSP 1318: 1943. WSP 1738: 1951, 1953, drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 947.18 ft above National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 1, 1978, nonrecording gage at site 1,100 ft upstream at datum 2.36 ft higher.

REMARKS.--Estimated daily discharges: Mar. 28 to Apr. 21, May 1. Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (see station 14361900). Many diversions for irrigation upstream from station. Wilderville ditch diverts up to 16 ft³/s 0.3 mi upstream and at the mouth of Jackson Creek.

AVERAGE DISCHARGE.--25 years, 771 ft³/s, 558,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft³/s Jan. 18, 1953, gage height, 18.3 ft, from floodmark, site and datum then in use, from rating curve extended above 12,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 0.78 ft³/s Aug. 22-24, 1979. Minimum since first filling of Applegate Lake, 183 ft³/s Aug. 9, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 20.3 ft, from floodmark, former site and datum, discharge, 66,500 ft³/s, from rating curve extended above 12,000 ft³/s on basis of slope-area measurement of peak flow.

Flood of February 1927 reached a stage of 22 ft at former site, from local resident. Floods of Dec. 22, 1964, and Jan. 15, 1974, are known to have exceeded the December 1955 flood.

No flow was observed at present site during the late summer of 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s Feb. 18, gage height, 10.20 ft; minimum discharge, 84 ft³/s Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	298	269	234	978	1930	700	365	390	283	123	107
2	278	298	502	239	1420	1650	690	391	379	214	123	106
3	336	290	763	276	1780	1290	680	403	451	203	115	102
4	373	291	468	266	1350	1220	600	407	353	210	107	104
5	372	295	394	266	1190	1100	475	398	335	214	100	105
6	366	291	361	281	965	1070	420	394	334	212	96	103
7	375	289	444	271	766	1620	350	386	350	207	93	102
8	379	289	512	236	501	2200	350	341	355	206	87	106
9	395	300	410	295	423	2380	350	334	344	202	88	110
10	382	320	360	284	381	2630	350	375	340	203	91	110
11	385	299	324	260	387	2700	340	380	346	203	93	110
12	398	287	301	245	424	2920	340	341	341	207	93	110
13	395	280	292	234	459	2620	340	336	326	212	99	114
14	389	279	284	227	467	2110	340	338	345	211	100	124
15	386	242	277	225	666	1750	330	331	348	206	100	129
16	386	279	268	621	1960	1480	330	342	333	203	96	164
17	306	271	265	2050	3950	1250	330	362	334	203	100	226
18	289	259	259	2300	9230	882	330	370	349	202	102	300
19	285	246	252	1810	9160	668	320	370	335	200	99	344
20	284	236	247	1650	8250	622	310	365	331	200	97	355
21	348	235	244	1370	7260	591	304	378	326	200	96	353
22	349	235	244	1090	8880	562	312	384	320	199	94	348
23	361	236	242	1800	8400	554	343	358	321	179	95	341
24	327	238	240	1330	5590	578	330	343	325	175	96	377
25	314	240	237	1100	3650	538	330	341	353	170	99	405
26	299	234	236	751	3100	520	344	334	364	171	101	520
27	300	230	235	681	2480	505	350	345	375	173	101	496
28	305	267	232	548	2340	500	351	353	375	167	99	433
29	297	310	232	525	---	495	335	351	368	152	103	411
30	295	282	228	666	---	495	322	349	359	134	107	407
31	298	---	228	872	---	510	---	398	---	126	107	---
TOTAL	10529	8146	9850	23003	86407	39940	11596	11263	10505	6047	3100	7122
MEAN	340	272	318	742	3086	1288	387	363	350	195	100	237
MAX	398	320	763	2300	9230	2920	700	407	451	283	123	520
MIN	277	230	228	225	381	495	304	331	320	126	87	102
AC-FT	20880	16160	19540	45630	171400	79220	23000	22340	20840	11990	6150	14130
CAL YR 1985	TOTAL	151377	MEAN	415	MAX	2350	MIN	174	AC-FT	300300		
WTR YR 1986	TOTAL	227508	MEAN	623	MAX	9230	MIN	87	AC-FT	451300		

APPLEGATE RIVER BASIN

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14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: September 1978 to current year.

INSTRUMENTATION.--Temperature recorder since September 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 28.0°C July 20, 1979; minimum recorded, 0.5°C Dec. 30, 31, 1978, Jan. 29, 30, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 27.0°C Aug. 8, 9; minimum recorded, 3.0°C Dec. 21, 23-29.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.0	13.0	14.5				---	---	---	6.5	5.0	5.5
2	16.5	13.0	15.0				---	---	---	5.5	4.5	5.0
3	16.5	13.5	15.5				---	---	---	5.5	4.5	5.0
4	16.0	13.0	14.5				---	---	---	6.0	5.0	5.5
5	16.0	13.0	14.5				---	---	---	6.5	5.5	6.0
6	15.0	13.5	14.0				---	---	---	6.0	4.5	5.0
7	13.5	11.5	13.0				---	---	---	4.5	3.5	4.0
8	12.5	10.5	11.5				---	---	---	6.5	4.0	5.0
9	11.5	9.0	10.5				---	---	---	7.5	6.5	7.0
10	12.0	9.0	10.5				---	---	---	7.0	6.5	7.0
11	12.5	11.5	12.0				---	---	---	7.0	6.5	7.0
12	12.0	10.5	11.5				---	---	---	6.5	6.0	6.5
13	12.5	10.0	11.0				---	---	---	6.0	5.0	5.5
14	---	---	---				---	---	---	6.0	5.5	6.0
15	---	---	---				---	---	---	7.0	6.0	6.5
16	---	---	---				---	---	---	7.5	6.5	7.0
17	---	---	---				---	---	---	7.5	6.0	7.0
18	---	---	---				---	---	---	7.0	5.5	6.5
19	---	---	---				---	---	---	6.5	6.0	6.5
20	---	---	---				3.5	---	---	6.5	5.5	6.0
21	---	---	---				4.0	3.0	3.5	6.0	5.0	5.5
22	---	---	---				4.0	3.5	3.5	6.5	5.5	6.0
23	---	---	---				4.0	3.0	3.5	7.0	6.0	6.5
24	---	---	---				3.5	3.0	3.5	6.5	5.5	6.0
25	---	---	---				3.5	3.0	3.5	6.0	5.0	5.5
26	---	---	---				3.5	3.0	3.5	6.0	5.5	5.5
27	---	---	---				3.5	3.0	3.0	7.0	5.5	6.5
28	---	---	---				3.5	3.0	3.0	8.0	7.0	7.5
29	---	---	---				4.0	3.0	3.5	8.0	7.5	7.5
30	---	---	---				4.0	3.5	3.5	8.0	7.0	7.5
31	---	---	---				5.0	3.5	4.0	7.0	6.0	6.5
MONTH	---	---	---				---	---	---	8.0	3.5	6.0

APPLEGATE RIVER BASIN

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	7.0	6.5	6.5	9.5	8.0	9.0	11.5	8.5	10.0	14.0	---	---
2	7.0	6.5	6.5	10.0	7.5	9.0	11.0	7.5	9.5	13.0	11.0	12.0
3	7.0	6.0	6.5	10.5	8.0	9.0	11.0	8.0	9.5	14.0	10.5	12.0
4	7.0	6.0	6.5	11.0	8.0	9.5	11.0	9.0	10.0	13.5	10.5	12.0
5	7.5	6.0	7.0	11.0	8.5	10.0	13.5	8.5	11.0	13.0	10.5	11.5
6	7.0	5.5	6.5	10.5	9.0	10.0	14.5	9.5	12.0	13.5	9.5	11.5
7	6.0	5.0	5.5	10.0	8.5	9.5	15.0	11.0	13.0	13.5	10.5	12.5
8	6.0	4.0	5.0	9.5	8.0	8.5	13.5	12.0	12.5	15.5	11.0	13.0
9	6.0	3.5	5.0	8.5	7.5	8.0	13.0	11.0	12.0	14.5	11.5	13.0
10	6.0	4.0	5.0	9.0	7.0	8.0	14.0	10.5	12.5	13.5	10.5	12.0
11	6.5	5.0	6.0	8.5	7.5	8.0	12.0	9.5	10.5	14.0	10.0	12.0
12	7.5	6.0	6.5	9.0	7.0	8.0	11.0	8.5	10.0	15.5	11.0	13.0
13	9.0	7.0	8.0	8.5	7.0	7.5	13.0	8.5	11.0	15.5	12.0	14.0
14	8.0	7.5	7.5	8.5	6.0	7.5	12.5	9.5	11.0	16.0	11.5	14.0
15	8.5	7.0	8.0	8.0	6.5	7.5	13.0	9.5	11.5	16.5	11.5	14.0
16	8.0	7.5	7.5	9.0	6.5	8.0	11.5	10.0	11.0	17.0	12.0	14.5
17	7.5	7.0	7.5	9.0	6.5	8.0	12.5	9.5	11.0	18.0	12.5	15.5
18	8.0	7.0	7.5	10.0	6.5	8.5	14.0	9.5	12.0	18.0	13.5	15.5
19	7.5	6.5	7.0	11.5	7.5	9.5	15.5	11.0	13.5	17.5	13.5	15.5
20	7.5	6.5	7.0	11.5	8.5	10.0	17.0	12.0	15.0	16.0	13.0	14.5
21	7.5	6.5	7.0	11.5	9.5	10.5	18.5	14.0	16.0	15.0	11.0	13.0
22	8.0	7.0	7.5	11.5	8.5	10.0	17.0	11.5	13.5	17.0	11.0	14.0
23	9.0	7.5	8.0	10.5	9.5	10.0	13.5	9.5	11.5	17.0	13.0	15.0
24	9.0	7.0	8.0	11.0	8.5	9.5	11.5	9.5	10.5	19.0	13.5	16.0
25	8.5	7.5	8.0	11.5	7.5	9.5	12.5	9.5	11.0	20.5	15.5	18.0
26	10.0	7.5	8.5	12.5	8.5	10.5	11.5	8.5	10.5	19.5	17.0	18.5
27	9.5	7.5	8.5	13.5	9.5	11.5	12.5	10.5	11.5	21.0	16.5	18.5
28	9.5	8.0	8.5	14.0	10.5	12.0	14.0	11.0	12.0	21.0	17.0	19.0
29	---	---	---	15.0	11.0	13.0	14.5	10.5	12.5	22.0	17.0	19.5
30	---	---	---	13.5	11.0	12.0	---	---	---	23.0	17.5	20.0
31	---	---	---	13.0	9.0	11.0	---	---	---	23.0	18.0	20.5
MONTH	10.0	3.5	7.0	15.0	6.0	9.5	---	---	---	23.0	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE			JULY			AUGUST			SEPTEMBER			
1	23.5	19.0	21.0	---	---	---	---	---	---	23.0	18.5	20.5
2	22.0	19.0	20.5	---	---	---	---	---	---	23.5	19.0	21.0
3	20.5	16.5	18.5	---	---	---	---	---	---	24.5	19.5	22.0
4	20.5	16.5	18.5	---	---	---	---	---	---	24.5	20.0	22.0
5	21.5	16.5	18.5	---	---	---	---	---	---	24.0	19.5	21.5
6	19.0	16.5	18.0	---	---	---	---	---	---	24.0	19.0	21.5
7	19.5	15.5	17.5	---	---	---	---	---	---	23.5	19.0	21.5
8	20.0	15.0	17.5	---	---	---	27.0	---	---	22.0	18.5	20.0
9	21.0	15.0	18.0	---	---	---	27.0	22.0	24.5	21.0	17.0	19.0
10	22.5	16.5	19.5	---	---	---	26.5	21.5	24.0	21.0	16.5	18.5
11	23.0	17.5	20.0	---	---	---	25.5	20.5	23.0	21.0	17.0	19.0
12	23.5	18.0	20.5	---	---	---	25.5	20.5	23.0	20.0	16.5	18.5
13	23.0	18.0	20.5	---	---	---	25.5	20.0	23.0	18.5	15.5	17.0
14	---	---	---	---	---	---	26.0	20.5	23.0	18.0	15.5	16.5
15	---	---	---	---	---	---	26.5	21.5	24.0	17.0	15.5	16.5
16	20.5	---	---	---	---	---	25.5	21.5	23.5	17.0	15.0	16.0
17	18.0	15.5	16.5	---	---	---	25.5	21.0	23.0	16.0	15.0	15.5
18	17.5	14.5	16.0	---	---	---	24.5	20.0	22.5	15.5	14.0	14.5
19	19.5	14.0	17.0	---	---	---	25.0	19.5	22.0	15.0	13.5	14.5
20	20.5	15.5	17.5	---	---	---	25.5	20.5	23.0	16.5	13.5	15.0
21	21.5	16.0	18.5	---	---	---	25.5	20.5	23.0	16.0	14.0	15.0
22	22.5	17.0	19.5	---	---	---	23.0	20.0	21.5	17.0	13.5	15.0
23	---	---	---	---	---	---	23.5	18.5	21.0	16.0	13.5	14.5
24	---	---	---	---	---	---	24.0	18.5	21.0	15.5	13.0	14.0
25	---	---	---	---	---	---	24.5	19.0	21.5	14.5	13.5	14.0
26	---	---	---	---	---	---	23.5	20.0	22.0	13.5	12.5	13.5
27	---	---	---	---	---	---	24.5	19.5	22.0	15.5	12.5	14.0
28	---	---	---	---	---	---	23.5	20.0	22.0	16.0	13.5	14.5
29	---	---	---	---	---	---	22.5	19.5	21.0	15.5	13.0	14.5
30	---	---	---	---	---	---	23.0	18.5	20.5	16.0	14.0	15.0
31	---	---	---	---	---	---	23.0	18.5	20.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	24.5	12.5	17.0

LOWER ROGUE RIVER BASIN

375

14370400 ROGUE RIVER NEAR MERLIN, OR

LOCATION.--Lat 42°29'50", long 123°29'15", in SE¼ sec.26, T.35 S., R.7 W., Josephine County, Hydrologic Unit 17100310, on left bank at Robertson Bridge, 3.4 mi upstream from Jumpoff Joe Creek, 3.7 mi southwest of Merlin, and at mile 86.8.

DRAINAGE AREA.--3,271 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1974 to current year.

INSTRUMENTATION.--Temperature recorder February 1974 to January 1983; water-quality monitor since February 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.5°C Aug. 3-5, 1977; minimum, 0.0°C Jan. 9, 1977, Dec. 30, 1978, to Jan. 1, 1979, Jan. 30, 1980.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 22.5°C Aug. 8, 9, 15; minimum, 2.0°C Dec. 13, 14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	14.5	11.0	13.0	9.0	7.5	8.0	5.0	4.5	4.5	5.5	3.5	4.5
2	15.0	11.5	13.5	9.0	8.5	8.5	6.0	5.0	5.5	5.5	5.0	5.0
3	15.0	11.5	13.5	9.5	8.5	9.0	6.5	6.0	6.0	5.0	4.5	4.5
4	14.5	11.5	13.5	9.5	8.0	9.0	6.5	6.0	6.0	5.0	4.5	5.0
5	14.5	11.5	13.5	8.5	7.5	8.0	6.5	6.0	6.5	5.5	5.0	5.5
6	13.5	11.5	13.0	8.0	7.0	7.5	7.0	6.5	7.0	5.5	4.5	5.0
7	12.5	10.5	11.5	8.0	7.0	7.5	7.0	6.5	7.0	4.5	4.0	4.5
8	11.5	9.5	10.5	8.0	7.5	7.5	6.5	5.5	6.0	5.0	4.0	4.5
9	10.5	7.5	9.0	7.5	6.5	7.0	6.0	5.0	5.5	6.5	5.0	6.0
10	10.0	7.0	9.0	6.5	5.5	6.0	5.5	4.5	5.0	7.0	6.0	6.5
11	10.5	8.5	9.5	6.0	5.0	5.5	4.5	3.0	4.0	7.0	6.5	6.5
12	10.5	8.5	9.5	5.0	4.0	5.0	3.5	2.5	3.0	6.5	6.0	6.0
13	10.5	8.0	9.5	4.5	3.5	4.0	3.0	2.0	2.5	6.0	5.0	5.5
14	11.0	8.0	9.5	4.5	3.0	4.0	3.0	2.0	2.5	5.5	5.5	5.5
15	11.0	8.0	9.5	5.5	4.0	5.0	3.0	2.5	3.0	6.0	5.5	6.0
16	11.0	8.5	10.0	6.5	5.5	6.0	3.0	2.5	3.0	7.0	6.0	6.5
17	11.5	9.0	10.0	6.5	5.5	6.0	3.0	3.0	3.0	7.0	6.5	6.5
18	11.0	8.5	10.0	5.5	5.0	5.5	3.0	3.0	3.0	7.0	6.5	7.0
19	10.5	8.5	9.5	5.5	5.0	5.0	3.0	2.5	3.0	7.0	6.5	6.5
20	9.5	8.5	9.0	5.0	4.5	5.0	3.0	2.5	3.0	6.5	6.0	6.0
21	9.5	8.0	9.0	5.0	4.5	4.5	3.0	2.5	3.0	6.0	5.0	5.5
22	9.5	8.5	9.0	5.0	4.5	5.0	3.0	3.0	3.0	6.0	5.0	5.5
23	10.5	9.0	9.5	4.5	4.5	4.5	3.0	3.0	3.0	6.5	6.0	6.0
24	11.0	9.5	10.0	5.0	4.0	4.5	3.0	3.0	3.0	6.0	5.5	6.0
25	11.5	10.0	10.5	5.5	4.5	5.0	3.0	2.5	3.0	5.5	5.0	5.5
26	11.5	10.5	11.0	5.0	4.5	4.5	3.0	3.0	3.0	5.5	5.0	5.0
27	10.5	10.0	10.5	4.5	4.0	4.5	3.0	2.5	3.0	6.0	5.0	5.5
28	10.0	8.5	9.5	5.0	4.0	4.5	3.0	2.5	2.5	7.0	6.0	6.5
29	9.0	8.0	8.5	5.5	4.5	5.0	3.0	2.5	2.5	7.5	7.0	7.0
30	8.0	7.5	8.0	5.0	4.5	4.5	3.0	3.0	3.0	8.0	7.0	7.5
31	8.5	7.5	8.0	---	---	---	3.5	3.0	3.5	7.5	7.0	7.5
MONTH	15.0	7.0	10.5	9.5	3.0	6.0	7.0	2.0	4.0	8.0	3.5	6.0

14370400 ROGUE RIVER NEAR MERLIN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.0	6.5	7.0	8.5	8.0	8.0	10.5	8.5	9.5	12.0	10.5	11.0
2	7.0	6.5	7.0	8.5	8.0	8.0	10.5	7.5	9.0	12.0	11.0	11.5
3	7.0	6.5	6.5	8.5	8.0	8.5	10.5	8.0	9.5	13.0	10.5	11.5
4	6.5	6.5	6.5	9.5	8.5	9.0	11.0	10.0	10.5	13.0	10.5	11.5
5	7.5	6.5	6.5	10.0	8.5	9.0	12.0	9.5	10.5	12.0	10.0	11.0
6	7.0	5.5	6.5	10.0	9.0	9.5	13.0	10.5	11.5	11.5	9.0	10.0
7	6.0	5.0	5.5	9.5	8.5	9.0	14.0	11.5	13.0	12.0	9.5	11.0
8	5.5	4.0	5.0	9.0	8.5	8.5	13.0	12.5	12.5	13.5	10.0	11.5
9	5.0	4.0	4.5	8.5	7.5	8.0	13.0	11.5	12.5	13.5	11.0	12.0
10	5.0	4.0	4.5	8.0	7.0	7.5	13.0	11.0	12.0	13.0	10.5	11.0
11	6.0	4.5	5.5	8.0	7.5	8.0	11.5	10.5	11.0	12.5	10.0	11.0
12	6.5	6.0	6.0	8.0	7.0	7.5	10.5	9.0	10.0	14.0	10.0	12.0
13	8.0	6.5	7.0	8.0	7.5	7.5	11.0	8.0	9.5	15.0	11.5	13.0
14	8.0	7.0	7.5	7.5	7.0	7.0	12.0	8.5	10.0	15.0	11.5	13.0
15	8.5	7.5	8.0	7.5	7.0	7.5	11.5	9.0	10.0	15.5	12.0	13.5
16	8.0	8.0	8.0	8.0	7.0	7.5	11.0	9.0	10.0	16.0	12.5	14.0
17	8.0	7.5	7.5	8.5	7.5	8.0	11.5	9.0	10.0	16.5	13.0	15.0
18	7.5	7.5	7.5	9.0	7.0	8.0	12.5	9.0	10.5	17.0	14.0	15.5
19	7.5	7.0	7.5	10.0	7.5	9.0	13.5	10.0	11.5	17.0	14.5	15.5
20	7.5	7.0	7.0	11.0	8.5	9.5	15.0	11.5	13.0	16.0	14.5	15.0
21	7.5	7.0	7.0	11.0	9.0	10.0	16.0	12.5	14.0	14.5	12.5	13.5
22	8.0	7.0	7.5	11.0	8.5	9.5	14.5	12.5	13.5	14.5	11.0	12.5
23	9.0	8.0	8.5	10.0	9.0	9.5	13.5	11.0	12.0	16.0	12.0	13.5
24	9.0	8.0	8.5	10.0	8.5	9.0	11.0	9.5	10.5	17.0	13.0	15.0
25	8.5	8.0	8.0	10.5	8.0	9.0	12.0	10.0	10.5	19.0	14.0	16.5
26	8.5	7.5	8.0	11.0	8.0	9.5	11.0	9.0	10.0	18.5	16.0	17.5
27	8.5	8.0	8.0	12.5	9.0	10.5	11.5	10.5	10.5	19.0	16.5	17.5
28	8.5	8.0	8.0	13.0	10.0	11.5	12.5	10.0	11.5	19.5	16.0	18.0
29	---	---	---	13.0	10.0	11.5	13.5	10.0	11.5	20.0	16.5	18.0
30	---	---	---	12.5	10.0	11.0	13.5	10.0	11.5	20.0	16.5	18.5
31	---	---	---	11.0	8.5	10.0	---	---	---	20.5	16.5	18.5
MONTH	9.0	4.0	7.0	13.0	7.0	9.0	16.0	7.5	11.0	20.5	9.0	14.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	21.0	17.0	19.0	20.5	17.5	19.0	21.5	18.5	20.0	19.5	17.0	18.0
2	20.0	17.0	18.5	19.5	18.0	18.5	22.0	19.0	20.5	20.0	17.5	18.5
3	18.5	15.5	17.0	19.0	17.0	18.0	22.0	19.5	21.0	20.5	18.0	19.0
4	18.0	14.5	16.5	18.5	16.0	17.0	22.0	19.5	20.5	20.5	18.0	19.5
5	18.0	15.0	16.5	17.5	15.0	16.5	21.5	19.0	20.5	20.0	17.5	19.0
6	17.5	15.5	16.5	18.5	14.5	16.5	21.5	18.5	20.0	19.5	17.0	18.5
7	17.5	15.5	16.5	18.0	16.0	17.0	22.0	19.0	20.5	19.0	17.0	18.0
8	18.0	14.5	16.5	18.5	15.5	17.0	22.5	19.5	21.0	18.5	16.5	17.5
9	18.5	15.0	17.0	19.0	16.0	17.5	22.5	19.5	21.0	17.5	15.5	16.5
10	20.0	16.0	18.0	19.0	17.5	18.5	22.0	20.0	21.0	17.5	14.5	16.0
11	21.5	17.5	19.5	20.0	17.5	18.5	22.0	19.5	20.5	17.5	15.0	16.0
12	22.0	17.5	20.0	20.0	16.5	18.5	21.5	19.0	20.5	17.5	14.5	16.0
13	22.0	18.0	20.0	19.5	17.0	18.5	22.0	19.0	20.5	16.5	13.5	15.0
14	19.5	17.5	18.5	19.0	17.0	18.0	22.0	19.0	20.5	16.0	13.0	14.5
15	19.0	16.0	17.5	18.5	16.5	17.5	22.5	19.5	21.0	15.0	13.0	14.0
16	17.0	15.5	16.0	17.5	16.0	17.0	22.0	20.0	21.0	15.0	13.0	14.0
17	16.5	15.0	16.0	18.5	15.5	17.0	22.0	19.5	20.5	14.5	13.0	14.0
18	16.0	14.0	15.0	19.0	16.0	17.5	21.5	19.0	20.5	14.0	13.0	13.5
19	17.5	13.5	15.5	20.5	17.0	18.5	21.5	18.5	20.0	13.5	12.5	13.0
20	18.5	15.0	16.5	21.0	17.5	19.5	21.5	19.0	20.0	14.5	12.0	13.0
21	19.5	16.0	17.5	21.5	18.5	20.0	21.0	19.0	20.0	14.5	12.0	13.0
22	20.5	16.5	18.5	21.5	19.0	20.0	19.5	18.0	19.0	15.0	12.0	13.5
23	21.5	18.0	19.5	21.0	18.5	20.0	19.5	17.0	18.5	14.0	12.0	12.5
24	22.0	19.0	20.5	21.0	18.0	19.5	19.5	16.5	18.0	13.5	11.5	12.5
25	22.0	19.0	20.5	21.0	18.0	19.5	20.0	17.5	19.0	12.0	11.0	11.5
26	21.0	18.5	20.0	21.0	18.5	20.0	19.5	18.0	18.5	12.0	11.0	11.5
27	21.0	18.0	19.5	20.5	18.0	19.5	20.0	17.5	19.0	13.0	10.5	11.5
28	20.0	17.5	18.5	20.5	17.5	19.0	20.0	17.5	19.0	13.0	11.5	12.5
29	20.0	16.5	18.5	21.0	18.0	19.5	19.0	18.0	18.5	13.5	11.5	12.5
30	20.5	17.0	19.0	21.0	18.5	19.5	19.5	17.0	18.0	14.0	12.0	13.0
31	---	---	---	21.0	18.0	20.0	19.5	16.5	18.0	---	---	---
MONTH	22.0	13.5	18.0	21.5	14.5	18.5	22.5	16.5	20.0	20.5	10.5	15.0
YEAR	22.5	2.0	11.5									

14371500 GRAVE CREEK AT PEASE BRIDGE, NEAR PLACER, OR

LOCATION.--Lat 42°38'30", long 123°12'40", in SE¼ sec.6, T.34 S., R.4 W., Jackson County, Hydrologic Unit 17100310, on right bank 0.5 mi downstream from Pease Bridge, 0.5 mi upstream from Boulder Creek, 5.4 mi east of Placer, and at mile 27.1.

DRAINAGE AREA.--22.1 mi² at measuring site 0.5 mi upstream.

PERIOD OF RECORD.--October 1940 to current year. Prior to October 1945 monthly discharge only, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,354.2 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Aug. 4, 1955, at sites 0.5 mi upstream at datum 29.9 ft higher.

REMARKS.--Estimated daily discharges: Oct. 2 to Nov. 28, Dec. 12 to Jan. 23. Records good except for estimated daily discharges, which are poor. No regulation. One small diversion upstream from station. Prior to 1945, Columbia upper ditch diverted water about 2 mi upstream from station, bypassing station. Records herein are for measuring site.

AVERAGE DISCHARGE.--41 years (water years 1946-86), 59.6 ft³/s, 36.62 in/yr, 43,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s Dec. 22, 1964, gage height, 11.20 ft, from rating curve extended above 1,200 ft³/s on basis of slope-area measurement at gage height 9.66 ft; minimum discharge, 0.12 ft³/s July 15, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 16	2100	870	4.48	Feb. 18	0800	*1,590	*5.93
Jan. 16	2100	(a)	4.60	Feb. 22	1100	1,350	5.48

Minimum discharge, 0.65 ft³/s Aug. 25-28, Sept. 7, 8, 10.

(a) From outside high-water mark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	.96	7.0	55	20	67	81	28	23	9.6	3.3	1.2	.77		
2	1.0	7.0	185	22	165	69	27	39	9.0	3.0	1.1	.80		
3	1.0	6.0	251	25	209	59	25	48	9.0	3.2	1.0	.79		
4	1.2	6.0	118	25	153	51	24	41	8.3	3.6	.94	.75		
5	1.1	9.0	115	27	132	46	23	44	8.1	4.2	.90	.72		
6	1.1	7.0	139	27	108	45	22	63	8.0	4.0	.88	.70		
7	1.1	6.0	244	25	88	199	21	82	7.9	3.1	.90	.69		
8	1.6	8.0	158	45	72	240	21	76	7.7	3.3	.85	.68		
9	2.0	20	99	80	60	226	19	66	7.2	3.1	.82	.69		
10	3.0	17	70	70	52	163	19	57	6.8	3.2	.78	.68		
11	3.7	12	53	55	46	136	18	49	6.3	2.7	.74	.72		
12	4.0	11	35	45	57	152	20	41	5.9	2.4	.76	.77		
13	3.5	10	30	40	93	156	21	36	5.4	2.2	.76	.80		
14	3.5	10	25	35	127	138	21	31	5.2	2.1	.76	.83		
15	3.7	15	22	40	177	116	20	27	5.7	2.1	.76	.93		
16	3.5	25	20	200	313	95	22	24	5.6	2.2	.74	1.1		
17	3.7	35	18	566	343	80	25	22	6.3	2.3	.72	2.7		
18	3.5	25	16	200	1060	69	25	21	7.2	2.1	.70	5.4		
19	4.0	21	16	250	753	62	25	20	6.0	2.0	.70	3.4		
20	4.5	20	17	180	447	58	23	18	5.7	1.6	.70	2.5		
21	15	19	17	160	347	54	22	20	5.6	1.5	.71	2.5		
22	16	18	17	200	1060	49	21	19	5.5	1.5	.70	2.1		
23	20	17	17	260	665	49	21	17	4.1	1.4	.70	1.9		
24	13	17	16	159	317	54	20	15	4.2	1.4	.70	7.5		
25	10	18	15	113	211	48	21	14	3.9	1.4	.69	20		
26	10	16	14	90	156	43	20	14	3.8	1.3	.68	52		
27	8.0	18	14	78	122	39	23	13	3.7	1.3	.69	29		
28	10	30	13	74	98	36	26	13	3.5	1.3	.68	14		
29	9.0	62	13	72	---	33	27	12	3.7	1.3	.70	9.2		
30	8.0	57	12	67	---	30	25	11	3.5	1.2	.70	7.0		
31	8.0	---	12	60	---	28	---	10	---	1.2	.74	---		
TOTAL	178.66	549.0	1846	3310	7498	2704	675	986	182.4	70.5	24.40	171.62		
MEAN	5.76	18.3	59.5	107	268	87.2	22.5	31.8	6.08	2.27	.79	5.72		
MAX	20	62	251	566	1060	240	28	82	9.6	4.2	1.2	52		
MIN	.96	6.0	12	20	46	28	18	10	3.5	1.2	.68	.68		
CFSM	.26	.83	2.69	4.84	12.1	3.95	1.02	1.44	.28	.10	.04	.26		
IN.	.30	.92	3.11	5.57	12.62	4.55	1.14	1.66	.31	.12	.04	.29		
AC-FT	354	1090	3660	6570	14870	5360	1340	1960	362	140	48	340		
CAL YR 1985	TOTAL	12332.18	MEAN	33.8	MAX	374	MIN	.37	CFSM	1.53	IN.	20.76	AC-FT	24460
WTR YR 1986	TOTAL	18195.58	MEAN	49.9	MAX	1060	MIN	.68	CFSM	2.26	IN.	30.63	AC-FT	36090

LOWER ROGUE RIVER BASIN

14372250 ROGUE RIVER AT MARIAL, OR

LOCATION.--Lat 42°42'50", long 123°53'10", in NW¼SE¼ sec.9, T.33 S., R.10 W., Curry County, Hydrologic Unit 17100310, on right bank 0.2 mi downstream from Mule Creek and at mile 48.2.

DRAINAGE AREA.--3,812 mi².

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1974 to current year.

INSTRUMENTATION.--Temperature recorder since June 1974.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5°C Aug. 5, 1977; minimum, 1.0°C Jan. 1, 2, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 23.5°C Aug. 8-10; minimum, 2.5°C Dec. 13, 14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	15.0	13.5	14.0	9.0	8.0	9.0	5.5	5.0	5.0	5.0	4.0	4.5
2	14.5	13.5	14.0	9.5	9.0	9.0	6.5	5.0	6.0	6.0	5.0	5.5
3	14.5	14.0	14.5	10.0	9.5	10.0	7.0	6.5	7.0	6.0	5.5	6.0
4	15.0	14.0	14.5	10.0	9.5	10.0	7.0	7.0	7.0	6.0	5.5	5.5
5	15.0	14.0	14.5	10.0	9.0	9.5	7.0	7.0	7.0	6.5	5.5	6.0
6	14.5	14.0	14.0	9.0	8.5	8.5	7.5	7.0	7.5	6.5	6.0	6.0
7	14.5	13.0	13.5	8.5	8.0	8.5	8.0	7.0	7.5	6.0	5.5	5.5
8	13.0	11.5	12.0	8.5	8.0	8.0	7.5	7.0	7.0	5.5	5.5	5.5
9	11.5	10.0	10.5	8.0	7.0	8.0	7.0	6.5	6.5	6.5	5.5	6.0
10	10.5	9.0	10.0	7.5	7.0	7.0	6.5	5.5	6.0	7.5	6.5	7.0
11	11.0	9.5	10.0	7.0	6.0	6.5	5.5	4.0	5.0	7.5	7.5	7.5
12	11.0	10.0	10.5	6.0	5.5	5.5	4.0	3.5	4.0	7.5	7.0	7.5
13	10.5	9.5	10.0	5.5	4.5	5.0	3.5	2.5	3.0	7.0	7.0	7.0
14	10.5	9.5	10.0	4.5	4.0	4.5	3.5	2.5	3.0	7.0	6.5	6.5
15	11.0	9.5	10.0	5.0	4.0	4.5	3.5	3.0	3.5	7.0	6.5	6.5
16	11.0	10.0	10.5	6.0	5.0	5.5	3.5	3.5	3.5	7.5	7.0	7.0
17	11.5	10.0	10.5	6.5	6.0	6.5	3.5	3.5	3.5	8.0	7.5	8.0
18	11.5	10.0	10.5	6.5	6.0	6.5	3.5	3.5	3.5	8.0	7.5	8.0
19	11.0	10.5	10.5	6.0	5.5	6.0	3.5	3.5	3.5	8.5	7.5	8.0
20	11.0	10.0	10.5	6.0	5.5	5.5	3.5	3.5	3.5	7.5	7.0	7.0
21	10.5	9.5	10.0	5.5	5.5	5.5	3.5	3.0	3.5	7.0	6.5	6.5
22	10.0	9.5	9.5	5.5	5.0	5.5	3.5	3.0	3.5	6.5	6.0	6.5
23	10.5	10.0	10.0	5.5	5.0	5.0	3.5	3.5	3.5	7.5	6.5	7.0
24	11.5	10.0	11.0	5.5	5.0	5.0	3.5	3.5	3.5	7.5	7.0	7.0
25	11.5	10.5	11.0	5.0	5.0	5.0	3.5	3.0	3.5	7.0	6.0	6.5
26	12.0	11.5	11.5	5.5	5.0	5.0	3.5	3.5	3.5	6.5	6.0	6.0
27	12.0	11.5	11.5	5.5	5.0	5.0	3.5	3.5	3.5	6.5	6.0	6.5
28	11.5	10.5	11.0	5.0	4.5	5.0	3.5	3.0	3.5	7.5	6.5	7.0
29	10.5	10.0	10.0	5.5	4.5	5.0	3.5	3.5	3.5	8.0	7.5	8.0
30	10.0	9.0	9.0	5.5	5.0	5.5	3.5	3.0	3.5	8.5	8.0	8.5
31	9.0	8.5	9.0	---	---	---	4.0	3.5	4.0	8.5	8.5	8.5
MONTH	15.0	8.5	11.0	10.0	4.0	6.5	8.0	2.5	4.5	8.5	4.0	6.5

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	8.5	8.0	8.0	9.5	9.0	9.0	11.5	10.0	11.0	13.0	11.5	12.0
2	8.0	8.0	8.0	9.5	9.0	9.0	10.5	9.5	10.0	12.0	11.0	11.5
3	8.0	7.5	7.5	10.0	9.0	9.5	11.0	9.5	10.0	12.5	11.5	12.0
4	8.0	7.5	7.5	10.5	9.0	9.5	11.0	10.0	10.5	12.5	11.5	12.0
5	7.5	7.5	7.5	10.5	10.0	10.5	12.0	10.5	11.5	12.5	11.0	12.0
6	7.5	7.0	7.0	11.0	10.0	10.5	13.0	11.0	12.0	11.5	11.0	11.0
7	7.0	6.0	6.5	11.0	10.0	10.5	13.5	12.0	13.0	11.0	11.0	11.0
8	6.0	5.5	5.5	10.0	9.5	9.5	14.0	13.5	13.5	12.5	11.0	12.0
9	5.5	5.0	5.0	9.5	8.5	9.0	13.5	13.0	13.0	13.0	12.0	12.5
10	5.5	5.0	5.5	8.5	8.0	8.5	14.0	12.5	13.0	13.0	11.5	12.5
11	6.0	5.5	5.5	9.0	8.5	8.5	12.5	12.0	12.0	12.5	11.5	12.0
12	7.0	6.0	6.5	8.5	8.0	8.5	12.0	11.0	11.5	13.0	11.5	12.0
13	7.5	7.0	7.5	8.5	8.5	8.5	11.5	10.0	10.5	14.5	12.5	13.5
14	8.5	7.5	8.0	8.5	7.5	8.0	11.5	10.0	11.0	15.0	13.0	14.0
15	8.5	8.0	8.5	8.5	8.0	8.0	12.0	10.5	11.0	15.5	13.5	14.0
16	9.0	8.5	9.0	8.5	7.5	8.0	11.5	10.0	11.0	16.0	14.0	15.0
17	9.0	8.5	8.5	9.0	8.0	8.5	11.5	10.5	11.0	16.5	14.5	15.5
18	8.5	8.0	8.5	9.0	8.0	8.5	12.0	10.0	11.0	17.0	15.5	16.0
19	8.0	8.0	8.0	9.5	9.0	9.5	13.5	11.0	12.0	17.5	16.0	16.5
20	8.0	8.0	8.0	10.5	9.5	10.0	15.0	12.5	13.5	17.0	16.0	16.5
21	8.0	7.5	8.0	11.0	10.0	10.5	16.0	14.0	15.0	16.0	14.5	15.0
22	9.0	8.0	8.5	10.5	10.5	10.5	15.5	14.5	15.0	15.0	14.0	14.0
23	9.5	9.0	9.0	11.0	10.0	10.5	14.5	13.0	13.5	15.0	13.5	14.5
24	9.5	9.5	9.5	10.5	10.0	10.0	13.0	11.5	12.5	16.5	14.0	15.5
25	9.5	9.0	9.0	10.0	9.5	10.0	11.5	10.5	11.0	18.5	15.5	17.0
26	9.0	8.5	9.0	10.5	10.0	10.5	12.0	11.0	11.5	19.0	17.0	18.0
27	9.5	9.0	9.0	11.5	10.5	11.0	12.0	10.5	11.5	19.5	17.5	18.5
28	9.5	9.0	9.0	13.0	11.5	12.0	12.0	11.5	12.0	20.0	18.5	19.5
29	---	---	---	13.5	12.0	12.5	13.0	11.5	12.0	21.0	18.5	19.5
30	---	---	---	13.0	11.5	12.5	13.5	11.5	12.5	21.5	19.0	20.0
31	---	---	---	12.0	11.0	11.5	---	---	---	22.0	19.5	20.5
MONTH	9.5	5.0	8.0	13.5	7.5	10.0	16.0	9.5	12.0	22.0	11.0	14.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	22.0	20.0	21.0	22.0	19.5	20.5	22.5	20.5	21.5	20.0	18.5	19.5
2	22.5	20.0	21.0	21.5	20.0	21.0	22.5	20.5	21.5	20.5	18.5	19.5
3	21.0	19.0	20.0	20.5	19.5	20.0	23.0	21.5	22.0	21.0	19.5	20.0
4	19.5	18.0	18.5	19.5	18.5	19.0	23.0	21.5	22.0	21.5	20.0	20.5
5	19.5	17.0	18.5	19.0	17.0	18.0	22.5	21.0	22.0	21.0	20.0	20.5
6	19.0	17.0	18.0	19.5	17.0	18.0	22.5	21.0	21.5	20.5	19.5	20.0
7	18.0	17.0	17.5	19.0	17.0	18.0	23.0	21.0	22.0	20.5	19.5	19.5
8	19.0	17.0	18.0	19.5	17.5	18.5	23.5	21.5	22.5	19.5	18.0	19.0
9	19.0	17.0	18.0	19.5	18.0	18.5	23.5	22.0	23.0	19.0	17.5	18.0
10	20.5	18.0	19.0	19.5	18.0	19.0	23.5	22.0	23.0	18.0	17.0	17.5
11	21.5	19.0	20.5	21.0	19.5	20.0	23.0	21.5	22.5	18.0	16.5	17.5
12	22.5	20.5	21.5	21.0	19.5	20.0	23.0	21.0	22.0	17.5	16.5	17.0
13	23.0	20.5	22.0	21.0	18.5	20.0	22.5	21.0	21.5	17.0	16.0	16.5
14	22.0	20.5	21.0	21.0	19.0	20.0	23.0	21.0	22.0	16.0	15.5	16.0
15	20.5	19.0	20.0	20.0	18.5	19.5	23.0	21.0	22.0	16.0	15.0	15.5
16	19.0	18.0	18.5	18.5	17.5	18.5	22.5	21.5	22.0	15.5	14.5	15.0
17	18.0	16.5	17.0	18.5	17.0	18.0	23.0	21.5	22.0	15.5	14.5	15.0
18	17.5	16.0	16.5	19.0	17.0	18.0	22.0	21.0	21.5	15.5	14.5	15.0
19	17.5	15.5	16.5	20.5	17.5	19.0	22.5	20.5	21.5	14.5	14.0	14.5
20	18.5	16.0	17.0	21.5	19.5	20.5	22.5	21.0	21.5	14.5	14.0	14.0
21	20.0	17.5	18.5	22.0	20.0	21.0	22.0	21.0	21.5	15.0	13.5	14.5
22	21.0	18.5	19.5	22.5	20.5	21.5	21.5	20.5	21.0	15.0	14.0	14.5
23	22.0	19.5	21.0	22.5	21.0	21.5	20.5	19.5	20.0	15.0	14.0	14.5
24	23.0	21.0	22.0	22.5	20.5	21.5	20.5	19.0	19.5	14.5	13.0	13.5
25	23.0	21.0	22.0	22.0	20.5	21.0	21.0	18.5	20.0	13.5	13.0	13.0
26	23.0	21.5	22.5	21.5	20.0	21.0	21.0	19.5	20.5	13.0	12.0	12.0
27	22.0	21.0	21.5	21.5	20.0	21.0	21.0	19.5	20.0	12.5	12.0	12.5
28	21.5	20.0	20.5	21.5	19.5	20.5	21.0	19.5	20.0	13.5	12.0	12.5
29	21.0	19.0	20.0	21.5	19.5	20.5	20.0	19.5	19.5	13.5	12.5	13.0
30	21.5	19.0	20.0	21.5	20.0	20.5	20.0	19.0	19.5	14.0	13.5	13.5
31	---	---	---	22.0	20.0	21.0	20.5	19.0	19.5	---	---	---
MONTH	23.0	15.5	19.5	22.5	17.0	20.0	23.5	18.5	21.5	21.5	12.0	16.0
YEAR	23.5	2.5	12.5									

LOWER ROGUE RIVER BASIN

14372300 ROGUE RIVER NEAR AGNESS, OR
(National stream quality accounting network station)

LOCATION.--Lat 42°34'50", long 124°03'30", in NE¼NW¼ sec.6, T.35 S., R.11 W., Curry County, Hydrologic Unit 17100310, on left bank 0.8 mi upstream from Shasta Costa Creek, 1.5 mi north of Agness, 2.6 mi upstream from Illinois River, and at mile 29.7.

DRAINAGE AREA.--3,939 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 113.81 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Public Roads).

REMARKS.--No estimated daily discharges. Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (see sta 14335040), since December 1980 by Applegate Lake (see sta 14361900), slight regulation by Fish Lake and Emigrant Lake. Many diversions for irrigation and mining.

AVERAGE DISCHARGE.--26 years, 6,310 ft³/s, 4,572,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290,000 ft³/s Dec. 23, 1964, from slope-area measurement; maximum gage height, 68.03 ft Dec. 23, 1964, from floodmark (backwater from Illinois River); minimum discharge, 608 ft³/s July 9, 10, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83,800 ft³/s Feb. 23, gage height, 21.63 ft; maximum gage height, 22.18 ft, from crest-stage gage Feb. 23; minimum discharge, 1,780 ft³/s Sept. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	2050	4790	2540	6600	16000	5040	3840	3620	2360	2210	2310
2	1810	2030	7920	2640	10800	12900	4930	4580	3580	2540	2210	2320
3	1800	2020	12300	2890	18400	11100	4000	5470	3720	2700	2230	2290
4	1870	2000	7940	2870	13500	9630	3650	5760	3710	2680	2200	2290
5	1900	2000	6020	3010	10200	8330	3530	5810	3350	2590	2190	2280
6	1890	2010	5800	3140	8560	7680	3330	6900	3130	2640	2180	2270
7	1910	1990	6900	3080	7170	10000	3220	7180	2910	2630	2180	2290
8	1950	2020	8580	3050	5910	16900	3090	6440	2840	2600	2210	2280
9	1930	2370	7160	3560	4860	19500	3060	5830	2760	2590	2180	2260
10	2110	2550	5670	4210	4370	18100	3100	5360	2560	2520	2190	2120
11	2050	2390	4820	3800	4000	17300	3090	5270	2420	2570	2220	2160
12	2070	2220	4280	3580	4190	18700	3410	5010	2160	2530	2200	1980
13	2080	2100	3880	3330	5270	19400	3910	4640	2420	2510	2180	1980
14	2030	2060	3150	3170	6010	16500	3900	4240	2380	2480	2190	1810
15	2040	2360	2950	3250	10300	14000	3870	3970	2520	2460	2200	1820
16	1990	2860	2830	5830	16400	11900	4150	3830	2500	2470	2190	1790
17	2040	2970	2730	17100	21600	10200	4000	3710	2540	2520	2210	1990
18	1950	2940	2670	14000	58200	8650	4070	3630	2590	2540	2220	2310
19	1920	2630	2630	11600	55900	6770	3740	3540	2600	2390	2220	2290
20	2010	2460	2590	12000	45300	6550	3840	3510	2550	2360	2200	2470
21	2270	2390	2550	9560	38300	6210	3680	3730	2480	2340	2190	2330
22	2780	2440	2530	8720	54400	5840	3410	4190	2450	2300	2220	2160
23	3270	2560	2500	17800	68100	5850	3110	4270	2410	2260	2210	2090
24	3060	2960	2470	14000	38600	6470	3060	3940	2380	2250	2240	2300
25	2550	3010	2450	9930	28800	6110	3020	3710	2350	2250	2250	3510
26	2320	3070	2440	7970	25300	5730	3100	3580	2370	2230	2250	5070
27	2220	3020	2400	6860	21800	5470	3140	3420	2340	2290	2250	5040
28	2200	3630	2370	6090	18100	4770	3250	3340	2340	2300	2260	4480
29	2140	4980	2340	5350	---	5080	3570	3500	2380	2270	2260	2840
30	2090	4880	2300	5820	---	5110	3970	3540	2380	2230	2290	2510
31	2070	---	2350	6090	---	4990	---	3560	---	2210	2310	---
TOTAL	66170	78970	132310	206840	610940	321740	108240	139300	80740	75610	68740	75640
MEAN	2135	2632	4268	6672	21820	10380	3608	4494	2691	2439	2217	2521
MAX	3270	4980	12300	17800	68100	19500	5040	7180	3720	2700	2310	5070
MIN	1800	1990	2300	2540	4000	4770	3020	3340	2160	2210	2180	1790
AC-FT	131200	156600	262400	410300	1212000	638200	214700	276300	160100	150000	136300	150000
CAL YR 1985	TOTAL	1374070	MEAN	3765	MAX	19200	MIN	1800	AC-FT	2725000		
WTR YR 1986	TOTAL	1965240	MEAN	5384	MAX	68100	MIN	1790	AC-FT	3898000		

LOWER ROGUE RIVER BASIN

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14372300 ROGUE RIVER NEAR AGNESS, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1960 to current year.

INSTRUMENTATION.--Temperature recorder since October 1960.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 26.5°C on several days in 1962, Aug. 3, 6, 9-11, 1977; minimum, 1.0°C Jan. 22-25, 1962, Dec. 9-16, 1972, Jan. 9, 10, 1977, Jan. 1-3, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.5°C Aug. 9; minimum, 3.0°C Dec. 13-15, 22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	HARD- NESS NONCARB DIS- SOLVED (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 29...	1230	2140	98	7.8	10.0	11.4	K2	K6	42	0	10
JAN 07...	1300	3080	104	7.4	6.0	12.9	--	--	41	0	9.5
FEB 20...	0900	45000	81	7.2	8.0	11.5	K890	K350	36	0	8.2
APR 15...	1200	4090	104	7.7	11.0	11.3	K2	K7	--	--	--
JUN 10...	1230	2780	95	7.8	18.5	9.4	<1	K2	36	0	8.6
JUL 29...	1215	2360	82	7.5	20.0	9.0	K3	86	31	0	7.4

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WATER DISSOLV FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 29...	4.1	5.1	1.1	48	5.7	3.4	<0.1	0.02	0.2	0.4
JAN 07...	4.1	4.8	0.9	46	5.2	3.0	<0.1	0.05	0.2	0.4
FEB 20...	3.8	3.2	0.9	47	7.3	1.9	<0.1	0.13	0.2	0.6
APR 15...	--	--	--	46	--	--	--	0.05	<0.1	0.3
JUN 10...	3.5	4.2	1.1	44	5.1	3.4	<0.1	0.03	0.1	0.3
JUL 29...	2.9	4.6	1.1	39	2.4	1.8	<0.1	0.03	<0.1	0.3

DATE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	TUR- BID- ITY (NTU)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 29...	0.06	0.06	0.08	22	77	81	445	1.6	--	--
JAN 07...	0.05	0.05	0.06	21	64	76	532	1.8	2	17
FEB 20...	0.07	0.10	0.12	18	80	73	9720	73	309	37600
APR 15...	0.03	0.04	0.03	--	--	--	--	--	40	442
JUN 10...	0.06	0.07	0.07	20	81	73	608	3.0	22	165
JUL 29...	0.05	0.06	0.07	24	65	68	414	2.5	--	--

K - Results based on colony count outside acceptable range (non-ideal colony count).

LOWER ROGUE RIVER BASIN

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 29...	20	<1	20	<0.5	<1	<1	<3	3	35	1
JAN 07...	--	--	--	--	--	--	--	--	--	--
FEB 20...	--	<1	24	<0.5	<1	<1	<3	7	--	2
APR 15...	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--
JUL 29...	30	<1	20	<0.5	<1	--	<3	4	34	<5
DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 29...	<4	3	0.1	<10	2	<1	<1	75	<6	<3
JAN 07...	--	--	--	--	--	--	--	--	--	--
FEB 20...	<4	19	0.2	<10	4	<1	<1	54	<6	16
APR 15...	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--
JUL 29...	<4	3	0.3	<10	1	<1	<1	60	<6	10

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	16.0	14.0	15.0	9.5	9.0	9.0	5.5	5.0	5.0			
2	16.0	13.5	15.0	10.0	9.0	9.5	6.5	5.5	6.0			
3	16.0	14.0	15.0	10.5	9.5	10.0	7.0	6.5	7.0			
4	16.5	14.0	15.0	10.0	9.5	10.0	7.5	7.0	7.5			
5	16.5	14.0	15.0	10.0	9.5	9.5	7.5	7.5	7.5			
6	15.5	14.0	15.0	9.5	9.0	9.5	8.0	7.5	7.5			
7	15.0	14.0	14.5	9.5	9.0	9.0	8.0	7.5	8.0			
8	14.0	12.0	13.0	9.0	8.0	8.5	7.5	7.0	7.5			
9	12.5	11.0	11.5	8.0	7.5	8.0	7.0	6.5	7.0			
10	11.5	10.0	10.5	7.5	7.0	7.5	6.5	5.5	6.0			
11	11.5	10.0	10.5	7.0	6.0	6.5	5.5	5.0	5.0			
12	12.0	10.0	11.0	6.0	5.0	5.5	5.0	4.0	4.0			
13	11.5	10.0	10.5	5.5	5.0	5.0	4.0	3.0	3.5			
14	11.5	10.0	10.5	5.0	4.5	5.0	3.5	3.0	3.0			
15	11.5	10.0	10.5	5.0	4.5	5.0	4.0	3.0	3.5			
16	12.0	10.0	11.0	6.0	5.0	5.5	4.0	3.5	3.5			
17	12.0	10.5	11.0	6.5	6.0	6.0	4.0	3.5	3.5			
18	12.5	10.5	11.0	6.5	6.0	6.0	4.0	3.5	3.5			
19	11.5	10.5	11.0	6.5	6.0	6.0	4.0	3.5	3.5			
20	11.5	10.5	11.0	6.0	5.5	6.0	4.0	3.5	3.5			
21	11.0	10.0	10.5	6.0	5.5	5.5	4.0	3.5	3.5			
22	10.0	10.0	10.0	5.5	5.0	5.5	3.5	3.0	3.5			
23	11.0	10.0	10.5	5.0	5.0	5.0	4.0	3.5	3.5			
24	11.5	10.5	11.0	5.5	5.0	5.0	4.0	3.5	3.5			
25	12.0	11.0	11.5	5.5	4.5	5.0	3.5	3.5	3.5			
26	12.5	11.5	12.0	5.0	4.5	5.0	4.0	3.5	3.5			
27	12.5	11.5	12.0	5.0	5.0	5.0	4.0	3.5	3.5			
28	12.0	10.5	11.5	5.0	5.0	5.0	4.0	3.5	3.5			
29	11.0	10.0	10.5	5.5	5.0	5.0	4.0	3.5	3.5			
30	10.0	9.5	10.0	5.5	5.0	5.0	---	---	---			
31	9.5	9.0	9.0	---	---	---	---	---	---			
MONTH	16.5	9.0	12.0	10.5	4.5	6.5	---	---	---			
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	---	---	---	10.0	9.0	9.5	12.0	11.0	11.0	12.5	11.5	12.0
2	---	---	---	10.0	9.5	9.5	12.0	10.0	11.0	12.0	11.0	11.0
3	---	---	---	10.0	9.5	10.0	11.0	9.5	10.5	12.0	11.0	11.5
4	---	---	---	10.5	10.0	10.0	11.0	10.5	10.5	12.5	11.0	12.0
5	---	---	---	11.5	10.5	10.5	12.5	10.5	11.5	12.5	11.0	11.5
6	---	---	---	11.0	10.5	11.0	13.5	11.0	12.0	11.5	10.0	11.0
7	---	---	---	11.0	10.5	11.0	13.5	12.0	13.0	11.5	10.0	10.5
8	---	---	---	10.5	9.5	10.0	13.5	13.5	13.5	13.0	10.5	11.5
9	---	---	---	9.5	8.5	9.5	13.5	13.0	13.5	13.0	11.5	12.0
10	---	---	---	9.0	8.5	9.0	14.0	12.5	13.0	13.0	11.5	12.0
11	---	---	---	9.0	9.0	9.0	13.0	12.0	12.5	13.0	11.0	12.0
12	---	---	---	9.0	8.0	8.5	12.0	11.0	11.5	13.5	11.0	12.0
13	8.5	---	---	9.0	8.5	8.5	12.0	10.5	11.0	14.5	12.0	13.0
14	9.0	8.0	8.5	8.5	8.0	8.5	11.0	10.0	10.5	14.5	12.5	13.5
15	9.0	8.5	8.5	8.5	8.0	8.5	11.0	10.5	11.0	15.0	13.0	14.0
16	9.5	9.0	9.0	8.5	8.0	8.5	11.0	10.5	10.5	15.5	13.5	14.5
17	9.0	9.0	9.0	9.0	8.5	8.5	11.0	10.0	10.5	16.0	14.5	15.5
18	9.0	8.5	8.5	9.5	8.5	9.0	12.0	10.0	11.0	16.5	15.5	16.0
19	8.5	8.5	8.5	10.5	8.5	9.5	13.0	11.0	12.0	17.0	15.5	16.5
20	8.5	8.0	8.0	11.5	9.5	10.5	14.5	12.5	13.5	16.5	15.5	16.0
21	8.5	8.0	8.0	12.0	10.5	11.0	16.0	14.0	14.5	15.5	14.5	15.0
22	9.0	8.5	9.0	12.0	10.5	11.0	15.0	14.0	14.5	15.5	13.5	14.5
23	10.0	8.5	9.5	11.0	10.5	10.5	14.5	13.0	13.5	15.5	13.0	14.5
24	10.0	9.5	10.0	11.0	10.0	10.5	13.0	12.0	12.5	16.0	13.5	15.0
25	10.0	9.0	9.5	11.0	9.5	10.0	12.0	11.0	11.5	18.0	15.5	16.5
26	9.5	9.0	9.5	11.5	10.0	10.5	11.5	11.0	11.0	18.0	17.0	17.5
27	10.0	9.5	9.5	12.5	10.5	11.5	11.5	11.0	11.0	19.5	18.0	18.5
28	10.0	9.5	9.5	13.5	11.5	12.5	12.5	11.0	11.5	20.5	18.5	19.0
29	---	---	---	14.0	12.5	13.0	13.0	11.0	12.0	20.5	18.5	19.5
30	---	---	---	14.0	12.5	13.0	13.0	11.0	12.0	21.5	19.5	20.5
31	---	---	---	13.0	11.5	12.5	---	---	---	21.5	20.0	21.0
MONTH	---	---	---	14.0	8.0	10.0	16.0	9.5	12.0	21.5	10.0	14.5

LOWER ROGUE RIVER BASIN

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	22.0	20.0	21.0	22.0	20.0	21.0	23.0	20.5	21.5	21.0	19.0	19.5
2	21.5	20.5	21.0	22.5	20.5	21.0	23.0	21.0	22.0	21.0	19.0	20.0
3	21.0	20.0	20.5	21.5	20.0	20.5	23.5	21.5	22.0	21.5	19.5	20.5
4	20.0	19.0	19.5	20.5	18.5	19.5	23.5	21.5	22.5	22.0	20.0	21.0
5	19.0	17.5	18.0	20.0	18.0	19.0	23.5	21.5	22.0	22.0	20.0	21.0
6	18.5	18.0	18.0	20.5	18.0	19.0	23.5	21.5	22.0	22.0	20.0	21.0
7	19.0	17.5	18.0	19.5	18.0	18.5	24.0	21.5	22.0	21.0	19.0	20.0
8	19.0	17.0	18.0	20.5	18.0	19.0	24.0	21.5	22.5	20.0	18.5	19.0
9	19.5	17.5	18.5	20.5	18.5	19.0	24.5	22.0	23.0	19.5	18.0	18.5
10	20.5	18.0	19.0	20.0	19.0	19.0	24.0	22.5	23.0	19.0	17.5	18.0
11	22.0	19.0	20.0	22.0	18.5	20.0	24.0	22.0	22.5	19.0	17.0	17.5
12	23.0	20.0	21.0	22.0	19.5	20.5	23.5	21.5	22.5	18.5	16.5	17.0
13	23.5	20.5	21.5	21.5	19.5	20.5	23.5	21.5	22.5	17.5	16.0	16.5
14	21.0	20.0	21.0	21.5	19.5	20.0	23.5	21.5	22.5	17.5	15.5	16.0
15	21.0	19.5	20.0	21.0	19.0	19.5	23.5	21.5	22.0	16.0	15.0	15.5
16	19.5	18.0	18.5	20.0	18.0	19.0	22.5	21.5	22.0	16.0	14.5	15.0
17	18.0	16.5	17.5	19.5	17.5	18.5	23.0	21.0	22.0	15.0	14.0	14.5
18	18.0	16.0	17.0	19.5	17.5	18.5	23.0	21.0	22.0	15.0	14.0	14.5
19	18.0	16.0	17.0	21.0	18.0	19.0	23.0	20.5	21.5	15.0	14.0	14.5
20	18.5	16.5	17.0	22.0	19.0	20.0	23.0	21.0	22.0	15.0	14.0	14.0
21	20.0	17.0	18.5	22.5	20.5	21.0	23.0	21.0	21.5	15.0	14.0	14.5
22	21.0	18.5	19.5	23.0	20.5	21.5	21.5	20.5	21.0	16.0	14.0	14.5
23	22.5	20.0	21.0	23.0	21.0	21.5	21.5	20.0	20.5	14.5	14.0	14.5
24	23.0	21.0	22.0	23.0	21.0	21.5	21.0	19.0	20.0	14.5	13.0	14.0
25	24.0	21.5	22.5	22.5	21.0	21.5	21.5	19.5	20.0	13.0	12.5	13.0
26	23.5	22.0	22.5	22.5	20.5	21.0	21.0	19.5	20.0	12.5	12.0	12.0
27	23.0	21.0	22.0	22.0	20.0	21.0	21.5	20.0	20.5	12.5	12.0	12.5
28	21.0	19.5	20.5	22.0	20.0	21.0	21.0	20.0	20.0	13.0	11.5	12.5
29	21.5	19.0	20.0	22.0	20.0	20.5	20.5	19.5	20.0	13.5	12.5	13.0
30	21.5	19.5	20.5	22.0	20.0	21.0	21.0	19.0	20.0	14.5	13.0	13.5
31	---	---	---	22.5	20.5	21.0	20.5	19.0	20.0	---	---	---
MONTH	24.0	16.0	19.5	23.0	17.5	20.0	24.5	19.0	21.5	22.0	11.5	16.5

14372500 EAST FORK ILLINOIS RIVER NEAR TAKILMA, OR

LOCATION.--Lat 42°00'10", long 123°37'30", in SE¼NE¼ sec.15, T.41 S., R.8 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on right bank 0.3 mi downstream from Dunn Creek (California-Oregon State line), 3.4 mi south of Takilma, and at mile 71.2.

DRAINAGE AREA.--42.3 mi².

PERIOD OF RECORD.--April to September 1926, April 1927 to April 1932, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1318. Records prior to 1942 water year not equivalent owing to large diversions.

REVISED RECORDS.--WSP 1184: 1948. WSP 1288: 1951(P). WSP 1398: 1946, 1947(M), 1949. WSP 1738: Drainage area (former site).

GAGE.--Water-stage recorder. Elevation of gage is 1,780 ft, from topographic map. Prior to Oct. 31, 1946, nonrecording gage at sites 0.6 mi downstream at different datums. Oct. 31, 1946, to May 13, 1949, nonrecording gage and May 14, 1949, to Aug. 23, 1965, water-stage recorder at site 0.6 mi downstream at datum 1,746.6 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent except those for period of backwater from rock dam, Oct. 1 to Jan. 17, which are fair. No regulation. Two small diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--45 years (water years 1942-86), 180 ft³/s, 57.79 in/yr, 130,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Dec. 22, 1964, gage height, 14.90 ft, present site and datum, from floodmark, from rating curve extended above 4,400 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 4.6 ft³/s Nov. 3, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 17	0300	3,850	8.30	Feb. 22	1730	4,390	8.75
Feb. 17	2200	*6,070	*9.98				

Minimum discharge, 7.1 ft³/s Sept. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	9.3	26	469	50	344	282	159	75	57	19	11	8.3		
2	9.1	25	1060	70	644	243	139	174	53	19	11	8.1		
3	9.0	24	445	144	748	218	124	219	49	19	10	8.1		
4	9.0	24	317	129	477	202	114	174	44	20	10	8.0		
5	8.7	24	259	156	363	190	106	163	43	19	9.9	7.7		
6	8.4	23	394	300	282	189	100	195	42	18	9.9	7.4		
7	8.7	22	403	217	230	1100	98	201	40	18	9.7	7.3		
8	8.9	24	276	159	192	993	97	207	38	17	9.6	7.6		
9	9.2	31	201	182	162	797	94	213	37	17	9.3	7.9		
10	9.4	26	156	170	140	704	92	203	35	17	9.4	8.1		
11	10	24	122	136	123	705	88	171	33	17	9.2	7.9		
12	11	23	99	112	247	573	90	146	32	16	9.3	7.9		
13	10	23	84	94	326	475	83	133	30	16	9.3	7.9		
14	10	24	75	88	596	400	80	120	30	15	9.2	8.3		
15	9.7	251	70	130	1020	312	79	108	30	15	8.9	9.9		
16	9.4	172	65	513	1830	254	83	99	29	14	8.8	12		
17	9.4	112	62	2120	2580	220	85	93	31	14	8.7	25		
18	9.4	77	63	790	3340	199	82	93	33	14	8.7	34		
19	9.3	62	65	466	2130	196	84	88	29	14	8.6	32		
20	21	54	68	388	1350	218	91	92	28	14	8.4	19		
21	36	48	70	286	1170	234	102	89	26	14	8.4	15		
22	243	44	69	253	3290	218	104	77	25	13	8.4	14		
23	260	44	69	673	2040	260	87	70	25	13	8.3	13		
24	100	45	70	462	997	403	78	66	24	12	8.2	57		
25	55	42	71	301	647	312	80	70	23	12	8.2	208		
26	40	40	70	229	499	256	72	72	22	12	8.3	511		
27	36	137	66	213	415	243	75	69	21	12	8.2	225		
28	38	235	61	237	337	236	83	66	21	12	8.3	113		
29	32	158	55	341	---	222	77	65	21	12	8.5	77		
30	31	109	50	514	---	200	72	65	20	11	8.7	68		
31	28	---	47	377	---	178	---	62	---	11	8.5	---		
TOTAL	1097.9	1973	5451	10300	26519	11232	2798	3738	971	466	280.9	1543.4		
MEAN	35.4	65.8	176	332	947	362	93.3	121	32.4	15.0	9.06	51.4		
MAX	260	251	1060	2120	3340	1100	159	219	57	20	11	511		
MIN	8.4	22	47	50	123	178	72	62	20	11	8.2	7.3		
CFSM	.84	1.56	4.16	7.85	22.4	8.56	2.21	2.86	.77	.35	.21	1.22		
IN.	.97	1.74	4.79	9.06	23.32	9.88	2.46	3.29	.85	.41	.25	1.36		
AC-FT	2180	3910	10810	20430	52600	22280	5550	7410	1930	924	557	3060		
CAL YR 1985	TOTAL	33425.0	MEAN	91.6	MAX	1060	MIN	7.5	CFSM	2.17	IN.	29.40	AC-FT	66300
WTR YR 1986	TOTAL	66370.2	MEAN	182	MAX	3340	MIN	7.3	CFSM	4.30	IN.	58.37	AC-FT	131600

14375100 SUCKER CREEK BELOW LITTLE GRAYBACK CREEK, NEAR HOLLAND, OR

LOCATION.--Lat 42°09'35", long 123°28'40", in NE¼SW¼ sec.24, T.39 S., R.7 W., Josephine County, Hydrologic Unit 17100311, on right bank 500 ft downstream from Little Grayback Creek, 2.0 mi downstream from Grayback Creek, 3.7 mi northeast of Holland, and at mile 9.3.

DRAINAGE AREA.--83.9 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,713.92 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--No estimated daily discharges. Records good. Grayback Canal and 3 small diversions from Grayback and Cave Creeks divert water for domestic use and irrigation upstream from station. Return flow from these diversions enters creek upstream from station.

AVERAGE DISCHARGE.--21 years, 246 ft³/s, 39.82 in/yr, 178,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft³/s Jan. 15, 1974, gage height, 8.20 ft; minimum discharge, 12 ft³/s Oct. 20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1940, 10.8 ft on Dec. 22, 1964, from floodmark, discharge, 19,300 ft³/s, from estimate based on slope-area measurement of peak flow at site 0.7 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1600	1,880	4.70	Feb. 17	2330	*5,210	6.67
Feb. 17	2330	(a)	*7.14	Feb. 22	1830	4,220	6.19

Minimum discharge, 16 ft³/s Sept. 6, 7.

(a) From crest-stage gage.

REVISIONS.--Revised daily discharges, in cubic feet per second, for September 1985 and water year 1985 discharges are given below. These figures supersede those published in the report for 1985.

September 1, 1985	30	6	29	11	33	16	36	21	28	26	24
2	47	7	32	12	34	17	38	22	26	27	24
3	33	8	33	13	41	18	37	23	26	28	24
4	29	9	38	14	56	19	31	24	25	29	24
5	26	10	40	15	46	20	30	25	25	30	22

MONTH	TOTAL	MEAN	MAX	MIN	CFSM	IN	AC-FT
September 1985	967	32.2	56	22	.38	.43	1920
WTR YR 1985	61503	169	1500	22	2.01	27.27	122000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	23	33	95	80	347	588	292	144	137	60	32	21		
2	22	32	347	87	532	518	264	217	136	59	30	20		
3	22	31	345	104	577	471	248	224	131	58	30	20		
4	21	31	202	90	463	436	235	197	119	59	29	19		
5	21	37	180	142	398	413	222	196	114	58	28	18		
6	23	32	164	143	340	403	214	211	112	56	28	17		
7	26	31	265	118	296	918	211	217	108	54	27	17		
8	22	34	240	122	261	869	207	214	102	53	27	18		
9	22	49	187	169	233	848	202	218	98	51	26	19		
10	22	47	146	144	209	825	199	223	94	51	26	20		
11	29	38	121	134	193	829	192	206	89	50	26	20		
12	29	35	103	124	230	789	191	196	85	48	26	19		
13	24	33	93	115	244	718	182	191	83	47	26	20		
14	23	33	86	113	315	627	176	183	83	46	25	21		
15	22	74	80	123	604	563	173	174	84	45	24	26		
16	22	122	75	532	1340	506	176	168	82	45	24	34		
17	22	94	73	681	2130	457	174	168	89	45	24	58		
18	22	71	73	477	3560	416	168	170	102	44	23	61		
19	22	57	74	429	2730	394	164	168	85	43	23	66		
20	45	54	76	377	1970	381	168	179	80	41	23	42		
21	89	48	76	319	1420	372	182	172	77	40	22	34		
22	115	47	75	345	3080	354	184	160	74	39	23	30		
23	105	44	75	470	2840	381	168	152	72	37	22	31		
24	71	51	78	387	1610	429	160	149	69	37	21	87		
25	53	51	80	321	1110	387	159	158	67	37	21	126		
26	44	45	79	282	917	373	151	163	66	36	21	241		
27	38	45	74	268	815	371	155	158	64	36	21	128		
28	45	110	71	261	684	367	155	156	64	35	21	83		
29	38	118	66	296	---	362	146	155	64	34	22	70		
30	36	90	63	336	---	338	141	154	62	34	23	69		
31	37	---	62	315	---	312	---	145	---	33	22	---		
TOTAL	1155	1617	3824	7904	29448	16015	5659	5586	2692	1411	766	1455		
MEAN	37.3	53.9	123	255	1052	517	189	180	89.7	45.5	24.7	48.5		
MAX	115	122	347	681	3560	918	292	224	137	60	32	241		
MIN	21	31	62	80	193	312	141	144	62	33	21	17		
CFSM	.44	.64	1.47	3.04	12.5	6.16	2.25	2.15	1.07	.94	.29	.58		
IN.	.51	.72	1.70	3.50	13.06	7.10	2.51	2.48	1.19	.63	.34	.65		
AC-FT	2290	3210	7580	15680	58410	31770	11220	11080	5340	2800	1520	2890		
CAL YR 1985	TOTAL	46104	MEAN	126	MAX	872	MIN	21	CFSM	1.50	IN.	20.44	AC-FT	91450
WTR YR 1986	TOTAL	77532	MEAN	212	MAX	3560	MIN	17	CFSM	2.53	IN.	34.38	AC-FT	153800

UPPER ROGUE RIVER BASIN

387

14375400 ELK CREEK NEAR O'BRIEN, OR

LOCATION.--Lat 42°01'54", long 123°44'12", in SW¼NW¼ sec.2, T.41 S., R.9 W., Josephine County, Hydrologic Unit 17100311, on right bank about 500 ft downstream from Gilligan Creek, 0.6 mi west of U.S. Highway 199, about 3.0 mi southwest of O'Brien, and at mile 0.9.

DRAINAGE AREA.--26.8 mi².

PERIOD OF RECORD.--October 1985 to September 1986. Records November 1969 to September 1985 in files of the Oregon Water Resources Department, Salem, Oregon.

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 29 to February 12. Records fair. No regulation. Minor diversion for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,610 ft³/s Jan. 16, 1971; minimum, 0.33 ft³/s Aug. 11, 12, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1500	1,710	6.52	Feb. 22	1600	2,620	8.59
Feb. 17	2400	*3,130	*9.83				

Minimum discharge, 1.2 ft³/s Sept. 6, 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	8.3	86	30	280	186	71	38	25	10	3.8	2.3
2	2.3	8.3	417	45	500	160	65	135	24	7.8	3.5	2.0
3	2.3	8.3	438	110	550	140	61	222	24	7.9	3.3	1.8
4	2.3	8.3	198	100	350	123	59	141	23	8.9	3.1	1.7
5	2.5	8.3	141	120	250	111	56	122	24	9.3	2.9	1.8
6	2.3	8.3	148	210	180	106	53	225	24	9.5	2.8	1.6
7	2.8	8.3	300	160	140	395	50	223	23	8.2	2.8	1.5
8	3.1	8.8	358	120	120	516	48	166	22	8.2	2.6	1.4
9	3.1	17	244	140	105	540	46	133	21	7.9	2.5	1.5
10	1.6	25	154	120	95	375	45	108	20	7.9	2.3	1.6
11	1.8	19	108	105	85	419	43	89	17	7.3	2.3	1.8
12	3.1	16	81	90	180	468	49	75	14	7.2	2.2	1.9
13	3.8	13	69	80	266	503	44	65	12	6.7	2.1	2.4
14	4.2	11	55	70	272	443	42	58	15	6.4	2.1	2.0
15	3.8	52	45	100	482	320	42	52	15	6.3	2.0	3.3
16	3.8	97	40	400	1230	240	56	49	15	6.5	2.0	5.6
17	3.8	66	36	1100	1410	191	57	45	16	6.5	2.0	12
18	3.8	52	33	500	1930	160	50	42	18	6.3	2.0	22
19	3.8	37	31	350	1440	140	45	41	16	7.6	2.0	18
20	11	31	29	280	1010	124	42	42	15	5.3	2.0	12
21	20	28	27	240	955	113	40	43	14	5.4	2.0	10
22	61	29	26	200	2180	102	39	39	14	5.2	2.0	8.4
23	69	28	24	450	1510	120	37	36	13	4.8	2.0	7.0
24	32	29	23	350	729	197	36	34	12	4.8	1.9	24
25	20	30	22	220	470	166	37	33	11	4.8	1.8	87
26	16	28	21	170	346	139	35	32	11	4.6	1.9	168
27	13	26	20	160	269	120	34	31	12	4.4	1.8	77
28	13	151	20	190	219	105	34	30	12	4.4	2.1	36
29	12	137	22	260	---	93	32	29	13	4.2	1.9	26
30	8.3	87	19	360	---	83	31	28	12	4.1	2.0	21
31	8.3	---	18	320	---	76	---	26	---	3.9	2.5	---
TOTAL	340.1	1075.9	3253	7150	17553	6974	1379	2432	507	202.3	72.2	562.6
MEAN	11.0	35.9	105	231	627	225	46.0	78.5	16.9	6.53	2.33	18.8
MAX	69	151	438	1100	2180	540	71	225	25	10	3.8	168
MIN	1.6	8.3	18	30	85	76	31	26	11	3.9	1.8	1.4
CFSM	.41	1.34	3.92	8.62	23.4	8.40	1.72	2.93	.63	.24	.09	.70
IN.	.47	1.49	4.52	9.92	24.36	9.68	1.91	3.38	.70	.28	.10	.78
AC-FT	675	2130	6450	14180	34820	13830	2740	4820	1010	401	143	1120

WTR YR 1986 TOTAL 41501.1 MEAN 114 MAX 2180 MIN 1.4 CFSM 4.25 IN. 57.61 AC-FT 82320

ILLINOIS RIVER BASIN

14377100 ILLINOIS RIVER NEAR KERBY, OR

LOCATION.--Lat 42°13'55", long 123°39'45", in SE¼SE¼ sec.29, T.38 S., R.8 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on right bank 1.6 mi upstream from Josephine Creek, 2.5 mi northwest of Kerby, and at mile 50.3.

DRAINAGE AREA.--380 mi².

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,198.8 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 28, 1965, water-stage recorder, and Jan. 28 to Sept. 30, 1965, nonrecording gage 700 ft downstream at datum 2.99 ft lower.

REMARKS.--No estimated daily discharges. Records good except those for period Mar. 12 to Aug. 19, which are fair. No regulation. Diversions for irrigation upstream from station. Several observations of water temperature were obtained during the year.

AVERAGE DISCHARGE.--25 years, 1,345 ft³/s, 48.07 in/yr, 974,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,200 ft³/s Dec. 22, 1964, gage height, 45.28 ft, from floodmark, site and datum then in use, from rating curve extended above 30,000 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 14 ft³/s Aug. 11, 13, 14, 1977, Sept. 10, 11, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 11,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan. 16	2130	16,000	19.98	Feb. 18	0500	*24,200	*24.60
Feb. 16	1730	16,900	20.53	Feb. 22	2230	24,100	24.57

Minimum discharge, 14 ft³/s Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	46	165	949	469	3120	2420	1160	604	326	80	35	23		
2	45	155	4640	609	6300	2110	1080	1600	291	77	32	21		
3	44	146	5780	1260	6980	1880	1000	2420	275	65	32	21		
4	44	141	2710	931	4570	1700	947	1580	221	66	30	22		
5	45	139	2050	1140	3320	1570	910	1410	215	65	29	22		
6	43	136	1980	1630	2610	1520	874	1920	215	67	33	20		
7	43	130	3470	1150	2130	4500	847	1980	226	68	30	19		
8	42	131	3520	1100	1790	6070	827	1680	200	70	28	20		
9	41	171	2400	1630	1530	5910	798	1480	183	71	28	20		
10	42	285	1700	1380	1330	4480	781	1330	184	67	28	19		
11	45	248	1270	1120	1190	5040	763	1160	172	65	28	17		
12	45	217	1020	942	1870	5440	777	1030	156	60	30	17		
13	45	196	856	822	3270	5010	763	938	159	57	25	19		
14	46	183	747	793	3460	4190	730	869	146	50	23	20		
15	45	399	674	1130	6430	3250	716	810	134	51	22	28		
16	45	1790	620	6990	12200	2740	799	754	126	49	22	35		
17	47	1150	582	8690	12200	2390	924	702	130	50	23	57		
18	50	802	557	4560	19900	2090	862	644	149	50	22	70		
19	50	591	542	3680	14500	1900	830	622	158	48	22	130		
20	60	489	529	3210	10800	1790	808	622	145	50	23	133		
21	173	438	517	2410	9280	1740	791	610	144	50	25	108		
22	421	409	502	3030	19200	1640	777	588	136	50	27	102		
23	1500	374	487	6620	16000	1600	727	540	121	39	25	93		
24	942	366	478	4070	7900	2680	676	503	111	36	24	106		
25	487	375	470	2770	5290	2290	671	479	100	36	24	655		
26	337	354	459	2170	3980	1940	645	475	97	36	23	2380		
27	267	338	443	1870	3260	1740	632	470	92	38	21	1560		
28	236	1450	426	1730	2790	1600	654	437	82	35	24	837		
29	221	2050	407	2050	---	1490	634	414	85	35	24	609		
30	196	1230	391	2940	---	1370	604	398	81	37	24	448		
31	178	---	372	2550	---	1260	---	374	---	35	24	---		
TOTAL	5871	15048	41548	75446	187200	85350	24007	29443	4860	1653	810	7631		
MEAN	189	502	1340	2434	6686	2753	800	950	162	53.3	26.1	254		
MAX	1500	2050	5780	8690	19900	6070	1160	2420	326	80	35	2380		
MIN	41	130	372	469	1190	1260	604	374	81	35	21	17		
CFSM	.50	1.32	3.53	6.41	17.6	7.24	2.11	2.50	.43	.14	.07	.67		
IN.	.57	1.47	4.07	7.39	18.33	8.36	2.35	2.88	.48	.16	.08	.75		
AC-FT	11650	29850	82410	149600	371300	169300	47620	58400	9640	3280	1610	15140		
CAL YR 1985	TOTAL	237707	MEAN	651	MAX	8820	MIN	25	CFSM	1.71	IN.	23.27	AC-FT	471500
WTR YR 1986	TOTAL	478867	MEAN	1312	MAX	19900	MIN	17	CFSM	3.45	IN.	46.88	AC-FT	949800

CHETCO RIVER BASIN

389

14400000 CHETCO RIVER NEAR BROOKINGS, OR

LOCATION.--Lat 42°07'25", long 124°11'10", in SE¼ sec.12, T.40 S., R.13 W., Curry County, Hydrologic Unit 17100312, on right bank 16 ft upstream from bridge, 0.5 mi upstream from Elk Creek, 6.8 mi northeast of Brookings, and at mile 10.7.

DRAINAGE AREA.--271 mi².

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 50 ft, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 16-19, May 1-14, Sept. 26. Records good. No regulation or diversion upstream from station. Several measurements of water temperature made during the year.

AVERAGE DISCHARGE.--17 years, 2,392 ft³/s, 119.86 in/yr, 1,733,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,800 ft³/s Jan. 16, 1971, gage height, 27.45 ft; minimum, 45 ft³/s Oct. 21-23, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 32.25 ft, from high-water mark on bridge pier, discharge, 85,400 ft³/s, from rating curve extended above 45,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 2	1900	22,400	14.23	Feb. 18	1000	36,100	18.70
Jan. 16	1930	29,800	16.82	Feb. 22	1200	*36,900	18.93
Feb. 16	1700	26,200	15.61	Feb. 22	1200	(a)	*19.69

Minimum discharge, 55 ft³/s Sept. 14.

(a) From crest-stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	94	523	2430	1130	7620	3960	1310	700	440	222	107	69		
2	92	475	10900	1520	11700	3410	1170	2100	421	217	104	66		
3	91	434	13900	2540	13800	2990	1040	3500	410	212	102	63		
4	88	401	7960	1720	9920	2660	969	2000	400	227	98	61		
5	86	376	7090	3960	7000	2400	895	1700	389	218	93	60		
6	84	347	8410	4410	5090	2360	816	2500	381	200	89	60		
7	83	327	12000	2870	3890	9980	767	2700	371	191	88	59		
8	83	346	9910	3300	3100	10300	736	2500	356	188	90	59		
9	81	650	7210	4850	2570	10500	688	2200	341	184	90	58		
10	80	875	5030	4080	2150	7920	637	1900	326	182	88	59		
11	83	677	3660	3300	1900	8500	600	1700	310	181	86	58		
12	88	575	2860	2700	3070	9180	714	1600	303	178	85	57		
13	87	510	2340	2420	6100	8840	656	1500	297	169	83	57		
14	84	471	1970	2210	6450	7500	576	1400	294	160	81	58		
15	81	1160	1720	4120	13300	5870	682	1270	298	155	80	71		
16	81	4530	1520	17500	21900	4600	1100	1130	301	151	80	99		
17	81	3220	1360	17500	18500	3680	2300	994	345	149	81	341		
18	80	2260	1250	12700	28300	3060	1900	899	432	147	80	768		
19	80	1710	1150	12200	20500	2630	1800	837	381	147	80	442		
20	304	1460	1060	9450	15700	2350	1590	831	332	144	78	229		
21	1010	1270	979	6240	15500	2310	1410	814	305	139	76	170		
22	4370	1250	912	6100	33100	1990	1200	763	285	134	75	141		
23	6830	1110	857	10900	27400	2720	1020	693	269	132	75	137		
24	3850	1060	807	7940	15000	5880	909	646	258	130	73	600		
25	2010	1030	762	5560	10100	4070	909	611	249	127	71	3760		
26	1330	962	722	4140	7610	3120	851	579	241	125	70	6460		
27	1010	910	683	3310	5860	2570	851	555	236	123	70	3030		
28	928	3530	649	2810	4730	2170	895	527	234	122	69	1500		
29	789	4610	620	3340	---	1880	844	504	235	119	71	970		
30	677	2910	595	5450	---	1640	768	481	227	115	73	730		
31	587	---	582	4960	---	1450	---	456	---	111	72	---		
TOTAL	25302	39969	111898	175230	321860	142490	30603	40590	9667	4999	2558	20292		
MEAN	816	1332	3610	5653	11500	4596	1020	1309	322	161	82.5	676		
MAX	6830	4610	13900	17500	33100	10500	2300	3500	440	227	107	6460		
MIN	80	327	582	1130	1900	1450	576	456	227	111	69	57		
CFSM	3.01	4.92	13.3	20.9	42.4	17.0	3.76	4.83	1.19	.59	.30	2.49		
IN.	3.47	5.49	15.36	24.05	44.18	19.56	4.20	5.57	1.33	.69	.35	2.79		
AC-FT	50190	79280	221900	347600	638400	282600	60700	80510	19170	9920	5070	40250		
CAL YR 1985	TOTAL	458237	MEAN	1255	MAX	13900	MIN	80	CFSM	4.63	IN.	62.90	AC-FT	908900
WTR YR 1986	TOTAL	925458	MEAN	2536	MAX	33100	MIN	57	CFSM	9.36	IN.	127.04	AC-FT	1836000

CHEMICAL QUALITY OF PRECIPITATION

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR

LOCATION.--Lat 45°26'55", long 122°08'45", in SE-1/4SE-1/2 sec.26, T.1 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on headworks dam on Bull Run River, 4.4 mi northeast of town of Bull Run, and approximately 20 mi east of Portland.

PERIOD OF RECORD.--June 1980 to September 1981 (event sampling), September 1981 to November 1981 (weekly composite), July 1982 to current year (weekly composite).

INSTRUMENTATION.--A bulk-type plastic double cylinder with receiving funnel directing deposition to inner cylinder was used for the period of record June 1980 to September 1981. The wet-deposition sample collector is an Aerochem Model 301* wet/dry deposition collector. The sensing circuit is activated by wet deposition, causing the motor to move the cover from the wet bucket and cover the dry bucket. When the heater in the sensor evaporates the precipitation, the cycle is reversed. The sample buckets are polyethylene and have a capacity of 13 liters (28.6 cm inside diameter, 23.2 cm deep). The opening of the collector is approximately 5 ft above ground level and has been used for the weekly composite sampling period of record September 1981 to current year.

REMARKS.--Inches of precipitation obtained from an on-site recording weighing-bucket gage. The sample collector is located in the restricted access area of the city of Portland's Bull Run River Watershed.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ATM DEP WET TOTAL FOR PERIOD (IN)	PRECIP- ITATION TOTAL INCHES/ WEEK	COL- LECTOR EFFI- CIENCY WET DEPOS. PERCENT	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT									
01-08	1610	0.29	0.29	100	20	15	4.28	4.63	0.08
OCT									
08-15	1700	1.08	1.08	99	10	8	4.83	5.25	0.05
OCT									
15-22	1645	2.26	2.26	101	--	--	--	--	--
OCT									
22-29	1600	2.85	2.85	99	7	7	5.08	5.25	0.04
OCT 29-									
NOV 05	1735	1.77	1.77	98	9	12	4.72	5.07	0.04
NOV									
05-12	1710	4.95	4.95	99	5	3	5.09	5.33	0.03
NOV									
12-19	1730	3.40	3.40	100	8	6	4.96	5.17	0.03
NOV									
19-26	2100	0.87	0.87	81	10	10	4.76	4.89	0.04
NOV 26-									
DEC 03	1725	0.62	0.62	24	11	10	4.70	4.94	0.08
DEC									
03-10	1750	1.84	1.84	99	6	3	5.24	5.48	0.02
DEC									
10-17	1750	0.0	0.0	--	--	--	--	--	--
DEC									
17-24	1700	0.0	0.0	--	--	--	--	--	--
DEC									
24-31	1825	0.01	0.01	295	--	15	--	4.72	0.19
31...	1755	2.02	2.02	101	9	7	5.06	5.51	0.04
JAN									
07-14	1745	0.82	0.82	94	--	4	4.88	5.37	0.03
JAN									
14-21	1700	2.72	2.72	103	--	9	4.99	5.30	0.04
JAN									
21-28	1746	1.48	1.48	104	--	3	4.90	5.38	0.01
JAN 28-									
FEB 04	1715	1.71	1.71	95	--	3	4.99	5.29	0.01
FEB									
04-11	1720	0.97	0.97	103	--	17	5.00	5.22	0.09
FEB									
11-18	1718	4.93	4.93	95	--	3	5.11	5.27	<0.01

* The use of the brand name in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

CHEMICAL QUALITY OF PRECIPITATION

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SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
OCT								
01-08	0.04	0.18	0.04	1.4	0.31	0.19	1.1	<0.01
OCT								
08-15	0.08	0.58	0.03	0.4	1.1	<0.02	0.17	<0.01
OCT								
15-22	--	--	--	--	--	--	--	--
OCT								
22-29	0.06	0.49	0.02	0.4	0.96	<0.02	<0.03	<0.01
OCT 29-								
NOV 05	0.03	0.26	0.02	0.5	0.46	<0.02	<0.03	<0.01
NOV								
05-12	0.01	0.09	<0.01	0.2	0.17	<0.02	<0.03	<0.01
NOV								
12-19	0.05	0.37	0.02	0.3	0.63	<0.02	0.21	0.01
NOV								
19-26	0.06	0.43	0.03	0.6	0.69	<0.02	0.50	<0.01
NOV 26-								
DEC 03	0.06	0.37	0.03	0.7	0.60	<0.02	0.71	<0.01
DEC								
03-10	0.03	0.19	0.01	0.2	0.33	<0.02	<0.03	<0.01
DEC								
10-17	--	--	--	--	--	--	--	--
DEC								
17-24	--	--	--	--	--	--	--	--
DEC								
24-31	0.11	0.18	0.02	0.9	0.39	<0.02	1.9	<0.01
31...	0.09	0.72	0.03	0.3	1.4	<0.02	<0.03	<0.01
JAN								
07-14	0.02	0.19	0.01	0.2	0.28	<0.02	0.29	<0.01
JAN								
14-21	0.11	0.85	0.04	0.4	1.6	<0.02	<0.03	<0.01
JAN								
21-28	0.02	0.11	0.01	0.2	0.19	<0.02	0.10	<0.01
JAN 28-								
FEB 04	0.01	0.07	0.01	0.1	0.12	<0.02	0.20	<0.01
FEB								
04-11	0.23	1.9	0.08	0.8	3.2	0.09	0.35	<0.01
FEB								
11-18	<0.01	0.03	<0.01	0.1	0.05	<0.02	0.14	<0.01

CHEMICAL QUALITY OF PRECIPITATION

SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ATM DEP WET TOTAL FOR PERIOD (IN)	PRECIP- ITATION TOTAL INCHES/ WEEK	COL- LECTOR EFFI- CIENCY WET DEPOS. PERCENT	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	CALCIUM DIS- SOLVED (MG/L AS CA)
FEB									
18-25	1715	4.08	4.08	101	--	3	5.05	5.31	0.01
FEB 25-									
MAR 04	1750	0.07	0.07	94	--	5	4.84	5.53	0.09
MAR									
04-11	1810	2.10	2.10	106	--	4	5.08	5.39	0.02
MAR									
11-18	1732	0.87	0.87	108	--	9	5.05	5.64	0.06
MAR									
18-25	1800	1.23	1.23	105	--	5	5.32	5.76	0.08
MAR 25-									
APR 01	1725	0.87	0.87	102	--	6	4.93	5.30	0.09
APR									
01-08	1730	0.46	0.46	104	--	21	4.62	4.87	0.13
APR									
08-15	1830	1.37	1.37	103	--	13	4.67	4.96	0.15
APR									
15-22	1745	1.28	1.28	107	--	9	4.84	5.14	0.07
APR									
22-29	1710	2.14	2.14	101	--	7	4.89	5.31	0.06
APR 29-									
MAY 06	1635	1.02	1.02	99	--	5	5.35	5.87	0.20
MAY									
06-13	1640	1.79	1.79	99	--	11	4.67	4.95	0.07
MAY									
13-20	1630	0.30	0.30	108	6	4	5.00	5.48	0.06
MAY									
20-27	1615	0.83	0.83	100	--	11	4.76	4.91	0.06
MAY 27-									
JUN 03	1625	0.0	0.0	--	--	--	--	--	--
JUN									
03-10	1625	0.08	0.08	98	32	23	4.21	4.67	0.28
JUN									
10-17	1600	0.22	0.22	105	18	15	4.44	4.72	0.10
JUN									
17-24	1630	0.86	0.86	105	7	6	5.05	5.34	0.04
JUN 24-									
JUL 01	1625	0.16	0.16	115	61	53	3.98	4.26	0.28

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
FEB								
18-25	0.01	0.07	<0.01	0.2	0.10	<0.02	0.14	<0.01
FEB 25-								
MAR 04	0.06	0.13	0.03	0.6	0.25	0.07	0.38	0.01
MAR								
04-11	0.02	0.14	0.01	0.2	0.24	<0.02	0.21	<0.01
MAR								
11-18	0.11	0.84	0.04	0.5	1.5	<0.02	0.20	<0.01
MAR								
18-25	0.05	0.37	0.02	0.3	0.67	0.06	0.23	<0.01
MAR 25-								
APR 01	0.03	0.24	0.02	0.5	0.41	0.13	0.58	<0.01
APR								
01-08	0.20	1.5	0.07	1.4	2.9	0.12	1.3	<0.01
APR								
08-15	0.09	0.61	0.05	1.3	1.0	0.18	1.0	<0.01
APR								
15-22	0.07	0.52	0.03	0.7	0.91	0.16	0.48	<0.01
APR								
22-29	0.06	0.50	0.03	0.6	0.93	0.11	0.32	<0.01
APR 29-								
MAY 06	0.04	0.17	0.02	0.5	0.18	<0.02	<0.03	<0.01
MAY								
06-13	0.06	0.47	0.02	0.9	0.78	<0.02	<0.03	<0.01
MAY								
13-20	0.02	0.04	0.01	0.4	0.07	<0.02	0.17	<0.01
MAY								
20-27	0.05	0.43	0.02	0.9	0.75	0.22	0.66	<0.01
MAY 27-								
JUN 03	--	--	--	--	--	--	--	--
JUN								
03-10	0.13	0.26	0.06	3.0	0.38	0.33	2.4	<0.01
JUN								
10-17	0.07	0.38	0.04	1.1	0.67	0.19	1.2	<0.01
JUN								
17-24	0.04	0.24	0.02	0.5	0.43	0.16	0.46	<0.01
JUN 24-								
JUL 01	0.30	2.1	0.16	5.0	3.2	1.7	5.1	<0.01

CHEMICAL QUALITY OF PRECIPITATION

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SANDY RIVER BASIN

452650122091801 BULL RUN RESERVOIR NUMBER TWO, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ATM DEP WET TOTAL PERIOD (IN)	PRECIP- ITATION TOTAL INCHES/ WEEK	COL- LECTOR EFFI- CIENCY WET DEPOS. PERCENT	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	CALCIUM DIS- SOLVED (MG/L AS CA)
JUL									
01-08	1615	0.91	0.91	101	7	7	4.82	4.96	0.03
JUL									
08-15	1615	0.91	0.91	102	4	4	5.02	5.65	0.03
JUL									
15-22	1615	0.96	0.96	103	10	10	4.81	4.88	0.03
JUL									
22-29	1705	0.05	0.05	77	--	20	--	4.64	0.27
JUL 29-									
AUG 05	1630	0.0	0.0	--	--	--	--	--	--
AUG									
05-12	1645	0.0	0.0	--	--	--	--	--	--
AUG									
12-19	1645	0.0	0.0	--	--	--	--	--	--
AUG									
19-26	1625	0.0	0.0	--	--	--	--	--	--
AUG 26-									
SEP 02	1700	0.72	0.72	98	20	15	4.38	4.63	0.05
SEP									
02-09	1615	0.45	0.0	102	13	9	4.71	5.06	0.10
SEP									
09-16	1640	--	0.15	--	--	--	--	--	--
SEP									
16-23	1615	1.44	1.44	103	--	--	--	--	--
SEP									
23-30	1630	3.39	3.39	102	--	--	--	--	--
SEP 30-									
OCT 07	1620	0.12	0.12	109	24	22	4.36	4.45	0.07

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4)
JUL								
01-08	0.02	0.14	0.02	0.5	0.24	<0.02	0.47	<0.01
JUL								
08-15	0.01	0.06	0.03	0.4	0.10	<0.02	<0.03	<0.01
JUL								
15-22	0.03	0.21	0.02	0.9	0.38	<0.02	0.57	<0.01
JUL								
22-29	0.04	0.19	0.02	3.2	0.25	0.37	1.1	<0.01
JUL 29-								
AUG 05	--	--	--	--	--	--	--	--
AUG								
05-12	--	--	--	--	--	--	--	--
AUG								
12-19	--	--	--	--	--	--	--	--
AUG								
19-26	--	--	--	--	--	--	--	--
AUG 26-								
SEP 02	0.02	0.14	0.08	1.3	0.20	0.29	1.4	<0.01
SEP								
02-09	0.06	0.39	0.07	0.9	0.66	<0.02	<0.03	0.01
SEP								
09-16	--	--	--	--	--	--	--	--
SEP								
16-23	--	--	--	--	--	--	--	--
SEP								
23-30	--	--	--	--	--	--	--	--
SEP 30-								
OCT 07	0.05	0.40	0.03	1.7	0.77	0.15	1.9	<0.01

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Crest-stage partial-record stations

The following table contains annual maximum discharge 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

Station No.	Station Name	Location	Drainage area (mi)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis- charge (ft ³ /s)
SANDY RIVER BASIN							
14138950	DEER CREEK NEAR BULL RUN, OR	Lat 45°29'31", long 122°03'27", in SE½SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.6 mi northeast of Bull Run.	1.62	1978-86	2-23-86	4.30	342
14138960	COUGAR CREEK NEAR BULL RUN, OR	Lat 45°29'28", long 122°03'40", in SW½SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.4 mi northeast of Bull Run.	3.06	1978-86	2-23-86	3.94	611
14138990	BEAR CREEK NEAR BULL RUN, OR	Lat 45°29'18", long 122°04'58", in NW¼NW¼ sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 400 ft upstream from Bull Run Reservoir Number One, and 8.3 mi northeast of Bull Run.	1.68	1978-86	2-23-86	----	---
14139510	FIVEMILE CREEK NEAR BULL RUN, OR	Lat 45°28'57", long 122°05'25", in SW¼NE½ sec.17, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 800 ft upstream from Bull Run Reservoir Number Two, and 7.9 mi northeast of Bull Run.	.79	1978-86	2-23-86	3.03	92.0
14139600	CAMP CREEK NEAR BULL RUN, OR	Lat 45°27'41", long 122°06'13", in SW½SW¼ sec.20, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, 15 ft downstream from falls at confluence with West Branch of Camp Creek, 0.3 mi upstream from Bull Run Reservoir Number Two, and 6.6 mi northeast of Bull Run.	3.27	1978-86	2-23-86	3.99	506

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table.

Discharge measurements at miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (mi)	Measured previously (water years)	Measurements Date	Discharge (ft ³ /s)
WILLAMETTE RIVER BASIN						
McKenzie River	Willamette River	Lat 44°18'42", long 122°01'32", Linn County, Hydrologic Unit 17090004.	---	1985	10- 8-85	*71.1
Simpson Creek	.....do.....	Lat 43°29'50", long 122°22'15", Lane County, Hydrologic Unit 17090001.	---	----	9-16-86	*4.56
MCKENZIE RIVER BASIN						
White Branch Creek	McKenzie River	Lat 44°09'33", long 122°01'03", Lane County, Hydrologic Unit 17090004.	---	1985	10- 9-85	*0.65
Lost Creek	.....do.....	Lat 44°11'01", long 122°03'30", Lane County, Hydrologic Unit 17090004.	---	1985	10- 9-85	*188
SANTIAM RIVER BASIN						
14184010 North Santiam River	Santiam River	Lat 44°42'29", long 122°58'16", Marion County, Hydrologic Unit 17090005.	---	----	5- 2-86 7-25-86	2,570 1,020
Lebanon Ditch at Lebanon	South Santiam River	Lat 44°31'42", long 122°53'57", Linn County, Hydrologic Unit 17090006.	---	----	5-14-86 6- 3-86 7-23-86	160 99.8 149
South Santiam River nr Jefferson	Santiam River	Lat 44°40'28", long 122°59'15", Linn County, Hydrologic Unit 17090006.	---	----	6- 3-86 7-24-86	1,080 683
SANDY RIVER BASIN						
14138950 Deer Creek	Bull Run River	Lat 45°29'31", long 122°03'27", in SE¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.6 mi northeast of Bull Run.	1.62	1979-85	12-12-85 3-26-86 5-21-86 8- 5-86	7.55 9.58 6.39 *0.72
14138960 Cougar Creek	.....do.....	Lat 45°29'28", long 122°03'40", in SW¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.4 mi northeast of Bull Run.	3.06	1979-85	12-12-85 3-26-86 5-21-86 8- 5-86	16.5 21.9 16.0 *1.63
14138990 Bear Creek	.....do.....	Lat 45°29'18", long 122°04'58", in NW¼NW¼ sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 400 ft upstream from Bull Run Reservoir Number One, and 8.3 mi northeast of Bull Run.	1.68	1979-85	12-12-85 3-26-86 6-11-86 8- 5-86	6.56 8.84 1.69 *0.51
14139510 Fivemile Creek	.....do.....	Lat 45°28'57", long 122°05'25", in SW¼NE¼ sec.17, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, at culvert on Forest Service road S10, 800 ft upstream from Bull Run Reservoir Number Two, and 7.9 mi northeast of Bull Run.	0.79	1979-85	10-16-85 8- 6-86 8-11-86	0.92 *0.11 *0.14
14139600 Camp Creek	.....do.....	Lat 45°27'41", long 122°06'13" in SW¼SW¼ sec.20, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, 15 ft downstream from falls at confluence with West Branch of Camp Creek, 0.3 mi upstream from Bull Run Reservoir Number Two, and 6.6 mi northeast of Bull Run.	3.27	1979-85	10-16-85 4- 3-86 5-15-86 8- 5-86 9-16-86	4.78 8.90 21.0 *1.41 *0.73
UMPQUA RIVER BASIN						
Soda Springs	Umpqua River	Lat 43°16'05", long 122°27'20", Douglas County, Hydrologic Unit 17100301.	---	----	9-16-86	*0.01
North Umpqua River	.....do.....	Lat 43°15'00", long 122°20'30", Douglas County, Hydrologic Unit 17100301.	---	----	9-16-86	*99.3
Warm Springs Creek	.....do.....	Lat 43°23'45", long 122°13'15", Douglas County, Hydrologic Unit 17100301.	---	----	9-16-86	*23.2
ROGUE RIVER BASIN						
Minnehaha Creek	Rogue River	Lat 43°03'55", long 122°14'50", Jackson County, Hydrologic Unit 17100308.	---	----	9-17-86	*2.83
Muir Creekdo.....	Lat 43°02'35", long 122°18'30", Jackson County, Hydrologic Unit 17100308.	---	----	9-17-86	*73.9

* Base flow.

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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