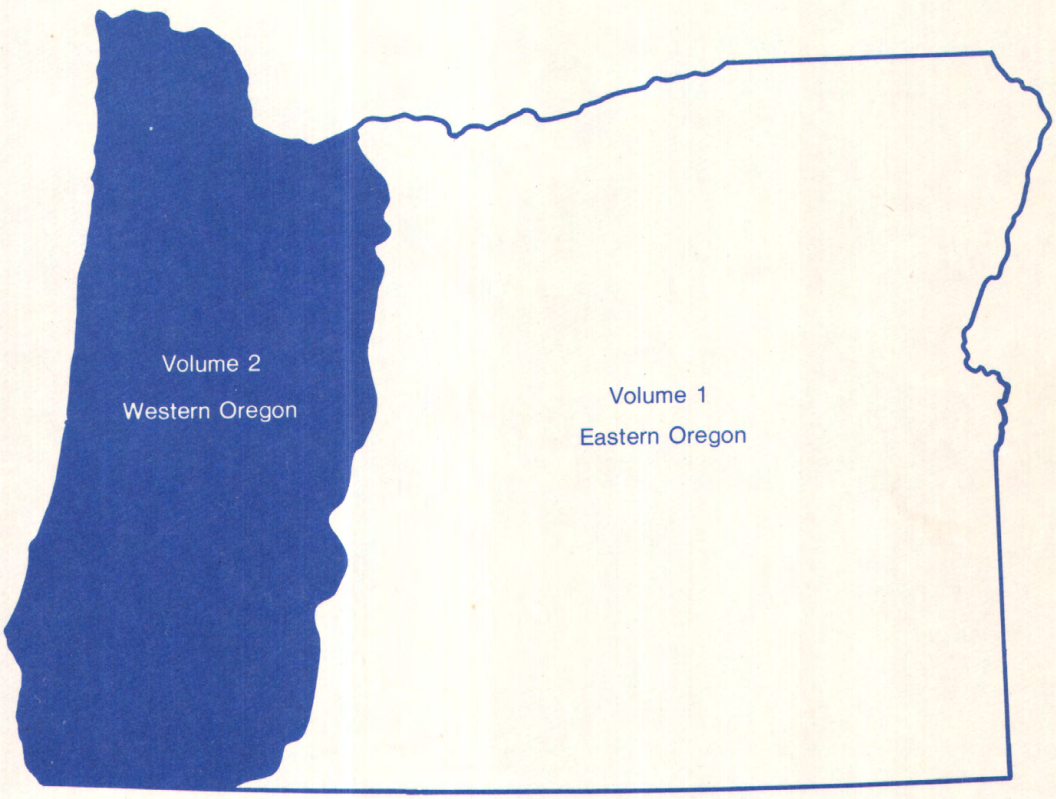
Water Resources Data Oregon Water Year 1981

Volume 2. Western Oregon



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-81-2
Prepared in cooperation with the Oregon Water Resources Department and with other agencies

CALENDAR FOR WATER YEAR 1981

1980

OCTOBER

S	M	T	W	T	F	S
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1981

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AUGUST

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SEPTEMBER

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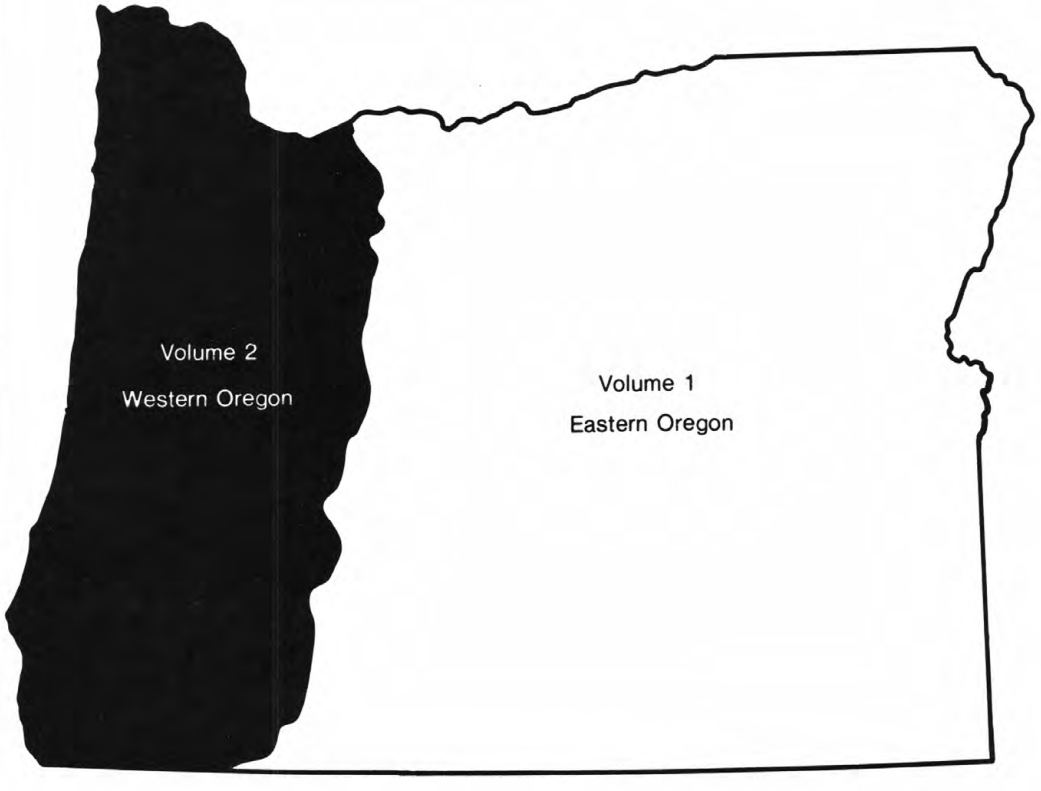

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OR-81-2
Prepared in cooperation with the Oregon Water Resources Department and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
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847 N.E. 19th Ave., Suite 300
Portland, Oregon 97232

1983

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Oregon and with other agencies by personnel of the Oregon district of Water Resources Division under the supervision of S. F. Kapustka, District Chief, and J. D. Bredehoeft, Regional Hydrologist, Western Region.

This report is one of a series issued State by State under the general direction of P. Cohen, Chief Hydrologist, and J. E. Biesecker, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for the State of Oregon are in two volumes as follows:

Volume 1: Eastern Oregon

Volume 2: Western Oregon

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15. Supplementary Notes

Prepared in cooperation with the State of Oregon and with other agencies.

16. Abstract (Limit: 200 words)

Water Resources Data for the 1981 water year for Oregon consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report, in two volumes, contains discharge records for 270 gaging stations; stage only records for 12 gaging stations; stage and contents for 44 lakes and reservoirs; water quality for 90 gaging stations, water levels for 66 observation wells; and water quality for 8 precipitation stations. Also included are 50 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 co-operating State and Federal agencies in Oregon.

17. Document Analysis a. Descriptors

*Oregon, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Sampling sites, Water levels, Water analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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Department of Commerce

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

LETTER AFTER STATION NAME DESIGNATES TYPE OF DATA:
(D) DISCHARGE, (E) ELEVATION OR CONTENTS, (C) CHEMICAL,
(B) BIOLOGICAL AND MICROBIOLOGICAL, (T) WATER TEMPERATURE,
(S) SEDIMENT

WATER RESOURCES DATA FOR OREGON, 1981

INTRODUCTION

Water resources data for the 1981 water year for Oregon consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; water-levels and water quality of wells and springs; and water quality of precipitation. This report, in two volumes, contains discharge records for 270 gaging stations; stage only records for 12 gaging stations; stage and contents for 44 lakes and reservoirs; water quality for 90 gaging stations; and water levels for 66 observation wells; and water quality for 8 precipitation stations. Also included are data for 50 crest-stage partial-record stations. Locations of these sites, except for precipitation stations, are shown on figures 2, 3, 4, and 5. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements and analyses. 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.

Records of discharge of streams, and contents (or stage) of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a multi-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels are published from 1935 to 1974 in a series of water-supply papers entitled, "Ground-water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report OR-81-1." For archiving and general distribution, the reports for water years 1971-74 are also 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 district chief at the address given on the back of the 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, James E. Sexson, Director.

Oregon Department of Fish and Wildlife, John R. Donaldson, Director.

Oregon Department of Transportation, Highway Division, H.S.Coulter, State Highway Engineer.

Coos, Douglas, Lane, Multnomah, Wasco, Counties, and Clark County, Washington.

Lane Council of Governments

Cities of Coos Bay-North Bend, Eugene, McMinnville, Medford, Portland, Reedsport, Salem.

Burnt River Irrigation District.

Umatilla Tribal Council.

Warm Springs Tribal Council.

Assistance in the form of funds or services was given by the Forest Service, Soil Conservation Service, U.S. Department of Agriculture; Corps of Engineers, U.S. Army; Bonneville Power Administration, U.S. Department of Energy; Bureau of Reclamation, Fish and Wildlife Service, Bureau of Land Management, and National Park Service, U.S. Department of the Interior; Eugene Water & Electric Board; Pacific Power & Light Co.; Portland General Electric Co.; Idaho Power Co., Idaho; Clark County Department of Public Works, Washington.

GENERAL HYDROLOGIC CONDITIONS

The hydrology of Oregon is influenced by five mountain ranges. These ranges divide the state into drainage basins and greatly affect the distribution of precipitation. The Cascade Range provides a natural division between western and eastern Oregon. 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.

Eastern Oregon Hydrology

Eastern Oregon has more complex hydrologic patterns than western Oregon. Precipitation is less than 10 in. 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 in. of precipitation per year, much of it occuring as snow fall. On the large streams in eastern Oregon, flooding can result from winter rains and (or) seasonal snowmelt; in the smaller drainage basins, flooding can result from winter rains, seasonal snowmelt, and convection storms.

Western Oregon Hydrology

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 in western Oregon ranges from about 20 in. per year in the lower elevations in the southern part of the area to about 200 in. per year in the Coast and Cascade Ranges. In general, streamflow characteristics are similar throughout western Oregon, 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. The major hydrologic regions of western Oregon include: (1) the Willamette River valley, which drains the east slopes of the Coast Range and west slopes of the Cascade Range; (2) the north coast (where annual precipitation reaches 200 in. in some areas) and south coast, which drain the west slopes of the Coast Range; and (3) the Rogue and Umpqua Basins in southwestern Oregon, which drain the west slopes of the Cascade Range and cut through the Coast Range westward to the Pacific Ocean.

HYDROLOGIC CONDITIONS FOR WESTERN OREGON DURING THE 1981 WATER YEAR

During the 1981 water year flows were moderately below average throughout western Oregon. Precipitation was generally below average throughout western Oregon, and the Cascade Mountain Range experienced an extremely light snowpack. As of April 1, 1981, most watersheds in the Cascades in Oregon had only a 2 to 30 percent snowpack according to the U.S. Soil Conservation Service. In a normal season the Columbia basin snowpack reaches its maximum depth around April 1.

The peak flow for the year at most of the streams in western Oregon occurred last in December the result of a statewide rain storm. No major flooding or drought occurred in the state during the 1981 water year.

Willamette River Basin

Precipitation in the Willamette River basin for the winter season was about 85 percent of normal, and the snowpack was very poor ranging from four percent of normal on the Clackamas to 30 percent on the Middle Fork Willamette. Flows in the Willamette River basin were below average in the 1981 water year. A typical stream in the basin, such as the North Santiam River at Detroit (station 14178000), which drains part of the Cascade Range, had a mean discharge that was 81 percent of the 56-year average. The Tualatin River at West Linn (station 14207500), which drains a part of the Coast Range, had a mean discharge that was 89 percent of the 55-year mean. The mean flow of Willamette River at Salem (station 14191000) was 84 percent of the 65-year mean.

Precipitation for the winter season over the Willamette basin was about 85 percent of average. Snowpack in the Cascade Range on April 1 was well below average. It ranged from 4 percent on the Clackamas River basin to 30 percent on the Middle Fork Willamette basin. Highest flows on most streams occurred in late December as the result of a general rain storm. Peak flow on North Santiam River (station 14178000) had an exceedance probability of 10 percent, a very low magnitude flood event. This means that a flood of at least this magnitude has a 10 percent chance of occurring in any one year.

Another way of describing a 10 percent exceedance probability would be that a flood of this magnitude would probably be exceeded on the average of once every ten years. The Sandy River near Marmot (14137000) had an average flow which was 86 percent of the 70 year average, adjacent to and just north of the Willamette River basin, peak flow of Sandy River near Marmot (station 14137000) on January 14 had an exceedance probability of about 50 percent. The Sandy River is a glacial fed stream.

Most chemical concentrations were not significantly different from those in previous years for Tualatin River at West Linn (station 14207500) and Willamette River at Portland (station 14211720).

North Coast Region

In the 1981 water year, flows in the north coast region were generally well below average. The Alsea River is typical of streams in that region and provides an index of the flow pattern. Average runoff at the Tidewater gaging station (14306500) was only 75 percent of the long term average.

The peak flow for the year occurred on December 26 and represented a relatively small flood event, at an exceedance probability of 10 percent.

Most chemical concentrations were not significantly different from those in previous years for Nehalem River near Foss (station 14301000), Siuslaw River near Mapleton (station 14307620), and Alsea River near Tidewater (14306500). Exceptions include significantly larger concentrations of ammonia plus organic nitrogen in the Alsea and Siuslaw Rivers, and higher concentrations of total organic carbon in the Alsea River.

South Coast Region

Flows in the south coastal region were well below average in the 1981 water year. The South Fork Coquille River is typical of streams in that region. Mean flow for the year at the gaging station at Powers (14325000) was 75 percent of the long-term mean.

Peak discharge of the year occurred on December 2 with an exceedance probability of 20 percent.

Southwest Region

Flows of streams in southwestern Oregon that drain the Cascade Range were slightly below average in the 1981 water year. The two principal streams are the Rogue and Umpqua Rivers. The Rogue River is regulated by Lost Creek Reservoir, but the Umpqua River is virtually uncontrolled. Umpqua River near Elkton (station 14321000) had a mean discharge in the 1981 water which was only 66 percent of the 76-year average.

Precipitation in the area was about 72 percent of normal for the winter runoff period. Snow pack in the southern Cascade Range in April was very much below average, ranging from only two percent of average on the North Umpqua drainage to 49 percent on Bear Creek drainage. Peak flow at Elkton was 103,000 ft^3/s on January 14 and had an exceedance probability of about 50 percent.

Significant differences in chemical concentrations for 1981 water year as compared to previous years for Umpqua River at Elkton include larger concentrations of dissolved solids that corresponds to the below average streamflow runoff. Differences in chemical concentrations for 1981 water year as compared to previous years for Rogue River near Agness (station 14372300) include larger concentrations of ammonia plus organic nitrogen and total nitrogen.

GROUND-WATER LEVELS IN WESTERN OREGON, 1981 WATER YEAR

Ground-water levels in western Oregon generally were at or slightly below average throughout the year and ground-water storage remained near normal for the year.

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 of Units (SI) 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

Bacteria are microscopic unicellular organisms, typically spherical, rod-like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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 may be 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 which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 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 which produce blue colonies within 24 hours when incubated at 44.5°C ± 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 ± 1.0°C on M-enterrococcus medium (nutient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Benthic organisms (invertebrates) are animals inhabiting the bottom of an aquatic environment. They include a number of different types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are frequently used as indicators of environmental quality because many have restricted mobility during their aquatic life phase, as well as a relatively long lifespan which allows for response to prevailing and changing water-quality conditions. Many benthic organisms inhabit specific types of environments which, if changed, result in changes in the composition of the benthic community.

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

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

> Ash weight is the weight or amount of residue present after the residue from the dry weight determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash weight values of zooplankton and phytoplankton are expressed as g/m (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).
>
> Dry weight refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the weight remains unchanged. This weight represents the total organic matter, ash and sediment, in the sample. Dry weight values are expressed in the same units as ash weight.

Cfs-day (ft^3/s-day) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, or 2,445 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

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

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.

Continuing water-quality record station is a specified site which meets one or all conditions listed.

1. Where chemical samples are collected daily or monthly for 10 or more months during the water year.
2. Where water-temperature records include observations taken one or more times daily.
3. Where sediment discharge records include those periods for which sediment loads are computed and are considered to be representative of the runoff for the water year.

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.

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 approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a given time.

Mean discharge is the arithmetic average of discharge during a specific period.

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. It is recognized that certain kinds of samples cannot be filtered; to provide for this, procedures that are considered equivalent to filtering through a 0.45 um membrane filter will be identified and announced at a later date.

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 interchangeable 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 gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is 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 attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

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 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter (UG/L, ug/l) is a unit expressing the concentration of chemical constituents in solution as weight (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 concentrations of chemical constituents in solution. Milligrams per liter represents the weight 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 sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) 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.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

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 volume, usually milliliters (ml) or liters (l).

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m), acres, or hectares. 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 millimeters (ml) or liters (l). Number 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.

Partial-record station is a particular site where limited streamflow 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 suspended sediment or bed material determined either by 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 recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
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 material 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 of total 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, number, weight, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While consisting primarily of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

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 primary food producers in the aquatic environment and are commonly known as algae.

Chlorophyta (green algae) have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats of floating "moss" in lakes.

Chrysophyta (yellow-green algae, yellow-brown algae, and diatoms) have pigments in which yellow-green to golden-brown are predominate. The cell wall of these organisms, especially diatoms, often consists of two overlapping halves which are highly silicified.

Cryptophyta (cryptomonads) have pigments that are usually brown but also occur as red, blue or grass green. The cells are motile with two flagella and occur in freshwaters sometimes rich in organic and in nitrogenous materials.

Cyanophyta (blue-green algae) are 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.

Euglenophyta (euglenoids) are motile cells usually with one flagella and have a dominant grass-green pigment. They often occur in small pools rich in organic matter and are frequently present in sufficient amounts to color the water or the damp mud along river banks.

Pyrrhophyta (fire algae) have greenish tan to golden brown pigments. The cells are motile usually with two flagella. The fresh water forms are most abundant in pools, ditches, and small lakes with considerable vegetation.

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 food web. The zooplankton community is dominated by small crustaceans and rotifers.

Runoff in inches (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.

Solute is any substance derived from the atmosphere, vegetables, soil, or rocks that dissolved in water.

Specific conductance is a measure of the ability of water to conduct an electrical current. It is expressed in micromhos 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 micromhos). 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 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." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

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 that 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 would be 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 hierarchial 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	Emphemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that records water temperature in digital format on punched paper tape.

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 water year.

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

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

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 determines all of the constituent in the sample.)

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 would be required of all laboratories performing such analyses because different digestion procedures are likly to produce different analytical results.

Turbidity of a sample is the reduction of transparency due to the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the Nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90 degrees from the path of an incident light source.

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, 1981 is called "1981 water year.

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 year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the summary "REVISIONS" paragraph to refer to previously published State annual hydrologic data reports.

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

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

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

National stream-quality accounting network (NASQAN) is an accounting network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of water-quality conditions nationwide on a year-to-year basis and (2) to detect and assess long-term changes in stream quality.

Pesticide program is a network of regularly sampled water-quality stations where additional monthly samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide in the early 1930's, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds. Chlorinated hydrocarbon pesticides are still commonly used in many areas of the country, although efforts are being made to replace many of them with more specific, fast-acting, and easily degradable compounds.

Precipitation program was initiated by the U.S. Geological Survey after the eruption of Mount St. Helens to collect data on the quantity and quality of precipitation for specific events. Primary objectives of the program are to determine (1) the general quality of precipitation and (2) the effect of ash from Mount St. Helens on the quality of precipitation.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radio-activity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, with the natural mixture having atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to more than 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in ug/l (micrograms per liter), radium as radium-226 in PC/L (pCi/l, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (ug/l). Gross alpha and beta radioactivity associated with the fine-grained (silt- and clay- sized) sediments in the samples are also determined.

A 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 2.2 dpm (disintegrations per minute).

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all main-stream stations are listed before the first main-stream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of stations in the front of this report, the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of indentification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continous-record stations; therefore, the station number for a partial-record station indicated downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 14105700 which appears just to the left of the station name, includes the 2-digit part number "14" plus the 6-digit downstream order number "105700." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals; and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder which gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks on the measurement of stream discharge. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods.

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

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

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

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relations curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute 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 on the basis of recorded range in stage, good record at adjoining stations, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, good record at adjoining stations, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of hydrologic data. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs, a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on
September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gage, general remarks, average discharge, and extremes of published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published, along with the current records, in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised: "(m)" that only the instantaneous minimum was revised; and "(P)" that only the peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 11.

Information pertaining to the accuracy of the discharge records, and to conditions that affect the natural flow at the gaging station, is given under "REMARKS"; for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway and purpose and use of the reservoir is also given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given: First, the extremes for the period of record; second, information available outside the period of record; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR: if they are all independent peaks (including the maximum for the year) above the selected base, with the time of occurrence and corresponding gage heights, are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the 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 line headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the

month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in a table of annual maximum stage and discharge at crest-stage stations. The table of partial-record stations is followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of Data

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

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

Figures of daily mean discharge are shown to the nearest hundreth of a cubic foot per second for discharges of less than 1 ft^3/s, to tenths between 1.0 and 10 ft^3/s, to whole numbers between 10 and 1,000 ft^3/s, and to three significant figures greater than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumptive use, regulation, evaporation, or other factors. For such stations, discharge in cubic feet per second per square mile and runoff in inches are not published unless satisfacory adjustments can be made for such effects. 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 unadjusted losses (consumptive use, evaporation, seepage, etc.) are large in comparison with the observed discharge.

Other Data 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 district office, includes discharge measurements, gage-height records, and rating tables. Many gaging-station records in Oregon through 1967 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 number of consecutive days in each year.

Records of Discharge Collected by Agencies Other than the Geological Survey

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 Reserouces Division, U.S. Geological Survey, National Center, Reston, VA., 22092, maintains an index of these sites and will furnish information about them.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Computation of Data

Records of surface water quality are listed in downstream order by station number. The data generally are collected at or near gaging stations, and are reported immediately following other records for those stations. Water-quality data for most ungaged sites are listed with the records for other surface-water stations, in regular downstream order. The exceptions are the less detailed data for several ungaged sites, which are grouped separately in the section titled "Analyses of samples collected at water-quality partial-record stations."

The descriptive headings for detailed records of surface-water quality give periods of record for the various categories of data, extremes for certain pertinent data, and general remarks. For less detailed records, only the overall period of record is listed.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey publications on Techniques of Water-Resources Investigations, which are listed on page 33.

One stream-water 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 for the accurate determination of mean concentration and for use in calculating load.

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. Where an apparent inconsistency exists between a reported pH value and 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 published records consist of daily maximum, minimum, and mean values. More detailed records may be obtained from the district office.

Since October 1967, the U.S. Geological Survey has used the metric system for reporting data on chemical constituents and concentrations of suspended sediment. Chemical constituents are now reported in milligrams per liter (mg/l) except for certain minor elements that are reported in micrograms per liter (ug/l). Suspended sediment is reported in milligrams per liter and water temperatures in degrees Celsius (°C). In water with a density of 1,000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per liter. To convert temperature in degrees Celsius to degrees Fahrenheit, see table 1 below.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of terms", page 11.)

Table 1.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Solutes

The methods of collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). If the mixture of solutes throughout the stream cross section is homogeneous, one sample can adequately define the water quality at a given time. 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 sites must be sampled at several vertical intervals across the channel to determine the solute load accurately.

At chemical-quality stations where monitors are installed, the records consists of daily maximum, minimum, and mean values for each constituent measured. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. The water temperatures for daily stations are taken when a sample is collected, at about the same time each day. Large streams have small diurnal temperature changes; shallow streams may have a daily range of several degrees and may closely follow the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where continuously recording thermographs are used maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section or a single sample at a fixed point and a coefficient applied to determine concentration in the cross sections.

During periods of rapidly changing flow or concentration, samples may have been collected 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 discharges observed for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated.

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

In addition to records of the quantities of suspended sediment, records of periodic measurements of particle-size distribution of suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of Data

The observation-well program in Oregon, begun in 1928, was continued through 1979 in cooperation with the Oregon Water Resources Department. During the period 1962-65, the number of wells in the observation-well network was increased from 102 to 840. Observation wells in the program are part of a basic national network for providing a historical record of water-level changes in selected aquifers in the nation. Most of the wells are measured periodically by personnel of the Oregon Water Resources Department. Measurements are made in most of the wells three or four times a year to obtain records of the effects of pumping and seasonal changes in ground-water storage. The measurements are generally made in winter and spring before pumping begins, during the pumping season, and at the end of the pumping season. Water-level measurements in 81 representative wells in the Oregon observation-well network are included in this report; the locations of these wells are shown in figure 5.

Each well is identified by means of a 15-digit number that is based on the grid system of latitude and longitude. The first six digits represent degrees, minutes, and seconds of north latitude; the next seven digits are degrees, minutes, and seconds, of west longitude; and the last two numbers are sequential numbers assigned in the order the wells are inventoried in a 1-second quadrangle. Each well is also identified by a local well number that provides continuity with older reports and local needs.

Well Descriptions

For each well, the well description includes, if available, the following information: Latitude-longitude number, local well number, owner, method of construction, use of well, aquifer name or lithology, diameter of casing, depth of well, depth interval perforated or screened, altitude of land surface datum (lsd) National Geodetic Vertical Datum of 1929 (NGVD), and a description of the measuring point.

The depth of the well at the time it was inventoried is given in the well description, and any subsequent changes also are described. Well diameter reported is the inside of the innermost well casing at land surface.

Water Levels

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet below land-surface datum unless otherwise indicated. Those water levels that are above land-surface datum are preceded by a plus (+) sign. Land-surface datum is a datum plane that is approximately at land surface at each well. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Most measurements are reported to a hundredth of a foot; others are reported only to a tenth of a foot or a larger unit. Water levels determined by air line are less accurate than those measured by other methods; therefore, these water levels are reported only to the nearest half a foot.

The highest and lowest water levels measured at each well for the period of record are reported. These are intended to represent static water levels, but the lowest levels reported for some wells may reflect recent pumping.

Hydrographs

Hydrographs show fluctuations of water levels during 1956-79 in 15 selected observations wells. Generally, water levels are highest during the wet winter and spring months and lowest during the dry summer and autumn months. Water levels are shown on the hydrographs in feet below the land surface at the well.

Well-Numbering System

Local designations of wells discussed in this report are based on the official system for the rectangular subdivision of public lands, referenced to the Willamette base line and meridian. The number indicates the location of the well, by township, range, section, and its position within the section. A graphic illustration of this method of well numbering is shown below (fig 1). The numbers indicate the township, the range, and the section, respectively, in which the well is located. The letters following the section number locate the well within the section. The first letter denotes the quarter section (160 acres); the second, the quarter-quarter section (40 acres); and the third, the quarter-quarter-quarter section (10 acres). Where two or more wells are in the same 10-acre subdivision, serial numbers are added after the third letter. The section number and three-letter position indicator are shown on the location map adjacent to the well symbol. Within a county, the wells are arranged in sequential order based on increasing numbers for township and range and are shown on the map (fig. 5) by section number. For example, well 27S/18E-21aaa is in the NE¼NE¼NE¼ sec.21, T.27 S., R.18 E., in Lake County, and will be labeled as 21AAA.

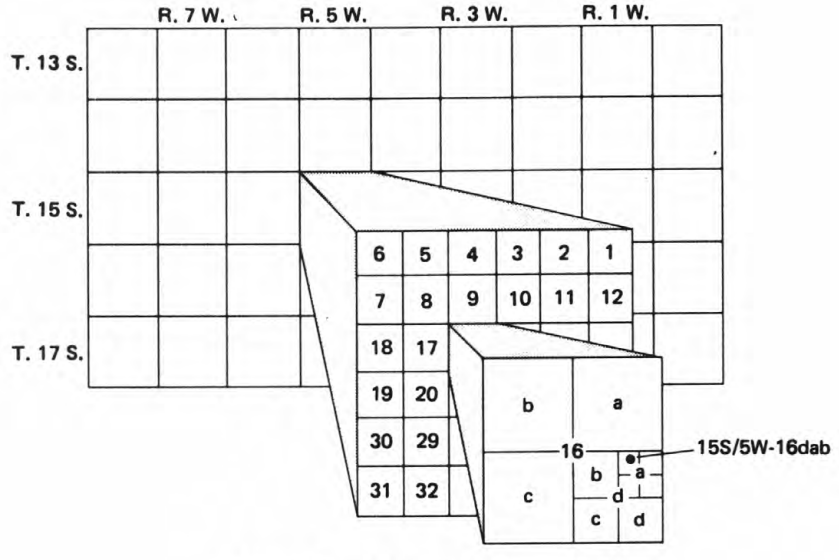


Figure 1. – Well-numbering system

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-five manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The manuals listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

Prices are subject to change. Customers should verify prices with the USGS Branch of Distribution, phone (202) 751-6777 before placing orders. Prices include cost of domestic surface transportation. For transmittal outside the U.S.A. (except to Canada and Mexico) a surcharge of 25 percent of the net bill should be included to cover surface transportation.

NOTE: When ordering 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.

2-E1. APPLICATION OF BOREHOLE GEOPHYSICS TO WATER-RESOURCES INVESTIGATIONS, by W.S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. GENERAL FIELD AND OFFICE PROCEDURES FOR INDIRECT DISCHARGE MEASUREMENTS, by M.A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. MEASUREMENT OF PEAK DISCHARGE BY THE SLOPE-AREA METHOD, by Tate Dalrymple and M.A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. MEASUREMENT OF PEAK DISCHARGE AT CULVERTS BY INDIRECT METHODS, by G.L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. MEASUREMENT OF PEAK DISCHARGE AT WIDTH CONTRACTIONS BY INDIRECT METHODS, by H.F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

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.

3-A7. STAGE MEASUREMENTS AT GAGING STATIONS, by T.J. Buchanan and W.P. Somers: USGS-TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. DISCHARGE MEASUREMENTS AT GAGING STATIONS, by T.J. Buchanan and W.P. Somers: USGS-TWRI Book 3, Chapter A8. 1969. 65 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

3-A11. MEASUREMENT OF DISCHARGE BY MOVING-BOAT METHOD, by G.F. Smoot and C.E. Novak: USGS-TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. FLUOROMETRIC PROCEDURES FOR DYE TRACING, by J.F. Wilson Jr.: USGS--TWRI Book 3, Chapter A12. 1968. 31 pages. Not currently available.

3-B1. AQUIFER-TEST DESIGN, OBSERVATION, AND DATA ANALYSIS, by R.W. Stallman: USGS-TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. INTRODUCTION TO GROUND-WATER HYDRAULICS, A PROGRAMED TEXT FOR SELF-INSTRUCTION, By G.D. Bennett: USGS-TWRI Book 3, Chapter B2. 1976. 172 pages.

3-C1. FLUVIAL SEDIMENT CONCEPTS, by H.P. Guy: USGS-TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. FIELD METHODS FOR MEASUREMENT OF FLUVIAL SEDIMENT, by H.P. Guy and V.W. Norman: USGS-TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. COMPUTATION OF FLUVIAL-SEDIMENT DISCHARGE, by George Porterfield: USGS-TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. SOME STATISTICAL TOOLS IN HYDROLOGY, by H.C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. FREQUENCY CURVES, by H.C. Riggs: USGS-TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. LOW-FLOW INVESTIGATIONS, by H.C. Riggs: USGS-TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. STORAGE ANALYSES FOR WATER SUPPLY, by H.C. Riggs and C.H. Hardison: USGS-TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. REGIONAL ANALYSES OF STREAMFLOW CHARACTERISTICS, by H.C. Riggs: USGS-TWRI Book 4, Chapter B3. 1973. 15 pages.

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 COLLECTION AND ANALYSIS OF WATER SAMPLES FOR DISSOLVED MINERALS AND GASES, by Eugene Brown, M.W. Skougstad, and M.J. Fishman: USGS-TWRI Book 5, Chapter A1. 1970. 160 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.

5-A3. METHODS FOR ANALYSIS OF ORGANIC SUBSTANCES IN WATER, by D.F. Goerlitz and Eugene Brown: USGS-TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4.* METHODS FOR COLLECTION AND ANALYSIS OF AQUATIC BIOLOGICAL AND MICROBIOLOGICAL SAMPLES, edited by P.E. Greeson, T.A. Ehlke, G.A. Irwin, B.W. Lium, and K.V. Slack: USGS-TWRI Book 5, Chapter A4. 1977. 332 pages.

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.

5-C1. LABORATORY THEORY AND METHODS FOR SEDIMENT ANALYSIS, by H.P. Guy: USGS-TWRI Book 5, Chapter C1. 1969. 58 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

7-C1. FINITE DIFFERENCE MODEL FOR AQUIFER SIMULATION IN TWO DIMENSIONS WITH RESULTS OF NUMERICAL EXPERIMENTS, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. COMPUTER MODEL OF TWO-DIMENSIONAL SOLUTE TRANSPORT AND DISPERSION IN GROUND WATER, by L.F. Konikow and J.D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1976. 90 pages.

8-A1. METHODS OF MEASURING WATER LEVELS IN DEEP WELLS, by M.S. Garber and F.C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 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.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

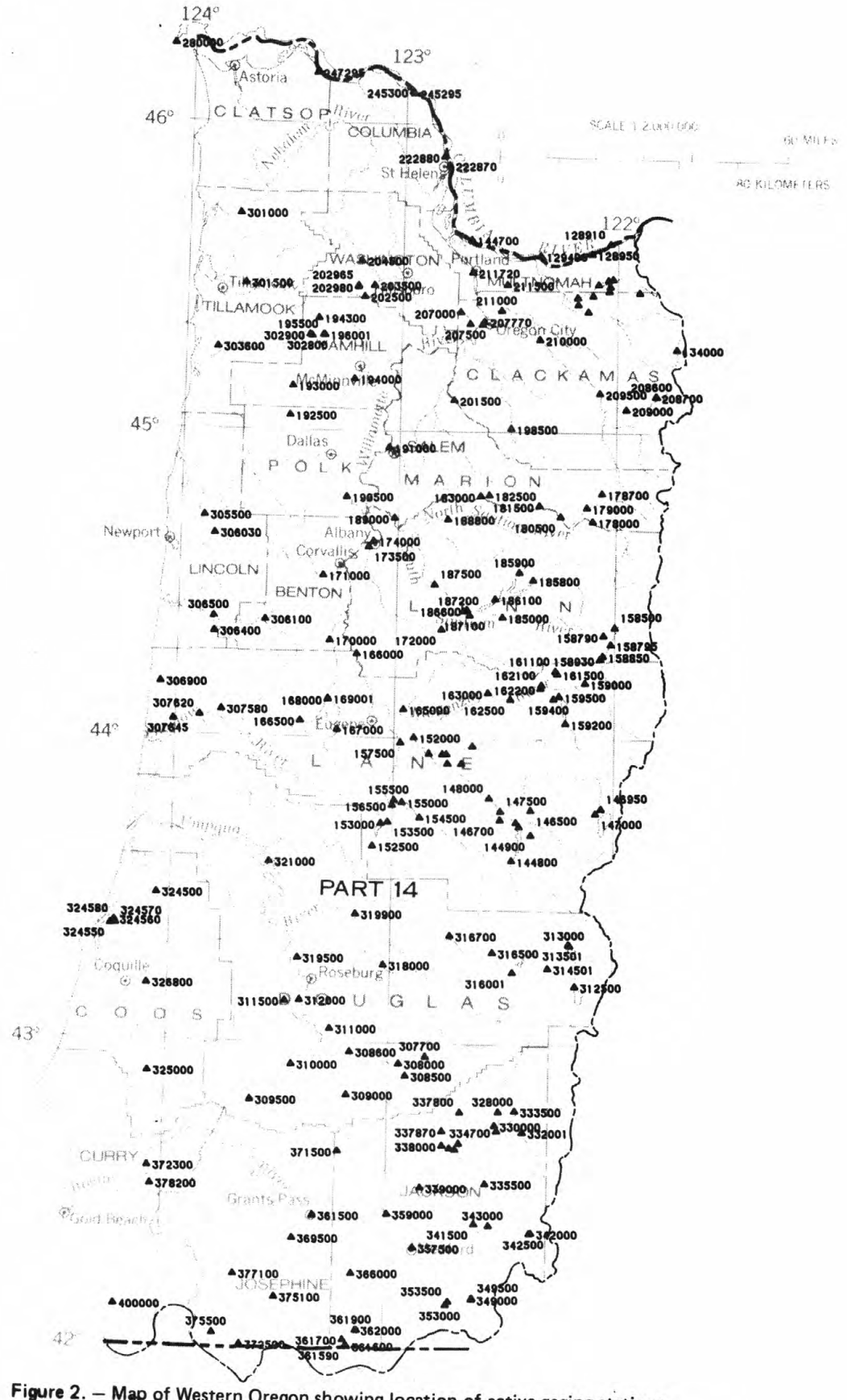


Figure 2. – Map of Western Oregon showing location of active gaging stations.

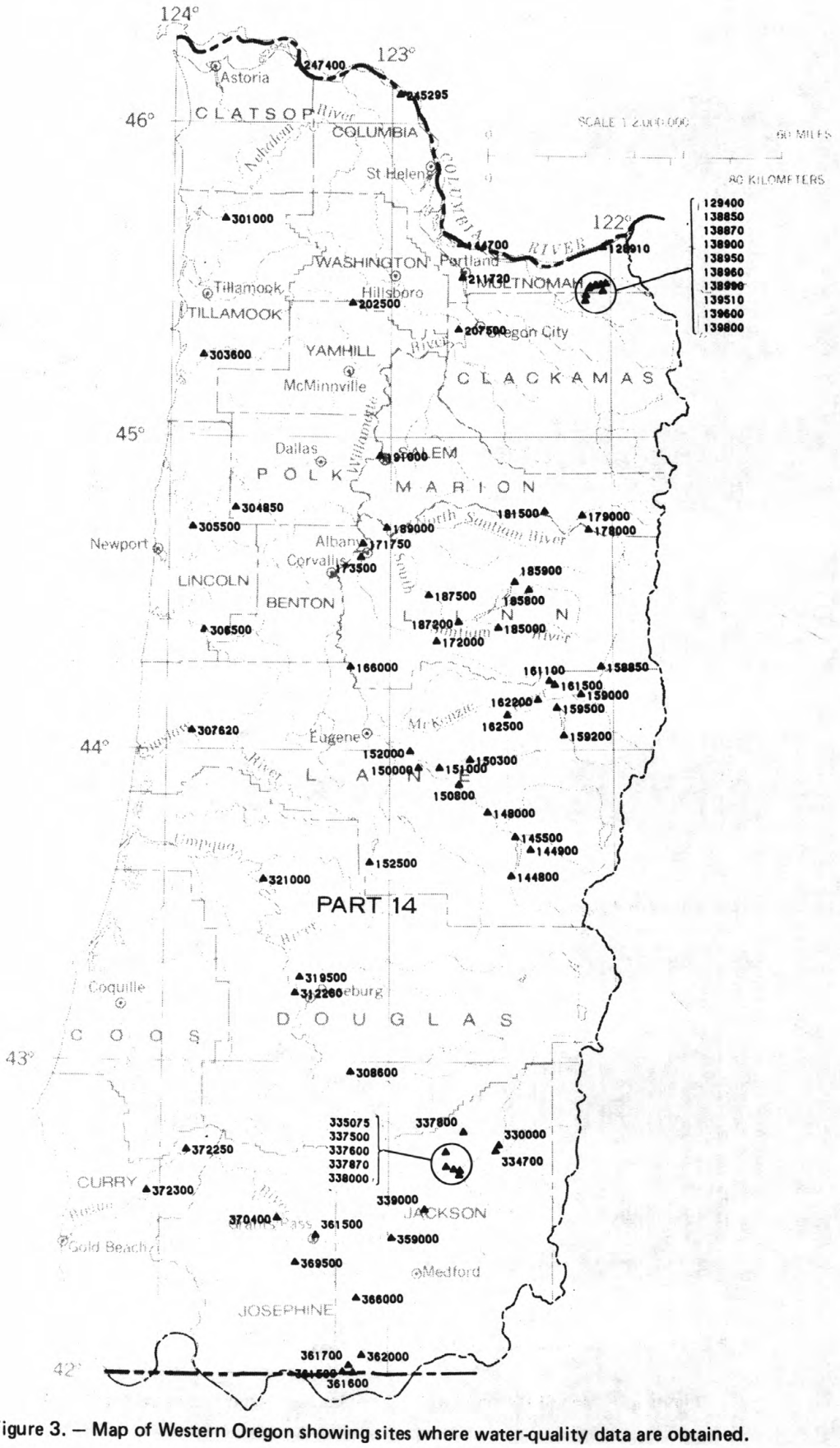


Figure 3. — Map of Western Oregon showing sites where water-quality data are obtained.

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 (60 m) upstream from Bonneville Dam, at mile 146.1 (235.1 km).

DRAINAGE AREA.--239,900 mi² (621,300 km²), approximately.

PERIOD OF RECORD.--May to September 1981 (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 CURRENT YEAR.--Maximum gage height during period May to September, 76.61 ft (23.351 m) May 20; minimum, 71.15 ft (21.687 m) Sept. 9.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										75.63	73.29	74.35
15										75.49	72.75	74.04
16										76.33	74.84	75.55
17										76.25	74.94	75.76
18										76.40	74.92	75.67
19										76.47	75.13	75.81
20										76.61	75.50	76.18
21										76.46	73.51	74.97
22										76.52	74.73	76.02
23										75.48	73.30	74.37
24										75.60	74.01	74.85
25										75.93	74.45	75.23
26										75.91	72.76	74.65
27										76.03	74.74	75.34
28										74.79	72.77	73.57
29										74.22	72.64	73.45
30										75.66	72.81	74.37
31										75.77	74.33	74.80
MONTH										76.61	72.64	74.94

14128860 COLUMBIA RIVER AT BONNEVILLE DAM, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	75.56	74.38	75.01	75.37	73.91	74.52	75.47	73.72	74.66	75.50	72.92	74.38
2	76.35	75.46	76.02	74.83	73.43	73.95	75.68	74.77	75.17	76.04	72.83	74.30
3	76.25	75.07	75.62	75.20	74.01	74.83	75.50	72.52	74.03	76.02	73.65	75.01
4	76.20	74.71	75.44	75.09	74.41	74.83	76.13	72.50	74.47	75.88	73.57	74.84
5	76.40	74.86	75.91	75.46	74.20	74.95	76.23	73.19	74.59	75.74	73.07	74.36
6	76.02	74.57	75.30	75.61	74.86	75.31	75.98	73.10	74.43	75.88	74.51	74.96
7	76.37	75.43	75.80	75.41	74.27	74.68	75.88	74.14	74.91	75.53	73.46	74.30
8	75.57	73.32	74.32	74.59	73.30	73.83	76.17	74.41	75.42	73.27	71.16	71.97
9	73.44	71.98	72.60	74.40	73.57	74.02	75.28	73.05	73.79	73.61	71.15	72.31
10	74.05	72.28	72.95	75.50	73.25	74.33	76.04	72.17	74.27	74.87	72.41	73.57
11	75.56	73.23	74.78	75.90	73.64	74.87	75.20	72.32	73.35	75.72	73.31	74.53
12	74.52	73.91	74.33	75.82	73.43	74.22	75.95	71.46	72.93	76.16	74.85	75.44
13	74.47	73.66	74.12	76.13	72.89	74.65	76.10	73.90	74.89	76.03	74.25	74.94
14	75.20	73.37	73.99	75.83	72.98	74.23	76.27	74.53	75.43	74.65	71.87	73.37
15	75.29	74.78	75.05	76.11	72.74	74.56	75.85	74.59	75.20	74.64	72.57	73.51
16	75.95	74.51	75.07	76.09	73.47	74.67	75.40	74.69	74.94	75.39	71.66	73.42
17	76.37	75.39	75.93	76.04	73.81	75.05	74.96	73.26	74.10	75.13	71.72	73.47
18	76.50	75.29	76.11	75.90	74.14	74.91	75.24	72.64	74.07	75.11	71.74	73.30
19	75.83	74.07	75.23	75.50	72.85	74.05	76.32	74.17	75.20	75.12	72.62	73.89
20	74.49	73.55	74.02	76.11	73.67	74.79	76.22	74.58	75.43	74.61	72.85	73.60
21	74.07	73.42	73.69	75.95	72.74	74.57	75.70	74.13	74.98	75.45	71.75	73.43
22	73.87	72.94	73.58	75.79	73.05	74.69	76.00	73.50	74.61	74.86	73.38	74.26
23	74.46	73.16	73.69	75.80	72.90	74.66	75.81	73.08	74.20	75.08	72.90	74.09
24	75.51	73.54	74.66	75.59	72.12	74.07	74.36	71.79	72.83	75.10	72.61	73.91
25	75.95	75.19	75.58	75.60	72.49	73.96	75.25	72.62	73.88	76.21	73.06	75.02
26	75.63	74.54	75.08	75.32	72.92	73.95	75.24	72.94	73.98	75.69	73.87	74.69
27	76.01	75.26	75.73	75.02	72.38	73.89	75.86	74.47	75.13	75.17	72.97	74.34
28	75.83	74.15	75.30	75.65	72.49	74.28	75.94	73.71	74.88	75.55	71.81	73.23
29	75.55	72.44	74.02	75.74	72.78	74.42	75.82	72.60	73.92	75.51	73.73	74.46
30	76.02	72.49	74.25	75.71	72.40	73.92	74.86	73.12	73.60	75.27	73.29	74.24
31	---	---	---	76.32	74.37	75.49	75.57	71.74	73.40	---	---	---
MONTH	76.50	71.98	74.77	76.32	72.12	74.49	76.32	71.46	74.41	76.21	71.15	74.04
YEAR	76.61	71.15	74.49									

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 0.5 mi (0.8 km) upstream from Tanner Creek, 0.4 mi (0.6 km) downstream from Bonneville Dam powerhouse, and at mile 145.0 (233.3 km).

DRAINAGE AREA.--239,900 mi² (621,300 km²), approximately.

PERIOD OF RECORD.--May to September 1981 (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 CURRENT YEAR.--Maximum gage height during period May to September, 30.40 ft (9.266 m) June 11; minimum recorded, 7.55 ft (2.301 m) Sept. 12.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										21.98	21.25	21.67
8										21.65	19.50	20.76
9										19.53	16.20	18.02
10										18.20	15.64	16.23
11										18.78	17.65	18.17
12										19.51	18.30	18.95
13										19.46	18.23	18.79
14										18.98	17.48	18.54
15										18.80	18.03	18.39
16										19.33	17.15	18.80
17										17.51	15.81	16.35
18										20.08	15.73	18.08
19										20.59	17.10	19.11
20										19.46	15.76	17.65
21										19.02	17.25	18.12
22										21.41	16.26	19.06
23										20.66	17.78	18.43
24										20.82	17.80	19.36
25										20.94	18.89	19.45
26										21.59	17.68	19.10
27										23.89	21.59	22.56
28										24.55	23.54	24.00
29										25.73	24.14	24.67
30										25.94	25.39	25.70
31										26.90	25.70	26.27
MONTH										26.90	15.64	19.85

14128870 COLUMBIA RIVER BELOW BONNEVILLE DAM, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	27.31	26.70	27.03	20.67	19.49	19.87	19.32	15.38	17.22	12.99	11.95	12.44
2	27.82	27.22	27.46	19.99	18.98	19.57	15.95	14.50	14.96	12.79	11.98	12.34
3	27.60	26.84	27.16	19.85	18.93	19.47	16.46	14.53	15.58	12.43	11.64	12.04
4	27.68	26.50	27.03	19.58	18.94	19.23	17.74	14.85	15.74	12.29	11.51	11.92
5	28.08	26.25	26.94	19.05	18.41	18.82	17.83	16.30	16.79	12.24	11.14	11.88
6	28.19	27.01	27.98	21.46	18.92	19.80	18.05	16.07	17.14	---	---	---
7	27.78	26.49	27.09	22.64	21.48	22.16	19.94	16.05	18.52	---	---	---
8	28.65	27.74	28.26	23.45	22.56	23.08	19.92	15.75	17.43	---	---	---
9	29.82	28.39	29.12	23.49	23.15	23.27	16.26	12.33	14.43	12.63	11.77	12.22
10	30.12	29.73	29.94	23.40	22.07	23.13	14.81	12.86	14.20	11.80	10.10	10.83
11	30.40	29.23	29.82	22.02	19.18	19.91	15.14	12.86	14.65	11.05	8.18	9.96
12	29.43	28.92	29.24	19.18	17.22	17.80	15.27	14.66	15.11	10.16	7.55	9.15
13	29.04	28.81	28.92	19.04	16.18	17.58	14.96	14.28	14.66	10.31	9.04	9.84
14	28.86	28.01	28.45	19.44	18.91	19.24	16.60	12.31	14.15	12.82	10.06	11.71
15	28.05	27.02	27.69	21.16	18.32	19.50	18.10	16.30	17.03	12.56	10.27	11.61
16	26.98	25.59	26.44	21.54	20.26	20.84	18.12	16.49	16.74	12.31	10.17	11.16
17	25.64	25.14	25.36	20.88	19.54	20.14	16.92	15.02	15.49	13.01	11.90	12.43
18	25.29	25.06	25.15	19.73	15.73	16.94	15.13	13.00	14.25	13.56	12.42	13.01
19	26.47	24.94	25.63	15.84	14.71	15.18	14.91	12.62	13.92	13.49	9.86	11.58
20	26.69	26.32	26.54	20.15	14.79	17.66	14.42	11.69	13.12	10.68	8.72	9.72
21	26.65	26.48	26.55	19.24	18.53	18.82	13.91	10.67	12.79	12.69	9.58	10.72
22	26.71	26.45	26.60	18.97	15.91	17.10	14.08	11.67	12.67	12.48	9.79	11.33
23	26.75	26.20	26.50	19.61	16.73	17.76	14.23	12.71	13.47	12.69	11.61	11.94
24	26.25	24.87	25.55	18.91	17.23	18.26	14.04	12.06	13.18	12.21	10.79	11.61
25	25.12	24.85	24.97	19.08	16.16	18.02	13.16	12.40	12.85	12.17	10.46	11.32
26	24.92	24.12	24.66	16.29	14.78	15.59	14.02	12.75	13.47	11.63	9.13	10.04
27	24.15	22.81	23.61	18.69	14.55	16.66	13.88	12.85	13.35	10.18	9.14	9.58
28	22.83	22.51	22.71	19.21	17.82	18.59	13.92	12.72	13.26	10.51	9.26	9.88
29	22.64	21.37	21.88	18.67	17.39	17.92	13.96	12.85	13.41	11.33	10.39	10.89
30	21.52	19.93	20.73	19.25	17.16	18.22	12.80	10.57	11.65	11.63	10.52	10.95
31	---	---	---	19.27	16.55	18.25	12.98	12.13	12.51	---	---	---
MONTH	30.40	19.93	26.50	23.49	14.55	18.98	19.94	10.57	14.64	13.56	7.55	11.19
YEAR	30.40	7.55	18.30									

14128890 COLUMBIA RIVER NEAR BONNEVILLE, OR

LOCATION.--Lat 45°37'35", long 121°58'22", in sec.29, T.2 N., R.7 E., Multnomah County, Hydrologic Unit 17080001, on left bank 0.2 mi (0.3 km) upstream from Moffett Creek, 2.2 mi (3.5 km) downstream from Bonneville Dam, and at mile 143.5 (230.9 km).

DRAINAGE AREA.--239,900 mi² (621,300 km²), approximately.

PERIOD OF RECORD.--October 1973 to September 1981, discontinued (gage heights only).

REVISED RECORDS.--WDR-OR 77-1: 1974-76(m).

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, 33.12 ft (10.095 m) June 22, 1974; minimum recorded, 6.47 ft (1.972 m) Sept. 30, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum gage height recorded, 27.96 ft (8.522 m) June 9; minimum, 6.91 ft (2.106 m) Sept. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.21	9.07	10.33	10.95	10.17	10.52	12.69	11.30	11.95	21.23	20.95	21.11
2	11.30	8.74	10.38	11.14	10.48	10.81	13.59	11.15	12.42	22.32	20.58	21.26
3	11.89	9.41	10.85	11.24	10.62	10.92	17.18	13.42	16.10	21.52	21.08	21.24
4	11.78	7.95	9.07	11.12	10.72	10.94	18.11	16.45	17.54	21.27	19.66	20.16
5	9.39	7.05	8.39	11.55	10.81	11.15	18.03	16.82	17.37	19.68	18.32	18.93
6	9.46	7.03	8.76	11.40	8.41	10.16	17.56	15.79	16.68	18.85	16.51	17.84
7	10.11	7.74	8.74	13.12	10.57	11.76	15.77	15.25	15.43	19.57	18.18	18.79
8	9.41	7.42	8.42	12.48	11.92	12.17	17.13	14.96	15.92	18.22	16.91	17.78
9	9.59	7.88	9.00	12.38	10.88	11.26	16.16	14.99	15.77	19.14	16.83	18.05
10	9.46	7.61	8.69	12.61	11.29	11.88	16.15	15.02	15.58	18.81	16.83	17.95
11	10.00	7.56	9.01	12.54	11.32	11.88	15.96	14.65	15.36	16.85	15.03	16.00
12	10.89	6.99	9.11	14.75	11.31	12.69	15.95	14.60	15.07	17.30	15.05	16.47
13	8.83	7.39	7.90	15.67	14.50	14.79	15.37	13.78	14.39	17.41	17.21	17.30
14	10.94	7.25	9.63	15.08	11.95	14.17	15.35	12.60	13.41	17.30	17.02	17.14
15	11.21	10.57	10.92	11.92	10.21	10.95	14.66	12.61	13.81	17.24	16.90	17.06
16	11.00	10.41	10.75	10.37	9.93	10.15	14.55	13.83	14.08	18.62	17.10	17.79
17	11.50	10.48	10.88	11.33	10.24	10.68	15.45	13.91	14.29	18.66	14.87	16.61
18	11.81	9.60	11.24	11.87	10.11	11.09	15.62	14.82	15.29	14.87	13.01	13.49
19	11.06	8.90	9.66	13.12	10.95	12.13	15.16	14.16	14.62	16.64	13.33	15.60
20	11.12	8.19	10.33	13.04	12.03	12.58	14.24	13.45	13.84	16.53	14.94	15.46
21	11.26	8.42	10.31	14.76	12.02	13.16	14.03	12.95	13.39	17.47	15.18	16.35
22	10.38	8.81	9.54	15.49	14.24	14.81	15.56	13.56	14.31	18.27	16.54	17.49
23	10.67	8.19	10.00	14.63	13.11	13.84	16.89	15.20	15.76	18.16	16.27	16.98
24	10.90	8.90	10.16	13.51	12.66	13.06	18.44	16.83	17.37	17.63	15.97	16.64
25	11.53	9.45	10.13	13.04	12.36	12.71	20.40	17.72	18.58	17.62	13.12	15.28
26	11.44	8.04	9.68	15.02	12.04	13.53	23.43	20.44	21.89	18.01	12.93	15.66
27	11.18	9.37	10.53	13.18	12.50	12.75	23.84	22.36	23.19	18.63	16.43	17.42
28	11.33	10.29	10.72	12.69	11.76	12.36	24.27	23.35	23.76	17.11	15.43	16.36
29	10.89	9.80	10.53	13.49	11.82	12.65	23.97	21.79	23.42	17.11	15.70	16.70
30	10.71	9.26	10.31	12.71	12.24	12.50	22.91	19.68	21.61	17.44	14.93	16.13
31	10.58	8.97	10.18	---	---	---	22.65	21.20	21.94	17.28	16.46	16.89
MONTH	11.89	6.99	9.81	15.67	8.41	12.14	24.27	11.15	16.59	22.32	12.93	17.35

14128890 COLUMBIA RIVER NEAR BONNEVILLE, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	16.50	15.32	16.19	15.06	13.35	14.09	16.58	15.34	15.67	18.03	17.76	17.87
2	16.68	14.91	15.90	14.95	13.10	14.18	16.62	15.52	15.90	18.12	17.23	17.85
3	17.74	16.59	17.10	16.66	14.83	16.01	16.56	15.77	16.27	19.65	17.81	19.02
4	18.17	17.32	17.81	17.37	15.48	16.59	16.21	14.24	15.14	20.55	19.51	20.03
5	18.96	17.32	18.10	17.27	14.33	15.33	14.80	13.95	14.35	21.11	20.57	20.85
6	18.26	16.67	17.46	16.09	14.85	15.54	14.56	13.79	14.20	21.08	19.49	20.10
7	16.74	15.11	15.56	15.95	13.94	14.50	15.47	13.91	14.90	20.96	19.99	20.61
8	14.90	13.07	14.24	14.27	13.83	14.05	15.55	14.77	15.13	20.59	18.53	19.68
9	17.34	13.55	15.65	15.22	13.52	14.16	17.19	15.11	15.70	18.61	15.50	17.12
10	17.45	16.46	17.12	15.22	13.42	14.55	15.65	14.25	15.27	17.24	15.07	15.63
11	17.73	17.01	17.46	15.21	13.64	14.37	14.31	13.25	13.93	17.90	16.86	17.32
12	16.98	15.43	16.32	14.80	14.08	14.50	13.69	13.15	13.35	18.50	17.41	18.07
13	16.89	15.31	16.32	15.14	14.22	14.64	15.94	13.16	14.38	18.51	17.38	17.86
14	15.09	14.57	14.82	14.78	12.06	13.36	14.15	13.53	13.82	18.01	16.82	17.66
15	15.70	14.42	14.72	13.18	11.69	12.25	14.08	13.60	13.86	17.88	17.12	17.52
16	17.68	14.75	16.10	13.96	11.51	12.76	15.67	13.78	14.67	18.36	16.49	17.86
17	20.72	17.54	18.85	15.71	13.73	14.80	14.59	13.25	14.24	16.75	15.05	15.61
18	20.93	18.98	19.78	15.12	13.45	14.67	13.32	12.92	13.14	19.09	15.05	17.37
19	23.11	20.94	22.03	15.76	14.23	15.10	13.75	13.20	13.50	19.49	16.35	18.20
20	23.11	22.07	22.54	15.72	13.00	14.65	13.65	12.27	12.98	17.98	15.08	16.83
21	22.12	20.44	21.69	13.12	12.34	12.86	13.13	12.59	12.82	18.08	16.53	17.32
22	20.41	19.22	19.63	13.18	12.67	12.89	16.48	12.64	14.68	20.22	15.64	18.23
23	19.22	17.75	18.35	15.10	12.54	14.15	16.49	13.30	15.21	18.19	17.04	17.53
24	18.64	17.88	18.31	14.95	13.26	14.28	15.88	13.24	14.28	19.78	17.03	18.53
25	18.57	17.68	18.09	14.28	13.78	14.05	16.64	15.35	15.96	19.85	17.96	18.45
26	20.21	17.56	18.89	14.69	13.89	14.29	16.70	13.58	15.27	20.54	16.95	18.32
27	17.52	15.97	16.62	15.29	14.43	14.85	17.25	14.06	15.52	22.56	20.42	21.42
28	17.32	15.06	16.15	15.18	13.03	14.01	18.25	16.83	17.49	23.18	22.40	22.70
29	---	---	---	14.73	13.66	14.29	17.86	17.37	17.72	24.22	22.75	23.36
30	---	---	---	15.72	13.52	14.20	18.03	17.65	17.80	24.53	23.88	24.27
31	---	---	---	16.53	15.72	16.05	---	---	---	25.33	24.22	24.81
MONTH	23.11	13.07	17.56	17.37	11.51	14.39	18.25	12.27	14.91	25.33	15.05	18.97

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.75	25.00	25.49				---	---	---	12.50	11.59	12.00
2	25.90	25.23	25.69				---	---	---	12.27	11.58	11.90
3	25.62	25.00	25.27				---	---	---	11.97	11.23	11.62
4	25.67	24.98	25.28				16.86	14.25	15.07	11.76	11.00	11.49
5	26.40	24.65	25.43				16.92	15.59	16.03	11.73	10.46	11.44
6	26.58	25.46	26.30				17.17	15.41	16.37	10.77	7.88	9.36
7	26.21	24.94	25.57				18.91	15.42	17.59	10.86	6.91	8.96
8	27.02	26.20	26.64				18.97	15.18	16.66	11.98	10.84	11.43
9	27.96	26.80	27.50				15.56	11.88	13.88	12.25	11.53	11.86
10	---	---	---				14.19	12.35	13.61	11.41	9.53	10.38
11	---	---	---				14.49	12.31	14.04	10.42	7.85	9.42
12	---	---	---				14.62	14.05	14.47	9.84	7.26	8.81
13	---	---	---				14.33	13.79	14.06	9.95	8.72	9.47
14	---	---	---				15.76	11.90	13.59	12.28	9.70	11.28
15	---	---	---				17.22	15.52	16.23	12.03	9.88	11.19
16	---	---	---				17.21	15.78	16.02	11.96	9.80	10.76
17	---	---	---				16.25	14.44	14.88	12.47	11.55	11.97
18	---	---	---				14.52	12.53	13.69	13.00	12.04	12.52
19	---	---	---				14.27	12.17	13.36	12.95	9.49	11.16
20	---	---	---				13.79	11.26	12.62	10.31	8.65	9.36
21	---	---	---				13.31	10.32	12.29	12.17	9.24	10.32
22	---	---	---				13.48	11.25	12.18	11.90	9.46	10.92
23	---	---	---				13.63	12.21	12.92	12.22	11.18	11.50
24	---	---	---				13.44	11.65	12.69	11.75	10.34	11.18
25	---	---	---				12.66	11.94	12.38	11.65	10.07	10.89
26	---	---	---				13.46	12.32	12.98	11.18	8.79	9.67
27	---	---	---				13.33	12.39	12.85	9.81	8.78	9.24
28	---	---	---				13.41	12.26	12.79	10.17	8.95	9.54
29	---	---	---				13.39	12.37	12.92	10.96	10.06	10.50
30	---	---	---				12.39	10.13	11.28	11.18	10.17	10.56
31	---	---	---				12.49	11.72	12.07	---	---	---
MONTH	27.96	24.65	25.91				18.97	10.13	13.91	13.00	6.91	10.69
YEAR	27.96	6.91	14.96									

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 (0.2 km) downstream from Tumult Creek, 1.0 mi (1.6 km) west of Warrendale, 5.1 mi (9.2 km) downstream from Bonneville Dam, and at mile 141.0 (226.9 km).

DRAINAGE AREA.--240,000 mi² (621,600 km²), 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 (9.421 m) June 20, 1972; minimum, 4.49 ft (1.369 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 25.22 ft (7.687 m) June 11; minimum, 4.80 ft (1.463 m) Sept. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.56	6.93	7.63	8.18	7.27	7.70	9.73	8.64	9.26	18.40	17.90	18.05
2	7.66	6.63	7.25	8.32	7.53	8.00	10.96	8.46	9.51	18.48	17.44	17.81
3	8.57	6.87	7.72	8.41	7.65	8.00	14.58	10.87	13.08	18.23	17.67	17.84
4	8.51	6.14	7.00	8.36	7.69	8.02	15.49	14.34	14.96	17.87	16.30	16.96
5	7.17	5.45	6.29	8.79	7.88	8.29	15.45	14.48	14.99	16.32	15.13	15.57
6	7.37	5.55	6.66	8.77	6.79	7.78	15.07	13.70	14.43	15.21	13.78	14.45
7	7.61	5.89	6.66	10.42	8.40	9.21	13.68	12.69	13.03	15.68	14.78	15.14
8	7.36	5.68	6.60	10.20	9.22	9.77	13.35	12.27	12.88	14.79	13.79	14.21
9	7.02	5.66	6.45	10.01	8.68	9.18	13.05	12.29	12.70	15.17	13.50	14.48
10	7.15	5.76	6.45	9.87	8.90	9.27	12.99	12.22	12.61	14.56	13.47	14.00
11	7.70	5.59	6.77	9.79	8.82	9.26	12.70	11.71	12.21	13.66	11.70	12.58
12	8.22	5.47	6.91	10.83	8.75	9.37	12.73	11.54	12.03	13.17	11.46	12.38
13	7.56	5.50	6.24	11.25	10.66	10.86	11.76	10.83	11.30	13.39	13.07	13.20
14	8.35	5.54	7.00	11.36	9.64	10.86	11.79	9.86	10.65	13.13	12.80	13.00
15	8.38	7.70	8.02	9.63	7.23	8.29	11.07	9.69	10.40	13.11	12.61	12.91
16	8.24	7.51	7.84	7.34	6.62	7.04	11.08	10.51	10.83	14.35	12.90	13.49
17	8.04	7.45	7.80	8.17	7.27	7.74	11.44	10.69	10.99	14.35	11.77	13.12
18	8.53	7.22	8.17	8.84	7.54	8.21	11.88	11.45	11.69	11.72	9.78	10.31
19	7.55	6.36	7.03	9.90	8.27	9.02	11.61	11.11	11.35	13.01	9.94	11.52
20	8.28	6.44	7.52	9.89	9.14	9.58	11.10	10.38	10.77	12.86	11.32	11.91
21	8.39	6.59	7.84	11.78	9.11	10.11	11.54	9.99	10.53	13.47	11.69	12.38
22	7.45	6.28	6.97	12.08	11.17	11.57	13.01	10.93	11.72	14.54	13.09	13.75
23	7.92	6.54	7.05	11.66	10.46	11.09	13.69	12.53	12.91	14.58	13.09	13.67
24	8.48	7.10	7.68	10.95	9.78	10.27	15.37	13.57	14.16	13.66	12.76	13.12
25	9.10	7.07	7.81	10.09	9.59	9.86	17.81	15.39	16.08	13.66	10.53	12.23
26	8.82	6.40	7.47	11.24	8.94	10.01	20.77	17.89	19.35	13.62	10.20	11.68
27	8.64	7.15	7.89	10.70	9.60	9.94	21.28	20.31	20.81	13.98	12.97	13.53
28	8.61	7.33	7.77	9.89	8.94	9.41	21.38	20.99	21.21	13.38	12.35	12.90
29	8.19	7.34	7.70	10.40	9.01	9.85	21.28	19.66	20.87	13.45	12.56	13.13
30	8.00	6.94	7.36	10.05	9.45	9.73	19.59	17.74	18.87	13.10	11.76	12.56
31	7.69	6.93	7.31	---	---	---	19.51	18.43	18.97	13.52	12.81	13.16
MONTH	9.10	5.45	7.25	12.08	6.62	9.24	21.38	8.46	13.71	18.48	9.78	13.71

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13.06	12.14	12.69	12.05	10.39	11.15	---	---	---	14.37	14.05	14.24
2	12.77	11.59	12.17	11.50	10.14	10.83	---	---	---	14.48	14.05	14.27
3	13.40	12.66	13.07	13.15	11.37	12.30	---	---	---	15.83	14.10	15.14
4	14.25	13.19	13.77	13.60	12.64	13.17	---	---	---	16.59	15.74	---
5	14.96	13.70	14.17	12.96	11.77	12.22	---	---	---	---	---	---
6	14.74	13.32	13.96	12.59	11.58	12.02	---	---	---	---	16.05	---
7	13.39	11.86	12.27	12.54	11.02	11.58	---	---	---	16.97	16.27	16.78
8	12.01	10.40	11.16	11.25	10.68	10.96	---	---	---	16.77	15.18	16.16
9	13.19	10.33	11.77	11.50	10.27	10.89	---	---	---	15.19	12.59	14.01
10	13.33	12.73	13.02	11.77	10.38	11.20	---	---	---	12.73	11.73	12.12
11	13.78	13.19	13.48	11.77	10.60	11.18	---	---	---	13.67	12.76	13.35
12	13.52	12.04	12.90	11.55	10.72	11.16	---	---	---	14.30	13.48	14.05
13	13.08	12.11	12.56	11.57	10.87	11.25	---	---	---	14.41	13.82	14.06
14	12.59	11.47	11.89	11.29	9.40	10.39	---	---	---	14.07	13.52	13.87
15	12.33	11.29	11.62	9.82	8.91	9.40	---	---	---	14.00	13.63	13.80
16	14.59	11.76	12.99	10.54	8.71	9.55	---	---	---	---	---	---
17	16.92	14.44	15.38	11.84	10.28	11.09	---	---	---	---	---	---
18	17.56	16.06	16.61	11.60	10.66	11.18	---	---	---	---	---	---
19	19.97	17.60	18.84	12.23	11.05	11.62	---	---	---	---	---	---
20	20.04	19.26	19.66	12.07	10.76	11.61	---	9.69	---	---	---	---
21	19.23	17.89	18.78	10.72	9.78	10.10	10.20	9.60	9.89	---	---	---
22	17.86	16.19	16.81	10.29	9.68	9.97	12.56	9.52	11.08	---	---	---
23	16.22	14.97	15.37	11.57	9.57	10.66	12.74	11.20	12.15	---	---	---
24	15.41	14.70	15.15	11.32	10.22	10.95	12.06	10.55	11.08	---	---	---
25	14.95	14.53	14.73	11.23	10.57	10.94	12.85	12.05	12.37	---	---	---
26	16.21	14.36	15.36	11.34	10.69	11.02	12.98	10.83	12.15	15.54	---	---
27	14.37	12.91	13.37	11.60	11.15	11.36	12.73	10.81	11.70	18.14	15.59	16.98
28	13.48	12.05	12.81	11.57	9.97	10.84	14.04	12.81	13.54	19.00	18.14	18.61
29	---	---	---	11.33	10.13	10.78	14.10	13.76	13.95	20.01	18.73	19.23
30	---	---	---	---	---	---	14.36	13.91	14.13	20.58	19.95	20.31
31	---	---	---	---	---	---	---	---	---	21.39	20.42	20.83
MONTH	20.04	10.33	14.16	13.60	8.71	11.08	14.36	9.52	12.20	21.39	11.73	15.75

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.91	21.29	21.62	15.66	15.03	15.33	14.40	11.91	13.32	9.54	8.76	9.10
2	22.11	21.76	21.96	15.36	14.54	15.01	11.90	10.73	11.24	9.26	8.61	8.96
3	21.74	21.47	21.58	15.10	14.37	14.78	11.86	10.63	11.32	9.07	8.29	8.68
4	21.83	21.35	21.59	14.96	14.38	14.71	12.20	11.08	11.51	8.90	8.08	8.47
5	22.39	21.15	21.55	14.53	14.06	14.29	12.48	12.05	12.29	8.59	8.05	8.35
6	22.77	22.32	22.57	15.97	14.25	14.78	13.10	12.04	12.65	8.26	5.98	6.94
7	22.20	21.58	21.87	17.34	16.00	16.83	14.71	11.97	13.34	7.43	4.80	6.14
8	23.35	22.19	22.88	18.11	17.32	17.75	14.77	12.20	13.20	8.57	7.31	8.20
9	24.58	23.30	23.90	18.18	18.02	18.10	12.41	9.33	10.87	8.99	8.37	8.66
10	25.00	24.56	24.85	18.16	17.51	18.03	10.32	9.25	10.01	8.57	7.10	7.87
11	25.22	24.57	24.94	17.50	14.59	15.65	10.81	9.79	10.45	7.86	6.29	7.16
12	24.60	24.04	24.37	14.57	12.93	13.57	11.21	10.72	10.98	7.35	5.59	6.60
13	24.07	23.78	23.93	13.85	12.25	12.89	11.01	10.51	10.74	7.62	6.51	7.15
14	23.81	23.00	23.49	14.53	13.86	14.31	11.13	9.72	10.33	9.01	7.10	8.31
15	23.07	22.20	22.77	15.40	13.95	14.63	13.09	11.10	12.32	8.92	7.46	8.46
16	22.16	20.86	21.69	16.04	15.14	15.79	13.19	12.26	12.57	9.28	7.72	8.26
17	20.90	20.25	20.53	15.89	15.04	15.48	12.48	11.23	11.68	9.47	8.70	9.08
18	20.29	20.00	20.19	15.08	11.96	13.21	11.33	10.03	10.65	9.95	9.03	9.40
19	21.16	20.02	20.52	12.00	11.02	11.37	10.96	9.68	10.29	10.03	7.24	8.71
20	21.56	21.13	21.40	14.59	10.84	12.59	10.51	8.78	9.67	8.17	6.32	7.13
21	21.57	21.40	21.48	14.50	14.03	14.17	9.88	8.21	9.19	8.36	7.08	7.73
22	21.67	21.38	21.50	14.26	11.92	12.94	10.17	8.65	9.24	8.35	7.12	7.94
23	21.61	21.18	21.45	13.74	12.48	13.02	10.04	9.00	9.66	8.76	8.04	8.45
24	21.19	20.11	20.64	13.87	13.03	13.54	9.81	9.28	9.54	8.81	7.94	8.37
25	20.14	19.85	19.96	14.25	12.30	13.63	9.67	8.94	9.29	8.54	7.51	8.10
26	19.87	19.19	19.66	12.30	10.89	11.68	9.96	9.05	9.67	8.25	6.41	7.37
27	19.23	18.02	18.74	13.62	10.75	11.94	10.12	9.42	9.72	7.89	6.40	7.10
28	18.02	17.53	17.79	14.25	13.36	13.88	10.14	9.26	9.68	7.93	6.84	7.42
29	17.61	16.63	17.13	14.01	13.23	13.61	10.19	9.27	9.77	8.56	7.46	7.96
30	16.75	15.45	16.20	14.35	12.92	13.58	9.74	8.03	8.70	8.54	7.55	7.98
31	---	---	---	14.39	13.23	13.80	9.46	8.60	9.03	---	---	---
MONTH	25.22	15.45	21.43	18.18	10.75	14.35	14.77	8.03	10.74	10.03	4.80	8.00
YEAR	25.22	4.80	12.52									

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 242 micromhos May 15, 1977; minimum, 97 micromhos June 26, 27, 1978.
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 daily, 199 micromhos Dec. 1; minimum recorded, 123 micromhos July 10.
WATER TEMPERATURES: Maximum, 22.0°C Aug. 17-19; minimum, 4.0°C Feb. 10-14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
09...	1130	99900	173	7.7	17.5	9.7	K4	K6	64	1.0	18	4.7
DEC												
09...	1100	180000	195	7.5	7.0	10.1	34	K10	70	10	19	5.4
JAN												
20...	1100	175000	162	7.8	5.5	12.7	K3	46	67	9.0	19	4.8
FEB												
12...	1100	196000	168	7.8	4.0	13.5	<1	K3	73	11	20	5.6
MAR												
06...	0930	183000	181	7.9	6.0	12.7	K3	K1	76	18	21	5.7
APR												
07...	1100	170000	164	8.1	8.5	11.9	K1	K4	66	6.0	18	5.2
MAY												
07...	1030	262000	185	7.6	12.0	12.4	K2	K60	76	.00	20	6.3
JUN												
01...	1230	402000	152	8.3	15.0	10.6	K2	K50	59	3.0	16	4.7
JUL												
23...	1200	216000	131	8.1	18.0	10.0	K2	K120	64	19	18	4.7
AUG												
04...	1100	190000	133	8.1	20.0	8.8	K1	K7	57	.00	16	4.1
11...	1200	151000	137	7.6	21.0	9.2	<1	K3	60	4.0	17	4.2
SEP												
22...	1200	120000	149	8.1	19.0	9.2	<1	K1	61	4.0	17	4.4

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT												
09...	6.5	1.3	63	14	3.4	.2	.15	.050	.36	.040	.78	.90
DEC												
09...	7.6	1.4	60	18	4.5	.2	.30	.110	.22	.080	.35	.65
JAN												
20...	6.1	1.2	58	18	3.0	.2	.28	.110	.56	.080	.73	1.0
FEB												
12...	6.7	1.3	62	17	3.2	.1	.31	.040	.68	.030	--	--
MAR												
06...	7.8	1.5	58	18	5.7	.2	.45	.010	.42	<.010	.34	.78
APR												
07...	6.3	1.3	60	13	3.1	.2	.21	.040	1.1	.030	--	--
MAY												
07...	9.7	1.6	81	20	4.1	.2	.27	.070	.74	.130	1.30	1.6
JUN												
01...	6.7	1.7	56	7.8	3.2	.1	<.10	.030	.53	.010	.67	.72
JUL												
23...	3.8	1.3	45	5.0	11	.1	<.10	.140	.30	.130	.41	.42
AUG												
04...	3.3	.9	57	1.0	1.0	.1	<.10	.070	.42	.110	.39	.42
11...	3.2	.9	56	4.0	1.2	.1	.12	.090	.25	.120	.55	.66
SEP												
22...	4.7	.8	57	6.0	2.7	.2	.14	.090	.41	.070	.55	.73

COLUMBIA RIVER MAIN STEM

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	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												
09...	.030	.050	2.4	.3	--	8.2	104	95	.20	--	--	--
DEC												
09...	.050	.050	--	--	2.4	9.4	121	--	2.9	10	4860	86
JAN												
20...	.030	.060	3.8	.1	--	10	99	99	1.8	7	3310	99
FEB												
12...	.040	.060	--	--	3.3	11	96	104	2.6	10	5290	92
MAR												
06...	.040	.070	--	--	5.3	14	115	111	16	17	8400	97
APR												
07...	.030	.050	2.6	--	--	11	95	95	5.5	13	5970	92
MAY												
07...	.140	.100	--	--	6.6	15	124	127	6.4	23	16300	88
JUN												
01...	.020	.080	--	--	2.5	9.2	96	83	6.2	60	65100	69
JUL												
23...	< .010	.010	1.9	.3	--	8.4	70	80	3.8	14	8170	92
AUG												
04...	.030	.030	--	--	2.4	5.8	74	66	2.5	10	8130	88
11...	< .010	.030	--	--	1.4	5.5	83	70	2.2	8	3260	80
SEP												
22...	.020	.010	--	--	2.3	7.8	82	78	1.3	6	1940	92

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
OCT										
09...	2	3	40	< 100	< 1	< 1	< 10	10	< 3	< 1
JAN										
20...	1	3	30	100	2	< 1	< 10	10	4	< 1
APR										
07...	1	2	40	100	< 1	1	< 10	10	< 3	< 1
JUL										
23...	3	2	100	< 100	< 1	< 1	10	10	< 3	1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT									
09...	3	10	< 10	220	< 1	27	< 1	10	< .1
JAN									
20...	3	12	40	410	< 1	5	5	20	< .1
APR									
07...	3	3	30	420	< 1	4	2	20	< .1
JUL									
23...	2	8	30	390	7	2	< 1	20	< .1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT									
09...	.1	< 1	6	< 1	< 1	< 1	< 1	9	40
JAN									
20...	.1	3	< 1	< 1	< 1	1	1	30	20
APR									
07...	< .1	3	3	< 1	< 1	< 1	< 1	7	160
JUL									
23...	.1	1	2	< 1	< 1	< 1	< 1	20	10

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAR 6,81	MAY 7,81	JUN 1,81	JUL 23,81
TIME	0930	1030	1247	1200
TOTAL CELLS/ML	400	1800	2400	11000
DIVERSITY: DIVISION	1.4	1.2	0.2	1.4
.CLASS	1.4	1.2	0.2	1.4
..ORDER	1.4	2.1	1.0	2.4
...FAMILY	1.4	2.2	1.0	2.5
....GENUS	1.6	2.8	1.4	3.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	--	-	64	4	26	1	250	2
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	26	6	--	-	77	3	1900#	17
....MELOSIRA	--	-	260	14	420#	18	2200#	20
....STEPHANODISCUS	120#	29	350#	20	--	-	*	0
..FRAGILARIALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	410#	23	1800#	72	290	3
....DIATOMA	--	-	13	1	--	-	580	5
....FRAGILARIA	--	-	--	-	--	-	1400	12
....SYNEDRA	--	-	64	4	64	3	420	4
..NAVICULALES								
...NAVICULACEAE								
....NAVICULA	--	-	13	1	--	-	--	-
..SURIRELLALES								
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	*	0
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....SCHROEDERIA	--	-	--	-	--	-	*	0
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	--	-	--	-	1000	9
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	13	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	26	1	39	2	420	4
....KIRCHNERIELLA	--	-	--	-	26	1	--	-
....OOCYSTIS	--	-	51	3	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	51	13	26	1	--	-	--	-
....TETRASTRUM	--	-	51	3	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	13	1	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	210#	52	440#	25	--	-	290	3
....GOMPHOSPHAERIA	--	-	--	-	--	-	1500	13
..NOSTOCALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	*	0
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	830	7
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

COLUMBIA RIVER MAIN STEM

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	AUG 4,81		AUG 11,81		SEP 22,81	
TIME	1100		1200		1200	
TOTAL CELLS/ML	7800		2700		810	
DIVERSITY: DIVISION	1.4		1.2		0.9	
.CLASS	1.4		1.2		0.9	
..ORDER	2.1		1.8		1.5	
...FAMILY	2.3		1.9		1.6	
....GENUS	3.1		2.2		2.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....COCCONEIS	*	0	--	-	29	4
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	40	1	--	-	14	2
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	820	11	--	-	100	13
....MELOSIRA	1700#	22	1200#	46	460#	57
....STEPHANODISCUS	80	1	--	-	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....ASTERIONELLA	580	7	240	9	--	-
....DIATOMA	60	1	--	-	--	-
....FRAGILARIA	880	11	230	9	--	-
....SYNEDRA	260	3	140	5	43	5
..NAVICULALES						
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
..SURIRELLALES						
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....SCHROEDERIA	--	-	--	-	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	80	1	430#	16	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	1300#	16	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	100	1	29	1	72	9
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	80	1	--	-	29	4
....TETRASTRUM	80	1	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	60	1	--	-	58	7
....GOMPHOSPHAERIA	--	-	--	-	--	-
..NOSTOCALES						
...NOSTOCACEAE						
....ANABAENA	--	-	360	13	--	-
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	1600#	21	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	169	192	186	165	176	---	171	150	130	---	139
2	---	170	182	187	166	175	---	173	147	129	---	140
3	---	171	182	184	167	176	---	176	142	130	---	141
4	---	170	182	187	169	178	---	177	138	130	---	140
5	---	171	184	185	169	182	---	178	134	132	---	140
6	---	162	193	186	169	179	---	181	132	131	---	141
7	---	160	195	184	169	182	---	179	131	127	---	140
8	---	161	196	180	169	182	---	173	130	126	---	140
9	---	163	197	178	169	182	---	168	---	124	---	140
10	---	164	196	181	169	185	169	164	---	124	---	142
11	---	167	194	181	169	188	170	160	135	125	---	143
12	---	171	196	184	169	189	170	158	134	127	---	141
13	---	172	194	186	168	191	169	158	134	127	---	142
14	---	174	190	186	168	192	169	158	133	127	---	142
15	172	176	180	184	167	188	170	157	135	126	---	143
16	173	178	174	183	164	180	170	157	135	124	---	146
17	174	180	170	180	---	174	170	157	136	125	---	145
18	---	180	166	176	---	168	170	155	135	129	---	144
19	---	181	163	168	---	166	170	153	133	130	---	148
20	---	184	162	161	---	166	172	150	130	127	---	147
21	---	187	163	156	---	167	172	150	129	127	---	145
22	---	187	159	154	160	---	170	149	128	130	---	145
23	---	187	162	---	160	160	170	147	129	129	---	147
24	---	188	165	---	160	160	169	147	129	129	---	149
25	173	191	163	---	161	160	168	147	130	130	---	148
26	172	195	159	155	165	166	169	148	130	132	138	148
27	169	192	154	156	172	170	168	148	130	129	139	150
28	167	189	165	160	176	---	168	149	130	---	139	151
29	167	189	176	162	---	---	170	148	130	---	139	151
30	168	192	179	163	---	---	171	149	130	---	139	151
31	168	---	181	164	---	---	---	149	---	---	140	---
MEAN	170	177	178	175	167	176	170	159	134	128	139	144

14128910 COLUMBIA RIVER AT WARRENDALE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

14128950 COLUMBIA RIVER AT MULTNOMAH FALLS, OR

LOCATION.--Lat 45°34'45", long 122°06'55", in SW¼SE¼ sec.7, T.1 N., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank at Multnomah Falls, 0.7 mi (1.1 km) upstream from mouth of Multnomah Creek, 2.1 mi (3.4 km) downstream from Oneonta Creek, and at mile 136.2 (219.1 km).

DRAINAGE AREA.--240,000 mi² (621,600 km²), approximately.

PERIOD OF RECORD.--November 1971 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, 31.11 ft (9.482 m) June 19, 20, 1972; minimum, 4.47 ft (1.362 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 25.42 ft (7.748 m) June 11; minimum recorded, 6.44 ft (1.963 m) Sept. 27.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										13.51	---	---
12										14.30	13.50	14.03
13										14.42	13.84	14.06
14										13.98	13.61	13.82
15										13.99	13.54	13.79
16										14.35	13.66	14.05
17										13.71	11.80	12.49
18										14.81	11.57	13.07
19										15.37	13.47	14.41
20										15.10	12.90	13.54
21										14.04	13.07	13.61
22										15.72	12.77	14.14
23										15.68	13.69	14.21
24										15.55	13.50	14.38
25										15.80	14.37	14.96
26										15.59	13.79	14.33
27										18.17	15.60	17.01
28										18.97	18.18	18.67
29										20.08	18.84	19.30
30										20.62	20.08	20.38
31										21.48	20.56	20.91
MONTH										21.48	11.57	15.26

14128950 COLUMBIA RIVER AT MULTNOMAH FALLS, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.94	21.45	21.71	15.58	15.01	15.28	14.34	11.81	13.25	---	---	---
2	22.17	21.85	22.04	15.33	14.52	14.99	11.78	---	---	---	8.58	---
3	21.80	21.51	21.62	15.01	14.37	14.73	11.74	---	---	9.22	8.27	8.74
4	21.88	21.46	21.66	14.83	14.34	14.64	12.20	---	---	8.95	8.09	8.47
5	22.46	21.22	21.63	14.39	14.03	14.22	12.49	12.08	12.22	8.55	8.14	8.38
6	22.84	22.39	22.68	15.90	14.21	14.69	13.07	12.02	12.62	8.33	---	---
7	22.36	21.72	21.99	17.32	15.92	16.78	14.64	11.95	13.29	---	---	---
8	23.42	22.29	22.98	18.08	17.34	17.76	14.73	12.16	13.16	8.62	7.37	8.24
9	24.72	23.40	24.01	18.14	18.00	18.07	12.38	---	---	9.00	8.33	8.68
10	25.14	24.71	24.98	18.12	17.50	18.01	---	---	---	8.63	---	---
11	25.42	24.67	25.08	17.46	14.57	15.62	---	---	---	---	---	---
12	24.67	24.18	24.48	14.56	12.85	13.52	---	---	---	---	---	---
13	24.17	23.88	24.04	13.80	12.16	12.81	---	---	---	---	---	---
14	23.88	23.17	23.60	14.43	13.81	14.23	---	---	---	---	---	---
15	23.16	22.27	22.87	15.34	13.87	14.57	13.01	11.46	12.23	---	---	---
16	22.26	20.97	21.76	16.00	15.10	15.72	13.11	12.20	12.49	---	---	---
17	20.95	20.32	20.59	15.84	14.97	15.40	12.41	---	---	---	---	---
18	20.32	20.15	20.22	14.97	11.90	13.15	---	---	---	---	---	---
19	21.17	20.07	20.55	11.90	---	---	---	---	---	---	---	---
20	21.60	21.19	21.45	14.51	---	---	---	---	---	---	---	---
21	21.60	21.49	21.55	14.41	13.95	14.07	---	---	---	---	---	---
22	21.63	21.50	21.56	14.15	11.84	12.86	---	---	---	8.22	---	---
23	21.64	21.26	21.52	13.66	12.38	12.92	---	---	---	8.72	8.06	8.43
24	21.26	20.16	20.73	13.75	12.94	13.45	---	---	---	8.79	7.92	8.36
25	20.17	19.87	20.00	14.14	12.27	13.55	---	---	---	8.54	7.53	8.09
26	19.89	19.22	19.68	12.23	---	---	---	---	---	8.26	6.45	7.41
27	19.21	18.04	18.76	13.45	---	---	---	---	---	7.86	6.44	7.11
28	18.02	17.57	17.80	14.10	13.26	13.76	---	---	---	7.92	6.86	7.43
29	17.61	16.60	17.12	13.99	13.16	13.53	---	---	---	8.53	7.47	7.96
30	16.66	15.40	16.14	14.28	12.88	13.49	---	---	---	8.50	7.57	7.99
31	---	---	---	14.30	13.11	13.72	---	---	---	---	---	---
MONTH	25.42	15.40	21.49	18.14	11.84	14.65	14.73	11.46	12.75	9.22	6.44	8.10
YEAR	25.42	6.44	15.88									

14129400 COLUMBIA RIVER AT WASHOUGAL, WA

LOCATION.--Lat 45°34'30", long 122°21'10", in SE¼ sec.18, T.1 N., R.4 E., Clark County, Hydrologic Unit 17080001, on right bank on rock-fill point at south end of 17th Street, in Washougal, and at river mile 122.9 (197.7 km).

DRAINAGE AREA.--240,000 mi² (622,600 km²), approximately.

PERIOD OF RECORD.--October 1971 to September 1981, gage heights only (discontinued).

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 recorded gage height, 28.87 ft (8.800 m) June 19, 1972; minimum, 3.68 ft (1.122 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 23.58 ft (7.187 m) June 11; minimum, 4.24 ft (1.292 m) Sept. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.41	6.24	6.68	6.97	6.15	6.62	8.45	7.73	8.18	17.25	16.56	16.79
2	6.94	5.89	6.47	7.20	6.41	6.86	9.80	7.72	8.59	17.02	16.26	16.50
3	7.21	6.08	6.69	7.35	6.46	6.92	13.35	9.80	11.89	16.95	16.34	16.50
4	7.20	5.30	6.14	7.57	6.72	7.10	14.26	13.29	13.77	16.34	15.08	15.61
5	6.42	5.00	5.67	7.67	6.77	7.20	14.19	13.55	13.87	15.08	13.97	14.43
6	6.50	4.99	5.87	7.70	6.23	6.84	13.88	12.88	13.49	13.97	12.68	13.16
7	6.58	5.04	5.82	9.17	7.14	8.10	12.85	11.98	12.27	14.13	13.50	13.74
8	6.42	5.02	5.83	9.27	8.32	8.75	12.37	11.51	11.94	13.50	12.50	12.99
9	6.42	4.90	5.78	9.02	7.81	8.34	12.25	11.46	11.71	13.65	12.60	13.08
10	6.37	5.07	5.84	8.89	7.87	8.26	11.75	11.01	11.31	13.18	12.43	12.82
11	6.78	4.86	5.88	8.83	7.80	8.27	11.28	10.42	10.80	12.78	10.93	11.69
12	7.36	4.87	5.98	9.48	7.47	8.15	11.28	10.52	10.80	11.90	10.38	11.25
13	6.85	4.81	5.59	10.08	9.45	9.62	10.62	9.68	10.02	12.27	11.84	12.06
14	7.19	4.53	5.94	10.03	8.69	9.55	10.36	8.70	9.39	12.15	11.81	12.03
15	7.18	6.45	6.73	8.67	6.63	7.38	9.62	8.24	8.99	12.10	11.75	11.94
16	7.02	6.27	6.54	6.76	6.01	6.37	9.80	9.25	9.58	12.91	11.83	12.26
17	6.73	6.04	6.41	7.05	6.10	6.59	9.96	9.22	9.57	12.91	11.07	12.11
18	7.01	6.07	6.76	7.52	6.42	7.04	10.95	9.73	10.49	11.05	9.34	9.96
19	6.67	5.17	5.95	8.55	6.92	7.74	10.47	9.99	10.26	11.61	9.26	10.49
20	---	---	---	8.81	8.00	8.42	10.19	9.40	9.80	11.51	10.66	11.09
21	---	---	---	10.41	7.85	8.83	10.26	9.08	9.64	12.28	10.39	11.24
22	6.68	5.57	6.26	11.15	9.86	10.43	11.80	9.60	10.54	12.97	11.61	12.20
23	7.31	5.97	6.54	10.68	9.37	9.98	12.49	11.38	11.79	12.91	11.46	12.08
24	7.59	6.28	6.94	9.76	8.82	9.23	14.07	12.42	12.93	11.90	11.20	11.42
25	8.05	6.20	6.92	9.20	8.40	8.70	16.71	14.09	14.95	11.84	9.45	10.76
26	7.81	5.66	6.67	10.08	8.12	8.94	19.50	16.64	18.23	11.77	8.93	10.05
27	7.77	6.24	6.97	9.73	8.34	8.69	20.10	19.39	19.68	12.52	11.55	12.00
28	7.72	6.55	7.04	8.67	8.01	8.29	20.23	20.05	20.15	11.92	11.04	11.40
29	7.32	6.32	6.72	9.16	8.01	8.55	20.20	18.72	19.80	11.71	10.96	11.41
30	7.11	6.16	6.52	8.81	8.16	8.50	18.72	16.80	17.75	11.31	10.10	10.84
31	6.87	5.92	6.43	---	---	---	18.15	17.25	17.78	11.73	11.03	11.32
MONTH	8.05	4.53	6.33	11.15	6.01	8.14	20.23	7.72	12.58	17.25	8.93	12.43

14129400 COLUMBIA RIVER AT WASHOUGAL, WA--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.28	10.52	10.97	10.70	9.05	9.94	10.90	10.60	10.75	12.49	12.24	12.40
2	11.31	10.03	10.55	9.88	8.97	9.39	11.13	10.79	10.99	12.63	12.26	12.49
3	11.94	11.09	11.61	11.30	9.62	10.54	11.62	10.91	11.31	13.86	12.36	13.23
4	12.64	11.65	12.13	11.98	11.13	11.47	11.44	10.09	10.82	14.61	13.78	14.33
5	13.16	12.19	12.50	11.15	10.30	10.72	10.31	9.69	10.05	15.40	14.50	15.09
6	13.03	12.01	12.41	11.15	10.14	10.61	10.06	9.47	9.81	15.18	14.23	14.71
7	11.98	10.42	10.97	11.07	9.69	10.27	10.48	9.38	10.09	15.09	14.43	14.87
8	10.59	9.31	9.88	9.94	9.40	9.68	10.94	10.14	10.45	14.91	13.53	14.44
9	11.52	8.76	10.05	10.17	9.19	9.68	11.43	10.31	10.76	13.53	11.11	12.40
10	11.82	11.16	11.60	10.13	9.00	9.69	11.34	10.36	10.71	11.10	10.01	10.45
11	11.99	11.67	11.85	10.14	9.27	9.74	10.34	9.22	9.81	11.69	10.83	11.41
12	11.92	10.69	11.35	9.94	9.29	9.64	9.38	8.99	9.20	12.40	11.63	12.15
13	11.50	10.68	11.09	9.88	9.21	9.58	10.29	8.97	9.56	12.63	11.91	12.24
14	11.22	10.08	10.44	9.61	7.90	8.95	10.20	9.18	9.69	12.15	11.86	12.00
15	10.78	9.81	10.20	8.43	7.47	8.08	9.66	9.11	9.44	12.25	11.84	12.01
16	12.93	10.36	11.53	8.90	7.37	8.10	10.43	9.25	9.85	12.51	11.84	12.24
17	15.13	12.87	13.79	10.12	8.60	9.41	10.17	9.41	9.93	11.90	10.18	10.92
18	16.10	14.78	15.17	10.05	9.42	9.75	9.38	8.80	9.09	12.86	10.08	11.39
19	18.43	16.12	17.31	10.61	9.68	10.06	9.37	8.69	9.12	13.42	11.99	12.60
20	18.56	17.90	18.26	10.48	9.55	10.13	9.29	8.32	8.84	13.17	11.44	11.87
21	17.88	16.78	17.44	9.49	8.44	8.86	8.84	8.24	8.53	12.21	11.44	11.89
22	16.75	14.99	15.68	8.96	8.26	8.62	10.87	8.24	9.48	13.70	11.23	12.33
23	14.99	13.75	14.03	9.93	8.08	9.13	11.11	9.83	10.63	13.66	12.06	12.48
24	13.87	13.26	13.60	9.87	9.05	9.52	10.34	9.29	9.58	13.62	11.79	12.58
25	13.39	12.93	13.15	9.77	9.20	9.45	11.03	10.35	10.64	13.81	12.65	13.14
26	14.42	12.89	13.66	9.63	9.07	9.42	11.11	9.30	10.50	13.58	12.11	12.56
27	12.87	11.65	11.99	9.82	9.42	9.64	10.69	9.17	9.87	16.05	13.64	14.94
28	12.01	10.73	11.46	9.75	8.39	9.22	12.02	10.73	11.58	16.93	16.09	16.62
29	---	---	---	9.52	8.43	9.08	12.24	11.86	12.11	17.92	16.84	17.27
30	---	---	---	9.52	8.75	9.03	12.40	12.07	12.27	18.52	17.92	18.30
31	---	---	---	11.07	9.55	10.54	---	---	---	19.33	18.47	18.85
MONTH	18.56	8.76	12.67	11.98	7.37	9.61	12.40	8.24	10.18	19.33	10.01	13.36

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.82	19.33	19.63	13.78	13.32	13.60	12.68	10.46	11.71	8.29	7.38	7.89
2	20.15	19.78	19.99	13.70	12.90	13.35	10.43	9.29	9.81	8.11	7.35	7.75
3	19.78	19.49	19.62	13.25	12.64	13.03	10.26	9.09	9.71	8.01	7.00	7.44
4	19.78	19.47	19.63	13.22	12.66	12.95	10.36	9.38	9.89	7.66	6.78	7.19
5	20.31	19.32	19.61	12.73	12.31	12.53	10.76	10.35	10.51	7.41	6.75	7.04
6	20.76	20.29	20.57	13.76	12.40	12.78	11.33	10.46	10.90	7.29	5.16	5.99
7	20.28	19.83	20.00	15.24	13.79	14.64	12.54	10.33	11.31	6.29	4.24	5.28
8	21.46	20.23	20.97	15.98	15.25	15.69	12.79	10.62	11.49	7.17	6.37	6.91
9	22.74	21.47	22.12	16.09	15.93	16.02	10.84	8.02	9.51	7.61	6.97	7.29
10	23.26	22.76	23.09	16.05	15.65	15.98	8.74	7.95	8.51	7.46	6.03	6.79
11	23.58	22.89	23.28	15.63	12.84	13.99	9.09	8.45	8.88	6.77	5.42	6.24
12	22.89	22.33	22.65	12.86	11.18	11.95	9.58	9.03	9.34	6.38	4.96	5.76
13	22.33	21.97	22.14	11.86	10.59	11.12	9.49	8.99	9.20	6.69	5.68	6.24
14	21.94	21.28	21.71	12.65	11.83	12.38	9.19	8.74	8.88	8.07	6.00	7.19
15	21.25	20.45	21.00	13.33	12.17	12.73	11.13	9.23	10.45	8.21	6.70	7.55
16	20.43	19.23	19.95	14.03	13.07	13.76	11.21	10.61	10.87	8.16	6.74	7.28
17	19.22	18.49	18.80	14.03	13.21	13.62	10.72	9.77	10.17	8.40	7.43	7.89
18	18.48	18.23	18.33	13.19	10.53	11.74	9.90	8.57	9.29	8.75	7.60	8.06
19	19.11	18.18	18.59	10.51	9.49	9.91	9.42	8.32	8.88	8.75	6.38	7.61
20	19.60	19.11	19.44	12.51	9.26	10.64	9.09	7.46	8.36	7.31	5.35	6.23
21	19.65	19.53	19.59	12.51	12.11	12.27	8.70	7.19	7.84	7.26	6.16	6.65
22	19.63	19.51	19.57	12.34	10.26	11.28	8.92	7.39	7.93	6.99	6.50	6.75
23	19.64	19.33	19.56	11.71	10.75	11.12	8.43	7.95	8.20	7.55	6.82	7.23
24	19.31	18.29	18.90	11.95	11.27	11.65	8.60	7.79	8.12	7.64	6.73	7.23
25	18.28	17.88	18.07	12.28	10.80	11.85	8.48	7.50	7.96	7.49	6.48	7.01
26	17.87	17.29	17.71	10.80	9.36	10.19	8.48	7.67	8.28	7.61	5.80	6.66
27	17.29	16.15	16.88	11.35	9.34	10.14	8.81	8.02	8.38	7.05	5.62	6.38
28	16.14	15.66	15.93	12.21	11.36	11.91	8.79	7.91	8.38	7.14	6.02	6.61
29	15.74	14.77	15.31	12.17	11.50	11.86	8.81	7.94	8.44	7.60	6.36	6.99
30	14.88	13.71	14.42	12.38	11.25	11.75	8.47	6.79	7.62	7.42	6.55	7.00
31	---	---	---	12.38	11.54	12.01	8.17	7.28	7.80	---	---	---
MONTH	23.58	13.71	19.57	16.09	9.26	12.53	12.79	6.79	9.25	8.75	4.24	6.94
YEAR	23.58	4.24	11.14									

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, Mount Hood National Forest, at bridge 0.5 mi (0.80 km) upstream from Devil Canyon Creek and 2.8 mi (4.5 km) southeast of Rhododendron.

DRAINAGE AREA--14.8 mi^2 (38.3 km^2).

PERIOD OF RECORD.--Chemical analyses: May 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	HARDNESS (MG/L AS CACO3)	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
MAY 27...	1800	58	6.8	9.0	10.7	K1	22	6.0	6.3	1.5

DATE	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
MAY 27...	3.6	.7	16	5.8	1.9	.1	<.10	.050	.75

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 27...	.090	.020	.040	1.4	25	51	55	10	26

14131400 ZIGZAG RIVER NEAR RHODODENDRON, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO MAY 1981

DATE	MAY 27,81
TIME	1800
TOTAL CELLS/ML	410
DIVERSITY: DIVISION	0.9
.CLASS	0.9
..ORDER	1.4
...FAMILY	1.4
....GENUS	1.7

ORGANISM	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	27	7
..FRAGILARIALES		
...FRAGILARIACEAE		
....DIATOMA	14	3
....HANNAEA	27	7
....SYNEDRA	41	10
..NAVICULALES		
...CYMBELLACEAE		
....CYMBELLA	27	7
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	270#	67

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

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 (4.8 km) southeast of Government Camp.

DRAINAGE AREA.--8.00 mi² (20.7 km²).

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 (1,050.198 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 21, 1910, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Nov. 21, 1910, to May 31, 1912, and Apr. 21, 1926, to Sept. 30, 1933, at site 75 ft (23 m) upstream from former site at different datums. Oct. 1, 1933, to Sept. 30, 1960, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--56 years (water years 1911, 1927-81), 44.3 ft³/s (1.255 m³/s), 75.20 in/yr (1,910 mm/yr), 32,100 acre-ft/yr (39.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Dec. 23, 1964, gage height, 4.75 ft (1.448 m), from rating curve extended above 310 ft³/s (8.78 m³/s), on basis of slope-area measurement of peak flow; minimum, 10 ft³/s (0.28 m³/s) Nov. 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 22	0230	154	4.36	2.33	0.710	Feb. 18	1830	356	10.1	2.82	0.860
Dec. 25	2030	*772	21.9	*3.85	1.173	June 8	0900	163	4.62	1.99	.607
Feb. 16	1000	359	10.2	2.83	.863						

Minimum, 13 ft³/s (0.37 m³/s) Oct. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	22	48	22	40	33	50	32	33	21	20
2	16	17	65	44	23	39	31	50	32	31	21	17
3	17	20	75	42	23	38	31	47	31	30	21	16
4	17	16	48	39	22	37	33	46	37	30	21	16
5	16	15	37	38	22	35	34	44	36	30	20	16
6	16	31	32	37	21	34	32	44	36	31	20	16
7	16	62	29	35	21	33	31	45	48	44	20	15
8	16	44	27	34	21	32	33	41	88	33	19	15
9	15	29	27	33	21	32	33	41	62	30	20	15
10	15	23	27	31	20	31	30	39	50	30	19	15
11	15	20	26	31	25	31	30	42	45	29	19	15
12	20	18	26	30	33	35	29	37	48	28	19	15
13	18	18	25	29	35	33	29	37	53	29	19	15
14	16	17	25	28	47	31	32	38	48	28	18	15
15	17	17	27	27	46	33	32	42	42	27	19	15
16	15	16	31	27	143	34	36	39	50	27	18	15
17	16	17	31	27	81	32	37	38	46	26	18	15
18	16	19	30	28	177	31	43	47	47	26	18	15
19	14	19	28	27	117	30	43	42	56	25	18	19
20	14	17	35	27	74	31	45	40	46	25	18	17
21	13	43	58	30	60	31	48	44	43	25	18	19
22	13	33	116	27	56	33	69	40	44	24	17	19
23	14	23	72	29	53	30	71	37	42	24	17	16
24	15	20	141	28	53	30	64	46	39	23	17	15
25	17	21	510	26	48	36	53	46	37	23	17	16
26	19	21	145	27	44	36	50	40	36	22	17	25
27	18	33	95	26	42	33	48	37	36	22	16	31
28	16	31	68	25	41	31	52	36	34	22	16	19
29	15	37	62	24	---	36	52	35	34	22	16	19
30	15	26	63	23	---	34	54	34	33	22	19	16
31	14	---	52	23	---	36	---	33	---	21	17	---
TOTAL	490	741	2055	950	1391	1038	1238	1277	1311	842	573	512
MEAN	15.8	24.7	66.3	30.6	49.7	33.5	41.3	41.2	43.7	27.2	18.5	17.1
MAX	20	62	510	48	177	40	71	50	88	44	21	31
MIN	13	15	22	23	20	30	29	33	31	21	16	15
CFSM	1.98	3.09	8.29	3.83	6.21	4.19	5.16	5.15	5.46	3.40	2.31	2.14
IN.	2.28	3.45	9.55	4.42	6.47	4.83	5.76	5.94	6.10	3.91	2.66	2.38
AC-FT	972	1470	4080	1880	2760	2060	2460	2530	2600	1670	1140	1020

CAL YR 1980	TOTAL 14650	MEAN 40.0	MAX 510	MIN 13	CFSM 5.00	IN 68.11	AC-FT 29060		
WTR YR 1981	TOTAL 12418	MEAN 34.0	MAX 510	MIN 13	CFSM 4.25	IN 57.74	AC-FT 24630		

14134000 SALMON RIVER NEAR GOVERNMENT CAMP, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: May 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAY 29...	1530	36	81	6.4	11.0	9.5	K1	22	5.7	2.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
MAY 29...	6.8	1.4	25	2.8	5.8	.1	<.10	.030	.46	.030

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 29...	.52	.53	.050	.030	2.3	24	70	64	3	18

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 (1.1 km) southwest of Marmot, 0.8 mi (1.3 km) upstream from Sandy River Dam of Portland General Electric Co., 6.6 mi (10.6 km) downstream from Salmon River, and at mile 30.9 (49.7 km).

DRAINAGE AREA.--262 mi² (679 km²).

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. Altitude of gage is 730 ft (223 m), 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 (1.6 km) upstream at different datum. Oct. 20, 1933, to Sept. 30, 1958, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datum.

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

AVERAGE DISCHARGE.--70 years, 1,366 ft³/s (38.69 m³/s), 70.80 in/yr (1,798 mm/yr), 989,700 acre-ft/yr (1.22 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft³/s (1,740 m³/s) Dec. 22, 1964, gage height, 17.05 ft (5.197 m), from rating curve extended above 7,000 ft³/s (198 m³/s); minimum, 195 ft³/s (5.52 m³/s) Nov. 27, 28, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,700 ft³/s (218 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1300	9,130	259	11.82	3.603	Feb. 16	1230	9,160	259	11.83	3.606
Dec. 25	2230	*24,100	683	*15.18	4.627	Feb. 18	2130	11,200	317	12.43	3.789

Minimum, 230 ft³/s (6.51 m³/s) Oct. 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	279	1160	1800	688	1180	1580	1490	902	902	436	356
2	292	375	3590	1540	681	1090	1390	1320	852	852	431	390
3	301	338	8000	1360	667	1030	1510	1210	813	805	426	366
4	297	343	4670	1210	640	1040	1460	1190	910	774	426	347
5	292	301	2640	1110	627	953	1510	1170	1030	759	420	334
6	297	541	1840	1030	602	894	1500	1170	1380	767	415	325
7	288	1660	1390	953	589	869	1370	1400	1470	953	426	325
8	283	1830	1160	902	583	844	1570	1320	5430	861	431	325
9	266	1470	1020	869	583	805	2080	1240	6020	737	431	325
10	254	1160	962	821	559	774	1680	1140	3630	688	442	320
11	254	828	927	782	589	759	1600	1120	2590	653	420	315
12	279	660	894	752	836	737	1510	1030	2230	627	410	306
13	311	559	885	723	1050	730	1370	962	2450	634	405	301
14	279	517	852	694	1720	716	1330	945	2150	621	405	297
15	262	517	945	674	1760	694	1480	1080	1810	602	395	292
16	254	464	1030	653	6740	752	1650	1140	2060	589	390	297
17	250	442	989	640	4650	782	1610	1050	2060	589	375	301
18	246	464	894	647	7770	752	1710	1260	1880	577	370	306
19	242	458	813	627	8230	723	1840	1410	3160	565	366	325
20	242	458	894	621	4830	701	1710	1300	2540	547	375	334
21	242	813	1270	674	3160	688	1850	1410	2030	535	366	325
22	234	1420	4020	667	2430	709	2540	1380	1920	523	356	338
23	230	989	3710	647	2010	730	2970	1260	1800	510	352	338
24	234	852	4610	752	2020	723	3020	1340	1520	504	352	315
25	266	752	14900	701	1750	885	2230	1870	1360	499	343	301
26	292	701	11300	852	1560	927	1800	1670	1230	499	334	315
27	311	805	5560	962	1410	953	1540	1400	1110	493	325	660
28	270	1200	3490	869	1280	902	1490	1220	1030	493	325	464
29	250	1730	2680	813	---	971	1490	1120	962	475	320	420
30	246	1570	2750	759	---	1110	1560	1060	936	458	329	370
31	242	---	2150	716	---	1630	---	953	---	447	343	---
TOTAL	8321	24496	91995	26820	60014	27053	51950	38630	59265	19538	11940	10333
MEAN	268	817	2968	865	2143	873	1732	1246	1976	630	385	344
MAX	315	1830	14900	1800	8230	1630	3020	1870	6020	953	442	660
MIN	230	279	813	621	559	688	1330	945	813	447	320	292
CFSM	1.02	3.12	11.3	3.30	8.18	3.33	6.61	4.76	7.54	2.41	1.47	1.31
IN.	1.18	3.48	13.06	3.81	8.52	3.84	7.38	5.48	8.41	2.77	1.70	1.47
AC-FT	16500	48590	182500	53200	119000	53660	103000	76620	117600	38750	23680	20500

CAL YR 1980 TOTAL 495610 MEAN 1354 MAX 14900 MIN 230 CFSM 5.17 IN 70.37 AC-FT 983000
WTR YR 1981 TOTAL 430355 MEAN 1179 MAX 14900 MIN 230 CFSM 4.50 IN 61.10 AC-FT 853600

14137000 SANDY RIVER NEAR MARMOT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: May 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAY 27...	1930	1240	46	6.3	14.0	9.4	K5	18	5.1

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 LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
MAY 27...	1.3	3.8	.7	20	1.6	1.3	<.1	<.10	.060

DATE	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)
MAY 27...	.40	.080	.51	.53	.110	2.2	17	44	43

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 (183 m) below the confluence of Bedrock and Hickman Creeks and 8.6 mi (13.8 km) north of Rhododendron.

DRAINAGE AREA.--8.17 mi^2 (21.16 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 2,540 ft (774 m), from topographic map.

REMARKS.--Records excellent except those for period of no gage-height record Mar. 15 to Apr. 30, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 59.8 ft^3/s (1.694 m^3/s), 99.40 in/yr (2,525 mm/yr), 43,330 acre-ft/yr (53.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,610 ft^3/s (73.9 m^3/s) Dec. 22, 1964, gage height, 8.25 ft (2.515 m), from rating curve extended above 330 ft^3/s (9.35 m^3/s), on basis of slope-area measurement of peak flow; minimum, 1.5 ft^3/s (0.042 m^3/s) Sept. 5-10, 28, 29, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	1000	627	17.8	3.86	1.117	Feb. 18	2000	843	23.9	4.46	1.359
Dec. 22	1830	519	14.7	3.54	1.079	June 8	2330	721	20.4	4.13	1.259
Dec. 25	2030	*1,200	34.0	*5.33	1.625						

Minimum, 1.8 ft^3/s (0.051 m^3/s) Sept. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	17	63	61	17	32	130	69	33	19	4.7	4.7
2	5.9	19	312	49	16	28	110	61	31	17	4.7	3.7
3	5.9	21	505	40	15	26	130	55	30	16	4.7	3.0
4	5.5	17	199	33	14	27	100	56	43	15	4.7	2.8
5	5.1	14	102	28	13	25	90	58	49	14	4.3	2.5
6	4.7	59	68	25	12	22	85	59	77	14	4.0	2.5
7	4.7	201	50	22	12	21	80	84	94	31	3.7	2.2
8	4.7	213	40	20	11	19	150	77	439	19	3.7	2.2
9	4.3	179	33	18	11	18	150	69	406	16	3.3	2.2
10	4.3	107	31	17	17	17	100	61	170	14	3.3	2.2
11	4.3	66	28	16	36	17	80	58	112	13	3.0	2.2
12	6.3	49	26	14	87	16	70	51	103	13	3.0	2.0
13	11	36	25	13	130	16	60	46	110	17	3.0	2.0
14	8.3	31	26	13	192	15	60	47	94	13	3.0	2.0
15	6.3	30	33	12	220	16	70	61	56	12	3.0	1.8
16	5.9	24	47	11	350	25	80	58	79	11	2.8	1.8
17	5.5	23	49	11	300	22	80	53	80	10	2.8	1.8
18	5.1	30	42	12	450	18	85	64	79	9.4	2.8	1.8
19	5.1	27	33	11	390	15	90	66	242	8.8	2.8	4.3
20	4.7	26	51	11	174	15	90	61	132	8.3	2.8	2.8
21	4.7	117	110	14	100	16	150	63	89	7.8	2.8	5.5
22	4.3	130	418	13	68	20	260	59	91	7.3	2.8	5.1
23	4.3	80	260	16	58	20	220	53	80	7.3	2.5	3.7
24	4.7	58	308	21	56	20	190	63	61	6.8	2.5	3.0
25	6.8	49	813	17	49	51	120	82	47	6.8	2.5	4.7
26	11	40	445	43	43	49	85	72	40	6.3	2.5	10
27	10	63	225	43	40	47	75	63	33	5.9	2.2	26
28	7.8	72	123	31	36	43	78	55	28	5.5	2.2	13
29	6.8	123	94	25	---	60	80	47	24	5.5	2.2	16
30	6.3	91	103	21	---	110	80	42	21	5.5	4.0	10
31	5.9	---	77	18	---	200	---	37	---	5.1	3.0	---
TOTAL	187.0	2012	4739	699	2917	1046	3228	1850	2973	360.3	99.3	147.5
MEAN	6.03	67.1	153	22.5	104	33.7	108	59.7	99.1	11.6	3.20	4.92
MAX	11	213	813	61	450	200	260	84	439	31	4.7	26
MIN	4.3	14	25	11	11	15	60	37	21	5.1	2.2	1.8
CFSM	.74	8.21	18.7	2.75	12.7	4.13	13.2	7.31	12.1	1.42	.39	.60
IN.	.85	9.16	21.58	3.18	13.28	4.76	14.70	8.42	13.54	1.64	.45	.67
AC-FT	371	3990	9400	1390	5790	2070	6400	3670	5900	715	197	293

CAL YR 1980 TOTAL 20678.7 MEAN 56.5 MAX 813 MIN 2.5 CFSM 6.92 IN 94.14 AC-FT 41020
WTR YR 1981 TOTAL 20258.1 MEAN 55.5 MAX 813 MIN 1.8 CFSM 6.79 IN 92.23 AC-FT 40180

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 (1.9 km) upstream from North Fork, 7.0 mi (11.3 km) southeast of Multnomah Falls, and at mile 14.8 (23.8 km).

DRAINAGE AREA.--47.9 mi² (124.1 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 1,080 ft (329 m), from topographic map.

REMARKS.--Water-discharge records excellent. Water stored since 1915 in Bull Run Lake, usable capacity, 12,270 acre-ft (15.1 hm³). No diversion above station.

AVERAGE DISCHARGE.--15 years, 424 ft³/s (12.01 m³/s), 120.21 in/yr (3,053 mm/yr), 307,200 acre-ft/yr (379 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,610 ft³/s (244 m³/s) Jan. 20, 1972, gage height, 13.22 ft (4.029 m); minimum, 33 ft³/s (0.93 m³/s) Sept. 27, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,800 ft³/s (108 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1600	4,160	118	9.51	2.899	Feb. 16	0900	4,170	118	9.52	2.902
Dec. 25	2030	*6,020	170	*11.20	3.414	Feb. 18	2000	4,280	121	9.62	2.932

Minimum, 42 ft³/s (1.19 m³/s) Sept. 14-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	96	456	460	181	276	669	421	196	190	70	64
2	67	163	1990	381	169	255	516	398	179	173	67	56
3	63	185	2800	326	161	240	579	366	169	161	67	51
4	59	169	1340	284	149	250	460	359	263	149	67	49
5	57	131	690	255	142	226	489	366	294	142	66	49
6	55	539	482	230	135	207	478	356	471	138	63	47
7	53	1760	362	212	130	196	435	551	587	226	62	44
8	52	1990	294	196	125	183	810	464	2720	175	60	44
9	50	1470	260	183	125	173	830	415	2220	148	58	44
10	48	791	247	171	112	161	535	350	1040	138	56	44
11	48	489	238	159	200	155	467	332	677	130	56	44
12	56	347	228	151	768	151	408	289	547	123	56	43
13	98	270	230	144	820	146	359	263	600	138	55	43
14	76	238	228	137	1120	140	353	278	500	125	54	42
15	63	240	257	130	1240	144	388	362	415	115	54	42
16	58	205	314	125	2950	185	497	353	587	110	54	42
17	55	196	317	123	1790	163	489	314	579	105	52	42
18	52	263	278	126	3130	149	523	369	656	101	52	42
19	51	255	245	121	2520	142	567	385	1740	96	51	54
20	50	247	408	120	1190	137	527	344	931	93	51	47
21	54	810	798	165	718	137	656	353	621	92	51	93
22	48	931	3000	142	535	167	1350	332	717	86	51	82
23	46	551	1620	151	442	169	1160	297	612	84	50	64
24	46	411	1890	226	471	175	1080	338	471	84	49	52
25	56	335	4720	207	421	369	664	493	378	84	49	55
26	71	289	2820	356	381	309	497	435	314	80	49	93
27	76	398	1710	375	347	270	425	359	273	76	48	255
28	62	474	941	289	309	245	453	300	245	75	48	146
29	56	895	697	247	---	294	467	265	221	73	47	240
30	53	660	790	221	---	478	467	242	205	73	59	149
31	51	---	575	198	---	1010	---	219	---	71	52	---
TOTAL	1806	15798	31225	6611	20781	7302	17598	10968	19428	3654	1724	2162
MEAN	58.3	527	1007	213	742	236	587	354	648	118	55.6	72.1
MAX	98	1990	4720	460	3130	1010	1350	551	2720	226	70	255
MIN	46	96	228	120	112	137	353	219	169	71	47	42
CFSM	1.22	11.0	21.0	4.45	15.5	4.93	12.3	7.39	13.5	2.46	1.16	1.51
IN.	1.40	12.27	24.25	5.13	16.14	5.67	13.67	8.52	15.09	2.84	1.34	1.68
AC-FT	3580	31340	61930	13110	41220	14480	34910	21760	38540	7250	3420	4290

CAL YR 1980 TOTAL 144207 MEAN 394 MAX 4720 MIN 43 CFSM 8.23 IN 111.99 AC-FT 286000
WTR YR 1981 TOTAL 139057 MEAN 381 MAX 4720 MIN 42 CFSM 7.95 IN 107.99 AC-FT 275800

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 current year.

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

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 38 micromhos July 19, 1979; minimum recorded, 10 micromhos Nov. 25, 1977.
WATER TEMPERATURES: Maximum, 17.0°C July 19, 20, 1979; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum, 290 mg/l Dec. 2, 1977; minimum, 0 mg/l on many days.
SEDIMENT DISCHARGE: Maximum, 5,930 tons (5,380 tonnes) Dec. 2, 1977; minimum, 0 ton (0 tonne) on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 32 micromhos Sept. 19-21; minimum recorded, 11 micromhos Feb. 16, 18-20.
WATER TEMPERATURES: Maximum, 16.5°C Aug. 8-11; minimum, 0.5°C Feb. 10, 11.
SEDIMENT CONCENTRATIONS: Maximum, 146 mg/l (estimated) Dec. 25; minimum, 0 mg/l on many days throughout the year.
SEDIMENT DISCHARGE: Maximum, 2,050 tons (1,860 tonnes) Dec. 25; minimum, 0 ton (0 tonne) on many days throughout the year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
04...	1030	62	30	7.4	9.6	2	13	2
11...	1010	47	30	7.4	8.4	2	6	4
18...	1015	54	30	7.4	6.0	2	4	2
25...	1020	61	31	7.4	6.8	4	21	10
NOV								
01...	1010	65	32	7.4	7.8	3	49	4
08...	0940	2000	22	7.0	8.0	8	13	16
15...	1000	247	25	7.2	4.0	2	2	2
22...	1000	895	22	7.0	5.5	3	6	4
29...	1010	1080	22	7.1	6.0	4	14	4
DEC								
06...	1015	478	23	7.1	2.6	2	1	<1
13...	1000	233	25	7.2	3.0	2	<1	4
20...	0950	341	23	7.1	4.5	1	3	4
27...	1030	1930	15	7.0	7.0	<1	1	2
JAN								
03...	0950	326	22	7.2	5.2	<1	<1	<1
11...	0945	165	23	7.3	3.7	1	<1	<1
17...	1025	120	23	7.3	2.0	<1	6	<1
24...	1020	223	20	7.3	4.5	1	1	1
31...	1015	200	20	7.3	3.8	1	<1	<1
FEB								
07...	1008	135	22	7.3	1.9	<1	<1	1
14...	1006	1150	15	7.0	4.6	14	<1	23
21...	1010	726	17	7.2	4.2	1	<1	<1
28...	1010	311	19	7.2	4.2	<1	<1	<1
MAR								
07...	1010	196	21	7.3	3.8	1	<1	<1
14...	1010	142	22	7.3	6.2	<1	<1	<1
21...	1020	133	22	7.3	4.5	<1	<1	<1
28...	1035	247	19	7.3	5.6	1	<1	<1
APR								
04...	1025	453	17	7.1	4.5	<1	<1	<1
13...	1515	344	19	7.2	4.5	2	<1	1
18...	1050	478	18	7.2	5.0	<1	--	<1
25...	0919	673	16	7.1	4.0	--	--	--
MAY								
02...	1005	418	18	7.2	6.0	1	1	<1
09...	1015	425	19	7.2	6.8	<1	1	<1
16...	1030	356	19	7.2	5.8	1	<1	2
23...	1030	297	20	7.3	7.7	1	1	<1
30...	1035	245	21	7.3	9.5	2	3	2
JUN								
06...	1030	497	19	7.2	9.0	0	10	6
13...	1050	617	18	7.1	6.9	1	1	8
20...	1110	936	17	7.1	8.2	3	7	4
27...	1045	273	18	7.4	8.8	2	2	<1

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	TURBIDITY (NTU)	COLOR (PLATINUM-COBALT UNITS)
OCT							
04...	<.020	.04	.005	12	25	.20	<5
11...	--	--	--	--	28	.16	<5
18...	--	--	--	--	19	.15	<5
25...	<.020	.03	.004	12	30	.17	<5
NOV							
01...	--	--	--	--	28	.15	<5
08...	--	--	--	--	29	1.0	15
15...	--	--	--	--	31	.19	<5
22...	<.020	.07	<.003	8.6	19	.44	5
29...	--	--	--	--	35	.56	15
DEC							
06...	--	--	--	--	23	.27	<5
13...	<.020	.05	.006	10	28	.16	<5
20...	--	--	--	--	25	.27	<5
27...	--	--	--	--	25	1.0	5
JAN							
03...	<.020	.05	.004	10	22	.25	<5
11...	--	--	--	--	25	.14	<5
17...	--	--	--	--	51	.14	<5
24...	<.020	.08	.006	10	26	.20	5
31...	--	--	--	--	24	.13	<5
FEB							
07...	--	--	--	--	21	.15	<5
14...	--	--	--	--	21	.46	5
21...	<.020	.05	.003	8.9	23	.31	<5
28...	--	--	--	--	24	.17	<5
MAR							
07...	--	--	--	--	21	.16	<5
14...	<.020	<.01	.006	8.5	18	.19	<5
21...	--	--	--	--	23	.13	<5
28...	--	--	--	--	21	.15	<5
APR							
04...	<.020	.03	.005	8.2	18	.20	<5
13...	--	--	--	--	19	.21	5
18...	--	--	--	--	23	.18	<5
25...	<.020	.04	<.003	--	--	.25	<5
MAY							
02...	--	--	--	--	21	.20	<5
09...	--	--	--	--	22	.17	<5
16...	<.020	.03	.004	9.2	22	.16	<5
23...	--	--	--	--	32	.17	<5
30...	--	--	--	--	24	.18	<5
JUN							
06...	<.020	.05	<.003	9.1	23	.24	5
13...	--	--	--	--	20	.25	<5
20...	--	--	--	--	23	.32	<5
27...	<.020	.02	<.003	10	16	.18	<5

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUL								
04...	1045	151	24	7.4	11.8	3	1	2
11...	1000	131	26	7.4	9.3	4	2	4
18...	1045	101	25	7.5	12.0	17	4	12
25...	1045	84	26	7.5	11.8	9	--	6
AUG								
01...	1305	70	28	7.5	12.0	6	4	4
08...	1240	59	29	7.6	14.0	8	9	6
15...	1000	53	31	7.5	13.6	1	10	6
22...	1020	50	30	7.5	11.2	2	12	6
29...	1007	46	30	7.5	11.0	1	4	4
SEP								
05...	0907	45	29	7.5	10.0	2	6	5
12...	1025	43	29	7.5	11.2	1	8	<1
19...	1015	54	29	7.5	11.7	48	92	66
26...	0809	58	28	7.4	8.0	14	12	12

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUL							
04...	--	--	--	--	24	.14	< 5
11...	--	--	--	--	29	.18	< 5
18...	<.020	.02	<.003	12	27	.18	< 5
25...	--	--	--	--	39	.18	< 5
AUG							
01...	--	--	--	--	30	.14	< 5
08...	<.020	.05	<.003	12	26	.13	< 5
15...	--	--	--	--	31	.17	< 5
22...	--	--	--	--	27	.16	< 5
29...	<.020	.01	.004	13	31	.15	< 5
SEP							
05...	--	--	--	--	27	.13	< 5
12...	--	--	--	--	26	.14	< 5
19...	<.020	.04	<.003	13	31	.20	< 5
26...	--	--	--	--	25	.23	< 5

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	20	---	22	18	17	17	21	24	27	29
2		25	17	---	22	18	17	17	21	25	27	28
3		25	15	---	22	19	17	17	22	25	27	29
4		25	17	---	22	19	18	18	21	26	28	29
5		25	18	---	22	19	18	18	20	26	28	29
6		23	19	---	23	19	18	18	19	26	28	30
7		19	20	---	23	20	18	17	19	24	28	30
8		19	21	---	23	20	17	17	16	25	28	30
9		19	21	---	23	20	17	18	16	26	28	30
10		19	22	---	23	21	17	19	17	26	28	30
11		20	22	---	23	21	18	19	18	26	29	30
12		21	22	---	17	21	18	20	19	27	29	30
13		20	22	---	16	21	19	20	18	24	29	29
14		21	22	25	15	21	20	20	19	23	29	29
15		21	22	25	14	21	19	19	19	24	29	29
16		21	21	25	12	20	18	19	18	24	29	30
17		22	21	25	13	21	18	19	18	24	29	30
18		21	21	24	12	21	18	19	18	24	29	30
19		21	21	25	11	22	18	19	16	24	29	32
20		21	---	24	13	21	18	19	17	24	29	32
21		19	---	23	14	21	17	19	19	24	29	29
22		18	---	24	15	20	15	19	19	26	30	27
23		19	---	24	15	20	15	19	19	26	30	27
24		19	---	21	15	21	15	19	20	26	30	27
25		20	---	21	16	18	16	18	21	27	30	28
26		20	---	20	16	18	17	18	22	27	30	27
27		20	---	19	17	18	17	19	22	28	30	24
28		19	---	20	17	19	18	19	23	28	30	25
29		18	---	20	---	19	16	20	23	27	30	23
30		19	---	21	---	18	16	20	24	27	29	24
31		---	---	21	---	16	---	20	---	27	29	---
MEAN		21	20	23	18	20	17	19	19	25	29	29

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	0	.00	3	.78	---	1.2	1	1.2	0	.00	0	.00
2	0	.00	2	.88	19	169	2	2.1	0	.00	0	.00
3	0	.00	---	1.5	12	85	0	.00	0	.00	0	.00
4	1	.16	---	.91	4	16	---	.00	0	.00	0	.00
5	1	.15	3	1.1	2	3.7	---	.00	0	.00	0	.00
6	1	.15	5	12	1	1.3	---	.00	0	.00	0	.00
7	1	.14	9	42	1	.98	---	.00	0	.00	0	.00
8	1	.14	10	50	2	1.6	1	.53	0	.00	0	.00
9	1	.14	4	16	2	1.4	0	.00	0	.00	0	.00
10	1	.13	3	6.4	2	1.3	0	.00	0	.00	0	.00
11	1	.13	---	2.6	2	1.3	0	.00	1	.54	1	.42
12	1	.15	---	.94	1	.62	0	.00	2	4.1	2	.82
13	1	.26	1	.73	0	.00	0	.00	1	2.2	1	.39
14	1	.21	0	.00	0	.00	0	.00	2	6.0	2	.76
15	1	.17	0	.00	0	.00	0	.00	2	6.9	3	1.2
16	1	.16	2	1.1	0	.00	0	.00	14	121	2	1.0
17	1	.15	2	1.1	0	.00	1	.33	4	19	1	.44
18	1	.14	1	.71	1	.75	1	.34	13	120	2	.80
19	1	.14	1	.69	0	.00	1	.33	7	53	1	.38
20	1	.14	2	1.3	1	1.1	2	.65	2	6.4	2	.74
21	1	.15	8	18	2	4.6	1	.45	1	1.9	1	.37
22	1	.13	2	5.0	---	165	1	.38	1	1.4	1	.45
23	1	.12	---	1.5	---	24	0	.00	0	.00	1	.46
24	1	.12	---	1.1	---	119	0	.00	0	.00	2	.95
25	1	.15	2	1.8	---	2050	1	.56	0	.00	1	1.0
26	1	.19	1	.78	---	278	2	1.9	0	.00	0	.00
27	1	.21	1	1.1	---	30	2	2.0	0	.00	0	.00
28	1	.17	1	1.3	---	5.1	1	.78	0	.00	1	.66
29	1	.15	2	4.8	---	1.9	1	.67	---	---	1	.79
30	3	.43	---	1.8	1	2.1	0	.00	---	---	1	1.3
31	3	.41	---	---	1	1.6	1	.53	---	---	2	5.5
TOTAL	---	4.89	---	177.92	---	2966.55	---	12.75	---	342.44	---	18.43

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	1	1.8	0	.00	0	.00	0	.00	0	.00	1	.17
2	1	1.4	1	1.1	---	.00	0	.00	1	.18	2	.30
3	1	1.6	1	.99	---	.00	0	.00	1	.18	1	.14
4	1	1.2	---	.97	---	.71	0	.00	1	.18	1	.13
5	2	2.6	---	.99	---	.00	0	.00	1	.18	1	.13
6	2	2.6	---	.96	2	2.5	0	.00	0	.00	1	.13
7	1	1.2	---	3.0	---	1.6	0	.00	0	.00	1	.12
8	2	5.7	---	1.3	---	137	0	.00	1	.16	1	.12
9	---	4.5	0	.00	12	95	1	.40	1	.16	1	.12
10	---	1.4	0	.00	2	5.6	1	.37	1	.15	2	.24
11	---	1.3	0	.00	1	1.8	1	.35	1	.15	3	.36
12	---	1.1	---	.00	1	1.5	1	.33	1	.15	1	.12
13	1	.97	---	.00	1	1.6	1	.37	1	.15	1	.12
14	1	.95	---	.00	1	1.4	1	.34	1	.15	1	.11
15	1	1.0	1	.98	1	1.1	---	.31	1	.15	1	.11
16	1	1.3	0	.00	1	1.6	---	.00	1	.15	1	.11
17	0	.00	---	.00	1	1.6	---	.00	1	.14	2	.23
18	0	.00	---	1.0	1	1.8	---	.00	1	.14	2	.23
19	---	1.5	---	1.0	2	9.4	---	.00	1	.14	1	.15
20	---	1.4	---	.00	1	2.5	---	.00	1	.14	1	.13
21	---	1.8	---	.95	1	1.7	---	.25	1	.14	2	.50
22	---	16	1	.90	1	1.9	2	.46	1	.14	1	.22
23	1	3.1	1	.80	0	.00	2	.45	1	.14	2	.35
24	1	2.9	0	.00	0	.00	1	.23	1	.13	1	.14
25	1	1.8	0	.00	0	.00	1	.23	1	.13	1	.15
26	1	1.3	0	.00	0	.00	1	.22	1	.13	1	.25
27	1	1.1	---	.00	0	.00	---	.21	1	.13	3	2.1
28	1	1.2	---	.00	0	.00	---	.20	1	.13	2	.79
29	0	.00	---	.00	0	.00	1	.20	1	.13	1	.65
30	0	.00	0	.00	0	.00	1	.20	1	.16	1	.40
31	---	---	0	.00	---	---	0	.00	1	.14	---	---
TOTAL	---	62.72	---	14.94	---	270.31	---	5.12	---	4.15	---	8.82

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 (10.3 km) north of Brightwood and 0.6 mi (1.0 km) above Bull Run Reservoir Number One.

DRAINAGE AREA.--5.46 mi² (14.1 km²).

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR OR-78-1: 1976.

GAGE.--Water-stage recorder. Altitude of gage is 1,440 ft (439 m), from topographic map.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--6 years, 34.3 ft³/s (0.971 m³/s), 85.31 in/yr (2,167 mm/yr), 24,850 acre-ft/yr (30.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) Dec. 25, 1980, gage height, 4.74 ft (1.445 m); minimum, 1.9 ft³/s (0.054 m³/s) Aug. 17-23, 1977, Sept. 16-18, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1530	526	14.9	4.32	1.317	Feb. 18	2030	464	13.1	4.26	1.298
Dec. 25	1930	*1,190	33.7	*4.74	1.445						

Minimum, 1.9 ft³/s (0.054 m³/s) Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	9.8	42	41	17	26	65	33	18	18	4.8	4.2
2	6.9	13	184	34	15	24	49	30	17	17	4.6	3.4
3	6.4	16	241	29	15	22	53	28	15	15	4.6	2.9
4	6.0	15	116	25	14	23	45	27	26	14	4.6	2.8
5	5.7	12	64	22	12	21	49	28	30	13	4.5	2.6
6	5.4	51	45	21	12	19	45	29	54	13	4.3	2.5
7	5.3	143	35	19	11	18	40	51	62	17	4.2	2.4
8	5.1	157	29	17	10	17	69	43	233	14	4.0	2.3
9	5.0	142	26	16	10	16	78	38	187	12	3.9	2.2
10	4.9	74	26	15	9.4	15	52	31	91	12	3.9	2.2
11	4.7	44	25	14	14	14	45	31	60	11	3.8	2.2
12	5.6	31	24	12	40	13	42	27	48	10	3.6	2.2
13	10	26	25	12	53	12	37	24	45	10	3.6	2.1
14	7.3	24	24	11	71	12	35	27	41	9.4	3.6	2.0
15	6.0	25	26	10	79	12	38	34	35	8.8	3.5	2.0
16	5.6	21	29	9.4	189	16	50	35	56	8.2	3.4	1.9
17	5.4	20	27	9.1	127	14	47	31	53	7.9	3.3	1.9
18	5.3	24	23	9.7	253	13	48	35	60	7.2	3.3	1.9
19	5.1	25	20	8.8	219	12	46	38	164	6.9	3.1	2.9
20	5.0	25	31	8.8	109	12	43	33	89	6.6	3.1	2.4
21	4.9	68	55	14	66	12	55	37	58	6.4	3.1	7.9
22	4.7	74	217	10	50	14	121	34	63	6.2	3.1	5.3
23	4.6	45	130	12	40	14	101	29	56	6.0	2.9	3.5
24	4.6	34	158	17	43	15	88	35	43	6.0	2.9	2.9
25	6.0	29	594	15	38	34	56	54	35	5.8	2.9	3.5
26	8.5	26	233	32	35	29	43	48	30	5.6	2.8	7.5
27	8.3	36	150	32	32	27	37	37	26	5.5	2.7	21
28	6.6	38	88	26	29	23	37	30	23	5.1	2.7	12
29	5.9	86	64	23	---	26	36	26	21	5.1	2.6	20
30	5.6	63	69	20	---	40	36	23	20	5.1	3.5	12
31	5.3	---	53	18	---	94	---	21	---	4.8	2.9	---
TOTAL	183.6	1396.8	2873	562.8	1612.4	659	1586	1027	1759	292.6	109.8	144.6
MEAN	5.92	46.6	92.7	18.2	57.6	21.3	52.9	33.1	58.6	9.44	3.54	4.82
MAX	10	157	594	41	253	94	121	54	233	18	4.8	21
MIN	4.6	9.8	20	8.8	9.4	12	35	21	15	4.8	2.6	1.9
CFSM	1.08	8.54	17.0	3.33	10.5	3.90	9.69	6.06	10.7	1.73	.65	.88
IN.	1.25	9.51	19.57	3.83	10.98	4.49	10.80	7.00	11.98	1.99	.75	.99
AC-FT	364	2770	5700	1120	3200	1310	3150	2040	3490	580	218	287

CAL YR 1980 TOTAL 13188.1 MEAN 36.0 MAX 594 MIN 3.1 CFSM 6.59 IN 89.84 AC-FT 26160
WTR YR 1981 TOTAL 12206.6 MEAN 33.4 MAX 594 MIN 1.9 CFSM 6.12 IN 83.15 AC-FT 24210

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 current year.

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

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality laboratory and were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 30 micromhos Aug. 5, 12, 13, 17-19, 27, Sept. 10, 11, 16-18, 1980; minimum, 9 micromhos Dec. 4, 1978.
WATER TEMPERATURES: Maximum recorded, 15.0°C Aug. 8, 9, 1978, Aug. 9-11, 1981; minimum recorded, 0.0°C on several days in 1978-80.
SEDIMENT CONCENTRATIONS: Maximum, 133 mg/l Dec. 2, 1977; minimum, 0 mg/l on many days.
SEDIMENT DISCHARGE: Maximum, 345 tons (313 tonnes) Dec. 2, 1977; minimum, 0 tons (0 tonnes) on many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 28 micromhos several days in October, August, and September; minimum, 13 micromhos Feb. 18.
WATER TEMPERATURES: Maximum, 15.0°C Aug. 9-11; minimum, 1.0°C Feb. 10.
SEDIMENT CONCENTRATIONS: Maximum, 26 mg/l Dec. 25; minimum, 0 mg/l many days throughout the year.
SEDIMENT DISCHARGE: Maximum, 60 tons (54 tonnes) Dec. 25; minimum, 0 tons (0 tonnes) on many days throughout the year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
02...	1200	6.2	27	7.4	14.0	--	--	--
05...	0945	5.4	29	7.3	10.0	<1	11	<1
12...	1005	5.9	28	7.4	9.0	20	45	10
19...	1020	5.0	29	7.3	6.5	2	3	4
26...	1036	7.7	30	7.3	6.5	--	--	--
NOV								
02...	1110	12	30	7.3	8.0	<1	9	<1
05...	1200	12	25	7.1	8.4	--	--	--
09...	1040	152	23	7.1	7.0	5	6	8
16...	0950	21	25	7.2	4.5	1	1	2
23...	1100	43	23	7.1	6.0	1	2	<1
30...	1040	62	24	7.1	5.5	1	2	2
DEC								
03...	1325	259	26	7.0	5.6	--	--	--
06...	1240	44	24	7.1	4.0	<1	<1	<1
14...	1010	24	24	7.2	4.5	--	--	--
21...	1045	59	21	7.2	5.5	1	1	8
28...	1130	88	19	7.1	6.0	<1	<1	<1
JAN								
04...	1215	26	22	7.2	5.5	--	--	--
10...	0915	15	22	7.3	4.5	1	<1	<1
13...	1400	34	20	7.2	4.2	<1	<1	<1
18...	1045	10	22	7.3	4.5	<1	--	<1
25...	1035	15	21	7.3	4.5	--	--	--
FEB								
01...	1115	17	20	7.3	4.0	<1	<1	<1
08...	1043	9.7	22	7.2	2.6	<1	<1	<1
15...	1130	72	16	7.1	4.2	<1	1	1
22...	1140	48	18	7.2	5.0	1	1	2
MAR								
01...	1155	26	20	7.3	5.0	<1	<1	<1
08...	1030	17	21	7.3	4.5	<1	<1	1
15...	1155	12	21	7.3	6.0	<1	<1	<1
22...	1050	14	21	7.3	5.5	<1	<1	<1
29...	1110	27	19	7.2	5.5	<1	1	<1
APR								
05...	1015	50	18	7.1	4.5	<1	<1	<1
13...	1400	34	20	7.2	4.2	<1	<1	<1
19...	1030	45	18	7.2	4.5	<1	<1	<1
26...	0820	42	19	7.1	4.8	--	--	--
MAY								
03...	1125	27	19	7.2	5.9	<1	<1	9
10...	1210	31	19	7.2	5.8	<1	1	<1
17...	1155	31	19	7.2	6.0	<1	<1	2
24...	1130	33	19	7.2	7.8	1	<1	6
31...	1155	20	21	7.3	8.0	<1	<1	<1

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
OCT							
02...	--	--	--	--	--	--	--
05...	<.020	.05	.004	12	24	.14	<5
12...	--	--	--	--	28	.20	<5
19...	--	--	--	--	34	.16	<5
26...	<.020	.05	.005	12	28	.35	<5
NOV							
02...	--	--	--	--	28	.14	<5
05...	--	--	--	--	--	--	--
09...	--	--	--	--	21	.30	10
16...	--	--	--	--	28	.19	<5
23...	<.020	.06	<.003	9.0	20	.26	<5
30...	--	--	--	--	27	.25	<5
DEC							
03...	--	--	--	--	--	.46	10
06...	--	--	--	--	23	.17	<5
14...	<.020	.05	.003	10	24	.13	<5
21...	--	--	--	--	26	.48	10
28...	--	--	--	--	23	.36	<5
JAN							
04...	<.020	.04	.004	10	23	.20	<5
10...	--	--	--	--	22	.15	<5
13...	--	--	--	--	16	.16	5
18...	--	--	--	--	46	.16	<5
25...	<.020	.08	<.003	9.8	25	.17	<5
FEB							
01...	--	--	--	--	25	.21	<5
08...	--	--	--	--	21	.12	<5
15...	--	--	--	--	19	.21	5
22...	<.020	.04	.004	8.7	22	.20	<5
MAR							
01...	--	--	--	--	23	.12	<5
08...	--	--	--	--	21	.16	<5
15...	<.020	.04	<.003	7.5	25	.26	<5
22...	--	--	--	--	21	.18	<5
29...	--	--	--	--	21	.19	<5
APR							
05...	<.020	.03	.006	7.7	18	.20	<5
13...	--	--	--	--	16	.16	5
19...	--	--	--	--	23	.16	<5
26...	<.020	.03	<.003	--	19	.13	<5
MAY							
03...	--	--	--	--	20	.19	<5
10...	--	--	--	--	21	.12	<5
17...	<.020	.03	<.003	8.4	21	.29	<5
24...	--	--	--	--	21	.21	<5
31...	--	--	--	--	23	.16	<5

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN								
07...	1040	42	19	7.2	7.0	5	2	4
14...	1035	40	20	7.2	6.5	4	4	6
21...	1220	56	19	7.2	7.0	2	1	<1
28...	1115	22	22	7.3	8.0	2	1	<1
JUL								
05...	1225	12	22	7.4	10.5	2	11	<1
12...	1215	8.8	26	7.4	9.0	2	<1	2
19...	1145	6.6	24	7.4	10.9	1	4	2
26...	1130	5.3	25	7.4	11.5	3	9	4
AUG								
02...	1215	4.5	27	7.4	10.2	2	8	8
06...	1330	4.2	27	7.0	12.2	--	--	--
09...	1100	3.9	28	7.5	13.0	1	26	<1
12...	1000	3.6	28	7.4	13.4	--	--	--
16...	1020	3.4	29	7.4	12.2	4	4	16
23...	1100	2.7	28	7.5	11.0	2	8	<1
30...	1045	3.4	29	7.5	10.0	74	--	116
SEP								
05...	0821	2.3	28	7.4	10.0	2	9	6
11...	1300	2.2	28	6.8	11.1	--	--	--
13...	1045	1.9	28	7.4	10.1	<1	3	2
20...	1100	2.2	27	7.5	10.0	2	7	12
26...	1005	4.5	27	7.4	7.9	18	28	48

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
07...	<.020	.04	.012	8.6	25	.21	<5
14...	--	--	--	--	20	.20	<5
21...	--	--	--	--	19	.19	<5
28...	<.020	.02	<.003	9.8	18	.16	<5
JUL							
05...	--	--	--	--	23	.11	<5
12...	--	--	--	--	26	.20	<5
19...	<.020	.03	<.003	12	24	.19	<5
26...	--	--	--	--	29	.20	<5
AUG							
02...	--	--	--	--	28	.25	<5
06...	.150	.13	<.010	13	24	--	--
09...	<.020	.07	<.003	12	27	.26	<5
12...	--	--	--	--	--	--	--
16...	--	--	--	--	30	.19	<5
23...	--	--	--	--	31	.14	<5
30...	<.020	.08	.005	13	31	.20	<5
SEP							
05...	--	--	--	--	25	.11	<5
11...	--	--	--	--	--	--	--
13...	--	--	--	--	27	.14	<5
20...	<.020	.07	.010	13	29	.16	<5
26...	--	--	--	--	26	.20	<5

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	---	20	21	21	18	18	19	20	23	26	27
2	27	---	18	22	21	19	18	20	21	23	26	27
3	27	---	17	22	21	19	18	20	21	23	26	27
4	28	---	19	22	21	19	19	19	21	24	26	27
5	28	25	20	22	21	19	19	20	20	24	26	27
6	28	23	20	22	22	20	19	19	19	23	27	27
7	---	19	21	22	22	19	19	19	18	22	27	27
8	---	19	21	22	21	19	18	19	16	22	27	28
9	---	18	21	22	21	20	17	19	16	22	28	27
10	---	19	21	22	20	20	18	19	18	22	28	27
11	---	20	21	23	20	20	18	20	19	22	28	27
12	---	20	21	23	19	20	18	20	20	23	28	27
13	---	20	21	23	18	20	18	20	20	23	28	27
14	---	20	21	23	17	20	18	20	20	25	28	27
15	---	21	21	23	16	20	19	20	21	25	28	27
16	---	22	22	24	14	20	18	20	20	25	28	27
17	---	22	21	24	15	20	18	20	20	25	28	27
18	---	22	21	24	14	20	18	20	20	25	28	27
19	---	21	21	24	14	20	18	21	18	25	27	27
20	---	21	20	24	15	21	18	21	19	26	27	26
21	---	21	19	23	16	21	17	20	20	25	27	26
22	---	20	15	23	17	20	16	20	20	26	27	28
23	---	20	16	23	17	20	16	20	20	26	27	27
24	---	21	16	22	17	20	16	20	20	26	27	27
25	---	21	15	21	17	19	17	19	21	26	27	26
26	---	22	17	21	17	19	17	19	22	26	27	26
27	---	22	18	20	17	19	17	20	22	27	27	26
28	---	21	19	20	18	19	18	20	22	27	27	25
29	---	20	20	20	---	19	18	20	23	26	27	24
30	---	20	20	21	---	19	19	20	23	24	27	24
31	---	---	21	21	---	17	---	21	---	25	27	---
MEAN	27	21	19	22	18	20	18	20	20	24	27	27

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

14138870 FIR CREEK NEAR BRIGHTWOOD, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	0	.00	---	.03	2	.23	---	.00	---	.00	0	.00
2	0	.00	0	.00	---	5.1	1	.09	---	.00	0	.00
3	0	.00	0	.00	---	4.2	0	.00	---	.00	0	.00
4	0	.00	0	.00	2	.62	0	.00	0	.00	0	.00
5	0	.00	0	.00	1	.17	0	.00	0	.00	0	.00
6	0	.00	2	.28	1	.12	0	.00	0	.00	0	.00
7	0	.00	3	1.4	0	.00	0	.00	0	.00	0	.00
8	0	.00	2	.82	0	.00	0	.00	0	.00	0	.00
9	0	.00	1	.38	0	.00	0	.00	0	.00	0	.00
10	0	.00	1	.20	0	.00	0	.00	0	.00	0	.00
11	0	.00	---	.12	0	.00	0	.00	0	.00	0	.00
12	0	.00	---	.00	0	.00	0	.00	0	.00	0	.00
13	0	.00	---	.00	0	.00	0	.00	0	.00	0	.00
14	0	.00	---	.00	0	.00	0	.00	0	.00	0	.00
15	0	.00	---	.00	0	.00	0	.00	1	.17	0	.00
16	0	.00	---	.00	1	.08	0	.00	2	1.1	0	.00
17	0	.00	---	.00	1	.07	0	.00	0	.00	0	.00
18	0	.00	0	.00	0	.00	0	.00	4	3.9	0	.00
19	0	.00	---	.00	0	.00	0	.00	1	.59	0	.00
20	0	.00	---	.00	1	.06	1	.02	1	.29	0	.00
21	0	.00	2	.46	1	.13	1	.04	1	.18	0	.00
22	0	.00	1	.20	2	1.3	1	.03	0	.00	0	.00
23	0	.00	1	.12	0	.00	2	.06	0	.00	1	.04
24	0	.00	0	.00	1	.87	2	.09	0	.00	1	.04
25	---	.00	1	.08	26	60	1	.04	0	.00	1	.09
26	---	.02	0	.00	6	5.0	2	.17	0	.00	0	.00
27	---	.00	1	.12	2	.81	1	.09	0	.00	0	.00
28	---	.00	2	.20	1	.24	1	.07	0	.00	0	.00
29	---	.00	1	.64	0	.00	1	.06	---	---	1	.07
30	---	.00	1	.17	---	.00	1	.05	---	---	1	.11
31	---	.00	---	---	---	.00	1	.05	---	---	1	.25
TOTAL	---	0.02	---	5.22	---	79.00	---	0.86	---	6.23	---	0.60

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	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
2	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
3	0	.00	0	.00	1	.04	0	.00	0	.00	0	.00
4	1	.12	0	.00	1	.07	0	.00	0	.00	0	.00
5	1	.13	0	.00	1	.08	0	.00	0	.00	0	.00
6	1	.12	0	.00	1	.15	0	.00	0	.00	0	.00
7	1	.11	0	.00	2	.38	0	.00	0	.00	0	.00
8	1	.19	0	.00	7	4.4	0	.00	0	.00	0	.00
9	0	.00	0	.00	3	2.4	0	.00	0	.00	0	.00
10	1	.14	0	.00	1	.25	0	.00	0	.00	0	.00
11	0	.00	0	.00	1	.16	0	.00	0	.00	0	.00
12	1	.11	0	.00	1	.13	0	.00	0	.00	0	.00
13	2	.20	0	.00	1	.12	0	.00	0	.00	0	.00
14	1	.09	0	.00	2	.22	0	.00	0	.00	0	.00
15	1	.10	0	.00	1	.09	1	.02	0	.00	0	.00
16	1	.13	0	.00	1	.15	1	.02	0	.00	0	.00
17	1	.13	0	.00	1	.14	1	.02	0	.00	0	.00
18	1	.13	0	.00	2	.41	1	.02	0	.00	0	.00
19	0	.00	0	.00	1	.54	1	.02	0	.00	1	.00
20	0	.00	0	.00	1	.24	1	.02	0	.00	0	.00
21	0	.00	0	.00	1	.16	0	.00	0	.00	1	.02
22	4	1.3	0	.00	1	.17	0	.00	0	.00	1	.01
23	1	.27	0	.00	1	.15	0	.00	0	.00	1	.00
24	0	.00	0	.00	1	.12	0	.00	0	.00	1	.00
25	1	.15	0	.00	1	.09	0	.00	0	.00	1	.00
26	0	.00	0	.00	0	.00	0	.00	0	.00	1	.02
27	0	.00	0	.00	0	.00	1	.01	0	.00	1	.06
28	0	.00	0	.00	0	.00	1	.01	0	.00	1	.03
29	0	.00	0	.00	0	.00	0	.00	0	.00	2	.11
30	0	.00	0	.00	0	.00	0	.00	0	.00	1	.03
31	---	---	0	.00	---	---	0	.00	0	.00	---	---
TOTAL	---	3.42	---	0.00	---	10.66	---	0.14	---	0.00	---	0.28

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 (11.3 km) southeast of Multnomah Falls and at mouth.

DRAINAGE AREA.--8.32 mi² (21.55 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 1,060 ft (323 m), from topographic map. Prior to Oct. 1, 1978, at site 700 ft (213 m) upstream at datum 18.7 ft (5.70 m) higher.

REMARKS.--Records excellent. Regulation at times since 1958 by North Fork dam, capacity, about 1,030 acre-ft (1.27 hm³). No diversion above station.

AVERAGE DISCHARGE.--16 years, 77.3 ft³/s (2.189 m³/s), 126.17 in/yr (3,205 mm/yr), 56,000 acre-ft/yr (69.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s (275 m³/s), probably affected by surge from release of water temporarily impounded by landslide upstream from station, Jan. 20, 1972, gage height, 9.89 ft (3.014 m), from floodmark, from rating curve extended above 850 ft³/s (24.1 m³/s) on basis of estimate of peak flow from slope-area survey; minimum, 9.1 ft³/s (0.26 m³/s) Oct. 2-14, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1500	830	23.5	6.08	1.853	Feb. 16	0830	770	21.8	6.00	1.829
Dec. 25	2130	*1,790	50.7	*7.08	2.158	Feb. 18	2000	893	25.3	6.16	1.878

Minimum, 12 ft³/s (0.34 m³/s) Sept. 13-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	23	78	85	38	44	112	54	32	34	17	18
2	16	29	389	71	36	41	90	60	30	31	17	15
3	16	38	476	62	34	40	102	54	29	29	17	14
4	15	27	216	54	32	43	80	51	47	28	17	14
5	15	24	127	49	31	38	89	58	44	27	16	13
6	15	109	88	45	30	36	76	57	54	26	16	13
7	15	309	66	41	29	35	72	87	83	43	15	13
8	15	418	54	39	28	32	161	65	400	30	15	13
9	15	301	47	38	28	31	141	60	292	26	15	13
10	14	152	46	34	27	29	94	51	170	26	15	13
11	14	95	43	32	62	28	83	51	112	25	15	13
12	19	68	43	31	178	27	74	44	100	24	15	13
13	31	54	42	30	152	26	65	40	108	25	14	12
14	19	48	43	28	204	26	65	47	83	24	14	12
15	16	53	44	27	242	27	72	64	68	22	14	12
16	16	42	47	27	536	35	87	52	116	22	14	12
17	15	44	45	28	330	28	77	48	103	21	14	12
18	15	63	42	30	541	26	80	57	131	21	14	12
19	15	54	39	27	395	25	74	50	305	20	14	14
20	15	48	100	27	185	25	76	46	147	20	14	13
21	15	123	165	43	117	26	98	47	102	19	14	29
22	14	113	571	32	87	32	201	43	129	19	14	22
23	14	89	278	36	69	32	156	39	98	19	14	17
24	15	68	356	44	80	30	143	52	74	19	14	14
25	18	59	1060	39	68	63	98	66	61	19	14	15
26	21	49	547	73	60	43	77	55	52	18	14	23
27	18	83	297	60	56	40	70	46	46	18	13	51
28	16	77	165	52	50	36	73	42	42	18	13	26
29	15	173	129	47	---	49	63	38	38	18	13	44
30	15	107	152	44	---	89	57	37	36	18	16	25
31	15	---	105	40	---	185	---	35	---	17	14	---
TOTAL	505	2940	5900	1315	3725	1267	2806	1596	3132	726	455	530
MEAN	16.3	98.0	190	42.4	133	40.9	93.5	51.5	104	23.4	14.7	17.7
MAX	31	418	1060	85	541	185	201	87	400	43	17	51
MIN	14	23	39	27	27	25	57	35	29	17	13	12
CFSM	1.96	11.8	22.8	5.10	16.0	4.92	11.2	6.19	12.5	2.81	1.77	2.13
IN.	2.26	13.14	26.38	5.88	16.65	5.66	12.54	7.14	14.00	3.25	2.03	2.37
AC-FT	1000	5830	11700	2610	7390	2510	5570	3170	6210	1440	902	1050

CAL YR 1980 TOTAL 25329 MEAN 69.2 MAX 1060 MIN 14 CFSM 8.32 IN 113.24 AC-FT 50240
WTR YR 1981 TOTAL 24897 MEAN 68.2 MAX 1060 MIN 12 CFSM 8.20 IN 111.30 AC-FT 49380

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.
SEDIMENT DISCHARGE: October 1978 to current year.

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

COOPERATION.--Chemical data were analyzed by the city of Portland Water Quality Laboratory and were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 103 micromhos Jan. 13, 1981 (cement spill); minimum, 9 micromhos Dec. 25, 1980.
WATER TEMPERATURES: Maximum recorded, 14.0°C July 18-20, 1979, July 27, Aug. 9, 1981; 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 each year.
SEDIMENT DISCHARGE: Maximum daily, 633 tons (574 tonnes) Dec. 25, 1980; minimum, 0 tons (0 tonnes) on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 103 micromhos Jan. 13 (cement spill); minimum, 9 micromhos Dec. 25.
pH: Maximum, 9.8 units Jan. 13 (cement spill upstream); minimum, 6.3 units June 19.
WATER TEMPERATURES: Maximum, 14.0°C July 27, Aug. 9; minimum, 1.5°C Dec. 7, 8.
SEDIMENT CONCENTRATIONS: Maximum daily, 205 mg/l Dec. 25; minimum, 0 mg/l on many days throughout the year.
SEDIMENT DISCHARGE: Maximum daily, 633 tons (574 tonnes) Dec. 25; minimum, 0 tons (0 tonnes) on many days throughout the year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
04...	1145	16	41	7.6	9.0	1	4	<1
06...	1340	12	41	7.5	10.6	--	--	--
06...	1400	12	41	7.5	10.6	--	--	--
11...	1130	15	40	7.7	8.0	1	7	<1
18...	1130	16	42	7.6	7.0	1	<1	<1
25...	1135	18	41	7.6	7.0	1	4	<1
NOV								
01...	1120	21	44	7.5	8.0	6	12	12
06...	1000	42	31	7.4	8.3	--	--	--
08...	1045	394	21	7.0	8.0	36	21	36
15...	1130	51	27	7.2	5.0	4	4	4
22...	1100	105	26	7.2	6.0	8	1	8
29...	1115	210	22	7.0	6.0	15	7	22
DEC								
03...	0906	541	23	7.0	5.5	--	--	--
06...	1050	90	23	7.1	3.0	2	1	2
13...	1050	41	28	7.3	3.5	2	<1	4
20...	1115	98	22	7.2	5.0	6	1	10
27...	1135	301	15	7.0	8.0	15	<1	80
JAN								
03...	1100	62	23	7.3	5.5	1	<1	<1
11...	1045	32	27	7.4	5.0	<1	<1	2
17...	1140	26	35	7.5	4.0	3	1	2
24...	1140	43	27	7.4	5.0	<1	1	1
31...	1140	40	26	7.4	4.5	<1	<1	<1
FEB								
07...	1042	28	30	7.4	3.0	<1	<1	<1
14...	1100	226	15	7.1	4.6	10	3	17
21...	1120	114	17	7.2	5.0	4	<1	1
28...	1110	49	22	7.4	4.5	<1	<1	<1
MAR								
07...	1115	34	25	7.4	4.0	<1	<1	1
14...	1130	26	28	7.5	6.0	<1	<1	<1
21...	1140	24	30	7.5	6.0	<1	<1	<1
28...	1135	36	25	7.4	5.8	<1	<1	1
APR								
04...	1115	76	19	7.3	5.0	<1	<1	<1
11...	0900	80	20	7.2	2.4	<1	<1	<1
18...	1155	66	20	7.3	6.0	<1	--	1
25...	0950	97	17	7.3	5.0	1	1	2
MAY								
02...	1110	70	20	7.3	7.0	2	7	<1

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
MAY								
09...	1130	62	22	7.3	7.0	<1	<1	<1
13...	1140	52	23	7.4	6.1	<1	1	<1
23...	1125	38	26	7.4	8.2	<1	<1	<1
30...	1150	34	26	7.4	9.0	2	4	2
JUN								
06...	1140	50	24	7.4	9.2	2	5	6
13...	1210	112	18	7.1	7.0	6	2	6
20...	1230	147	17	7.2	8.8	3	3	2
27...	1152	44	24	7.4	9.0	1	2	<1
JUL								
04...	1210	28	29	7.6	12.0	<1	3	<1
11...	1100	24	35	7.6	8.8	<1	1	2
13...	1300	25	32	7.3	9.2	--	--	--
18...	1150	20	35	7.6	10.5	1	3	2
25...	1200	18	36	7.7	10.2	<1	--	2
AUG								
01...	1345	16	40	7.7	11.4	<1	2	<1
05...	1600	14	38	7.7	11.3	--	--	--
08...	1305	14	40	7.7	13.0	<1	10	<1
15...	1100	14	45	7.7	10.2	1	14	2
17...	1400	14	42	7.5	12.5	--	--	--
22...	1120	14	42	7.7	9.0	1	7	2
29...	1115	13	43	7.7	9.0	1	2	<1
SEP								
05...	0933	13	43	7.6	8.5	1	2	<1
12...	1130	13	43	7.7	9.5	1	8	10
15...	1200	13	44	7.0	9.6	--	--	--
19...	1115	14	44	7.7	9.1	9	16	16
26...	0836	14	43	7.6	8.3	4	2	6

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
MAY							
09...	--	--	--	--	25	.20	< 5
13...	<.020	.02	.006	9.8	25	.23	< 5
23...	--	--	--	--	26	.23	< 5
30...	--	--	--	--	30	.23	< 5
JUN							
06...	<.020	.04	.006	11	24	.28	< 5
13...	--	--	--	--	18	.26	5
20...	--	--	--	--	22	.34	<5
27...	<.020	.02	.005	11	19	.15	<5
JUL							
04...	--	--	--	--	28	.14	<5
11...	--	--	--	--	34	.29	<5
13...	--	--	--	--	--	--	--
18...	<.020	.04	.007	15	36	.24	<5
25...	--	--	--	--	38	.21	<5
AUG							
01...	--	--	--	--	39	.10	< 5
05...	.160	.13	<.010	17	40	.40	< 5
08...	<.020	.03	.020	17	36	.11	< 5
15...	--	--	--	--	42	.17	< 5
17...	--	--	--	--	--	--	--
22...	--	--	--	--	41	.21	< 5
29...	<.020	.04	.019	19	43	.20	< 5
SEP							
05...	--	--	--	--	39	.15	< 5
12...	--	--	--	--	39	.20	< 5
15...	--	--	--	--	--	--	--
19...	<.020	.06	.010	18	43	.40	< 5
26...	--	--	--	--	37	.26	< 5

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	TURBIDITY (NTU)	COLOR (PLATINUM-COBALT UNITS)
OCT							
04...	<.020	.03	.010	17	36	.17	<5
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
11...	--	--	--	--	37	.16	<5
18...	--	--	--	--	49	.15	<5
25...	<.020	.03	.010	16	39	.20	<5
NOV							
01...	--	--	--	--	38	.30	<5
06...	--	--	--	--	--	--	--
08...	--	--	--	--	37	2.2	20
15...	--	--	--	--	32	.22	<5
22...	<.020	.04	.003	8.5	19	.36	5
29...	--	--	--	--	23	.93	15
DEC							
03...	--	--	--	--	--	2.3	10
06...	--	--	--	--	22	.27	<5
13...	<.020	.03	.007	11	30	.20	<5
20...	--	--	--	--	27	.65	5
27...	--	--	--	--	22	1.0	5
JAN							
03...	<.020	.03	.004	10	22	.30	<5
11...	--	--	--	--	24	.21	<5
17...	--	--	--	--	42	.40	<5
24...	<.020	.06	.010	12	30	.18	5
31...	--	--	--	--	30	.17	<5
FEB							
07...	--	--	--	--	28	.11	<5
14...	--	--	--	--	21	.55	5
21...	<.020	.03	.004	8.2	21	.35	<5
28...	--	--	--	--	26	.25	<5
MAR							
07...	--	--	--	--	22	.39	<5
14...	<.020	<.01	.006	11	29	.23	<5
21...	--	--	--	--	29	.20	<5
28...	--	--	--	--	25	.24	<5
APR							
04...	<.020	.03	.005	8.3	20	.29	<5
11...	--	--	--	--	19	.17	<5
18...	--	--	--	--	25	.24	<5
25...	<.020	.02	.006	--	19	.20	5
MAY							
02...	--	--	--	--	23	.30	<5

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	40	20	19	27	23	19	21	29	28	39	40
2	40	37	15	20	28	24	20	21	30	29	39	41
3	41	36	13	21	29	25	19	21	31	30	39	42
4	42	36	15	22	29	25	21	22	31	31	40	42
5	42	37	17	23	30	25	20	22	29	32	40	43
6	43	28	19	24	30	26	21	21	29	32	41	43
7	43	20	20	25	30	27	21	20	26	29	41	43
8	43	18	21	26	31	27	18	20	15	31	41	43
9	44	18	22	26	31	28	17	21	15	32	42	44
10	44	19	23	27	31	29	19	22	17	33	42	44
11	44	21	23	27	29	30	19	23	19	33	42	44
12	43	23	24	28	17	30	20	24	21	34	42	44
13	40	24	24	56	17	31	21	25	20	34	42	44
14	41	25	24	50	15	31	21	26	21	34	42	44
15	42	25	24	41	15	31	21	23	21	35	42	44
16	43	26	24	38	12	30	20	22	19	36	42	45
17	43	26	24	36	13	29	20	23	18	36	42	46
18	43	24	24	34	12	30	20	24	18	37	42	45
19	44	24	25	35	12	31	20	23	14	37	42	44
20	44	25	20	35	15	32	20	24	16	37	42	44
21	44	22	16	30	16	32	18	25	18	38	42	41
22	44	19	12	31	18	---	15	26	18	38	42	41
23	44	20	14	32	20	---	15	26	19	37	42	42
24	44	21	14	28	19	---	16	27	20	38	42	43
25	42	22	10	28	20	---	17	23	22	38	42	44
26	42	23	12	25	21	26	18	23	23	38	42	42
27	42	22	14	23	22	26	19	24	24	38	42	33
28	42	21	16	24	22	27	19	25	25	39	42	37
29	42	17	17	25	---	26	20	27	27	38	42	32
30	43	19	16	26	---	22	21	28	28	37	41	35
31	43	---	18	27	---	17	---	28	---	38	41	---
MEAN	43	25	19	29	22	27	19	24	22	35	41	42

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	7.6	7.4	7.2	7.1	7.1	7.1	7.3	7.2	7.3	7.2
2	---	---	7.6	7.4	7.1	6.7	7.1	7.1	7.3	7.2	7.3	7.2
3	---	---	7.4	7.3	6.8	6.7	7.1	7.1	7.3	7.2	7.3	7.2
4	---	---	7.5	7.3	6.9	6.8	7.1	7.1	7.3	7.2	7.4	7.3
5	---	---	7.6	7.4	7.0	6.9	7.1	7.1	7.4	7.3	7.4	7.3
6	---	---	7.4	7.0	7.1	7.0	7.1	7.0	7.4	7.4	7.4	7.3
7	---	---	7.1	6.9	7.1	7.0	7.1	7.0	7.4	7.4	7.4	7.3
8	---	---	7.0	6.8	7.1	7.1	7.1	7.0	7.4	7.4	7.4	7.3
9	---	---	7.0	6.9	7.2	7.1	7.1	7.0	7.4	7.4	7.5	7.4
10	---	---	7.1	7.0	7.2	7.1	7.2	7.1	7.4	7.4	7.4	7.3
11	---	---	7.2	7.1	7.2	7.2	7.2	7.2	7.4	7.1	7.5	7.3
12	---	---	7.2	7.2	7.3	7.2	7.2	7.2	7.1	7.0	7.5	7.4
13	---	---	7.3	7.2	7.3	7.2	9.8	7.2	7.1	7.0	7.5	7.4
14	---	---	7.3	7.2	7.3	7.2	7.6	7.4	7.0	7.0	7.5	7.4
15	---	---	7.3	7.2	7.3	7.3	7.4	7.3	7.0	6.8	7.5	7.4
16	---	---	7.4	7.3	7.3	7.3	7.3	7.3	6.8	6.6	7.5	7.4
17	7.7	7.5	7.3	7.2	7.4	7.3	7.3	7.3	7.0	6.7	7.5	7.4
18	7.7	7.5	7.2	7.1	7.4	7.3	7.3	7.3	6.9	6.5	7.5	7.4
19	7.7	7.5	7.3	7.2	7.4	7.4	7.4	7.3	6.8	6.6	7.5	7.4
20	7.7	7.5	7.3	7.2	7.4	7.2	7.4	7.3	7.0	6.8	7.5	7.4
21	7.7	7.5	7.2	7.0	7.3	7.1	7.3	7.3	7.1	7.0	7.6	7.4
22	7.7	7.5	7.1	7.0	7.1	6.9	7.3	7.3	7.2	7.0	---	---
23	7.8	7.5	7.2	7.1	7.2	7.0	7.3	7.3	7.2	7.1	---	---
24	7.7	7.5	7.2	7.1	7.1	6.8	7.3	7.3	7.2	7.1	---	---
25	7.7	7.5	7.2	7.1	6.9	6.7	7.3	7.3	7.2	7.1	---	---
26	7.6	7.5	7.3	7.2	7.0	6.7	7.3	7.1	7.2	7.2	7.4	7.3
27	7.7	7.5	7.3	7.0	7.1	7.0	7.3	7.1	7.2	7.2	7.4	7.3
28	7.7	7.5	7.2	7.0	7.1	7.0	7.3	7.2	7.2	7.2	7.4	7.3
29	7.7	7.5	7.1	7.0	7.2	7.0	7.3	7.2	---	---	7.4	7.3
30	7.7	7.5	7.1	7.0	7.1	7.0	7.3	7.2	---	---	7.3	7.0
31	7.7	7.5	---	---	7.1	7.0	7.3	7.2	---	---	7.1	6.9
MONTH	7.8	7.5	7.6	6.8	7.4	6.7	9.8	7.0	7.4	6.5	7.6	6.9

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.2	7.1	7.2	7.0	7.2	6.8	7.2	7.0	7.6	7.0	7.3	7.1
2	7.3	7.2	7.1	7.1	7.1	6.9	7.3	6.9	7.4	7.0	7.6	7.1
3	7.2	7.2	7.2	7.0	7.2	6.9	7.3	6.9	7.5	7.2	7.5	7.0
4	7.3	7.2	7.2	7.0	7.2	7.0	7.3	6.9	7.8	7.1	7.3	7.1
5	7.2	7.2	7.1	7.0	7.4	7.1	7.1	6.9	7.8	7.2	7.6	7.1
6	7.3	7.2	7.1	7.0	7.5	7.2	7.2	6.9	7.6	7.0	7.6	7.1
7	7.3	7.2	7.1	6.9	7.5	7.0	7.3	7.0	7.6	7.0	7.5	7.0
8	7.2	6.8	7.1	6.9	7.1	6.6	7.4	6.9	7.6	6.9	7.4	6.9
9	7.2	6.9	7.1	6.9	7.2	6.8	7.3	7.0	7.6	7.0	7.2	6.9
10	7.2	7.1	7.1	7.0	7.2	6.9	7.2	7.1	7.7	7.0	7.5	7.0
11	7.2	7.0	7.1	6.9	7.3	6.9	7.3	7.0	7.7	7.0	7.4	6.9
12	7.2	7.1	7.2	6.9	7.2	7.1	7.3	7.0	7.7	7.0	7.3	6.9
13	7.3	7.2	7.2	6.9	7.2	7.0	7.3	7.1	7.7	7.0	7.3	6.8
14	7.3	7.1	7.2	6.9	7.2	7.0	7.5	7.1	7.7	7.1	7.3	6.8
15	7.3	7.1	7.1	6.9	7.3	7.0	7.6	7.0	7.7	7.0	7.3	6.9
16	7.2	7.0	7.1	7.0	7.1	6.8	7.6	6.9	7.7	7.0	7.3	6.9
17	7.3	7.1	7.1	6.9	7.1	6.8	7.5	6.8	7.6	7.0	7.4	6.9
18	7.3	7.1	7.1	6.9	7.1	6.4	7.5	6.9	7.6	7.0	7.4	7.0
19	7.2	7.0	7.0	7.0	6.7	6.3	7.6	6.9	7.2	7.1	7.4	6.9
20	7.2	7.1	7.1	6.9	7.0	6.6	7.4	6.9	7.3	7.1	7.1	6.9
21	7.2	7.0	7.1	7.0	7.1	6.8	7.5	6.9	7.5	7.0	7.4	7.0
22	7.0	6.7	7.2	6.9	7.0	6.8	7.5	6.9	7.5	7.0	7.1	7.0
23	7.1	6.8	7.2	6.9	7.1	6.9	7.4	7.0	7.5	7.0	7.4	7.0
24	7.1	6.8	7.1	6.9	7.2	6.9	7.4	7.0	7.5	7.0	7.2	7.0
25	7.2	6.9	7.0	6.9	7.2	6.9	7.6	6.9	7.4	6.9	7.2	7.1
26	7.2	7.0	7.2	6.8	7.2	6.9	7.5	6.8	7.4	6.9	7.2	7.1
27	7.2	7.0	7.2	6.8	7.2	6.9	7.5	6.7	7.4	6.8	7.4	7.1
28	7.2	7.0	7.2	6.9	7.3	6.9	7.4	6.7	7.4	6.8	7.3	7.1
29	7.2	7.0	7.2	6.8	7.3	7.0	7.2	6.8	7.2	7.0	7.4	7.2
30	7.2	6.9	7.1	6.9	7.1	6.9	7.5	6.9	7.5	7.0	7.4	7.1
31	---	---	7.2	6.8	---	---	7.6	6.9	7.5	7.0	---	---
MONTH	7.3	6.7	7.2	6.8	7.5	6.3	7.6	6.7	7.8	6.8	7.6	6.8

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	1	.05	1	.06	0	.00	0	.00	0	.00	1	.12
2	1	.04	1	.08	70	118	0	.00	0	.00	1	.11
3	1	.04	2	.21	20	26	0	.00	0	.00	1	.11
4	1	.04	1	.07	4	2.3	0	.00	0	.00	1	.12
5	1	.04	1	.06	2	.69	0	.00	0	.00	1	.10
6	1	.04	3	.87	1	.24	0	.00	0	.00	1	.10
7	1	.04	13	11	0	.00	1	.11	0	.00	1	.09
8	1	.04	24	30	0	.00	1	.11	0	.00	1	.09
9	1	.04	9	8.2	0	.00	0	.00	1	.08	1	.08
10	1	.04	2	.82	0	.00	0	.00	2	.15	1	.08
11	1	.04	1	.26	0	.00	0	.00	4	.73	1	.08
12	1	.05	1	.18	0	.00	0	.00	6	3.0	1	.07
13	2	.17	1	.15	0	.00	0	.00	2	.82	1	.07
14	1	.05	1	.13	1	.12	0	.00	2	1.1	1	.07
15	1	.04	1	.14	1	.12	0	.00	5	3.8	1	.07
16	1	.04	1	.11	1	.13	0	.00	20	29	1	.09
17	1	.04	0	.00	0	.00	0	.00	5	4.6	1	.08
18	1	.04	0	.00	0	.00	1	.08	22	37	0	.00
19	1	.04	0	.00	0	.00	1	.07	8	8.3	0	.00
20	1	.04	0	.00	2	.54	1	.07	3	1.5	1	.07
21	1	.04	2	.66	4	1.9	1	.12	2	.63	1	.07
22	1	.04	2	.61	39	58	1	.09	2	.47	0	.00
23	1	.04	0	.00	7	5.7	1	.10	1	.19	1	.09
24	1	.04	0	.00	22	30	0	.00	2	.43	1	.08
25	2	.10	0	.00	205	633	0	.00	1	.18	1	.17
26	1	.06	0	.00	56	96	1	.20	1	.16	2	.23
27	1	.05	0	.00	5	4.2	0	.00	1	.15	2	.22
28	1	.04	0	.00	2	.89	0	.00	1	.14	3	.29
29	1	.04	1	.47	1	.35	0	.00	---	---	2	.26
30	1	.04	0	.00	1	.41	0	.00	---	---	3	.72
31	1	.04	---	---	3	.63	0	.00	---	---	4	2.0
TOTAL	---	1.49	---	54.08	---	979.22	---	0.95	---	92.43	---	5.73

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	3	.91	1	.15	1	.09	1	.09	0	.00	0	.00
2	3	.73	1	.16	0	.00	1	.08	0	.00	0	.00
3	2	.55	1	.15	0	.00	1	.08	0	.00	0	.00
4	2	.43	1	.14	0	.00	1	.08	0	.00	0	.00
5	2	.48	1	.16	0	.00	1	.07	0	.00	0	.00
6	2	.41	1	.15	0	.00	1	.07	0	.00	0	.00
7	3	.58	1	.23	1	.22	1	.12	0	.00	0	.00
8	3	1.3	1	.18	8	9.1	1	.08	0	.00	0	.00
9	2	.76	1	.16	2	1.6	1	.07	0	.00	0	.00
10	1	.25	1	.14	1	.46	1	.07	0	.00	0	.00
11	2	.45	1	.14	0	.00	1	.07	0	.00	0	.00
12	1	.20	0	.00	2	.54	1	.06	0	.00	0	.00
13	1	.18	1	.11	1	.29	1	.07	0	.00	0	.00
14	1	.18	1	.13	1	.22	1	.06	0	.00	0	.00
15	1	.19	1	.17	1	.18	0	.00	0	.00	0	.00
16	1	.23	1	.14	2	.63	0	.00	0	.00	0	.00
17	1	.21	1	.13	1	.28	0	.00	0	.00	0	.00
18	1	.22	1	.15	---	1.7	0	.00	0	.00	1	.03
19	1	.20	1	.14	---	2.0	0	.00	0	.00	0	.00
20	1	.21	1	.12	1	.40	0	.00	0	.00	0	.00
21	1	.26	1	.13	1	.28	0	.00	0	.00	4	.39
22	4	2.4	1	.12	2	.70	0	.00	0	.00	1	.06
23	2	.84	1	.11	1	.26	0	.00	0	.00	1	.05
24	1	.39	1	.14	1	.20	0	.00	0	.00	1	.04
25	1	.26	1	.18	1	.16	0	.00	0	.00	0	.00
26	1	.21	1	.15	1	.14	0	.00	0	.00	1	.06
27	1	.19	1	.12	1	.12	0	.00	0	.00	3	.47
28	1	.20	1	.11	1	.11	0	.00	0	.00	1	.07
29	1	.17	1	.10	1	.10	0	.00	0	.00	1	.12
30	1	.15	1	.10	1	.10	0	.00	0	.00	1	.07
31	---	---	1	.09	---	---	0	.00	0	.00	---	---
TOTAL	---	13.74	---	4.20	---	19.88	---	1.07	---	0.00	---	1.36

14138950 DEER CREEK NEAR BULL RUN, OR

LOCATION.--Lat 45°29'31", long 122°03'27", in SE¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, on left bank 240 ft (73 m) upstream from culvert on Forest Service road S10, 300 ft (91 m) upstream from Bull Run Reservoir Number One, and 9.6 mi (15.4 km) northeast of Bull Run.

DRAINAGE AREA.--1.62 mi² (4.20 km²).

PERIOD OF RECORD.--Chemical analyses: October 1977 to current year.

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and reviewed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)
OCT							
04...	1210	1.3	29	7.4	11.0	2	10
11...	1200	1.0	30	7.4	9.0	1	8
18...	1205	1.1	30	7.3	7.0	<1	4
25...	1205	1.1	32	7.4	8.0	<1	3
NOV							
01...	1140	1.4	33	7.3	9.0	21	29
08...	1110	51	21	7.1	9.5	15	9
15...	1150	7.4	23	7.0	6.0	1	2
22...	1130	16	22	7.1	7.0	<1	1
29...	1145	33	21	7.1	7.0	5	6
DEC							
03...	1325	--	25	7.1	--	--	--
06...	1600	16	21	7.0	4.5	<1	<1
13...	1120	6.0	22	7.1	4.0	<1	<1
20...	1130	6.7	22	7.1	6.5	5	6
27...	1200	46	16	7.0	8.5	1	1
JAN							
03...	1130	8.0	18	7.1	6.0	1	1
11...	1120	3.0	19	7.2	5.0	4	1
17...	1205	2.3	19	7.2	4.0	10	2
24...	1210	4.2	19	7.2	6.0	2	1
31...	1200	5.2	18	7.2	5.5	<1	1
FEB							
07...	1052	--	19	7.1	2.3	1	1
14...	1120	17	16	7.2	6.0	1	1
21...	1140	25	15	7.1	6.5	<1	<1
28...	1145	9.2	16	7.2	5.5	<1	<1
MAR							
07...	1145	4.9	17	7.2	5.0	<1	<1
14...	1205	2.8	18	7.3	7.2	<1	<1
21...	1205	2.3	19	7.3	6.0	1	1
28...	1200	3.9	18	7.2	7.0	1	<1
APR							
04...	1145	15	16	7.1	7.0	1	<1
11...	0953	--	16	7.0	4.0	1	1
18...	1215	9.8	17	7.2	8.0	1	--
25...	1000	--	15	7.3	5.5	1	1
MAY							
02...	1135	5.2	17	7.2	8.0	1	4
09...	1155	8.5	17	7.2	7.8	2	1
16...	1200	7.4	18	7.2	6.8	3	1
23...	1155	5.6	18	7.2	8.9	1	2
30...	1210	5.2	19	7.2	10.0	--	--
JUN							
06...	1205	6.5	19	7.2	10.0	1	5
13...	1235	16	17	7.0	8.0	2	1
20...	1315	28	15	7.0	9.0	4	5

14138950 DEER CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)
JUN							
27...	1215	6.9	18	7.2	9.8	3	14
JUL							
04...	1225	2.8	19	7.3	15.0	2	5
11...	1130	2.2	22	7.3	10.5	0	6
18...	1215	1.6	22	7.4	13.0	6	9
25...	1230	.87	23	7.3	14.1	13	--
AUG							
01...	1358	1.1	25	7.3	15.0	2	15
08...	1325	.95	26	7.4	17.7	8	24
15...	1135	.87	29	7.4	15.9	7	32
22...	1155	.83	29	7.4	12.2	2	16
29...	1155	.76	29	7.5	12.0	7	12
SEP							
05...	0944	--	30	7.4	11.1	9	14
12...	1200	.69	31	7.4	12.0	3	16
19...	1150	1.1	32	7.4	13.0	61	48
26...	0846	1.2	30	7.3	9.0	12	19

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
27...	<1	<.020	.01	<.003	7.7	.18	<5
JUL							
04...	6	--	--	--	--	.20	<5
11...	10	--	--	--	--	.19	<5
18...	4	<.020	.02	<.003	9.3	.24	<5
25...	8	--	--	--	--	.20	<5
AUG							
01...	2	--	--	--	--	.14	<5
08...	12	<.020	.02	<.003	11	.17	<5
15...	10	--	--	--	--	.17	<5
22...	6	--	--	--	--	.19	<5
29...	16	<.020	.02	<.003	12	.17	<5
SEP							
05...	27	--	--	--	--	.11	<5
12...	2	--	--	--	--	.16	<5
19...	78	<.020	.04	<.003	12	.20	<5
26...	10	--	--	--	--	.24	<5

14138950 DEER CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
OCT							
04...	4	<.020	.02	.010	11	.14	<5
11...	2	--	--	--	--	.16	<5
18...	4	--	--	--	--	.15	<5
25...	2	<.020	.02	.004	11	.16	<5
NOV							
01...	16	--	--	--	--	.35	<5
08...	10	--	--	--	--	.57	5
15...	1	--	--	--	--	.18	<5
22...	4	<.020	.03	<.003	7.4	.25	<5
29...	10	--	--	--	--	.45	5
DEC							
03...	--	--	--	--	--	.54	<5
06...	<1	--	--	--	--	.18	<5
13...	4	<.020	.03	.004	7.6	.17	<5
20...	<1	--	--	--	--	.25	<5
27...	<1	--	--	--	--	.26	<5
JAN							
03...	2	<.020	.03	<.003	7.2	.18	<5
11...	14	--	--	--	--	.12	<5
17...	8	--	--	--	--	.14	<5
24...	3	<.020	.04	.003	8.1	.15	<5
31...	1	--	--	--	--	.17	<5
FEB							
07...	<1	--	--	--	--	.11	<5
14...	<1	--	--	--	--	.20	<5
21...	<1	<.020	.04	<.003	6.5	.17	<5
28...	2	--	--	--	--	.12	<5
MAR							
07...	<1	--	--	--	--	.20	<5
14...	<1	<.020	<.01	<.003	5.4	.13	<5
21...	<1	--	--	--	--	.14	<5
28...	2	--	--	--	--	.17	<5
APR							
04...	<1	<.020	.02	.004	6.2	.18	<5
11...	1	--	--	--	--	.16	<5
18...	<1	--	--	--	--	.18	<5
25...	<1	<.020	.03	<.003	--	.16	<5
MAY							
02...	<1	--	--	--	--	.18	<5
09...	4	--	--	--	--	.16	<5
16...	2	<.020	.01	<.003	7.4	.18	<5
23...	<1	--	--	--	--	.20	<5
30...	--	--	--	--	--	.17	<5
JUN							
06...	<1	<.020	.02	<.003	8.1	.20	<5
13...	<1	--	--	--	--	.20	<5
20...	1	--	--	--	--	.31	<5

14138960 COUGAR CREEK NEAR BULL RUN, OR

LOCATION.--Lat 45°29'28", long 122°03'40", in SW¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, at culvert on Forest Service road S10, 300 ft (91 m) upstream from Bull Run Reservoir Number One, and 9.4 mi (15.1 km) northeast of Bull Run.

DRAINAGE AREA.--3.06 mi² (7.93 km²).

PERIOD OF RECORD.--Chemical analyses: October 1977 to current year.

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and reviewed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
04...	1230	3.4	23	7.1	12.0	5	8	6
06...	1245	3.2	21	7.2	13.2	--	--	--
06...	1300	3.2	21	7.2	13.2	--	--	--
11...	1210	2.9	23	7.1	10.0	1	2	<1
18...	1215	2.9	23	7.1	8.5	<1	3	<1
25...	1210	3.2	25	7.2	9.0	1	7	2
NOV								
01...	1150	3.1	26	7.1	9.0	4	6	10
06...	1515	27	19	6.9	8.8	--	--	--
08...	1120	70	18	6.8	8.5	6	17	6
15...	1200	20	19	6.9	5.5	1	2	<1
22...	1140	39	19	7.0	6.5	2	3	4
29...	1155	47	18	6.9	6.5	2	4	8
DEC								
03...	1323	--	23	7.1	--	--	--	--
06...	1105	39	20	7.0	4.0	1	1	2
13...	1130	18	22	7.1	4.5	<1	<1	2
20...	1140	26	17	7.0	6.0	1	1	<1
27...	1205	55	14	7.0	8.0	<1	2	<1
JAN								
03...	1140	21	18	7.1	6.5	<1	<1	2
11...	1125	7.0	18	7.2	6.0	<1	<1	<1
17...	1210	5.0	18	7.2	5.0	<1	2	<1
24...	1215	7.0	16	7.1	6.0	2	1	3
31...	1210	7.5	16	7.1	5.0	1	<1	<1
FEB								
07...	1057	5.7	16	7.1	3.2	<1	<1	<1
14...	1130	51	12	7.0	5.0	<1	<1	1
21...	1150	47	13	7.1	6.0	<1	1	<1
28...	1150	18	16	7.2	6.0	<1	<1	<1
MAR								
07...	1150	6.7	16	7.2	4.5	<1	<1	<1
14...	1210	6.0	16	7.2	6.8	<1	<1	<1
21...	1215	4.7	17	7.2	6.5	<1	1	<1
28...	1210	7.0	15	7.1	6.0	<1	<1	2
APR								
04...	1155	27	14	7.0	5.5	1	<1	<1
11...	1000	39	15	7.0	3.6	1	<1	10
18...	1225	27	15	7.1	7.0	<1	--	<1
25...	1004	55	12	7.1	5.0	1	<1	1
MAY								
02...	1140	26	13	7.0	7.5	<1	29	<1
09...	1200	26	13	7.0	6.8	<1	1	<1
16...	1210	17	14	7.0	6.3	<1	<1	<1
23...	1205	11	15	7.1	8.5	1	<1	<1
30...	1220	9.9	16	7.1	9.0	1	1	4

14138960 COUGAR CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
OCT							
04...	<.020	.02	<.003	9.1	19	.12	<5
06...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
11...	--	--	--	--	20	.12	<5
18...	--	--	--	--	31	.10	<5
25...	<.020	.03	<.003	9.1	24	.10	<5
NOV							
01...	--	--	--	--	22	.12	<5
06...	--	--	--	--	--	--	--
08...	--	--	--	--	18	.39	5
15...	--	--	--	--	24	.13	<5
22...	<.020	.02	<.003	6.6	13	.15	<5
29...	--	--	--	--	28	.25	5
DEC							
03...	--	--	--	--	--	.50	<5
06...	--	--	--	--	17	.16	<5
13...	<.020	.03	.004	7.7	26	.14	<5
20...	--	--	--	--	17	.20	5
27...	--	--	--	--	16	.33	<5
JAN							
03...	<.020	.03	<.003	7.4	17	.16	<5
11...	--	--	--	--	12	.09	<5
17...	--	--	--	--	36	.11	<5
24...	<.020	.05	.003	7.5	20	.11	<5
31...	--	--	--	--	19	.09	<5
FEB							
07...	--	--	--	--	15	.08	<5
14...	--	--	--	--	15	.20	<5
21...	<.020	.03	<.003	6.3	17	.15	<5
28...	--	--	--	--	18	.11	<5
MAR							
07...	--	--	--	--	15	.12	<5
14...	<.020	<.01	<.003	5.2	21	.11	<5
21...	--	--	--	--	16	.11	<5
28...	--	--	--	--	16	.11	<5
APR							
04...	<.020	.02	.004	5.6	13	.14	<5
11...	--	--	--	--	14	.13	<5
18...	--	--	--	--	19	.13	<5
25...	<.020	.02	<.003	--	13	.14	<5
MAY							
02...	--	--	--	--	14	.14	<5
09...	--	--	--	--	16	.12	<5
16...	<.020	<.01	<.003	6.6	16	.12	<5
23...	--	--	--	--	16	.13	<5
30...	--	--	--	--	18	.12	<5

14138960 COUGAR CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN								
06...	1215	12	15	7.1	10.0	2	2	2
13...	1240	41	14	6.9	7.0	3	1	4
20...	1325	51	13	7.0	8.0	2	<1	2
27...	1220	20	16	7.2	8.8	1	2	<1
JUL								
04...	1230	7.0	17	7.2	13.5	1	4	20
11...	1140	5.0	20	7.2	10.0	2	3	2
18...	1225	3.4	19	7.2	13.2	<1	4	6
25...	1240	2.5	20	7.2	14.0	2	--	2
AUG								
01...	1405	1.9	21	7.1	15.0	1	6	2
05...	1500	2.0	22	7.2	15.6	--	--	--
08...	1333	1.4	22	7.2	17.7	3	11	10
11...	1500	1.4	23	7.3	19.0	--	--	--
15...	1145	1.3	24	7.2	15.3	3	11	6
22...	1205	1.2	23	7.2	13.8	1	14	2
29...	1210	1.1	24	7.2	12.2	2	10	6
SEP								
05...	0951	1.3	24	7.2	11.2	1	12	5
11...	1110	1.0	24	6.6	11.1	--	--	--
12...	1210	1.0	24	7.1	14.0	1	10	6
19...	1200	1.3	24	7.1	13.0	8	26	14
26...	0852	1.9	23	7.0	9.5	8	29	26

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
06...	<.020	.03	<.003	7.1	15	.14	<5
13...	--	--	--	--	14	.14	<5
20...	--	--	--	--	16	.17	<5
27...	<.020	.01	<.003	7.2	10	.13	<5
JUL							
04...	--	--	--	--	17	.15	<5
11...	--	--	--	--	24	.12	<5
18...	<.020	.03	<.003	8.6	20	.15	<5
25...	--	--	--	--	23	.15	<5
AUG							
01...	--	--	--	--	23	.13	<5
05...	.130	.15	<.010	9.8	22	.40	--
08...	<.020	.09	<.003	9.7	20	.13	<5
11...	--	--	--	--	--	--	--
15...	--	--	--	--	26	.17	<5
22...	--	--	--	--	22	.15	<5
29...	<.020	.09	.010	10	26	.17	<5
SEP							
05...	--	--	--	--	21	.11	<5
11...	--	--	--	--	--	--	--
12...	--	--	--	--	20	.18	<5
19...	<.020	.08	<.003	11	26	.12	<5
26...	--	--	--	--	20	.17	<5

14138990 BEAR CREEK NEAR BULL RUN, OR

LOCATION.--Lat 45°29'18", long 122°04'58", in NW¼NW¼ sec.16, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, at culvert on Forest Service road S10, 400 ft (122 m) upstream from Bull Run Reservoir Number One, and 8.3 mi (13.4 km) northeast of Bull Run.

DRAINAGE AREA.--1.68 mi² (4.35 km²).

PERIOD OF RECORD.--Chemical analyses: October 1977 to current year.

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and reviewed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
04...	1230	1.3	22	7.1	11.0	1	15	2
11...	1220	1.1	21	7.2	10.0	1	13	4
18...	1225	1.1	21	7.1	8.0	1	4	<1
25...	1220	1.3	22	7.2	8.0	<1	7	2
NOV								
01...	1200	1.5	24	7.1	9.0	1	28	2
08...	1130	30	20	7.0	9.0	8	7	12
15...	1210	6.9	21	7.1	6.5	2	2	2
22...	1150	12	20	7.1	7.0	<1	<1	2
29...	1205	23	21	7.0	7.0	2	2	2
DEC								
03...	1335	--	24	7.2	--	--	--	--
06...	1110	20	20	7.0	5.0	3	1	2
13...	1140	7.9	20	7.0	5.0	1	<1	<1
20...	1150	5.8	18	7.0	6.5	<1	3	<1
27...	1215	56	16	7.0	8.0	20	<1	20
JAN								
03...	1150	8.8	17	7.1	6.5	<1	<1	<1
11...	1210	3.2	16	7.1	6.0	<1	1	2
17...	1220	2.2	15	7.1	4.5	<1	1	1
24...	1225	3.0	16	7.1	6.0	<1	<1	2
31...	1225	3.2	15	7.1	5.5	<1	<1	<1
FEB								
07...	1106	2.5	16	7.0	3.4	<1	<5	1
14...	1140	7.5	15	7.1	6.0	1	<1	<1
21...	1200	25	14	7.0	6.5	1	1	<1
28...	1200	8.8	15	7.1	6.0	1	<1	1
MAR								
07...	1200	4.3	15	7.1	5.0	<1	<1	1
14...	1215	2.2	15	7.1	7.0	<1	<1	<1
21...	1225	1.7	15	7.1	6.5	<1	<1	<1
28...	1220	2.7	15	7.1	6.3	<1	<1	<1
APR								
04...	1205	12	15	7.1	6.5	<1	<1	<1
11...	1009	20	15	7.0	4.5	2	<1	6
18...	1235	8.8	15	7.1	8.0	<1	--	1
25...	1014	17	14	6.9	5.4	<1	2	2
MAY								
02...	1150	6.6	15	7.0	7.0	<1	0	1
09...	1220	8.2	15	7.1	7.0	2	2	2
16...	1220	6.3	15	7.1	6.5	2	<1	<1
23...	1215	5.3	16	7.1	9.0	1	<1	<1
30...	1230	4.8	15	7.1	8.8	1	4	4
JUN								
06...	1230	4.1	15	7.1	10.2	13	7	6
13...	1250	16	15	6.9	7.0	5	7	4
20...	1300	24	14	7.0	8.0	7	7	6

14138990 BEAR CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
OCT							
04...	<.020	.03	<.003	8.8	17	.13	<5
11...	--	--	--	--	19	.11	<5
18...	--	--	--	--	29	.12	<5
25...	<.020	.03	<.003	8.4	23	.15	<5
NOV							
01...	--	--	--	--	20	.14	<5
08...	--	--	--	--	22	.44	5
15...	--	--	--	--	24	.29	<5
22...	<.020	.03	<.003	7.6	16	.18	<5
29...	--	--	--	--	31	.50	5
DEC							
03...	--	--	--	--	--	.91	<5
06...	--	--	--	--	18	.16	<5
13...	<.020	.03	.020	7.3	23	.16	<5
20...	--	--	--	--	18	.20	<5
27...	--	--	--	--	17	.41	<5
JAN							
03...	<.020	.03	<.003	7.0	16	.20	<5
11...	--	--	--	--	9	.13	<5
17...	--	--	--	--	46	.14	<5
24...	<.020	.05	.006	7.6	21	.11	5
31...	--	--	--	--	20	.10	<5
FEB							
07...	--	--	--	--	14	.07	<5
14...	--	--	--	--	16	.18	<5
21...	<.020	.03	<.003	6.5	17	.20	<5
28...	--	--	--	--	20	.20	<5
MAR							
07...	--	--	--	--	14	.17	<5
14...	<.020	<.01	<.003	4.6	17	.11	<5
21...	--	--	--	--	13	.15	<5
28...	--	--	--	--	17	.12	<5
APR							
04...	<.020	.02	.004	6.7	14	.16	5
11...	--	--	--	--	16	.20	<5
18...	--	--	--	--	18	.13	<5
25...	<.020	.01	<.003	--	14	.16	<5
MAY							
02...	--	--	--	--	14	.14	<5
09...	--	--	--	--	17	.16	<5
16...	<.020	.01	<.003	7.4	17	.17	<5
23...	--	--	--	--	16	.15	<5
30...	--	--	--	--	19	.15	<5
JUN							
06...	<.020	.02	<.003	7.6	16	.14	<5
13...	--	--	--	--	15	.19	<5
20...	--	--	--	--	32	.19	<5

SANDY RIVER BASIN

14138990 BEAR CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN								
27...	1230	8.2	19	7.1	8.2	1	2	<1
JUL								
04...	1235	2.8	16	7.1	12.5	1	2	4
11...	1150	1.8	18	7.1	10.0	1	5	<1
18...	1240	1.3	17	7.2	13.0	2	9	<1
25...	1250	.96	17	7.2	13.0	3	--	8
AUG								
01...	1414	.69	18	7.1	14.0	4	13	4
08...	1340	.57	19	7.1	16.8	6	13	18
15...	1155	.47	20	7.2	15.0	9	28	12
22...	1220	.39	19	7.2	13.0	9	15	6
29...	1220	.32	20	7.1	12.2	2	18	54
SEP								
05...	0959	.32	19	7.1	11.8	3	13	4
12...	1220	.32	19	7.2	14.0	1	22	6
19...	1210	.39	20	7.1	13.2	15	42	28
26...	0901	.52	19	7.1	9.2	9	22	20

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
27...	<.020	.01	<.003	7.1	11	.12	< 5
JUL							
04...	--	--	--	--	15	.14	< 5
11...	--	--	--	--	21	.14	< 5
18...	<.020	.02	<.003	7.8	18	.15	< 5
25...	--	--	--	--	20	.16	< 5
AUG							
01...	--	--	--	--	29	.13	< 5
08...	<.020	.03	<.003	8.5	27	.13	< 5
15...	--	--	--	--	23	.14	< 5
22...	--	--	--	--	19	.15	< 5
29...	<.020	.03	<.003	8.6	22	.17	< 5
SEP							
05...	--	--	--	--	19	.12	< 5
12...	--	--	--	--	17	.16	< 5
19...	<.020	.04	<.003	9.1	22	.15	< 5
26...	--	--	--	--	17	.31	< 5

14139000 BULL RUN RESERVOIR NUMBER ONE NEAR BULL RUN, OR

LOCATION.--Lat 45°28'50", long 122°04'50", in NW¼SW¼ 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 (13.2 km) northeast of Bull Run, and at mile 11.2 (18.0 km).

DRAINAGE AREA.--74.6 mi² (193.0 km²).

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, nonrecording gage, Oct. 9, 1930, to Sept. 30, 1962, water-stage recorder at present site and datum, and Oct. 1, 1962, to Dec. 31, 1975, nonrecording gage 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 (33.2 hm³) at crest of spillway, elevation, 1,036.0 ft (315.77 m); capacity increased in October 1954 to 30,140 acre-ft (37.2 hm³) at elevation 1,044.0 ft (318.21 m) by installation of three gates 40 ft (12 m) wide and 8 ft (2.4 m) 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 (39.0 hm³) Mar. 31, 1931, elevation, 1,047.40 ft (319.248 m); minimum observed, 169 acre-ft (208,000 m³) Jan. 10, 1960, elevation, 887.5 ft (270.51 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,580 acre-ft (37.7 hm³) Mar. 31, elevation, 1,045.03 ft (318.525 m); minimum, 9,190 acre-ft (11.3 hm³) Sept. 16, elevation, 975.85 ft (297.439 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1004.12	993.76	1037.21	1037.21	1036.80	1037.10	1043.78	1041.89	1041.57	1039.66	1031.79	985.53
2	1004.02	995.48	1040.52	1037.03	1036.77	1037.05	1043.44	1042.15	1041.53	1039.01	1031.71	985.26
3	1003.80	997.50	1040.10	1036.93	1036.72	1037.02	1043.53	1042.18	1041.92	1038.42	1031.57	984.82
4	1002.69	999.18	1038.30	1036.80	1036.71	1037.04	1042.80	1041.98	1041.96	1037.90	1030.73	984.40
5	1001.24	1000.63	1037.68	1036.72	1036.70	1036.98	1042.50	1042.08	1041.71	1037.47	1028.97	984.01
6	1000.16	1006.31	1037.41	1036.69	1036.69	1036.95	1042.49	1042.17	1042.59	1037.19	1027.01	983.55
7	999.60	1021.66	1037.16	1036.66	1036.68	1036.94	1042.51	1042.17	1043.26	1037.42	1024.90	982.83
8	999.00	1037.39	1036.93	1036.56	1036.67	1036.84	1043.92	1041.69	1043.21	1034.82	1022.71	982.04
9	998.40	1038.65	1036.80	1036.53	1036.67	1036.82	1043.94	1041.80	1040.05	1033.17	1020.52	981.16
10	997.75	1037.72	1036.79	1036.48	1036.56	1036.80	1043.51	1041.76	1041.99	1032.05	1018.30	980.32
11	997.13	1037.25	1036.75	1036.45	1037.07	1036.77	1043.40	1041.77	1041.44	1030.93	1016.07	979.44
12	996.67	1036.97	1036.73	1036.45	1037.81	1036.75	1042.83	1042.02	1041.46	1029.72	1013.81	978.61
13	996.76	1036.76	1036.72	1035.41	1038.26	1036.30	1042.39	1042.17	1041.70	1029.20	1011.54	977.70
14	996.82	1036.74	1036.71	1033.34	1038.43	1035.25	1042.30	1042.26	1040.99	1028.57	1009.19	976.84
15	996.73	1036.70	1036.77	1031.25	1039.22	1034.50	1042.43	1042.29	1041.23	1027.74	1006.91	975.90
16	996.61	1036.63	1036.90	1030.83	1040.03	1034.82	1042.70	1042.17	1041.42	1026.82	1004.63	976.17
17	996.41	1036.66	1036.90	1031.78	1039.72	1035.59	1042.53	1041.79	1040.93	1025.93	1002.28	976.20
18	996.20	1036.78	1036.76	1032.73	1041.94	1035.37	1042.52	1041.85	1042.16	1024.95	999.93	976.21
19	995.98	1036.80	1036.70	1033.58	1039.82	1034.61	1042.65	1041.94	1041.29	1024.17	997.54	976.21
20	995.75	1036.75	1037.31	1034.49	1038.57	1034.09	1042.46	1041.92	1039.95	1024.91	995.57	976.21
21	995.51	1038.69	1038.22	1035.73	1038.01	1033.85	1042.39	1042.00	1039.91	1025.58	994.77	980.18
22	995.24	1037.69	1040.63	1036.29	1037.71	1033.79	1042.31	1041.94	1040.56	1026.29	994.35	981.34
23	994.95	1037.38	1038.53	1036.50	1037.49	1033.75	1042.04	1041.72	1040.65	1026.97	993.95	982.21
24	994.73	1037.12	1041.01	1036.66	1037.61	1033.73	1042.31	1041.92	1040.81	1027.61	993.52	982.92
25	994.65	1036.95	1043.85	1036.56	1037.49	1035.12	1041.65	1042.98	1041.02	1028.25	993.07	983.66
26	994.67	1036.87	1039.41	1037.06	1037.57	1036.21	1041.51	1042.05	1041.25	1028.89	992.65	984.77
27	994.55	1037.42	1038.78	1036.95	1037.28	1037.30	1041.67	1041.90	1041.21	1029.45	991.69	987.84
28	994.11	1037.18	1037.95	1036.81	1037.22	1038.35	1041.91	1041.79	1040.95	1029.98	990.00	989.40
29	993.51	1038.17	1037.83	1036.99	---	1039.93	1042.03	1041.67	1040.53	1030.56	988.31	991.98
30	992.70	1037.51	1037.74	1036.93	---	1042.85	1042.28	1041.72	1040.08	1031.13	986.77	993.50
31	992.59	---	1037.43	1036.89	---	1044.59	---	1041.59	---	1031.65	985.73	---
MEAN	997.20	1029.04	1038.02	1035.72	1037.79	1036.55	1042.62	1041.98	1041.31	1030.85	1007.44	982.04
MAX	1004.12	1038.69	1043.85	1037.21	1041.94	1044.59	1043.94	1042.98	1043.26	1039.66	1031.79	993.50
MIN	992.59	993.76	1036.70	1030.83	1036.56	1033.73	1041.51	1041.59	1039.91	1024.17	985.73	975.90
(†)	13020	27520	27490	27280	27410	30400	29420	29140	28530	25290	11350	13250
(‡)	-3160	+14500	-30	-210	+130	+2990	-980	-280	-610	-3240	-13940	+1900

CAL YR 1980 MEAN 1030.24 MAX 1045.95 MIN 992.59 AC-FT‡ -210
WTR YR 1981 MEAN 1026.65 MAX 1044.59 MIN 975.90 AC-FT‡ -2930

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

14139510 FIVEMILE CREEK NEAR BULL RUN, OR

LOCATION.--Lat 45°28'57", long 122°05'25", in SW¼NE¼ sec.17, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, at culvert on Forest Service road S10, 800 ft (244 m) upstream from Bull Run Reservoir Number Two, and 7.9 mi (12.7 km) northeast of Bull Run.

DRAINAGE AREA.--0.79 mi² (2.05 km²).

PERIOD OF RECORD.--Chemical analyses: October 1977 to current year.

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and reviewed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)
OCT							
04...	1250	.30	22	7.0	12.0	3	7
11...	1240	.23	23	7.0	10.5	1	4
18...	1250	.23	22	7.0	8.0	<1	2
25...	1245	.23	23	7.0	9.0	1	8
NOV							
01...	1320	.46	26	7.0	9.5	<1	14
08...	1200	10	22	7.0	9.5	2	12
15...	1250	4.6	22	7.1	7.0	<1	<1
22...	1240	4.9	22	7.0	7.0	1	2
29...	1240	8.4	22	7.0	8.0	3	3
DEC							
06...	1140	7.4	21	7.2	6.0	<1	1
13...	1210	1.7	21	7.0	6.0	<1	<1
20...	1230	1.7	19	7.0	7.0	<1	3
27...	1250	16	16	7.0	8.5	<1	<1
JAN							
03...	1230	3.3	18	7.0	7.5	<1	<1
11...	1240	1.0	17	7.0	6.5	<1	<1
17...	1300	.66	16	7.0	5.0	<1	<1
24...	1250	1.4	17	7.0	6.5	<1	1
31...	1310	1.9	16	7.0	6.0	1	<1
FEB							
07...	1131	1.2	16	6.9	5.0	<1	<1
14...	1230	3.3	16	7.1	6.5	<1	1
21...	1240	8.4	15	7.1	7.0	<1	<1
28...	1240	4.6	15	7.1	6.5	<1	<1
MAR							
07...	1240	2.2	15	7.0	5.8	1	<1
14...	1245	.91	16	7.0	7.0	1	<1
21...	1300	--	16	7.0	7.0	<1	<1
28...	1300	1.2	16	7.0	6.9	<1	<1
APR							
04...	1240	6.5	15	7.0	7.0	<1	<1
11...	1032	8.4	15	7.0	5.6	<1	<1
18...	1316	3.5	16	7.0	8.0	1	--
25...	1031	4.9	15	7.1	6.7	<1	1
MAY							
02...	1230	1.9	16	7.0	7.5	<1	8
09...	1310	3.0	16	7.0	7.8	<1	1
16...	1300	3.0	16	7.0	7.0	1	1
23...	1245	2.6	17	7.0	9.2	1	1
30...	1305	2.6	17	7.1	9.0	<1	5
JUN							
06...	1315	1.5	17	7.0	9.6	1	3
13...	1320	6.5	16	7.0	8.0	2	1
20...	1405	7.6	16	7.0	8.9	2	4
27...	1300	2.8	17	7.0	9.0	1	1

14139510 FIVEMILE CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	TURBIDITY (NTU)	COLOR (PLATINUM-COBALT UNITS)
OCT							
04...	<1	<.020	.03	<.003	9.4	.16	<5
11...	<1	--	--	--	--	.12	<5
18...	4	--	--	--	--	.14	<5
25...	<1	<.020	.03	<.003	9.0	.12	<5
NOV							
01...	4	--	--	--	--	.17	<5
08...	8	--	--	--	--	.50	5
15...	<1	--	--	--	--	.17	<5
22...	<1	<.020	.02	<.003	8.1	.20	<5
29...	2	--	--	--	--	.54	5
DEC							
06...	2	--	--	--	--	.19	<5
13...	2	<.020	.03	<.003	7.7	.16	<5
20...	<1	--	--	--	--	.28	<5
27...	<1	--	--	--	--	.40	<5
JAN							
03...	<1	<.020	.03	<.003	7.5	.20	<5
11...	1	--	--	--	--	.12	<5
17...	<1	--	--	--	--	.17	<5
24...	1	<.020	--	<.003	7.8	.18	<5
31...	<1	--	--	--	--	.13	<5
FEB							
07...	2	--	--	--	--	.09	<5
14...	<1	--	--	--	--	.20	<5
21...	<1	<.020	.03	<.003	7.3	.20	<5
28...	<1	--	--	--	--	.18	<5
MAR							
07...	<1	--	--	--	--	.15	<5
14...	<1	<.020	<.01	<.003	5.1	.17	<5
21...	<1	--	--	--	--	.14	<5
28...	<1	--	--	--	--	.14	<5
APR							
04...	<1	<.020	.02	.005	6.8	.24	<5
11...	<1	--	--	--	--	.26	<5
18...	1	--	--	--	--	.18	<5
25...	1	<.020	.04	<.003	--	.16	<5
MAY							
02...	<1	--	--	--	--	.19	<5
09...	<1	--	--	--	--	.19	<5
16...	2	<.020	.02	<.003	7.6	.18	<5
23...	2	--	--	--	--	.20	<5
30...	2	--	--	--	--	.20	<5
JUN							
06...	<1	<.020	.01	<.003	8.2	.17	<5
13...	4	--	--	--	--	.20	<5
20...	4	--	--	--	--	.25	<5
27...	<1	<.020	.02	<.003	7.8	.17	<5

14139510 FIVEMILE CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)
JUL							
04...	1310	.91	17	7.0	13.0	5	6
11...	1220	.66	19	7.0	10.0	2	1
18...	1310	.38	18	7.1	13.0	9	3
25...	1330	.38	19	7.0	12.6	6	--
AUG							
01...	1430	.23	20	6.9	13.2	8	12
08...	1400	.14	21	7.0	16.0	3	13
15...	1225	.10	23	7.0	15.5	5	16
22...	1245	.08	21	7.0	13.6	3	12
29...	1245	.08	20	7.2	12.5	7	8
SEP							
05...	1012	.10	21	7.0	12.1	4	4
12...	1240	.04	21	7.0	13.5	26	7
19...	1230	.08	22	7.0	13.0	16	18
26...	0916	.14	19	7.0	9.1	11	15

DATE	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUL							
04...	<1	--	--	--	--	.19	<5
11...	<1	--	--	--	--	.17	<5
18...	14	<.020	.02	<.003	8.6	.20	<5
25...	3	--	--	--	--	.25	<5
AUG							
01...	18	--	--	--	--	.13	<5
08...	6	<.020	.08	<.003	9.5	.17	<5
15...	10	--	--	--	--	.14	<5
22...	<1	--	--	--	--	.17	<5
29...	14	<.020	.07	<.003	9.5	.19	<5
SEP							
05...	5	--	--	--	--	.12	<5
12...	30	--	--	--	--	.17	<5
19...	26	<.020	.08	<.003	10	.18	<5
26...	20	--	--	--	--	.24	5

14139600 CAMP CREEK NEAR BULL RUN, OR

LOCATION.--Lat 45°27'41", long 122°06'13", in SW¼SW¼ sec.20, T.1 S., R.6 E., Multnomah County, Hydrologic Unit 17080001, Mount Hood National Forest, 15 ft (4.6 m) downstream from falls at confluence with West Branch of Camp Creek, 0.3 mi (0.5 km) upstream from Bull Run Reservoir Number Two, and 6.6 mi (10.6 km) northeast of Bull Run.

DRAINAGE AREA.--3.27 mi^2 (8.47 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1977 to current year.

COOPERATION.--Chemical data were analyzed by the City of Portland Water Quality Laboratory and reviewed by the U.S. Geological Survey.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
05...	1030	1.4	29	7.2	11.5	1	7	4
12...	1050	2.0	26	7.2	10.0	27	33	14
19...	1110	1.3	26	7.2	8.0	1	3	<1
23...	1030	23	20	7.1	9.0	11	4	34
26...	1120	2.2	28	7.2	8.0	--	--	--
NOV								
02...	1150	2.5	27	7.3	9.0	1	2	<1
09...	1115	94	22	7.1	8.5	4	7	22
16...	1030	16	23	7.1	6.0	1	2	4
23...	1140	28	25	7.1	7.0	1	1	4
30...	1120	41	23	7.1	7.0	<1	1	<1
DEC								
06...	1315	44	22	7.1	6.0	1	1	<1
14...	1040	12	22	7.1	6.0	--	--	--
21...	1125	18	21	7.1	7.0	<1	1	<1
28...	1205	65	17	7.0	7.5	<1	1	4
JAN								
04...	1235	16	20	7.2	7.0	--	--	--
10...	1000	7.7	19	7.2	6.0	<1	<1	<1
18...	1115	4.4	19	7.2	5.5	1	--	8
25...	1115	6.8	19	7.2	6.0	--	--	--
FEB								
01...	1200	14	18	7.1	5.0	<1	<1	<1
08...	1108	7.7	19	7.2	3.8	1	1	2
15...	1220	20	18	7.1	6.0	<1	1	1
22...	1220	37	17	7.1	6.2	1	<1	4
MAR								
01...	1110	18	18	7.2	6.0	<1	1	<1
08...	1115	9.3	19	7.2	5.5	1	<1	<1
15...	1225	5.6	18	7.2	7.0	<1	<1	<1
22...	1130	4.6	19	7.2	7.0	<1	<1	<1
29...	1025	11	18	7.2	7.0	<1	<1	<1
APR								
05...	1050	29	17	7.1	6.0	1	<1	2
12...	1021	38	18	7.1	5.0	1	<1	1
19...	1130	18	18	7.2	7.0	<1	<1	<1
26...	0845	22	19	7.2	6.4	--	--	--
MAY								
03...	1210	8.2	19	7.2	7.5	<1	4	1
10...	1235	13	19	7.2	7.0	<1	1	<1
17...	1315	13	19	7.2	7.6	<1	1	<1
24...	1200	14	20	7.2	9.0	<1	<1	2
31...	1240	11	19	7.2	9.5	1	1	2
JUN								
07...	1130	18	19	7.2	8.0	5	6	8
14...	1115	23	19	7.2	7.9	<1	<1	4
21...	1245	35	18	7.2	8.9	2	<1	<1

14139600 CAMP CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
OCT							
05...	<.020	.04	<.003	11	22	.17	<5
12...	--	--	--	--	26	.25	<5
19...	--	--	--	--	32	.15	<5
23...	--	--	--	--	20	.37	10
26...	<.020	.05	<.003	10	27	.49	5
NOV							
02...	--	--	--	--	25	.24	<5
09...	--	--	--	--	23	.49	10
16...	--	--	--	--	27	.22	<5
23...	<.020	.04	<.003	9.0	19	.59	<5
30...	--	--	--	--	29	.25	<5
DEC							
06...	--	--	--	--	22	.22	<5
14...	<.020	.04	<.003	9.2	23	.15	<5
21...	--	--	--	--	23	.34	5
28...	--	--	--	--	21	.30	<5
JAN							
04...	<.020	.03	<.003	8.5	20	.26	<5
10...	--	--	--	--	18	.17	<5
18...	--	--	--	--	36	.16	<5
25...	<.020	.05	<.003	9.2	23	.20	<5
FEB							
01...	--	--	--	--	22	.16	<5
08...	--	--	--	--	17	.11	<5
15...	--	--	--	--	22	.32	<5
22...	<.020	.03	.003	8.0	20	.25	<5
MAR							
01...	--	--	--	--	21	.20	<5
08...	--	--	--	--	15	.16	<5
15...	<.020	.04	<.003	6.0	22	.26	<5
22...	--	--	--	--	19	.18	<5
29...	--	--	--	--	18	.21	<5
APR							
05...	<.020	.01	.005	7.2	17	.28	5
12...	--	--	--	--	17	.17	<5
19...	--	--	--	--	22	.19	<5
26...	<.020	.02	<.003	--	18	.14	<5
MAY							
03...	--	--	--	--	19	.25	<5
10...	--	--	--	--	21	.13	<5
17...	<.020	.02	<.003	8.4	19	.21	<5
24...	--	--	--	--	21	.32	<5
31...	--	--	--	--	23	.23	<5
JUN							
07...	<.020	.03	<.003	8.6	23	.68	<5
14...	--	--	--	--	20	.36	<5
21...	--	--	--	--	24	.18	<5

14139600 CAMP CREEK NEAR BULL RUN, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN								
28...	1205	11	19	7.3	10.0	<1	1	<1
JUL								
05...	1050	5.2	21	7.3	12.0	1	7	2
12...	1300	3.3	22	7.3	11.0	2	2	<1
19...	1250	2.1	21	7.3	13.0	2	3	2
26...	1240	1.8	33	7.3	14.0	2	6	<1
AUG								
02...	1250	1.4	23	7.3	12.0	6	16	10
08...	1135	1.2	25	7.4	16.0	4	12	4
16...	1115	1.1	27	7.4	14.7	7	7	6
23...	1145	1.0	25	7.4	13.3	3	6	6
30...	1120	.97	25	7.4	12.6	67	46	86
SEP								
05...	0846	.97	24	7.3	11.7	2	26	2
13...	1120	.70	25	7.4	12.0	2	44	2
20...	1140	.80	25	7.4	11.8	1	15	4
26...	1032	1.8	24	7.2	9.2	10	12	14

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
28...	<.020	.02	<.003	9.0	14	.15	<5
JUL							
05...	--	--	--	--	20	.19	<5
12...	--	--	--	--	23	.16	<5
19...	<.020	.02	<.003	10	23	.21	<5
26...	--	--	--	--	25	.24	<5
AUG							
02...	--	--	--	--	24	.26	<5
08...	<.020	.07	.008	11	23	.29	<5
16...	--	--	--	--	27	.24	<5
23...	--	--	--	--	26	.22	<5
30...	<.020	.12	<.003	11	27	.30	<5
SEP							
05...	--	--	--	--	24	.11	<5
13...	--	--	--	--	23	.19	<5
20...	<.020	.04	<.003	11	26	.22	<5
26...	--	--	--	--	24	.26	<5

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 (9.3 km) north of Brightwood and at mile 2.5 (4.0 km).

DRAINAGE AREA.--7.93 mi² (20.54 km²).

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

GAGE.--Water-stage recorder. Altitude of gage is 1,960 ft (597 m), from topographic map.

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

AVERAGE DISCHARGE.--16 years, 68.0 ft³/s (1.926 m³/s), 116.45 in/yr (2,958 mm/yr), 49,270 acre-ft/yr (60.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s (56.4 m³/s) Dec. 22, 1964, gage height, 7.20 ft (2.195 m), from rating curve extended above 320 ft³/s (9.06 m³/s) on basis of slope-area measurement of peak flow; minimum, 6.9 ft³/s (0.20 m³/s) Oct. 9-13, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	0630	759	21.5	3.91	1.192	Feb. 18	2100	793	22.5	3.97	1.210
Dec. 22	2200	687	19.5	3.78	1.152	June 8	2400	889	25.2	4.16	1.268
Dec. 25	2130	*1,300	36.8	*5.02	1.530						

Minimum, 8.6 ft³/s (0.24 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	19	74	61	33	44	136	50	34	29	15	16
2	14	26	395	49	30	39	104	49	31	26	15	13
3	13	29	615	42	29	38	126	46	30	25	15	12
4	13	25	237	38	26	41	89	52	57	23	15	11
5	12	20	114	33	25	37	93	57	61	22	14	11
6	12	87	77	30	24	34	84	56	112	22	14	11
7	11	224	56	28	23	32	81	95	123	38	14	10
8	11	254	45	26	22	30	195	72	496	29	14	10
9	10	254	38	25	22	29	181	64	450	24	14	10
10	10	131	37	23	21	28	104	53	188	23	14	10
11	10	77	34	22	34	26	96	53	110	22	13	9.7
12	13	53	32	21	76	25	81	46	89	21	13	9.7
13	22	41	32	20	96	25	71	40	93	25	13	9.3
14	16	38	33	19	123	24	71	47	74	22	13	9.3
15	14	41	38	18	152	25	77	72	60	21	13	8.9
16	12	33	42	18	350	34	98	66	102	20	13	8.9
17	12	30	40	18	278	28	87	56	84	19	13	8.9
18	11	39	36	20	551	25	87	67	123	19	12	8.9
19	11	36	32	18	463	25	86	67	344	18	13	12
20	10	33	53	18	219	24	81	58	164	18	13	10
21	10	100	100	24	123	25	100	69	102	18	13	18
22	10	112	457	20	87	32	199	60	123	17	12	15
23	9.7	76	297	23	71	31	173	52	91	17	12	13
24	9.7	61	339	38	89	30	173	66	69	17	12	11
25	14	48	934	31	72	64	104	100	56	17	12	13
26	21	42	518	64	63	49	79	77	47	16	11	22
27	19	67	254	66	57	46	67	63	40	16	11	48
28	14	72	133	54	49	41	64	53	37	16	11	27
29	13	158	98	46	---	54	58	46	33	16	11	36
30	12	106	118	40	---	106	54	41	31	16	14	22
31	12	---	77	36	---	228	---	37	---	15	12	---
TOTAL	397.4	2332	5385	989	3208	1319	3099	1830	3454	647	404	434.6
MEAN	12.8	77.7	174	31.9	115	42.5	103	59.0	115	20.9	13.0	14.5
MAX	22	254	934	66	551	228	199	100	496	38	15	48
MIN	9.7	19	32	18	21	24	54	37	30	15	11	8.9
CFSM	1.61	9.80	21.9	4.02	14.5	5.36	13.0	7.44	14.5	2.64	1.64	1.83
IN.	1.86	10.94	25.26	4.64	15.05	6.19	14.54	8.58	16.20	3.03	1.89	2.04
AC-FT	788	4630	10680	1960	6360	2620	6150	3630	6850	1280	801	862

CAL YR 1980	TOTAL 24374.1	MEAN 66.6	MAX 934	MIN 9.7	CFSM 8.40	IN 114.33	AC-FT 48350		
WTR YR 1981	TOTAL 23499.0	MEAN 64.4	MAX 934	MIN 8.9	CFSM 8.12	IN 110.22	AC-FT 46610		

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 (10.0 km) northeast of Bull Run, and at mile 0.6 (1.0 km).

DRAINAGE AREA.--15.4 mi^2 (39.9 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 990 ft (302 m) from topographic map.

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

AVERAGE DISCHARGE.--7 years, 109 ft^3/s (3.087 m^3/s), 96.12 in/yr (2,441 mm/yr), 78,970 acre-ft/yr (97.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,520 ft^3/s (71.4 m^3/s) Dec. 2, 1977, gage height, 8.32 ft (2.536 m), from rating curve extended above 810 ft^3/s (22.9 m^3/s); minimum, 8.0 ft^3/s (0.23 m^3/s) Oct. 12, 13, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,600 ft^3/s (45.3 m^3/s) and maximum discharge, 1,750 ft^3/s (49.6 m^3/s) Dec. 25, gage height, 7.44 ft (2.268 m); minimum, 9.1 ft^3/s (0.26 m^3/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	27	164	123	67	82	211	84	55	50	20	19
2	24	41	419	104	61	72	176	79	50	45	19	17
3	22	43	627	87	55	66	196	71	45	42	19	14
4	21	41	378	75	51	71	161	78	82	39	19	13
5	18	36	225	65	48	61	155	85	101	37	19	13
6	19	137	159	58	45	55	141	88	182	35	18	12
7	18	379	121	53	42	53	133	151	196	55	18	12
8	18	436	96	48	40	49	238	135	574	45	18	11
9	17	401	80	46	39	46	271	121	589	37	17	11
10	17	255	74	42	37	43	187	100	306	35	16	11
11	16	173	69	39	48	41	169	95	211	33	16	11
12	19	125	64	37	105	38	151	82	171	32	16	11
13	32	98	62	35	133	37	133	72	168	36	16	11
14	25	86	61	33	182	35	128	78	142	33	16	10
15	21	94	67	32	200	36	133	113	121	31	15	10
16	19	77	77	30	416	48	164	121	175	29	15	9.4
17	18	71	79	30	358	40	155	107	169	28	15	9.4
18	18	83	75	32	592	37	147	118	176	27	15	9.4
19	18	79	67	30	570	36	141	125	447	26	14	14
20	17	78	91	29	332	35	129	110	278	26	15	12
21	17	151	159	37	213	35	156	121	194	25	15	21
22	16	200	444	33	163	44	262	113	194	24	14	21
23	15	159	367	37	128	43	257	98	173	24	14	16
24	15	135	392	63	145	43	246	110	141	23	14	13
25	20	113	1080	56	129	93	178	163	114	22	14	15
26	30	99	675	104	115	83	139	150	94	21	13	24
27	31	128	358	126	106	79	115	122	80	21	13	70
28	24	142	231	117	93	70	109	101	69	21	13	36
29	22	238	183	100	---	81	96	84	61	20	13	55
30	21	213	194	87	---	135	91	74	55	20	16	36
31	20	---	151	76	---	273	---	63	---	20	15	---
TOTAL	635	4338	7289	1864	4513	1960	4968	3212	5413	962	490	547.2
MEAN	20.5	145	235	60.1	161	63.2	166	104	180	31.0	15.8	18.2
MAX	32	436	1080	126	592	273	271	163	589	55	20	70
MIN	15	27	61	29	37	35	91	63	45	20	13	9.4
CFSM	1.33	9.42	15.3	3.90	10.5	4.10	10.8	6.75	11.7	2.01	1.03	1.18
IN.	1.53	10.48	17.61	4.50	10.90	4.73	12.00	7.76	13.07	2.32	1.18	1.32
AC-FT	1260	8600	14460	3700	8950	3890	9850	6370	10740	1910	972	1090

CAL YR 1980 TOTAL 40842.0 MEAN 112 MAX 1080 MIN 13 CFSM 7.27 IN 98.65 AC-FT 81010
WTR YR 1981 TOTAL 36191.2 MEAN 99.2 MAX 1080 MIN 9.4 CFSM 6.44 IN 87.42 AC-FT 71790

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.
SEDIMENT DISCHARGE: October 1978 to current year.

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

COOPERATION.--Chemical data were analyzed by the city of Portland Water Quality Laboratory and were reviewed by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 44 micromhos Sept. 16-19, 1981; minimum, 12 micromhos Dec. 4, 1979.
WATER TEMPERATURES: Maximum, 17.0°C July 18-20, 1979, Aug. 9-12, 1981; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum, 50 mg/l (estimated) Dec. 25, 1980; minimum, 0 mg/l on many days throughout each year.
SEDIMENT DISCHARGE: Maximum, 180 tons (163 tonnes) Dec. 25, 1980; minimum, 0 tons (0 tonnes) on many days throughout each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 44 micromhos Sept. 16-19; minimum, 13 micromhos Dec. 25.
pH: Maximum recorded during period November to September, 7.9 units July 28; minimum, 6.7 units Dec. 25, 26.
WATER TEMPERATURES: Maximum, 17.0°C Aug. 9-12; minimum, 1.5°C Feb. 10, 11.
SEDIMENT CONCENTRATIONS: Maximum, 50 mg/l (estimated) Dec. 25; minimum, 0 mg/l on many days throughout the year.
SEDIMENT DISCHARGE: Maximum, 180 tons (163 tonnes) Dec. 25; minimum, 0 tons (0 tonnes) on many days throughout the year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
OCT								
02...	1400	25	35	7.4	10.0	--	--	--
05...	1115	20	31	7.5	10.5	1	27	<1
12...	1125	20	36	7.5	9.5	12	3	28
19...	1150	18	37	7.4	7.0	<1	2	<1
26...	1210	30	39	7.5	7.0	--	--	--
NOV								
02...	1230	38	35	7.4	8.5	1	9	<1
05...	1500	36	30	7.2	8.4	--	--	--
09...	1135	444	23	7.1	8.0	4	9	28
16...	1100	77	27	7.3	5.0	1	1	<1
23...	1210	155	25	7.2	6.5	1	2	<1
30...	1150	217	25	7.2	6.0	1	3	<1
DEC								
03...	1345	709	27	7.0	6.6	--	--	--
06...	1335	156	24	7.0	4.0	1	<1	2
14...	1115	60	28	7.3	4.0	--	--	--
21...	1150	175	22	7.2	5.5	3	1	6
28...	1220	229	20	7.1	6.5	1	<1	4
JAN								
04...	1255	75	24	7.2	6.0	--	--	--
10...	1020	43	27	7.3	5.0	1	<1	<1
18...	1145	34	29	7.5	5.0	<1	--	<1
25...	1150	56	25	7.4	5.0	--	--	--
FEB								
01...	1225	67	23	7.3	4.5	<1	1	1
08...	1128	43	27	7.2	2.4	<1	<1	<1
15...	1255	206	19	7.2	5.0	1	1	1
22...	1035	164	19	7.2	5.0	3	1	8
MAR								
01...	1235	83	21	7.3	5.0	1	<1	1
08...	1155	49	26	7.4	5.0	1	<1	<1
15...	1250	35	29	7.5	7.0	<1	<1	<1
22...	1205	46	19	7.4	6.5	<1	<1	<1
29...	1005	80	23	7.3	6.0	1	<1	<1
APR								
05...	1120	153	20	7.2	5.0	1	1	2
12...	1037	138	21	7.2	3.7	1	<1	1
19...	1205	141	20	7.2	5.8	<1	<1	<1
26...	0905	139	20	7.3	5.6	2	<1	<1
MAY								
03...	1235	70	23	7.3	7.0	<1	1	<1
10...	1255	99	22	7.3	6.8	<1	1	<1
17...	1340	107	22	7.3	7.0	1	1	<1
24...	1240	110	23	7.4	8.8	1	1	<1
31...	1310	65	25	7.4	10.0	<1	2	<1
JUN								
07...	1205	159	21	7.2	8.0	13	5	12

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, NITRATE TOTAL (MG/L AS N)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	TURBIDITY (NTU)	COLOR (PLATINUM-COBALT UNITS)
OCT							
02...	--	--	--	--	--	--	--
05...	<.020	.04	.004	13	30	.18	<5
12...	--	--	--	--	34	.25	<5
19...	--	--	--	--	44	.20	<5
26...	<.020	.03	.004	13	35	.35	5
NOV							
02...	--	--	--	--	35	.40	15
05...	--	--	--	--	--	--	--
09...	--	--	--	--	27	.65	20
16...	--	--	--	--	32	.30	<5
23...	<.020	.04	<.003	9.3	21	.27	5
30...	--	--	--	--	32	.33	5
DEC							
03...	--	--	--	--	--	1.6	20
06...	--	--	--	--	24	.27	<5
14...	<.020	.04	<.003	11	29	.20	<5
21...	--	--	--	--	27	.59	15
28...	--	--	--	--	25	.54	5
JAN							
04...	<.020	.04	<.003	11	25	.25	<5
10...	--	--	--	--	27	.16	<5
18...	--	--	--	--	53	.14	<5
25...	<.020	.06	<.003	11	30	.19	5
FEB							
01...	--	--	--	--	26	.14	<5
08...	--	--	--	--	26	.12	<5
15...	--	--	--	--	24	.44	5
22...	<.020	.04	.004	9.2	25	.30	<5
MAR							
01...	--	--	--	--	26	.18	<5
08...	--	--	--	--	24	.15	<5
15...	<.020	<.01	<.003	9.4	29	.16	<5
22...	--	--	--	--	27	.18	<5
29...	--	--	--	--	25	.20	<5
APR							
05...	<.020	.02	.007	8.4	20	.24	<5
12...	--	--	--	--	21	.24	<5
19...	--	--	--	--	25	.20	<5
26...	<.020	.03	<.003	--	21	.21	<5
MAY							
03...	--	--	--	--	24	.20	<5
10...	--	--	--	--	25	.19	<5
17...	<.020	.02	<.003	9.0	23	.20	<5
24...	--	--	--	--	14	.21	<5
31...	--	--	--	--	28	.20	<5
JUN							
07...	<.020	.02	<.003	9.1	20	.26	<5

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, (COLS. PER 100 ML)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)
JUN								
14...	1140	142	21	7.2	7.5	3	1	4
21...	1310	113	20	7.3	8.2	3	1	4
28...	1225	69	25	7.4	10.5	1	1	4
JUL								
05...	1020	36	29	7.5	13.0	13	3	12
12...	1320	31	33	7.5	11.0	3	<1	4
15...	1400	31	33	7.3	13.0	--	--	--
19...	1355	26	32	7.6	14.2	<1	5	4
26...	1320	21	34	7.6	15.0	4	5	<1
AUG								
02...	1320	19	39	7.6	12.2	5	8	6
06...	1530	18	39	7.4	14.5	--	--	--
08...	1205	17	40	7.7	16.0	2	11	4
16...	1205	15	43	7.7	15.0	2	4	4
17...	1230	14	42	7.4	15.2	--	--	--
23...	1220	14	41	7.7	13.2	2	4	2
30...	1200	15	41	7.7	11.8	5	21	14
SEP								
05...	0908	12	42	7.6	11.0	1	7	6
13...	1210	11	42	7.7	11.8	1	3	2
16...	1300	10	43	7.2	12.4	--	--	--
20...	1205	11	40	7.7	11.0	2	5	4
26...	1052	18	38	7.6	8.7	16	13	10

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	TUR-BID-ITY (NTU)	COLOR (PLAT-INUM-COBALT UNITS)
JUN							
14...	--	--	--	--	22	.25	<5
21...	--	--	--	--	21	.30	<5
28...	<.020	.02	<.003	11	19	.20	5
JUL							
05...	--	--	--	--	28	.20	<5
12...	--	--	--	--	35	.20	<5
15...	--	--	--	--	--	--	--
19...	<.020	<.02	.004	14	33	.20	<5
26...	--	--	--	--	35	.18	<5
AUG							
02...	--	--	--	--	36	.17	<5
06...	.160	.12	<.010	15	34	.50	--
08...	<.020	.04	.008	15	34	.20	<5
16...	--	--	--	--	40	.21	<5
17...	--	--	--	--	--	--	--
23...	--	--	--	--	38	.20	<5
30...	<.020	.01	.003	16	37	.24	<5
SEP							
05...	--	--	--	--	36	.13	<5
13...	--	--	--	--	35	.20	<5
16...	--	--	--	--	--	--	--
20...	<.020	.02	<.003	16	37	.22	<5
26...	--	--	--	--	32	.17	<5

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	---	21	23	24	24	19	24	27	28	38	41
2	35	---	19	23	25	24	20	24	28	29	38	40
3	36	---	16	24	26	25	19	24	29	30	38	42
4	36	---	18	25	26	25	20	24	28	30	38	42
5	36	31	20	25	27	25	21	24	25	31	38	42
6	36	27	21	26	27	26	21	24	22	31	39	---
7	37	22	22	26	28	26	21	22	22	29	39	---
8	37	21	22	27	28	26	19	22	18	28	40	---
9	37	20	23	27	28	27	18	23	17	29	40	---
10	37	21	24	28	29	27	19	22	19	30	40	---
11	37	23	24	28	29	28	20	22	20	30	41	42
12	37	23	24	29	24	28	21	23	21	31	41	43
13	35	24	25	29	23	28	22	23	21	30	41	43
14	35	24	25	29	20	28	22	24	21	32	41	43
15	36	24	25	30	20	29	22	22	22	33	41	43
16	36	25	24	30	17	27	21	21	21	34	41	43
17	36	26	23	30	18	27	21	22	21	35	41	44
18	36	26	24	30	16	28	21	---	22	36	41	44
19	36	25	24	30	16	28	21	22	17	36	41	43
20	36	25	23	30	18	29	21	22	19	37	41	43
21	---	23	21	30	20	29	20	22	20	37	41	42
22	---	21	17	30	21	28	19	23	21	37	41	41
23	---	21	17	30	22	27	18	23	21	37	41	41
24	---	22	18	27	22	27	18	23	22	37	41	42
25	---	22	15	26	22	24	20	22	23	38	41	42
26	---	23	16	24	23	24	21	22	24	38	41	41
27	---	23	18	22	23	24	22	23	25	38	41	32
28	---	22	20	23	23	24	22	24	26	37	41	32
29	---	21	21	22	---	24	23	25	27	37	41	30
30	---	21	21	23	---	22	23	26	27	37	41	31
31	---	---	22	24	---	18	---	26	---	37	41	---
MEAN	36	23	21	27	23	26	21	23	23	34	40	40

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

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1			---	---	7.3	7.2	7.1	7.1	7.4	7.3	7.4	7.4
2			---	---	7.3	7.0	7.2	7.1	7.4	7.3	7.4	7.4
3			---	---	7.0	7.0	7.2	7.1	7.5	7.4	7.5	7.4
4			7.1	7.1	7.1	7.0	7.2	7.1	7.5	7.3	7.5	7.4
5			7.2	7.1	7.2	7.1	7.2	7.1	7.5	7.4	7.5	7.4
6			7.1	6.9	7.2	7.1	7.2	7.1	7.5	7.4	7.5	7.4
7			7.0	6.9	7.2	7.1	7.3	7.1	7.5	7.4	7.5	7.4
8			6.9	6.9	7.2	7.2	7.3	7.3	7.5	7.4	7.5	7.3
9			6.9	6.9	7.2	7.1	7.3	7.2	7.5	7.4	7.5	7.4
10			7.0	6.9	7.3	7.2	7.4	7.3	7.5	7.5	7.5	7.4
11			7.0	6.9	7.3	7.2	7.4	7.3	7.5	7.4	7.5	7.4
12			7.0	7.0	7.3	7.2	7.4	7.3	7.4	7.3	7.5	7.4
13			7.0	7.0	7.3	7.2	7.4	7.3	7.4	7.3	7.5	7.4
14			7.1	7.0	7.3	7.2	7.4	7.3	7.3	7.3	7.6	7.5
15			7.1	7.0	7.3	7.2	7.4	7.3	7.3	7.2	7.6	7.5
16			7.1	7.0	7.2	7.2	7.4	7.4	7.3	7.1	7.5	7.4
17			7.1	7.0	7.3	7.2	7.4	7.4	7.3	7.2	7.5	7.4
18			7.1	7.0	7.2	7.2	7.4	7.3	7.2	7.0	7.5	7.5
19			7.1	7.0	7.3	7.2	7.4	7.4	7.2	7.0	7.6	7.5
20			7.1	7.0	7.2	7.1	7.5	7.4	7.3	7.2	7.5	7.5
21			7.3	7.0	7.2	7.1	7.4	7.3	7.4	7.2	7.5	7.4
22			7.3	7.2	7.1	6.9	7.5	7.3	7.4	7.3	7.6	7.5
23			7.3	7.3	7.0	6.9	7.5	7.4	7.4	7.3	7.5	7.4
24			7.3	7.3	7.0	6.9	7.4	7.4	7.4	7.3	7.5	7.4
25			7.3	7.2	6.9	6.7	7.4	7.3	7.4	7.3	7.4	7.4
26			7.3	7.3	7.0	6.7	7.5	7.2	7.4	7.3	7.4	7.4
27			7.3	7.2	7.0	6.9	7.4	7.2	7.4	7.3	7.5	7.4
28			7.3	7.2	7.0	7.0	7.3	7.2	7.4	7.3	7.5	7.4
29			7.3	7.2	7.1	7.0	7.3	7.3	---	---	7.4	7.3
30			---	---	7.0	7.0	7.4	7.3	---	---	7.3	7.2
31			---	---	7.1	7.0	7.4	7.3	---	---	7.4	7.4
MONTH			7.3	6.9	7.3	6.7	7.5	7.1	7.5	7.0	7.6	7.2

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.3	7.4	7.0	7.5	7.1	7.0	6.9	7.6	7.5		
2	7.4	7.3	7.1	7.0	7.6	7.1	7.0	7.0	7.6	7.5		
3	7.3	7.3	7.1	6.8	7.6	7.1	7.0	7.0	7.5	7.4		
4	7.3	7.2	7.1	7.3	7.3	7.0	7.0	7.0	7.5	7.3		
5	7.3	7.2	7.4	7.3	7.3	7.1	---	---	7.5	7.3		
6	7.2	7.2	7.4	7.3	7.2	7.1	---	---	7.4	7.2		
7	7.2	7.2	7.3	7.2	7.2	7.0	---	---	7.4	7.3		
8	7.2	7.0	7.3	7.2	7.1	6.9	---	---	7.4	7.3		
9	7.1	7.0	7.3	7.2	7.1	6.8	---	---	7.4	7.3		
10	7.2	7.1	7.3	7.2	7.2	7.1	---	---	7.4	7.3		
11	7.2	7.1	7.4	7.2	7.3	7.2	---	---	7.5	7.4		
12	7.2	7.1	7.4	7.3	7.4	7.0	---	---	---	---		
13	7.2	7.1	7.4	7.3	---	---	---	---	---	---		
14	7.3	7.2	7.4	7.3	---	---	---	---	---	---		
15	7.2	7.1	7.4	7.3	---	---	---	---	---	---		
16	7.2	7.1	7.4	7.3	7.4	7.3	---	---	---	---		
17	7.2	7.1	7.4	7.3	7.4	7.3	---	---	---	---		
18	7.2	7.1	---	---	7.4	7.2	---	---	---	---		
19	7.2	7.1	7.4	7.3	---	---	---	---	---	---		
20	7.4	7.2	7.4	7.2	---	---	---	---	---	---		
21	7.3	7.2	7.4	7.3	---	---	7.8	7.7	---	---		
22	7.2	7.1	7.4	7.2	---	---	7.8	7.6	---	---		
23	7.2	7.1	7.4	7.2	---	---	7.7	7.6	---	---		
24	7.3	7.2	7.3	7.1	---	---	7.7	7.5	---	---		
25	7.3	7.1	7.2	7.2	---	---	7.7	7.4	---	---		
26	7.3	7.2	7.2	7.1	---	---	7.6	7.4	---	---		
27	7.3	7.2	7.2	7.1	---	---	7.6	7.4	---	---		
28	7.4	7.2	7.2	7.1	---	---	7.9	7.4	---	---		
29	7.4	7.2	7.3	7.1	---	---	7.8	7.6	---	---		
30	7.4	7.3	7.3	7.2	---	---	7.7	7.6	---	---		
31	---	---	7.4	7.1	---	---	7.7	7.4	---	---		
MONTH	7.4	7.0	7.4	6.8	7.6	6.8	7.9	6.9	7.6	7.2		

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	0	.00	2	.15	1	.44	---	.33	1	.18	0	.00
2	0	.00	1	.11	13	14	1	.28	---	.16	0	.00
3	0	.00	1	.12	8	12	1	.24	1	.15	0	.00
4	0	.00	1	.11	3	3.1	1	.20	1	.14	0	.00
5	0	.00	1	.10	1	.61	1	.18	0	.00	0	.00
6	0	.00	3	1.1	1	.43	1	.16	0	.00	0	.00
7	0	.00	6	6.1	0	.00	1	.14	0	.00	0	.00
8	0	.00	4	4.7	0	.00	1	.13	0	.00	0	.00
9	0	.00	4	4.3	0	.00	1	.12	0	.00	0	.00
10	0	.00	2	1.4	0	.00	1	.11	0	.00	0	.00
11	0	.00	1	.47	0	.00	1	.11	0	.00	1	.11
12	0	.00	1	.34	0	.00	1	.10	0	.00	2	.21
13	0	.00	1	.26	0	.00	1	.09	1	.36	1	.10
14	1	.07	0	.00	---	.00	1	.09	2	.98	1	.10
15	0	.00	0	.00	---	.00	0	.00	2	1.1	1	.10
16	0	.00	0	.00	---	.00	0	.00	7	8.3	1	.13
17	0	.00	1	.19	0	.00	0	.00	2	2.1	1	.11
18	0	.00	1	.22	0	.00	0	.00	18	34	1	.10
19	0	.00	1	.21	0	.00	0	.00	---	14	1	.10
20	1	.05	1	.21	0	.00	1	.08	2	1.8	1	.09
21	1	.04	2	1.1	1	.43	1	.10	1	.58	0	.00
22	1	.04	2	1.1	---	8.3	1	.09	0	.00	0	.00
23	1	.04	0	.00	---	2.4	2	.20	0	.00	0	.00
24	1	.04	0	.00	---	14	1	.17	0	.00	0	.00
25	1	.05	0	.00	---	180	1	.15	0	.00	0	.00
26	1	.08	0	.00	---	38	3	.84	0	.00	0	.00
27	1	.08	1	.34	---	3.0	2	.68	0	.00	0	.00
28	0	.00	1	.38	---	.62	1	.31	0	.00	0	.00
29	0	.00	2	1.3	---	.49	1	.27	---	---	0	.00
30	0	.00	1	.58	---	.52	1	.24	---	---	2	.73
31	0	.00	---	---	---	.41	1	.20	---	---	2	2.3
TOTAL	---	0.49	---	24.89	---	278.75	---	5.61	---	63.85	---	4.18

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	1	.57	1	.23	1	.15	1	.13	1	.05	1	.05
2	0	.00	1	.21	1	.13	1	.12	0	.00	1	.05
3	0	.00	1	.19	2	.25	1	.11	0	.00	0	.00
4	0	.00	1	.21	2	.44	1	.11	0	.00	0	.00
5	0	.00	2	.46	2	.55	1	.10	0	.00	0	.00
6	0	.00	2	.48	3	1.5	1	.10	1	.05	0	.00
7	0	.00	3	1.2	2	1.1	1	.15	1	.05	0	.00
8	2	1.3	2	.73	14	22	1	.12	1	.05	0	.00
9	1	.73	1	.33	13	22	1	.10	1	.05	0	.00
10	0	.00	1	.27	3	2.5	1	.09	0	.00	0	.00
11	0	.00	1	.26	2	1.1	1	.09	0	.00	1	.03
12	0	.00	1	.22	1	.46	1	.09	1	.04	1	.03
13	0	.00	1	.19	1	.45	1	.10	1	.04	2	.06
14	2	.69	2	.42	1	.38	1	.09	1	.04	2	.06
15	2	.72	2	.61	1	.33	2	.17	1	.04	2	.05
16	1	.44	1	.33	2	.94	1	.08	0	.00	1	.03
17	1	.42	1	.29	2	.91	1	.08	0	.00	1	.03
18	1	.40	1	.32	2	.95	1	.07	0	.00	0	.00
19	0	.00	1	.34	6	6.8	1	.07	0	.00	0	.00
20	1	.35	1	.30	2	1.5	1	.07	0	.00	0	.00
21	1	.42	1	.33	2	1.0	1	.07	0	.00	0	.00
22	4	2.6	1	.30	2	1.0	1	.07	0	.00	1	.06
23	1	.69	1	.26	2	.93	1	.06	0	.00	0	.00
24	2	1.3	1	.30	2	.76	0	.00	0	.00	0	.00
25	2	.96	1	.44	2	.62	0	.00	0	.00	0	.00
26	2	.75	1	.40	2	.51	1	.06	0	.00	0	.00
27	1	.31	1	.33	2	.43	1	.06	0	.00	2	.48
28	1	.29	1	.27	1	.19	1	.06	0	.00	0	.00
29	1	.26	1	.23	1	.16	1	.05	0	.00	1	.15
30	1	.24	1	.20	1	.15	1	.05	0	.00	0	.00
31	---	---	1	.17	---	---	1	.05	0	.00	---	---
TOTAL	---	13.44	---	10.82	---	70.19	---	2.57	---	0.41	---	1.08

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 south tower 0.3 mi (0.5 km) above headworks dam on Bull Run River, 4.4 mi (7.1 km) northeast of Bull Run, and at mile 6.5 (10.5 km).

DRAINAGE AREA.--102 mi² (264 km²).

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.--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 (25.8 hm³) at crest of spillway, elevation, 860.0 ft (262.13 m). 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 (29.2 hm³) Dec. 22, 1964, elevation, 866.00 ft (263.957 m); no contents at times during low-flow periods.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,730 acre-ft (28.0 hm³) Dec. 25, elevation, 863.94 ft (263.329 m); minimum, 14,370 acre-ft (17.7 hm³) Sept. 30, elevation, 843.15 ft (256.992 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	859.20	858.09	860.61	860.52	860.24	860.28	860.79	860.44	860.07	860.23	847.24	858.04
2	859.03	857.70	862.26	860.40	860.21	860.23	860.76	860.27	860.02	860.23	846.77	857.77
3	858.81	857.30	862.08	860.31	860.15	860.20	860.68	860.38	859.86	860.20	846.48	857.44
4	859.26	856.77	861.20	860.26	860.18	860.20	860.65	860.32	860.38	860.14	846.63	857.04
5	859.86	856.35	860.87	860.16	860.10	860.15	860.63	860.32	860.27	860.17	847.48	856.74
6	860.04	856.52	860.66	860.13	860.13	860.08	860.50	860.33	860.44	860.09	848.52	856.46
7	860.01	858.00	860.51	860.06	860.12	860.10	860.51	860.68	860.98	860.21	849.42	856.06
8	860.00	860.03	860.44	860.05	860.12	860.05	861.06	860.50	862.39	860.56	850.28	855.53
9	859.90	861.34	860.38	860.03	860.10	859.98	860.86	860.37	861.57	860.27	851.11	855.26
10	859.86	860.88	860.34	859.90	860.04	859.94	860.65	860.38	860.95	860.26	851.89	855.17
11	859.88	860.66	860.34	859.81	860.18	859.87	860.65	860.30	860.81	860.28	852.63	854.84
12	860.06	860.47	860.30	860.10	860.69	859.68	860.62	860.16	860.64	860.26	853.36	854.63
13	860.01	860.38	860.31	860.43	860.90	859.78	860.48	860.22	860.70	860.06	854.05	854.38
14	859.89	860.36	860.31	860.46	861.00	860.22	860.47	860.26	860.65	860.12	854.94	854.01
15	859.75	860.36	860.34	860.41	861.24	860.14	860.46	860.43	860.32	860.11	855.79	853.68
16	859.53	860.29	860.28	859.87	861.79	859.74	860.59	860.41	860.90	860.15	856.72	852.72
17	859.36	860.29	860.25	859.40	861.25	858.92	860.58	860.40	860.69	860.19	857.48	851.62
18	859.24	860.37	860.21	858.99	862.73	858.80	860.58	860.43	860.75	860.25	858.05	850.67
19	859.10	860.36	860.15	858.45	861.75	859.12	860.56	860.47	861.51	860.05	858.79	849.91
20	858.94	860.34	860.46	857.90	861.10	859.34	860.60	860.47	861.01	859.22	859.52	849.22
21	858.77	861.18	860.85	857.43	860.80	859.54	860.70	860.51	860.67	858.38	859.41	848.64
22	858.62	860.86	862.15	857.29	860.63	859.35	861.52	860.36	860.89	857.56	859.01	847.91
23	858.45	860.69	861.21	857.65	860.50	859.34	860.98	860.36	860.62	856.65	858.59	847.11
24	858.24	860.53	862.27	858.76	860.56	859.36	860.98	860.39	860.49	855.76	858.13	846.35
25	858.10	860.47	863.88	859.85	860.49	859.66	860.72	860.44	860.56	854.96	857.68	845.67
26	858.11	860.40	861.71	860.48	860.44	859.74	860.51	860.51	860.31	853.89	857.21	845.11
27	858.19	860.68	861.38	860.47	860.39	859.91	860.42	860.40	860.29	852.46	857.02	844.88
28	858.24	860.60	860.94	860.35	860.33	860.08	860.48	860.33	860.29	851.23	857.26	844.31
29	858.42	861.08	860.85	860.33	---	860.11	860.40	860.23	860.26	850.16	857.65	843.83
30	858.70	860.78	860.82	860.29	---	860.22	860.48	860.19	860.20	849.16	858.20	843.15
31	858.54	---	860.63	860.27	---	861.15	---	860.19	---	848.09	858.39	---
MEAN	859.16	859.80	860.94	859.70	860.65	859.84	860.66	860.37	860.64	857.79	854.38	851.61
MAX	860.06	861.34	863.88	860.52	862.73	861.15	861.52	860.68	862.39	860.56	859.52	858.04
MIN	858.10	856.35	860.15	857.29	860.04	858.80	860.40	860.16	859.86	848.09	846.48	843.15
(†)	20360	21340	21280	21120	21150	21510	21210	21080	21090	16110	20290	14370
(‡)	-480	+980	-60	-160	+30	+360	-300	-130	+10	-4980	+4180	-5920

CAL YR 1980 MEAN 859.89 MAX 863.88 MIN 855.65 AC-FT‡ +850
WTR YR 1981 MEAN 858.79 MAX 863.88 MIN 843.15 AC-FT‡ -6470

† 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 (2.9 km) downstream from Bull Run Reservoir Number Two, 2.7 mi (4.3 km) northeast of Bull Run, and at mile 4.7 (7.6 km).

DRAINAGE AREA.--107 mi^2 (277 km^2).

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 (173.096 m) National Geodetic Vertical Datum of 1929 (levels by Portland Water Bureau). Prior to July 27, 1909, nonrecording gage at site 1.5 mi (2.4 km) upstream at different datum. July 27, 1909, to Sept. 30, 1959, water-stage recorder at site 2.5 mi (4.0 km) upstream at different datums.

REMARKS.--Records excellent. Water stored since 1915 in Bull Run Lake, capacity, 12,270 acre-ft (15.1 hm^3), and since 1958 in North Fork Reservoir, capacity, 1,030 acre-ft (1.27 hm^3). Flow regulated since 1929 by Bull Run Reservoir Number One (see station 14139000), and since 1961 by Bull Run Reservoir Number Two (see 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 below station. Total diversion, 182,800 acre-ft (225 hm^3) of which 54,170 acre-ft (66.8 hm^3) was used for power generation and returned to Bull Run River.

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

AVERAGE DISCHARGE.--74 years, 776 ft^3/s (21.98 m^3/s), 98.49 in/yr (2,502 mm/yr), 562,200 acre-ft/yr (693 hm^3/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 ft^3/s (702 m^3/s) Dec. 22, 1964, gage height, 17.21 ft (5.246 m), from rating curve extended above 8,800 ft^3/s (249 m^3/s) on basis of computation of peak flow over dam; minimum, 1.1 ft^3/s (0.03 m^3/s) Oct. 4, 1974.

Combined flow, maximum discharge, 25,100 ft^3/s (711 m^3/s) Dec. 22, 1964; minimum daily, 63 ft^3/s (1.78 m^3/s) Aug. 13-16, 1926.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 12,700 ft^3/s (360 m^3/s) Dec. 25, gage height, 13.49 ft (4.112 m); minimum, 2.9 ft^3/s (0.082 m^3/s) Sept. 18.

Combined flow, maximum discharge, 13,000 ft^3/s (368 m^3/s) Dec. 25; minimum daily, 148 ft^3/s (4.19 m^3/s) Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	167	1100	1050	414	654	1590	836	400	492	221	228
2	218	156	2880	880	379	586	1160	706	380	459	224	230
3	232	155	5910	738	355	548	1110	618	329	445	207	231
4	224	188	3480	640	325	576	1170	700	338	399	216	245
5	219	175	1830	574	340	520	1120	659	674	382	279	232
6	228	175	1290	495	298	480	1020	652	674	316	281	210
7	219	180	934	463	278	446	929	970	914	354	302	218
8	204	185	756	432	265	425	1250	1010	4550	740	321	306
9	229	2270	636	400	263	408	1780	780	5000	641	324	273
10	206	1970	566	399	264	381	1330	682	1870	467	326	205
11	200	1220	550	360	241	372	1190	672	1570	459	333	244
12	186	868	489	260	905	365	1160	539	1210	444	355	222
13	207	686	518	413	1130	378	1050	457	1140	402	356	246
14	191	574	489	666	1650	394	876	530	1160	310	347	252
15	162	594	508	672	1720	511	866	696	883	352	325	244
16	204	508	511	475	4430	436	977	753	1090	367	244	277
17	202	446	538	187	3230	371	1040	725	1320	362	267	268
18	180	540	556	176	4730	369	995	739	1120	370	326	237
19	185	558	501	172	5510	378	995	774	3310	309	314	189
20	176	568	576	192	2870	370	1000	698	2180	255	235	159
21	183	787	1080	195	1760	342	1130	669	1350	226	245	160
22	190	1820	4030	183	1290	360	2090	584	1240	223	275	167
23	185	1170	3770	189	1030	360	2170	633	1230	215	260	184
24	191	932	2750	167	1040	361	1790	662	937	225	299	170
25	200	756	8900	148	996	362	1440	752	766	205	286	169
26	185	672	7590	385	886	360	1030	1020	613	212	285	164
27	175	675	3560	741	823	332	859	784	592	296	261	155
28	188	972	2230	616	734	189	792	655	572	297	263	154
29	189	1430	1530	600	---	218	816	585	533	240	245	151
30	171	1540	1590	503	---	285	735	491	512	216	202	171
31	167	---	1290	449	---	1220	---	480	---	230	217	---
TOTAL	6116	22937	62918	13820	38156	13357	35460	21511	38457	10910	8641	6361
MEAN	197	765	2030	446	1363	431	1182	694	1282	352	279	212
MAX	232	2270	8900	1050	5510	1220	2170	1020	5000	740	356	306
MIN	162	155	489	148	241	189	735	457	329	205	202	151
AC-FT	12130	45500	124800	27410	75680	26490	70330	42670	76280	21640	17140	12620
MEAN†	138	1025	2028	440	1366	485	1160	687	1272	218	120	145
CFSM†	1.29	9.58	18.95	4.11	12.77	4.53	10.84	6.42	11.89	2.04	1.12	1.36
IN.†	1.49	10.69	21.86	4.74	13.29	5.23	12.10	7.41	13.27	2.35	1.29	1.51
AC-FT†	8490	60980	124710	27040	75840	29840	69050	42260	75680	13420	7380	8600

CAL YR 1980 TOTAL 290584 MEAN 794 MAX 8900 MIN 139 AC-FT 576400 MEAN† 795 CFSM† 7.43 IN.† 101.20 AC-FT† 577380
WTR YR 1981 TOTAL 278644 MEAN 763 MAX 8900 MIN 148 AC-FT 552700 MEAN† 750 CFSM† 7.01 IN.† 95.23 AC-FT† 543300

† Adjusted for change in contents 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 NW¼NW¼ sec.10, T.2 S., R.5 E., Clackamas County, Hydrologic Unit 17080001, in Mount Hood National Forest, on left bank 0.25 mi (0.40 km) upstream from Portland General Electric Co. dam and tunnel from Sandy River, 3.0 mi (4.8 km) east of Bull Run, and at mile 1.95 (3.14 km).

DRAINAGE AREA.--22.3 mi^2 (57.8 km^2).

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.

GAGE.--Water-stage recorder. Altitude of gage is 720 ft (220 m), from topographic map. May 23, 1911, to Apr. 29, 1913, nonrecording gage at site 0.85 mi (1.37 km) downstream at different datum, 0.5 mi (0.8 km) downstream from Sandy River diversion tunnel. July 1, 1919, to Sept. 30, 1931, water-stage recorder at site 0.1 mi (0.2 km) downstream at different datum. Oct 1, 1931, to Nov. 3, 1967, at site 0.1 mi (0.2 km) downstream at datum 712 ft (217 m) National Geodetic Vertical Datum of 1929. Nov. 4, 1967, to Aug. 8, 1971, water-stage recorder at site 0.1 mi (0.2 km) downstream at datum 697.44 ft (212.580 m) National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--Records excellent except those for period of no gage-height record Apr. 9 to June 1, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--62 years (water years 1920-81), 146 ft^3/s (4.135 m^3/s), 88.91 in/yr (2,258 mm/yr), 105,800 acre-ft/yr (130 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,320 ft^3/s (151 m^3/s) Nov. 20, 1921, gage height, 9.18 ft (2.798 m), site and datum then in use, from rating curve extended above 2,200 ft^3/s (62.3 m^3/s); minimum, 8 ft^3/s (0.23 m^3/s) Aug. 20, Sept. 16, 17, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (39.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 25	2130	*2,240	63.4	*5.37	1.637	June 9	0200	1,670	47.3	4.93	1.503

Minimum, 14 ft^3/s (0.40 m^3/s) Sept. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	31	160	176	82	120	197	120	78	73	24	24
2	27	49	679	150	75	109	174	110	73	66	24	24
3	25	52	1020	127	72	101	203	100	70	61	25	18
4	24	49	537	113	66	118	174	100	115	57	24	18
5	23	41	315	101	63	101	182	120	158	54	24	17
6	22	150	221	91	58	91	168	120	280	54	22	16
7	21	408	168	83	56	87	150	200	280	101	21	16
8	21	384	137	78	53	83	224	170	909	75	21	15
9	21	432	118	73	53	77	245	140	964	58	20	15
10	19	251	109	67	49	72	200	120	473	53	19	16
11	19	158	101	63	63	69	180	110	295	50	18	16
12	24	111	93	60	130	66	165	100	251	47	18	15
13	37	85	89	57	174	63	150	90	258	63	18	15
14	33	78	87	53	238	61	140	110	215	52	18	15
15	26	97	95	50	234	61	160	150	176	47	18	14
16	24	75	105	49	623	89	190	140	265	43	18	14
17	22	69	103	49	403	75	180	130	258	41	18	14
18	21	87	93	50	879	66	180	140	251	39	17	14
19	21	89	83	47	744	61	170	150	641	37	18	19
20	20	87	116	44	417	60	170	130	349	35	18	18
21	20	160	197	54	265	60	250	150	241	34	18	24
22	19	218	483	48	206	69	450	130	262	33	18	25
23	18	168	384	56	165	67	400	110	224	32	17	22
24	18	139	571	93	197	66	350	140	174	32	16	18
25	31	118	1400	72	174	118	250	220	144	31	16	20
26	42	107	879	130	165	103	200	170	122	29	16	31
27	43	132	548	147	150	101	150	140	107	28	16	78
28	32	155	332	125	134	91	150	120	95	27	16	43
29	26	255	258	113	---	97	140	100	85	26	16	52
30	24	212	291	101	---	125	130	90	80	26	19	34
31	24	---	215	89	---	248	---	80	---	25	20	---
TOTAL	779	4447	9987	2609	5988	2775	6072	4000	7893	1429	591	680
MEAN	25.1	148	322	84.2	214	89.5	202	129	263	46.1	19.1	22.7
MAX	43	432	1400	176	879	248	450	220	964	101	25	78
MIN	18	31	83	44	49	60	130	80	70	25	16	14
CFSM	1.13	6.64	14.4	3.78	9.60	4.01	9.06	5.79	11.8	2.07	.86	1.02
IN.	1.30	7.42	16.66	4.35	9.99	4.63	10.13	6.67	13.17	2.38	.99	1.13
AC-FT	1550	8820	19810	5170	11880	5500	12040	7930	15660	2830	1170	1350

CAL YR 1980	TOTAL	52598	MEAN 144	MAX 1400	MIN 16	CFSM 6.46	IN 87.74	AC-FT	104300	
WTR YR 1981	TOTAL	47250	MEAN 129	MAX 1400	MIN 14	CFSM 5.79	IN 78.82	AC-FT	93720	

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 (0.3 km) upstream from Windfall Creek, 8.3 mi (13.4 km) upstream from Hills Creek Dam, 10.2 mi (16.4 km) south of Oakridge, and at mile 240.8 (387.4 km).

DRAINAGE AREA.--258 mi² (668 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,556.83 ft (474.522 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 21, 1967, at site 0.5 mi (0.8 km) upstream at different datums. June 22, 1967, to June 23, 1971, water-stage recorder at same site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--23 years, 794 ft³/s (22.49 m³/s), 41.79 in/yr (1,061 mm/yr), 575,300 acre-ft/yr (709 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,800 ft³/s (1,130 m³/s) Dec. 22, 1964, gage height, 16.96 ft (5.169 m), from floodmark, site and datum then in use, from rating curve extended above 5,100 ft³/s (144 m³/s) on basis of slope-area measurement of peak flow; minimum, 187 ft³/s (5.30 m³/s) Sept. 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2000	7,900	224	9.83	2.996	Feb. 16	1630	6,570	186	9.38	2.859
Dec. 25	0830	*8,030	227	*9.87	3.008						

Minimum, 198 ft³/s (5.61 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	262	729	1020	457	786	1030	832	617	401	265	220
2	214	284	4870	895	440	735	931	767	585	389	265	220
3	214	256	4770	806	431	698	860	692	553	377	262	220
4	212	247	3130	735	418	729	792	651	533	369	262	220
5	212	238	2000	680	431	669	799	617	523	373	259	220
6	212	494	1460	634	418	640	767	585	523	401	256	214
7	212	1430	1130	595	405	623	710	553	548	427	253	212
8	212	1540	909	569	397	590	680	528	1300	385	250	209
9	212	1180	792	548	393	574	716	518	1540	369	247	209
10	209	874	735	528	385	553	680	504	1170	358	241	209
11	212	651	692	508	385	543	692	489	938	350	241	209
12	262	528	669	494	393	538	846	480	853	343	241	206
13	350	457	645	475	444	538	839	471	938	339	241	206
14	343	457	617	466	1090	523	839	471	938	332	238	206
15	284	466	669	453	953	538	888	548	839	324	238	206
16	259	422	773	448	3350	606	902	553	779	317	235	203
17	247	393	779	444	3070	579	909	590	723	314	232	203
18	241	369	741	427	3000	563	924	846	669	307	232	200
19	235	350	692	410	3490	558	983	1020	657	307	232	212
20	232	339	754	401	2690	553	931	938	617	300	232	209
21	229	418	895	393	1930	553	902	853	574	297	229	206
22	229	924	1220	393	1590	640	867	773	548	293	229	209
23	226	924	1190	393	1350	634	924	723	523	290	226	209
24	226	832	1750	397	1280	606	1010	839	499	287	226	206
25	253	698	6590	385	1130	812	924	1410	480	284	226	209
26	280	601	3770	453	1010	938	874	1200	462	280	226	235
27	303	538	2820	504	916	895	786	998	448	277	226	440
28	259	538	2350	553	846	832	741	867	431	274	223	328
29	247	710	1770	563	---	909	760	779	418	271	220	271
30	241	826	1420	523	---	931	812	716	410	271	220	244
31	238	---	1180	485	---	990	---	663	---	268	220	---
TOTAL	7522	18246	52511	16578	33092	20876	25318	22474	20636	10174	7393	6770
MEAN	243	608	1694	535	1182	673	844	725	688	328	238	226
MAX	350	1540	6590	1020	3490	990	1030	1410	1540	427	265	440
MIN	209	238	617	385	385	523	680	471	410	268	220	200
CFSM	.94	2.36	6.57	2.07	4.58	2.61	3.27	2.81	2.67	1.27	.92	.88
IN.	1.08	2.63	7.57	2.39	4.77	3.01	3.65	3.24	2.98	1.47	1.07	.98
AC-FT	14920	36190	104200	32880	65640	41410	50220	44580	40930	20180	14660	13430

CAL YR 1980 TOTAL 287858 MEAN 786 MAX 17200 MIN 209 CFSM 3.05 IN 41.50 AC-FT 571000
WTR YR 1981 TOTAL 241590 MEAN 662 MAX 6590 MIN 200 CFSM 2.57 IN 34.83 AC-FT 479200

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.

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, 22.0°C Aug. 7-12; minimum, 2.0°C Dec. 8, 13, Feb. 3, 4, 7-9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14144900 HILLS CREEK ABOVE HILLS CREEK LAKE, NEAR OAKRIDGE, OR

LOCATION.--Lat 43°40'50", long 122°22'10", in NW¼NW¼ sec.8, T.22 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 0.2 mi (0.3 km) downstream from Tufti Creek, 0.7 mi (1.1 km) upstream from Hills Creek Lake, 6.5 mi (10.5 km) southeast of Oakridge, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--52.7 mi² (136.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1981 (discontinued). Prior to October 1971, published as Hills Creek above Hills Creek Reservoir.

GAGE.--Water-stage recorder. Datum of gage is 1,630.80 ft (497.068 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--23 years, 150 ft³/s (4.248 m³/s), 38.65 in/yr (982 mm/yr), 108,700 acre-ft/yr (134 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) Dec. 22, 1964, gage height, 12.23 ft (3.728 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Nov. 1, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1730	*1,850	52.4	*6.97	2.124	Feb. 16	1430	998	28.3	5.86	1.786
Dec. 25	0600	1,340	37.9	6.35	1.935						

Minimum, 22 ft³/s (0.62 m³/s) Oct. 6, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	40	154	194	77	147	229	198	133	68	32	26
2	24	43	1260	165	71	133	216	165	121	64	31	26
3	23	33	1130	145	68	125	200	145	111	60	31	26
4	23	31	721	127	65	131	189	137	104	57	31	25
5	23	29	450	115	65	119	192	133	100	57	31	25
6	24	88	329	106	62	113	178	125	100	71	30	25
7	24	332	246	99	59	111	160	123	104	88	30	25
8	24	355	202	97	56	102	145	119	311	68	30	24
9	24	270	171	95	54	99	145	117	343	60	30	24
10	24	185	152	92	52	97	137	111	282	56	29	24
11	24	129	141	83	52	93	139	106	225	52	28	24
12	30	104	133	80	54	92	165	102	213	50	28	23
13	47	93	127	75	83	93	171	99	262	47	28	23
14	42	93	121	71	241	87	178	99	274	45	28	23
15	35	100	139	70	183	92	205	121	241	43	28	23
16	31	90	171	68	540	115	216	137	213	42	28	23
17	29	80	171	67	486	117	218	158	189	41	26	23
18	28	71	158	62	454	109	227	250	167	41	26	23
19	26	67	137	57	520	108	241	374	152	40	26	26
20	26	60	145	54	440	108	218	349	135	39	26	25
21	26	88	189	53	355	104	205	326	121	39	26	24
22	25	171	267	52	306	143	202	277	113	38	26	24
23	25	232	241	53	260	141	234	241	106	37	26	25
24	25	213	371	59	267	129	248	277	100	35	26	24
25	29	162	1140	54	250	202	207	450	93	35	26	24
26	33	135	683	70	216	236	194	361	88	34	26	28
27	34	119	568	92	189	248	176	284	83	33	25	109
28	30	123	457	100	167	232	176	234	78	33	25	67
29	29	167	349	100	---	250	190	198	73	33	25	40
30	28	187	279	90	---	239	211	174	71	32	26	34
31	26	---	232	82	---	232	---	149	---	32	26	---
TOTAL	865	3890	11034	2727	5692	4347	5812	6139	4706	1470	860	885
MEAN	27.9	130	356	88.0	203	140	194	198	157	47.4	27.7	29.5
MAX	47	355	1260	194	540	250	248	450	343	88	32	109
MIN	23	29	121	52	52	87	137	99	71	32	25	23
CFSM	.53	2.47	6.76	1.67	3.85	2.66	3.68	3.76	2.98	.90	.53	.56
IN.	.61	2.75	7.79	1.92	4.02	3.07	4.10	4.33	3.32	1.04	.61	.62
AC-FT	1720	7720	21890	5410	11290	8620	11530	12180	9330	2920	1710	1760

CAL YR 1980 TOTAL 54603 MEAN 149 MAX 2340 MIN 23 CFSM 2.83 IN 38.54 AC-FT 108300
WTR YR 1981 TOTAL 48427 MEAN 133 MAX 1260 MIN 23 CFSM 2.52 IN 34.18 AC-FT 96050

14144900 HILLS CREEK ABOVE HILLS CREEK LAKE, NEAR OAKRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1958 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 7, 1972; minimum, 0.0°C Jan. 19-25, 1962, Jan. 5-11, 1974, Feb. 4-7, 1976, Nov. 12-14, 1978.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.5°C Aug. 8, 9, 11; minimum, 1.5°C Feb. 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14144900 HILLS CREEK ABOVE HILLS CREEK LAKE, NEAR OAKRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (183 m) downstream from Hills Creek, 3.5 mi (5.6 km) southeast of Oakridge, and at mile 232.5 (374.1 km).

DRAINAGE AREA.--389 mi² (1,008 km²).

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 (438 hm³) at elevation 1,543.0 ft (470.31 m), top of spillway gates, and usable capacity is 248,900 acre-ft (307 hm³) between elevations 1,414.0 ft (430.98 m), minimum power pool, and 1,543.0 ft (470.31 m). 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 (437 hm³) June 25, 1971, elevation, 1,542.52 ft (470.160 m); minimum, 104,800 acre-ft (129 hm³) Jan. 2, 1969, elevation, 1,412.52 ft (430.536 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 352,700 acre-ft (435 hm³) June 9, elevation, 1,541.97 ft (469.992 m); minimum, 160,300 acre-ft (198 hm³) Nov. 22, elevation, 1,451.11 ft (442.298 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1493.49	1468.81	1452.32	1467.63	1455.95	1494.88	1513.53	1533.85	1541.24	1541.69	1535.85	1506.09
2	1492.74	1468.04	1460.68	1465.24	1456.27	1495.50	1514.47	1534.27	1541.25	1541.72	1535.27	1504.90
3	1491.94	1467.22	1467.76	1462.58	1456.54	1496.13	1515.32	1534.62	1541.24	1541.73	1534.75	1503.70
4	1491.18	1466.36	1471.48	1459.84	1456.77	1496.75	1516.05	1534.91	1541.21	1541.74	1534.23	1502.52
5	1490.38	1465.50	1473.05	1457.78	1457.04	1497.25	1516.79	1535.13	1541.18	1541.76	1533.61	1501.32
6	1489.44	1464.73	1473.73	1456.82	1457.26	1497.74	1517.46	1535.34	1541.18	1541.80	1532.96	1500.12
7	1488.62	1465.28	1473.91	1455.82	1457.47	1498.20	1518.08	1535.53	1541.21	1541.82	1532.19	1498.90
8	1487.78	1465.79	1473.93	1454.52	1457.68	1498.63	1518.69	1535.68	1541.68	1541.82	1531.38	1497.68
9	1486.96	1465.81	1473.54	1453.74	1457.87	1499.02	1519.31	1535.88	1541.84	1541.82	1530.56	1496.42
10	1486.14	1465.20	1472.97	1453.52	1458.05	1499.38	1519.85	1536.04	1541.40	1541.81	1529.62	1495.20
11	1485.33	1464.20	1472.39	1453.26	1458.24	1499.75	1520.44	1536.18	1541.13	1541.81	1528.63	1494.47
12	1484.62	1463.00	1471.78	1453.05	1458.45	1500.10	1521.25	1536.28	1541.08	1541.79	1527.68	1494.21
13	1484.00	1461.64	1471.16	1452.82	1458.83	1500.45	1522.04	1536.35	1541.15	1541.74	1526.82	1493.95
14	1483.31	1460.39	1470.55	1452.62	1460.33	1500.77	1522.76	1536.45	1541.16	1541.64	1525.81	1493.68
15	1482.54	1459.13	1470.02	1452.42	1461.57	1501.17	1523.53	1536.69	1541.12	1541.55	1524.79	1492.92
16	1481.75	1457.74	1468.59	1452.25	1466.41	1501.69	1524.30	1536.92	1541.11	1541.45	1523.76	1491.98
17	1480.95	1456.29	1467.07	1452.12	1470.65	1502.19	1525.06	1537.23	1541.09	1541.35	1522.73	1491.04
18	1480.12	1454.76	1465.46	1452.00	1474.66	1502.62	1525.83	1537.84	1541.10	1541.24	1521.62	1490.16
19	1479.30	1453.18	1464.24	1451.88	1479.37	1503.03	1526.66	1538.77	1541.12	1541.11	1520.69	1489.23
20	1478.46	1452.22	1463.62	1452.05	1483.00	1503.44	1527.41	1539.54	1541.10	1540.98	1519.59	1488.27
21	1477.64	1451.28	1463.26	1452.17	1485.39	1503.85	1528.06	1540.11	1541.05	1540.85	1518.51	1487.32
22	1476.82	1451.25	1463.05	1452.31	1487.24	1504.38	1528.69	1540.44	1541.04	1540.59	1517.43	1486.37
23	1476.00	1451.79	1462.17	1452.49	1488.75	1504.94	1529.37	1540.47	1541.04	1540.10	1516.33	1485.58
24	1475.20	1452.23	1462.04	1452.69	1490.21	1505.44	1530.13	1540.52	1541.17	1539.73	1515.21	1484.81
25	1474.42	1452.33	1469.14	1452.86	1491.45	1506.45	1530.83	1541.06	1541.28	1539.24	1514.09	1483.87
26	1473.70	1452.26	1472.56	1453.19	1492.51	1507.59	1531.45	1541.33	1541.38	1538.74	1512.97	1483.14
27	1472.97	1452.04	1474.19	1453.66	1493.41	1508.59	1531.96	1541.36	1541.46	1538.24	1511.87	1482.76
28	1472.12	1451.79	1474.55	1454.23	1494.19	1509.47	1532.44	1541.30	1541.53	1537.75	1510.73	1482.04
29	1471.28	1451.86	1473.45	1454.79	---	1510.46	1532.88	1541.24	1541.59	1537.40	1509.58	1481.08
30	1470.44	1452.16	1471.80	1455.27	---	1511.41	1533.36	1541.24	1541.64	1536.89	1508.45	1479.81
31	1469.54	---	1469.86	1455.63	---	1512.48	---	1541.24	---	1536.37	1507.28	---
MEAN	1481.59	1458.81	1468.85	1454.88	1470.20	1502.38	1523.93	1537.86	1541.26	1540.59	1523.06	1492.12
MAX	1493.49	1468.81	1474.55	1467.63	1494.19	1512.48	1533.36	1541.36	1541.84	1541.82	1535.85	1506.09
MIN	1469.54	1451.25	1452.32	1451.88	1455.95	1494.88	1513.53	1533.85	1541.04	1536.37	1507.28	1479.81
(†)	191500	162000	192100	167700	239500	279700	330100	350700	351800	337800	267900	210600
(‡)	-48200	-29500	+30100	-24400	+71800	+40200	+50400	+20600	+1100	-14000	-69900	-57300

CAL YR 1980 MEAN 1503.21 MAX 1541.12 MIN 1448.40 AC-FT‡ +36400
WTR YR 1981 MEAN 1499.82 MAX 1541.84 MIN 1451.25 AC-FT‡ -29100

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

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 (27 m) upstream from highway bridge, 0.4 mi (0.6 km) upstream from Salt Creek, 1.1 mi (1.8 km) downstream from Hills Creek Dam, 2.3 mi (3.7 km) southeast of Oakridge, and at mile 231.4 (372.3 km).

DRAINAGE AREA.--392 mi² (1,015 km²).

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 (368.201 m) 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 (122 m) and 1,000 ft (305 m) downstream, respectively, at different datum.

REMARKS.--Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (see station 14145100). No diversions above station.

AVERAGE DISCHARGE.--47 years, 1,137 ft³/s (32.20 m³/s), 39.39 in/yr (1,001 mm/yr), 823,800 acre-ft/yr (1.02 km³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 34,000 ft³/s (963 m³/s) Dec. 28, 1945, gage height, 12.06 ft (3.676 m), site and datum then in use, from rating curve extended above 13,000 ft³/s (368 m³/s); minimum observed, 0.70 ft³/s (0.020 m³/s) Sept. 8-11, 13, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,900 ft³/s (110 m³/s) Dec. 30, gage height, 6.02 ft (1.835 m); minimum, 69 ft³/s (1.95 m³/s) Jan. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	1100	946	3380	327	320	312	423	796	427	1020	1600
2	1120	1100	1280	3300	295	320	312	414	741	436	1010	1590
3	1120	1100	1740	3360	309	323	309	414	729	436	1010	1580
4	1120	1090	1740	3300	327	316	309	458	712	431	1010	1580
5	1120	1090	1540	2610	320	316	309	458	694	431	1130	1580
6	1110	1390	1570	1580	323	316	309	467	671	436	1180	1580
7	1110	1750	1480	1570	312	316	258	449	660	533	1300	1570
8	1130	1750	1420	1760	316	316	252	462	1170	490	1350	1560
9	1130	1760	1530	1360	316	309	271	418	1790	423	1350	1550
10	1120	1760	1580	838	312	305	320	418	2190	414	1480	1550
11	1120	1760	1550	850	312	302	316	414	1600	414	1530	1100
12	1130	1750	1560	778	309	295	312	467	1280	414	1510	528
13	1130	1750	1520	765	305	295	312	462	1280	467	1360	519
14	1130	1760	1480	741	309	295	373	458	1380	519	1550	524
15	1130	1750	1460	706	302	291	373	490	1290	519	1550	979
16	1130	1750	2380	683	316	295	365	431	1130	514	1550	1230
17	1120	1740	2430	632	312	295	361	436	1030	504	1540	1230
18	1130	1750	2420	611	291	309	316	485	888	528	1560	1180
19	1120	1750	2010	589	327	302	316	495	875	528	1400	1230
20	1120	1250	1560	320	320	298	323	481	863	528	1580	1240
21	1110	1320	1540	373	320	305	385	589	820	528	1570	1240
22	1100	1320	1840	338	320	309	369	717	706	671	1570	1240
23	1090	953	2340	327	323	309	365	1080	660	1010	1570	1090
24	1090	939	2650	327	320	305	353	1240	427	838	1580	1020
25	1090	926	2330	327	312	309	316	1480	423	1030	1580	1180
26	1090	946	1990	327	327	298	316	1470	431	1030	1580	1190
27	1080	953	2420	323	320	302	377	1450	427	1010	1580	1190
28	1090	953	2820	327	320	288	414	1330	427	993	1580	1190
29	1110	953	3450	327	---	302	414	1150	427	772	1580	1290
30	1100	959	3480	323	---	312	423	972	423	1010	1570	1570
31	1100	---	3360	327	---	312	---	894	---	1020	1600	---
TOTAL	34520	41122	61416	33379	8822	9485	10060	21372	26940	19304	44330	37700
MEAN	1114	1371	1981	1077	315	306	335	689	898	623	1430	1257
MAX	1130	1760	3480	3380	327	323	423	1480	2190	1030	1600	1600
MIN	1080	926	946	320	291	288	252	414	423	414	1010	519
AC-FT	68470	81570	121800	66210	17500	18810	19950	42390	53440	38290	87930	74780
MEAN†	330	875	2470	680	1608	960	1182	1024	917	395	293	294
CFSM†	.84	2.23	6.30	1.73	4.10	2.45	3.02	2.61	2.34	1.01	.75	.75
IN.†	.97	2.49	7.27	2.00	4.27	2.82	3.37	3.01	2.61	1.16	.86	.84
AC-FT†	20270	52070	151900	41810	89300	59010	70350	62990	54540	24290	18030	17480

CAL YR 1980 TOTAL 371068 MEAN 1014 MAX 3480 MIN 77 AC-FT 736000 MEAN† 1015 CFSM† 2.59 IN.† 35.24 AC-FT† 736500
WTR YR 1981 TOTAL 348450 MEAN 955 MAX 3480 MIN 252 AC-FT 691200 MEAN† 915 CFSM† 2.33 IN.† 31.68 AC-FT† 662100

† Adjusted for change in contents in Hills Creek Lake.

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.

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, 16.5°C Sept. 10, 11, 20, 26-30; minimum, 5.5°C Feb. 2, 4, 6-10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14146500 SALMON CREEK NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'45", long 122°22'18", in NE¼ sec.7, T.21 S., R.4 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank 190 ft (58 m) upstream from Salmon Creek Falls, 0.1 mi (0.2 km) upstream from Needle Creek, 4.6 mi (7.4 km) east of Oakridge, and at mile 5.84 (9.40 km).

DRAINAGE AREA.--117 mi² (303 km²), at measuring cable 0.6 mi (1.0 km) downstream from gage.

PERIOD OF RECORD.--October to November 1909 (gage heights and one discharge measurement only), February 1913 to October 1919, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as Kelsey River near Hazeldell and Salmon Creek near Hazeldell, 1909.

REVISED RECORDS.--WSP 794: 1934(M). WSP 814: Drainage area. WSP 1124: 1935, 1942(M), 1943, 1946(M). WSP 1248: 1915, 1918. WRD 1971 Oreg.: 1968, 1969(M,P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,462.36 ft (445.727 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1914, nonrecording gage at several sites within 4 mi (6 km) of present site at various datums. Oct. 1, 1914, to Oct. 14, 1919, water-stage recorder at site 1.8 mi (2.9 km) downstream at different datum. Nov. 5, 1933, to Oct. 27, 1964, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 40.53 ft (12.354 m) lower. Oct. 28, 1964, to Aug. 27, 1965, nonrecording gage at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion above station. All records given herein are for measuring cable site.

AVERAGE DISCHARGE.--54 years (water years 1914-19, 1934-81), 424 ft³/s (12.01 m³/s), 49.21 in/yr (1,250 mm/yr), 307,200 acre-ft/yr (379 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) Dec. 22, 1964, gage height, 9.15 ft (2.789 m), from floodmark, site and datum then in use, from rating curve extended above 2,100 ft³/s (59.5 m³/s) on basis of slope-area measurement of peak flow; minimum, 63 ft³/s (1.78 m³/s) Jan. 8, 1937.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft³/s (48.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1330	*2,180	61.7	*4.26	1.298	Dec. 25	1230	1,710	48.4	3.89	1.186

Minimum, 102 ft³/s (2.89 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	120	382	487	206	405	517	420	352	252	150	118
2	120	126	1420	431	199	377	493	380	325	236	150	118
3	120	115	1930	395	199	360	481	348	307	236	150	118
4	110	113	1380	360	195	365	448	329	303	228	146	118
5	110	110	925	339	199	339	459	320	290	217	146	118
6	110	192	691	316	195	320	442	311	298	220	143	118
7	107	421	547	298	188	307	416	307	303	260	139	113
8	105	442	453	281	185	294	395	298	584	232	136	113
9	105	459	400	268	185	281	416	290	840	220	136	113
10	102	352	369	256	185	272	405	281	718	213	132	113
11	102	272	343	244	185	264	400	277	602	209	132	113
12	126	228	329	232	188	260	437	260	566	206	132	113
13	139	202	316	228	199	252	437	240	633	199	132	110
14	129	206	307	220	329	248	431	240	640	195	132	110
15	120	202	320	217	311	256	459	310	584	192	129	110
16	115	188	365	209	1110	290	487	325	541	188	126	110
17	113	174	373	206	1120	272	499	334	493	185	126	107
18	110	167	360	202	1410	264	541	426	448	181	123	107
19	107	160	339	199	1520	260	578	566	470	178	123	115
20	107	153	356	195	1190	260	547	566	442	178	123	113
21	107	188	382	188	965	256	529	529	405	174	123	110
22	105	377	590	188	825	298	535	487	377	167	123	120
23	105	405	578	185	718	290	578	448	360	167	123	115
24	107	386	767	192	685	256	627	535	348	164	123	113
25	115	334	1490	185	608	382	584	796	325	164	123	113
26	129	294	1170	220	547	442	529	739	311	160	123	136
27	132	272	1080	232	481	448	470	627	290	157	120	264
28	118	298	901	244	442	426	440	529	272	153	118	195
29	113	382	739	244	---	459	460	459	268	153	118	164
30	110	421	652	228	---	476	440	416	260	153	118	143
31	110	---	560	217	---	511	---	386	---	153	118	---
TOTAL	3538	7759	20814	7906	14769	10190	14480	12779	12955	5990	4036	3741
MEAN	114	259	671	255	527	329	483	412	432	193	130	125
MAX	139	459	1930	487	1520	511	627	796	840	260	150	264
MIN	102	110	307	185	185	248	395	240	260	153	118	107
CFSM	.97	2.21	5.74	2.18	4.50	2.81	4.13	3.52	3.69	1.65	1.11	1.07
IN.	1.12	2.47	6.62	2.51	4.70	3.24	4.60	4.06	4.12	1.90	1.28	1.19
AC-FT	7020	15390	41280	15680	29290	20210	28720	25350	25700	11880	8010	7420

CAL YR 1980 TOTAL 131614 MEAN 360 MAX 3840 MIN 102 CFSM 3.08 IN 41.85 AC-FT 261100
WTR YR 1981 TOTAL 118957 MEAN 326 MAX 1930 MIN 102 CFSM 2.79 IN 37.82 AC-FT 236000

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 (1.4 km) upstream from bridge over La Duke Road, and 1.5 mi (2.4 km) southwest of Oakridge.

DRAINAGE AREA.--5.06 mi² (13.11 km²).

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,300 ft (396 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 411 ft³/s (11.6 m³/s) Dec. 4, 1978, gage height, 3.61 ft (1.100 m); maximum gage height, 3.65 ft (1.113 m) Feb. 7, 1979; minimum daily discharge, 0.26 ft³/s (0.007 m³/s) Sept. 10-12, Oct. 7-11, 1980, but may have been less during period of no gage-height record Oct. 1-7, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 140 ft³/s (3.96 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	*375	10.6	*3.02	0.920	Feb. 16	1500	156	4.42	2.27	0.692

Minimum daily, 0.26 ft³/s (0.007 m³/s) Oct. 7-11, but may have been less during period of no gage-height record Oct. 1-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.94	15	9.8	4.7	8.2	26	4.6	5.1	2.5	.80	.44
2	.30	1.7	222	8.2	4.3	7.4	21	4.3	4.6	2.3	.80	.49
3	.30	1.1	179	6.9	3.8	6.7	17	4.0	4.0	2.1	.75	.46
4	.30	.82	101	6.0	3.5	6.7	16	4.4	3.7	2.0	.75	.44
5	.30	.69	37	5.3	3.3	5.8	17	4.9	3.4	1.9	.75	.44
6	.30	9.5	24	4.7	3.1	5.3	16	5.8	3.7	1.9	.69	.41
7	.26	50	16	4.4	2.9	5.1	12	5.5	3.8	2.5	.64	.38
8	.26	24	12	4.0	2.6	4.7	10	5.1	25	2.1	.64	.35
9	.26	30	9.8	3.7	2.5	4.6	16	4.6	38	1.9	.59	.35
10	.26	15	12	3.4	2.5	4.3	19	4.1	27	1.8	.49	.38
11	.26	6.6	13	3.1	2.4	4.1	18	3.7	18	1.7	.49	.38
12	.51	3.7	15	2.9	2.8	3.8	40	3.4	14	1.6	.49	.35
13	1.2	2.5	15	2.8	3.1	3.7	37	3.1	36	1.5	.49	.35
14	1.4	6.0	14	2.5	17	3.4	29	3.0	28	1.4	.49	.35
15	1.0	11	17	2.4	13	3.4	27	6.4	17	1.4	.49	.32
16	.69	5.7	18	2.4	75	5.5	21	12	13	1.3	.46	.32
17	.56	3.3	14	2.3	53	6.0	18	11	10	1.2	.46	.32
18	.47	2.5	10	2.2	49	5.5	17	21	8.8	1.2	.44	.32
19	.43	2.0	8.5	2.0	94	4.9	15	41	8.5	1.2	.46	.38
20	.43	1.6	8.8	2.0	69	4.9	12	27	8.2	1.1	.46	.44
21	.40	3.7	10	2.0	36	4.9	10	17	6.7	1.1	.46	.41
22	.40	20	28	1.9	27	8.5	9.4	13	6.0	1.0	.44	.46
23	.36	23	21	1.9	19	8.2	8.5	10	5.3	.98	.44	.49
24	.36	18	32	2.4	16	6.9	8.2	14	4.6	.98	.44	.46
25	.51	9.5	88	2.3	14	26	7.4	44	4.1	.98	.44	.44
26	1.5	6.6	44	4.3	12	28	7.9	31	3.7	.92	.44	1.3
27	2.7	4.9	38	8.8	11	20	7.4	17	3.4	.86	.44	21
28	1.1	7.2	31	10	9.8	14	6.7	12	3.1	.86	.44	5.8
29	.78	27	20	10	---	16	5.8	9.1	2.8	.86	.44	3.8
30	.64	29	15	7.7	---	23	5.1	7.4	2.6	.80	.44	2.5
31	.56	---	12	5.8	---	25	---	6.0	---	.80	.44	---
TOTAL	19.10	327.55	1100.1	138.1	556.3	284.5	480.4	359.4	322.1	44.74	16.49	44.33
MEAN	.62	10.9	35.5	4.45	19.9	9.18	16.0	11.6	10.7	1.44	.53	1.48
MAX	2.7	50	222	10	94	28	40	44	38	2.5	.80	21
MIN	.26	.69	8.5	1.9	2.4	3.4	5.1	3.0	2.6	.80	.44	.32
CFSM	.12	2.15	7.02	.88	3.93	1.81	3.16	2.29	2.12	.29	.11	.29
IN.	.14	2.41	8.09	1.02	4.09	2.09	3.53	2.64	2.37	.33	.12	.33
AC-FT	38	650	2180	274	1100	564	953	713	639	89	33	88

CAL YR 1980 TOTAL 4621.90 MEAN 12.6 MAX 302 MIN .26 CFSM 2.49 IN 33.97 AC-FT 9170
WTR YR 1981 TOTAL 3693.11 MEAN 10.1 MAX 222 MIN .26 CFSM 2.00 IN 27.15 AC-FT 7330

14146950 WALDO LAKE NEAR OAKRIDGE, OR

LOCATION.--Lat 43°46'05", long 122°03'10", in SE¼WN¼ sec.7, T.21 S., R.6 E., Lane County, Hydrologic Unit 170900001, Willamette National Forest, on left bank at head of artificial outlet channel for Waldo Lake, at headwaters of the North Fork of the Middle Fork Willamette River, 20 mi (32 km) east of Oakridge, and at mile 43.51 (70.0 km).

DRAINAGE AREA.--30.5 mi^2 (79.0 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 5,410 ft (1,649.0 m), from topographic map; gage readings have been reduced to National Geodetic Vertical Datum of 1929. Present gage is at same site and datum as former gage for Waldo Lake outlet near Oakridge (see station 14147000) for period 1936-53.

REMARKS.--Lake not regulated. Lake level was lowered approximately 0.5 ft (0.2 m) when low rock dam in artificial outlet channel was removed Sept. 23, 1971. Lake outlet is an old artificial outlet channel 30 ft (9 m) below the gage. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is not used; but leakage past old control gates was measured at 0.63 ft^3/s (0.018 m^3/s) Oct. 1, 1979. The maximum stage of the lake during period 1936-53 was 5,412.98 ft (1,649.876 m), which occurred Jan. 2, 1943. At times during this period the lake elevation could have been as much as 2 ft (0.6 m) below elevation 5,410 ft (1,649.0 m). A high-water mark noted Sept. 3, 1936, indicated that an elevation of 5,413.2 ft (1,649.94 m) had occurred sometime previous to that date. See station 14147000 for lake elevations for period 1936-53.

COOPERATION.--Waldo Lake bathymetric chart, used to compute capacity table, furnished by Environmental Protection Agency.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 778,900 acre-ft (960 hm^3) Mar. 18, 1971, elevation, 5,413.25 ft (1,649.969 m); minimum observed, 759,400 acre-ft (936 hm^3) Oct. 9, 1980, elevation, 5,410.14 ft (1,649.011 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 768,900 acre-ft (948 hm^3) May 29, elevation, 5,411.68 ft (1,649.480 m); minimum observed, 759,400 acre-ft (936 hm^3) Oct. 9, elevation, 5,410.14 ft (1,649.011 m).

ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)
Oct. 9	5,410.14	759,400
May 29	5,411.68	768,900
July 7	5,411.61	768,500
Sept.10	5,410.36	760,700

14147000 WALDO LAKE OUTLET NEAR OAKRIDGE, OR

LOCATION.--Lat 43°46'05", long 122°03'10", in SE¼NW¼ sec.7, T.21 S., R.6 E., Lane County, Hydrologic Unit 17090001, in Willamette National Forest, on right bank of artificial outlet channel of Waldo Lake forming the headwaters of the North Fork of the Middle Fork of Willamette River, 20 mi (32 km) east of Oakridge, and at mile 43.5 (70.0 km).

DRAINAGE AREA.--30.5 mi^2 (79.0 km^2), of which about 10.5 mi^2 (27.2 km^2) is Waldo Lake.

PERIOD OF RECORD.--October 1936 to September 1953, October 1969 to current year.

REVISED RECORDS.--WSP 2135: Drainage area.

GAGE.--Water-stage recorder and modified v-notch weir. Altitude of gage is 5,410 ft (1,649 m), from topographic map. October 1936 to September 1953, at site 120 ft (37 m) upstream on left bank at same datum.

REMARKS.--Records good. At times seiches from Waldo Lake cause rapid changes in stage at gage many times each hour. No regulation. Diversion tunnel into head of Black Creek, near south end of lake, built about 1914, is sealed off, but there was leakage of about 0.63 ft^3/s (0.018 m^3/s) past control gates, measured Oct. 1, 1979.

AVERAGE DISCHARGE.--29 years, 33.7 ft^3/s (0.954 m^3/s), 24,420 acre-ft/yr (30.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150 ft^3/s (4.25 m^3/s) Jan. 20, 1971, from rating curve extended above 77 ft^3/s (2.18 m^3/s) and adjusted for overbank flow; maximum gage height, 2.98 ft (0.908 m) Jan. 2, 1943; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A high-water mark in the channel of a previous high stage in the lake was noted on Sept. 3, 1936, as 3.2 ft (0.98 m) gage height, affected by seiche.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55 ft^3/s (1.56 m^3/s) June 16, gage height, 1.59 ft (0.485 m); no flow Oct. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.07	6.9	32	22	39	36	35	36	36	18	3.8
2	.50	.09	10	31	22	38	36	34	36	35	18	3.6
3	.41	.07	13	31	22	37	37	33	35	35	17	3.1
4	.38	.07	15	30	21	38	36	35	35	34	16	2.9
5	.35	.07	17	30	21	36	36	37	35	33	16	2.6
6	.35	.27	18	29	21	36	36	38	36	35	16	2.6
7	.32	1.3	19	29	20	35	35	37	37	36	15	2.2
8	.29	2.6	18	27	20	34	35	36	45	35	14	1.9
9	.32	3.1	18	27	20	33	36	36	48	34	14	1.8
10	.19	3.1	18	27	19	33	36	35	48	33	13	1.6
11	.17	2.9	17	26	19	32	37	35	47	32	13	1.5
12	.21	2.8	17	25	19	31	39	34	47	31	12	1.5
13	.29	2.6	17	25	19	31	38	33	49	30	12	1.5
14	.32	2.8	16	24	22	31	37	33	49	30	12	1.4
15	.27	3.2	16	24	22	31	36	35	48	29	11	1.4
16	.24	2.6	15	24	28	32	35	36	47	28	11	1.2
17	.19	2.5	15	23	30	32	35	36	47	27	10	1.2
18	.13	2.4	15	23	35	31	34	37	47	26	10	1.0
19	.11	2.3	14	22	39	31	34	38	47	26	9.4	1.0
20	.07	2.3	15	22	42	30	34	39	47	26	8.8	.86
21	.04	2.4	15	22	41	30	34	39	45	25	8.2	.72
22	.01	3.4	18	22	41	31	35	39	44	24	7.9	.72
23	.00	4.2	18	22	41	30	35	38	44	24	7.4	.63
24	.00	4.8	20	22	42	30	36	39	43	23	7.1	.50
25	.04	4.6	26	22	42	31	35	42	42	22	6.6	.42
26	.09	4.6	29	22	41	32	36	42	41	22	5.9	.54
27	.15	4.4	31	23	41	32	36	41	40	21	5.7	1.2
28	.13	4.8	32	23	39	32	36	41	39	20	5.2	1.4
29	.07	5.7	32	24	---	35	36	38	38	20	5.0	1.3
30	.06	6.9	32	23	---	35	35	38	38	19	4.2	1.2
31	.04	---	32	23	---	36	---	37	---	19	4.0	---
TOTAL	6.32	82.94	594.9	779	811	1025	1072	1146	1280	870	333.4	47.29
MEAN	.20	2.76	19.2	25.1	29.0	33.1	35.7	37.0	42.7	28.1	10.8	1.58
MAX	.58	6.9	32	32	42	39	39	42	49	36	18	3.8
MIN	.00	.07	6.9	22	19	30	34	33	35	19	4.0	.42
AC-FT	13	165	1180	1550	1610	2030	2130	2270	2540	1730	661	94

CAL YR 1980 TOTAL 8770.47 MEAN 24.0 MAX 51 MIN .00 AC-FT 17400
WTR YR 1981 TOTAL 8047.85 MEAN 22.0 MAX 49 MIN .00 AC-FT 15960

14147500 NORTH FORK OF MIDDLE FORK WILLAMETTE RIVER NEAR OAKRIDGE, OR

LOCATION.--Lat 43°45'25", long 122°30'15", in SW¼ sec.7, T.21 S., R.3 E., Lane County, Hydrologic Unit 17090001, on left bank 2.5 mi (4.0 km) northwest of Oakridge and at mile 1.0 (1.6 km).

DRAINAGE AREA.--246 mi² (637 km²), at measuring section 0.5 mi (0.8 km) downstream.

PERIOD OF RECORD.--October 1909 to March 1916, September 1935 to current year. Monthly discharge only for some periods, published in WSP 1318. Prior to October 1912, published as "near Hazeldell."

REVISED RECORDS.--WSP 1248: 1914-16.

GAGE.--Water-stage recorder. Datum of gage is 1,029.6 ft (313.82 m) National Geodetic Vertical Datum of 1929 (river profile survey). Oct. 1, 1909, to March 31, 1916, water-stage recorder or nonrecording gage at several sites within 0.8 mi (1.3 km) of present site at various datums. Sept. 10, 1935, to Oct. 3, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage-height record, Dec. 23 to Jan. 22, which are fair. Slight regulation by Waldo Lake; occasional fluctuations during low-water periods caused by log-ponds above station. No diversions above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--52 years (water years 1910-15, 1936-81), 784 ft³/s (22.20 m³/s), 43.28 in/yr (1,099 mm/yr), 568,000 acre-ft/yr (700 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s (691 m³/s) Dec. 22, 1964, gage height, 19.14 ft (5.834 m), from floodmark, from rating curve extended above 7,100 ft³/s (201 m³/s) on basis of slope-area measurement of peak flow; minimum, 22 ft³/s (0.62 m³/s) Aug. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2000	4,070	115	6.70	2.042	Feb. 16	1630	3,970	112	6.62	2.018
Dec. 25	unknown	*5,280	150	*7.68a	2.341						

Minimum, 111 ft³/s (3.14 m³/s) Oct. 10, 11.

a From high-water mark in well.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	144	696	900	392	830	1140	712	545	396	203	142
2	119	181	2800	750	372	765	1060	666	506	380	200	146
3	115	153	3640	650	361	717	1010	618	475	364	197	142
4	115	144	3070	600	346	728	939	588	454	349	194	140
5	115	138	2050	550	349	671	956	572	437	342	192	140
6	115	288	1550	500	342	627	934	561	449	349	189	138
7	115	798	1210	480	328	604	868	535	449	408	183	133
8	115	787	999	480	317	566	836	510	969	361	181	133
9	115	862	852	460	310	530	956	501	1400	342	175	131
10	111	661	759	440	310	506	939	483	1210	324	170	131
11	113	466	691	420	310	488	922	462	1030	313	168	131
12	135	368	647	400	320	471	1080	441	922	304	168	131
13	173	313	613	380	338	454	1050	429	1130	297	165	129
14	168	310	577	380	691	437	1010	417	1150	288	165	129
15	144	331	604	360	722	445	1050	492	1030	282	163	127
16	135	288	712	360	2530	520	1070	540	945	276	160	127
17	131	267	733	340	2730	488	1090	540	868	270	158	125
18	127	253	696	340	3060	462	1120	717	798	264	156	127
19	125	237	651	340	3560	454	1200	911	809	258	156	133
20	123	227	681	320	2800	449	1110	900	754	253	158	133
21	125	288	765	320	2110	445	1060	841	691	250	153	133
22	121	1010	1380	320	1760	506	1010	776	647	243	153	146
23	119	906	1500	313	1500	497	1040	712	613	240	151	146
24	121	857	2600	331	1420	488	1090	792	566	234	149	135
25	138	676	4600	317	1260	676	992	1070	525	230	149	133
26	156	572	3400	408	1120	803	934	1070	497	227	149	156
27	189	497	2400	497	1010	830	830	922	471	221	146	501
28	151	540	1900	510	906	787	765	803	445	215	144	304
29	138	686	1500	506	---	900	733	717	425	212	144	240
30	133	814	1200	458	---	1030	733	647	408	209	144	197
31	131	---	1000	421	---	1130	---	599	---	206	142	---
TOTAL	4050	14062	46476	13851	31574	19304	29527	20544	21618	8907	5125	4759
MEAN	131	469	1499	447	1128	623	984	663	721	287	165	159
MAX	189	1010	4600	900	3560	1130	1200	1070	1400	408	203	501
MIN	111	138	577	313	310	437	733	417	408	206	142	125
CFSM	.53	1.91	6.09	1.82	4.59	2.53	4.00	2.70	2.93	1.17	.67	.65
IN.	.61	2.13	7.03	2.09	4.77	2.92	4.47	3.11	3.27	1.35	.77	.72
AC-FT	8030	27890	92190	27470	62630	38290	58570	40750	42880	17670	10170	9440

CAL YR 1980 TOTAL 244842 MEAN 669 MAX 7610 MIN 111 CFSM 2.72 IN 37.02 AC-FT 485600
WTR YR 1981 TOTAL 219797 MEAN 602 MAX 4600 MIN 111 CFSM 2.45 IN 33.24 AC-FT 436000

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 (0.8 km) downstream from Whitehead Creek, 4.2 mi (6.8 km) downstream from North Fork of Middle Fork Willamette River, 7.0 mi (11.3 km) northwest of Oakridge, and at mile 220.2 (354.3 km).

DRAINAGE AREA.--924 mi^2 (2,393 km^2).

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 (284.915 m) National Geodetic Vertical Datum of 1929. Mar. 22, 1911, to Sept. 30, 1912, nonrecording gage at site 4.0 mi (6.4 km) upstream, just below 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 (6.4 km) downstream at different datum.

REMARKS.--Water-discharge records good. Flow regulated since 1961 by Hills Creek Lake (see Station 14145100); slight regulation at times by logponds above station. No diversion above station.

AVERAGE DISCHARGE.--59 years, 2,750 ft^3/s (77.88 m^3/s), 1,992,000 acre-ft/yr (2.46 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,800 ft^3/s (2,320 m^3/s) Dec. 28, 1945, gage height, 18.8 ft (5.73 m), from floodmark, site and datum then in use, from rating curve extended above 39,000 ft^3/s (1,100 m^3/s); minimum, 322 ft^3/s (9.12 m^3/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 (5.18 m) in February 1890 at site used 1923-50, from information by local resident, discharge, about 55,000 ft^3/s (1,560 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,200 ft^3/s (346 m^3/s) Dec. 25, gage height, 6.00 ft (1.829 m); minimum, 629 ft^3/s (17.8 m^3/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	1450	2400	5280	1250	2000	2580	2020	2000	1250	1420	1860
2	1410	1510	7150	5000	1170	1890	2470	1920	1860	1220	1420	1860
3	1390	1490	9670	4830	1150	1800	2380	1810	1770	1180	1410	1840
4	1390	1460	8150	4670	1140	1800	2250	1770	1690	1160	1410	1840
5	1390	1450	5580	3960	1150	1710	2220	1720	1660	1150	1490	1840
6	1390	1900	4610	2870	1140	1640	2200	1680	1660	1170	1540	1830
7	1380	3330	3820	2730	1100	1590	2020	1620	1620	1380	1620	1810
8	1410	3420	3310	2830	1090	1540	1940	1590	3030	1280	1690	1800
9	1410	3470	3140	2490	1070	1490	2120	1540	4450	1150	1680	1800
10	1390	3070	3050	1840	1050	1430	2170	1530	4530	1110	1780	1800
11	1390	2710	2890	1800	1040	1390	2130	1460	3560	1090	1830	1510
12	1450	2560	2830	1710	1050	1360	2470	1460	3050	1070	1830	858
13	1510	2450	2730	1650	1080	1330	2520	1420	3400	1090	1680	836
14	1540	2450	2600	1610	1650	1310	2490	1410	3560	1140	1840	826
15	1500	2510	2620	1550	1720	1300	2410	1570	3270	1110	1840	1180
16	1490	2410	3560	1510	4640	1450	2310	1640	2930	1100	1840	1490
17	1460	2360	3740	1450	5490	1410	2310	1620	2710	1080	1830	1490
18	1450	2310	3700	1410	5670	1370	2310	2000	2410	1090	1830	1450
19	1450	2290	3310	1360	7050	1370	2450	2510	2400	1080	1690	1510
20	1430	1890	2810	1120	5830	1360	2380	2490	2310	1070	1860	1510
21	1420	1840	2890	1120	4400	1330	2340	2430	2150	1050	1840	1510
22	1410	3050	4060	1100	3700	1460	2250	2400	1970	1120	1840	1550
23	1390	2620	4750	1090	3220	1490	2290	2560	1860	1470	1830	1450
24	1390	2620	5670	1140	3050	1460	2450	2850	1610	1320	1840	1280
25	1420	2290	10600	1110	2750	1800	2270	3910	1510	1490	1840	1470
26	1460	2120	8450	1210	2540	2100	2200	3820	1460	1470	1840	1530
27	1540	2000	7480	1370	2320	2120	2050	3420	1410	1450	1840	2120
28	1460	2050	6810	1410	2150	2030	2020	3030	1360	1420	1830	1810
29	1450	2340	6500	1410	---	2150	1970	2690	1320	1220	1830	1740
30	1430	2640	6080	1360	---	2340	1980	2380	1280	1430	1830	1940
31	1430	---	5580	1310	---	2510	---	2180	---	1420	1860	---
TOTAL	44440	70060	150540	65300	70660	51330	67950	66450	69800	37830	53750	47340
MEAN	1434	2335	4856	2106	2524	1656	2265	2144	2327	1220	1734	1578
MAX	1540	3470	10600	5280	7050	2510	2580	3910	4530	1490	1860	2120
MIN	1380	1450	2400	1090	1040	1300	1940	1410	1280	1050	1410	826
AC-FT	88150	139000	298600	129500	140200	101800	134800	131800	138400	75040	106600	93900

CAL YR 1980 TOTAL 913375 MEAN 2496 MAX 18300 MIN 762 AC-FT 1812000
WTR YR 1981 TOTAL 795450 MEAN 2179 MAX 10600 MIN 826 AC-FT 1578000

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.

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, 19.0°C July 29; minimum recorded, 3.5°C Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.0	---	---	6.5	6.0	---	---	5.5	4.5	8.0	5.0
2	16.5	13.5	---	---	7.0	6.5	---	---	4.5	4.0	7.5	5.5
3	17.0	12.5	---	---	7.5	7.0	---	---	5.5	4.0	6.5	5.5
4	16.5	14.0	---	---	7.0	6.0	---	---	5.5	4.0	7.0	6.0
5	17.0	14.0	---	---	6.0	6.0	---	---	6.0	5.0	7.5	5.5
6	16.5	14.0	---	---	6.0	5.5	---	---	6.0	5.0	7.5	5.0
7	16.5	14.0	---	---	5.5	4.5	---	---	5.5	4.0	7.0	6.0
8	16.0	14.0	---	---	5.0	4.0	---	---	5.0	3.5	8.5	6.0
9	16.0	13.5	---	---	5.5	5.0	---	---	5.5	3.5	8.5	6.0
10	15.5	13.5	---	---	5.5	5.0	---	---	6.0	4.5	8.0	6.5
11	15.0	13.0	---	---	5.5	5.0	---	---	6.0	5.0	9.5	7.0
12	15.0	14.0	---	---	5.0	4.5	---	---	7.5	5.5	10.0	6.5
13	15.0	13.5	---	---	5.0	4.5	---	---	7.0	6.0	9.5	8.0
14	15.0	13.0	---	---	5.5	4.5	---	---	8.0	6.5	10.0	7.5
15	---	---	---	---	5.5	5.0	---	---	7.5	6.5	9.0	7.5
16	---	---	---	---	6.0	5.5	---	---	8.0	7.0	8.5	7.0
17	---	---	---	---	6.0	5.5	---	---	7.5	6.5	8.5	6.0
18	---	---	---	---	---	---	---	---	7.5	7.0	6.5	5.0
19	---	---	---	---	---	---	7.5	---	8.0	6.0	8.5	6.5
20	---	---	---	---	---	---	6.5	5.5	7.0	5.5	9.0	7.0
21	---	---	---	---	---	---	---	---	7.5	5.5	8.0	6.5
22	---	---	---	---	---	---	---	---	7.5	6.0	10.0	7.5
23	---	---	---	---	---	---	---	---	7.5	6.5	9.5	7.5
24	---	---	7.5	---	---	---	---	---	7.0	6.5	10.0	8.5
25	---	---	8.0	7.0	---	---	---	---	7.0	5.5	10.5	9.5
26	---	---	7.5	7.0	---	---	---	---	6.5	5.5	10.5	9.0
27	---	---	8.0	6.5	---	---	---	---	7.5	5.5	11.0	9.5
28	---	---	8.5	7.5	---	---	6.5	6.0	7.0	5.0	11.5	9.0
29	---	---	8.0	7.0	---	---	6.0	5.5	---	---	10.5	8.5
30	---	---	7.0	6.5	---	---	6.0	5.5	---	---	9.0	8.0
31	---	---	---	---	---	---	6.0	5.0	---	---	9.5	8.5
MONTH	17.0	12.5	8.5	6.5	7.5	4.0	7.5	5.0	8.0	3.5	11.5	5.0

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (2.4 km) east of Lowell, and at mile 206.9 (332.9 km).

DRAINAGE AREA.--991 mi² (2,567 km²).

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 (562 hm³) at elevation 929 ft (283.2 m), and usable capacity is 349,200 acre-ft (431 hm³) between elevations 819 ft (249.6 m), and 929 ft (283.2 m), top of spillway gates. Reservoir used for flood control, improvement of navigation, power generation, pollution abatement, and othe 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 (573 hm³) Dec. 26, 1964, elevation, 931.09 ft (283.796 m); minimum observed since first filling, 91,450 acre-ft (113 hm³) Dec. 1, 1954, elevation, 811.00 ft (247.193 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 450,400 acre-ft (555 hm³) June 15, 16, elevation, 927.74 ft (282.775 m); minimum, 115,800 acre-ft (143 hm³) Dec. 15, elevation, 823.59 ft (251.030 m).

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	117,700	890	302,300	930	460,200

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	894.38	863.75	837.22	843.88	828.55	863.53	874.68	897.55	917.14	926.25	921.70	913.89
2	893.48	863.09	841.88	841.62	828.47	864.02	875.68	898.03	917.52	926.25	921.44	913.26
3	892.59	861.70	850.60	839.20	828.35	864.55	876.58	898.45	918.04	926.24	921.14	912.62
4	891.58	860.28	857.37	836.74	828.26	865.12	877.37	898.85	918.16	926.22	920.80	911.84
5	890.66	858.86	856.20	833.80	828.25	865.49	878.19	899.28	918.26	926.16	920.50	911.14
6	889.97	857.62	853.76	832.48	827.93	865.71	878.92	899.63	918.72	926.15	920.24	910.45
7	888.97	857.68	850.55	831.40	827.90	866.00	879.52	899.97	919.21	926.24	920.00	909.73
8	888.03	857.62	856.80	830.56	827.84	866.22	880.11	900.28	920.46	926.26	919.80	909.00
9	887.13	857.62	852.90	829.42	827.60	866.37	880.85	900.52	922.16	926.20	919.56	908.34
10	886.15	857.16	838.85	829.40	827.42	866.57	881.60	900.73	924.14	926.20	919.37	907.70
11	885.19	856.10	834.85	829.25	827.23	866.77	882.40	900.80	925.16	926.19	919.18	906.50
12	884.50	855.12	830.90	829.12	827.18	866.88	883.50	901.04	925.90	926.14	918.93	905.22
13	883.41	854.13	828.02	828.88	827.07	867.00	884.50	901.22	926.54	926.08	918.63	903.92
14	882.52	853.13	825.60	828.52	827.65	867.20	885.37	901.38	927.26	925.91	918.29	902.62
15	881.60	852.14	824.19	828.12	828.27	867.02	886.23	901.73	927.38	925.76	918.14	901.45
16	880.64	851.03	824.45	828.04	831.95	866.57	887.05	902.06	927.34	925.60	917.94	900.52
17	878.80	849.77	824.90	827.78	836.38	866.54	887.77	902.52	927.21	925.42	917.72	899.68
18	878.12	848.55	825.43	827.58	840.80	866.64	888.63	903.14	926.92	925.19	917.42	898.74
19	877.65	847.72	825.67	827.29	846.45	866.76	889.50	904.18	926.50	924.94	917.04	897.80
20	876.22	847.40	826.42	827.27	850.84	866.91	890.33	905.14	926.32	924.64	916.78	896.78
21	875.07	846.30	827.40	827.25	853.78	867.06	891.10	906.02	926.02	924.29	916.60	895.74
22	873.88	846.04	828.66	827.20	855.89	867.29	891.80	906.78	925.86	923.97	916.40	894.68
23	872.78	845.38	830.30	827.15	857.60	867.48	892.59	907.62	925.84	923.82	916.24	893.68
24	871.79	844.76	830.60	827.11	859.24	867.74	893.41	908.70	925.90	923.68	916.02	892.56
25	870.95	843.60	840.10	827.00	860.55	868.40	894.15	910.42	925.90	923.48	915.87	891.54
26	870.33	842.43	845.70	827.13	861.53	869.26	894.80	912.04	925.86	923.29	915.67	890.70
27	869.41	841.16	848.95	827.40	862.31	870.05	895.40	913.42	925.96	923.07	915.47	890.26
28	868.11	840.00	849.80	827.72	863.03	870.70	895.93	914.51	926.03	922.94	915.32	889.44
29	867.00	839.00	848.88	828.19	---	871.60	896.45	915.41	926.06	922.52	915.12	888.86
30	865.81	838.38	847.56	828.48	---	872.48	896.98	916.08	920.08	922.28	914.94	888.42
31	864.69	---	845.78	828.55	---	873.55	---	916.66	---	922.00	914.52	---
MEAN	880.05	851.25	839.04	830.11	839.23	867.34	886.38	904.65	923.80	924.95	917.96	901.24
MAX	894.38	863.75	857.37	843.88	863.03	873.55	896.98	916.66	927.38	926.26	921.70	913.89
MIN	864.69	838.38	824.19	827.00	827.07	863.53	874.68	897.55	917.14	922.00	914.52	888.42
(†)	219300	148600	166800	126300	214400	246800	327600	404100	418200	426100	395500	296700
(‡)	-102900	-70700	+18200	-40500	+88100	+32400	+80800	+76500	+14100	+7900	-30600	-98800

CAL YR 1980 MEAN 882.42 MAX 926.37 MIN 824.19 AC-FT‡ +41900
WTR YR 1981 MEAN 880.73 MAX 927.38 MIN 824.19 AC-FT‡ -25500

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

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 (1.0 km) upstream from Lost Creek, 2.0 mi (3.2 km) northwest of Dexter, 2.6 mi (4.2 km) downstream from Dexter Dam, and at mile 201.2 (323.7 km).

DRAINAGE AREA.--1,001 mi² (2,593 km²).

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 (180.533 m) 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 (6.4 km) upstream at different datum, and June 9, 1955, to Feb. 18, 1977, at datum 3.00 ft (0.914 m) higher.

REMARKS.--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.--35 years, 3,133 ft³/s (88.73 m³/s), 2,270,000 acre-ft/yr (2.80 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,600 ft³/s (1,770 m³/s) Jan. 18, 1953, gage height, 12.46 ft (3.798 m), site and datum then in use, from rating curve extended above 33,000 ft³/s (935 m³/s); minimum daily, 100 ft³/s (2.83 m³/s) Nov. 25, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 13.9 ft (4.24 m) Dec. 28, 1945, former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,750 ft³/s (276 m³/s) Dec. 6, gage height, 8.86 ft (2.701 m); minimum, 1,110 ft³/s (31.4 m³/s) Jan. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2990	3010	3700	9000	1300	1290	1260	1210	1200	1270	1990	3290
2	2990	2990	3030	8980	1310	1350	1250	1210	1200	1270	1910	3220
3	2970	2970	1180	9050	1310	1340	1250	1210	1200	1260	1980	3230
4	2990	3000	1240	8930	1310	1340	1250	1210	1200	1250	2050	3220
5	2990	3190	9070	8430	1300	1310	1240	1220	1540	1280	2050	3230
6	2930	3440	9700	4880	1270	1240	1250	1220	1310	1310	2040	3250
7	2860	3760	9420	3800	1280	1240	1270	1220	1300	1320	2160	3230
8	2840	3830	9490	3750	1240	1240	1300	1220	1310	1300	2280	3220
9	2870	3830	9190	3730	1240	1240	1290	1220	1310	1280	2290	3220
10	2870	3800	9190	2100	1240	1280	1280	1210	1300	1270	2270	3250
11	3040	3870	8640	1970	1240	1310	1220	1210	1530	1260	2280	3250
12	3040	3870	8200	1580	1230	1310	1160	1180	2230	1260	2300	3330
13	3070	3870	6430	1690	1230	1310	1170	1160	2640	1260	2290	3260
14	3110	3870	5600	2020	1240	1310	1160	1170	2670	1450	2290	3230
15	3030	3870	4980	2030	1240	1540	1160	1170	3070	1450	2320	3250
16	2910	3860	3450	1670	1240	2180	1160	1180	3190	1440	2320	3300
17	2870	3860	3250	1640	1240	1600	1230	1220	3190	1450	2330	3330
18	2900	3840	3260	1630	1250	1290	1240	1230	3190	1620	2300	3350
19	2940	3270	3250	1640	1270	1270	1230	1240	3270	1680	2320	3360
20	2940	2470	2210	1310	1280	1270	1240	1240	3090	1780	2280	3360
21	2940	3140	2150	1250	1280	1280	1230	1280	2630	1810	2230	3380
22	2970	3610	2790	1260	1270	1280	1220	1310	2600	1820	2240	3390
23	2970	3530	3910	1240	1270	1280	1210	1310	2000	1780	2230	3390
24	2990	3550	5600	1200	1270	1260	1220	1310	1630	1820	2230	3230
25	2970	3550	1640	1170	1280	1250	1220	1310	1570	1940	2230	3230
26	2940	3530	2500	1160	1280	1270	1220	1330	1570	1930	2240	3320
27	2790	3550	3970	1130	1280	1250	1230	1360	1370	1910	2250	3390
28	2990	3510	6390	1150	1280	1250	1210	1360	1220	1910	2250	3380
29	3010	3510	9370	1340	---	1230	1200	1240	1200	1930	2270	3170
30	3030	3680	9330	1320	---	1240	1200	1230	1200	1940	2250	2790
31	3030	---	9330	1300	---	1250	---	1230	---	2060	2780	---
TOTAL	91780	105630	171460	93350	35470	41100	36770	38420	57930	48310	69250	98050
MEAN	2961	3521	5531	3011	1267	1326	1226	1239	1931	1558	2234	3268
MAX	3110	3870	9700	9050	1310	2180	1300	1360	3270	2060	2780	3390
MIN	2790	2470	1180	1130	1230	1230	1160	1160	1200	1250	1910	2790
AC-FT	182000	209500	340100	185200	70350	81520	72930	76210	114900	95820	137400	194500

CAL YR 1980 TOTAL 931050 MEAN 2544 MAX 12100 MIN 1120 AC-FT 1847000
WTR YR 1981 TOTAL 887520 MEAN 2432 MAX 9700 MIN 1130 AC-FT 1760000

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

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1955 to current year.

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. 4-9, Sept. 18; minimum, 6.0°C Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (0.2 km) downstream from North Fork, 8.0 mi (12.9 km) northeast of Lowell, and at mile 14.4 (23.2 km).

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 844.42 ft (257.379 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 406 ft³/s (11.50 m³/s), 46.72 in/yr (1,187 mm/yr), 294,100 acre-ft/yr (363 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) Jan. 21, 1972, which may have been caused by release from breakup of temporary logjam 12 mi (19 km) upstream, gage height, 11.84 ft (3.609 m); minimum, 16 ft³/s (0.45 m³/s) Oct. 3, 4, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1930	*4,840	137	*7.47	2.277	Dec. 25	0700	3,740	106	6.65	2.027

Minimum, 24 ft³/s (0.68 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	42	425	376	215	279	1040	209	229	143	53	35
2	28	67	2480	324	195	249	891	195	195	134	53	38
3	27	51	3550	285	180	249	783	185	180	126	54	34
4	26	43	2390	254	165	282	672	195	172	120	53	33
5	26	39	1160	231	156	249	626	212	163	116	51	32
6	25	177	842	212	167	231	562	254	198	114	49	30
7	25	606	581	198	151	220	471	249	206	143	48	29
8	25	386	438	185	140	206	467	234	1030	120	47	28
9	25	621	365	172	136	198	903	231	935	106	44	28
10	24	355	358	160	136	182	842	218	683	103	41	28
11	24	201	376	151	134	175	760	201	506	97	41	28
12	47	140	383	143	138	167	1100	185	467	94	40	28
13	75	112	361	136	170	160	1000	172	830	92	41	27
14	61	120	311	130	650	160	794	167	743	88	40	26
15	43	153	344	128	600	187	694	251	548	86	39	26
16	37	120	379	124	2000	304	571	344	454	82	39	25
17	34	101	328	122	1800	288	489	301	379	80	38	25
18	31	88	279	116	2000	251	442	463	338	78	37	25
19	30	78	243	112	2400	229	409	626	421	75	37	30
20	29	73	249	106	1590	209	358	566	398	71	39	33
21	29	165	285	106	1120	223	348	463	334	70	37	34
22	28	524	646	108	783	308	324	379	295	68	36	44
23	28	454	667	118	591	266	304	318	263	67	36	41
24	28	506	1250	158	562	251	338	376	234	67	35	32
25	53	308	3090	138	515	338	295	854	212	65	35	30
26	78	223	1720	185	450	591	314	705	193	62	35	47
27	106	193	1230	368	365	538	291	497	180	59	34	394
28	57	282	910	421	311	454	269	386	165	57	34	134
29	43	571	672	406	---	515	246	318	156	55	33	99
30	38	646	543	308	---	830	229	273	149	54	33	62
31	35	---	442	251	---	1020	---	251	---	54	33	---
TOTAL	1193	7445	27297	6232	17820	9809	16832	10278	11256	2746	1265	1505
MEAN	38.5	248	881	201	636	316	561	332	375	88.6	40.8	50.2
MAX	106	646	3550	421	2400	1020	1100	854	1030	143	54	394
MIN	24	39	243	106	134	160	229	167	149	54	33	25
CFSM	.33	2.10	7.47	1.70	5.39	2.68	4.75	2.81	3.18	.75	.35	.43
IN.	.38	2.35	8.61	1.96	5.62	3.09	5.31	3.24	3.55	.87	.40	.47
AC-FT	2370	14770	54140	12360	35350	19460	33390	20390	22330	5450	2510	2990

CAL YR 1980 TOTAL 125883 MEAN 344 MAX 5380 MIN 24 CFSM 2.92 IN 39.68 AC-FT 249700
WTR YR 1981 TOTAL 113678 MEAN 311 MAX 3550 MIN 24 CFSM 2.64 IN 35.84 AC-FT 225500

14150300 FALL CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to current year.

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. 8-11; minimum recorded, 3.0°C Dec. 10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14150300 FALL CREEK NEAR LOWELL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14150800 WINBERRY CREEK NEAR LOWELL, OR

LOCATION.--Lat 43°54'50", long 122°41'15", in NE¼SE¼ sec.16, T.19 S., R.1 E., Lane County, Hydrologic Unit 17090001, on right bank 0.9 mi (1.4 km) upstream from Nelson Creek, 4.6 mi (7.4 km) east of Lowell, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--43.9 mi² (113.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 863.70 ft (263.256 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 118 ft³/s (3.342 m³/s), 36.50 in/yr (927 mm/yr), 85,490 acre-ft/yr (105 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft³/s (127 m³/s) Dec. 22, 1964, gage height, 8.07 ft (2.460 m); minimum, 1.5 ft³/s (0.042 m³/s) Sept. 4, 5, 8-10, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28.3 m³/s) and maximum discharge, 1,670 ft³/s (47.3 m³/s) Dec. 3, gage height, 4.99 ft (1.521 m); minimum, 5.2 ft³/s (0.15 m³/s) Sept. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.7	9.3	139	95	76	99	336	82	71	38	12	7.0
2	7.1	12	920	80	64	84	274	74	62	35	12	7.7
3	6.7	9.9	1150	73	57	76	261	68	55	32	12	7.3
4	6.5	8.3	791	63	50	94	236	70	50	30	12	7.0
5	6.4	7.7	409	57	51	89	224	71	47	29	11	6.7
6	5.9	19	292	51	48	84	195	79	57	28	10	6.4
7	5.7	126	201	47	45	79	159	87	56	35	9.9	5.9
8	5.7	80	148	45	42	74	143	82	221	29	9.5	5.9
9	5.8	139	118	41	40	67	255	82	239	26	9.5	5.7
10	5.5	94	112	38	40	61	268	79	201	24	8.7	5.7
11	5.5	56	112	36	38	57	233	73	155	23	8.3	5.7
12	11	40	112	34	39	52	312	66	155	21	8.3	5.7
13	16	31	101	31	44	49	295	59	322	21	8.3	5.7
14	16	34	89	31	118	47	245	58	308	20	8.3	5.4
15	13	47	94	29	110	51	224	101	218	19	8.3	5.4
16	10	36	110	28	281	92	190	172	174	19	8.0	5.2
17	8.5	31	97	28	312	99	164	157	143	18	7.7	5.2
18	7.8	26	84	27	351	89	152	236	122	18	7.3	5.2
19	7.3	24	73	25	471	79	145	373	126	17	7.3	6.2
20	7.0	21	74	24	462	70	128	319	116	16	8.0	6.7
21	6.6	31	77	24	326	68	124	239	101	16	7.7	6.2
22	6.4	141	139	24	239	85	118	182	89	15	7.3	8.3
23	6.3	139	124	28	182	77	114	143	80	15	7.7	9.1
24	6.4	185	224	56	201	71	157	164	70	15	7.3	6.7
25	12	104	551	47	201	174	139	336	61	15	7.7	6.2
26	18	77	373	74	174	252	145	278	55	14	7.7	8.7
27	29	66	292	134	143	209	134	204	50	14	7.3	92
28	15	84	227	157	120	167	120	152	47	13	7.0	32
29	11	145	177	155	---	198	104	120	43	13	6.7	23
30	9.3	185	143	116	---	292	92	97	40	12	6.7	16
31	8.4	---	116	90	---	340	---	82	---	12	7.0	---
TOTAL	293.5	2008.2	7669	1788	4325	3425	5686	4385	3534	652	266.5	329.9
MEAN	9.47	66.9	247	57.7	154	110	190	141	118	21.0	8.60	11.0
MAX	29	185	1150	157	471	340	336	373	322	38	12	92
MIN	5.5	7.7	73	24	38	47	92	58	40	12	6.7	5.2
CFSM	.22	1.52	5.63	1.31	3.51	2.51	4.33	3.21	2.69	.48	.20	.25
IN.	.25	1.70	6.50	1.52	3.66	2.90	4.82	3.72	2.99	.55	.23	.28
AC-FT	582	3980	15210	3550	8580	6790	11280	8700	7010	1290	529	654

CAL YR 1980 TOTAL 37295.5 MEAN 102 MAX 1540 MIN 5.2 CFSM 2.32 IN 31.60 AC-FT 73980
WTR YR 1981 TOTAL 34362.1 MEAN 94.1 MAX 1150 MIN 5.2 CFSM 2.14 IN 29.12 AC-FT 68160

14150800 WINBERRY CREEK NEAR LOWELL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C July 3, 1967; minimum, 0.0°C on several days in 1965, 1972, 1974, 1978-80.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 9; minimum, 2.5°C Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14150800 WINBERRY CREEK NEAR LOWELL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	12.5	10.5	13.0	10.0	17.0	12.0	19.5	14.5	16.5	15.0
2	7.0	5.5	11.0	9.0	14.5	11.5	18.0	12.5	17.5	15.5	17.5	14.0
3	7.5	6.5	9.5	8.5	14.5	12.0	19.5	14.0	17.5	14.5	16.5	13.0
4	8.5	6.0	9.5	7.5	14.5	12.5	20.0	15.0	20.0	15.0	16.0	13.5
5	7.5	6.5	8.0	7.0	14.0	12.0	19.0	16.0	20.0	15.0	16.5	12.5
6	7.0	5.5	9.0	6.5	13.0	12.0	17.0	13.0	21.5	16.0	17.0	13.0
7	7.5	5.5	10.0	7.5	12.0	11.0	15.0	11.5	22.5	17.5	18.0	13.5
8	7.0	6.0	---	---	11.5	10.5	16.5	10.5	23.5	18.5	18.0	14.5
9	7.5	6.0	---	---	11.5	10.0	15.5	12.0	23.5	19.0	17.0	14.5
10	7.5	5.5	---	---	12.0	10.0	16.0	12.0	23.0	18.0	17.0	14.0
11	7.0	6.5	---	---	12.0	9.5	17.0	11.0	23.0	19.0	17.0	13.5
12	7.5	6.0	12.0	---	11.0	9.5	16.5	11.5	22.0	19.0	17.0	14.0
13	9.0	5.5	12.5	9.0	10.0	9.0	18.0	13.0	22.0	18.5	17.0	13.5
14	10.0	6.5	11.0	10.0	11.5	9.0	18.5	12.5	22.0	17.5	16.5	14.0
15	9.0	7.0	9.5	7.5	13.0	9.0	19.5	13.5	21.0	17.5	17.5	14.0
16	10.0	7.5	9.5	7.0	11.5	10.5	20.5	14.5	21.0	17.5	17.5	14.5
17	10.5	7.0	10.0	8.0	12.5	9.0	19.0	15.0	21.5	16.5	17.5	15.5
18	11.5	7.5	10.0	9.0	11.5	10.5	20.5	15.0	21.0	17.0	17.0	14.5
19	9.5	8.0	9.0	8.5	12.5	11.0	20.5	14.5	19.5	16.5	16.5	15.0
20	9.0	7.5	9.0	8.5	14.0	11.5	20.5	15.5	19.0	15.5	15.0	13.5
21	9.0	7.5	9.5	8.5	14.5	11.0	19.5	15.0	18.5	14.0	14.5	13.0
22	12.5	8.0	11.5	9.0	13.0	12.0	19.5	14.0	19.0	14.5	14.0	12.5
23	11.5	9.0	12.5	9.5	15.0	11.5	17.5	14.5	19.0	15.0	13.0	10.5
24	10.0	8.0	12.0	10.5	15.5	11.0	16.5	14.5	18.5	16.0	12.0	10.0
25	8.0	6.5	11.5	10.0	17.0	12.5	19.5	13.5	18.0	16.0	12.0	10.5
26	8.0	7.0	12.0	9.5	14.5	12.5	21.5	15.0	17.0	14.0	12.5	11.5
27	9.0	6.5	12.5	9.5	15.5	11.0	22.5	16.5	17.0	13.0	13.0	12.0
28	12.5	8.0	13.5	10.0	16.0	11.0	21.5	17.0	16.5	12.5	13.0	12.0
29	14.0	9.5	13.5	11.0	17.0	12.0	20.0	17.0	16.0	13.0	12.5	10.5
30	14.5	11.0	12.5	11.5	15.0	13.5	19.0	14.0	17.5	15.0	11.5	9.0
31	---	---	13.5	9.5	---	---	19.5	14.0	17.0	13.5	---	---
MONTH	14.5	5.5	13.5	6.5	17.0	9.0	22.5	10.5	23.5	12.5	18.0	9.0

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 (3.5 km) northeast of Lowell, and at mile 7.2 (11.6 km).

DRAINAGE AREA.--184 mi² (477 km²).

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 (154 hm³) at elevation 834 ft (254.2 m) and usable capacity is 115,500 acre-ft (142 hm³) between elevation 728 ft (221.9 m) and 834 ft (254.2 m). 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 (152 hm³) May 30, 31, 1972; maximum elevation, 832.98 ft (253.892 m) May 31, 1972; minimum, no contents Nov. 7 to Dec. 6, 1969, Nov. 14-16, 1970, Nov. 18-25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 121,600 acre-ft (150 hm³) June 20, 23, elevation, 832.13 ft (253.633 m); minimum, 211 acre-ft (260,000 m³) Dec. 24, elevation, 682.49 ft (208.023 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	794.43	744.79	706.82	729.20	738.90	792.19	813.69	826.86	830.43	831.74	830.44	826.73
2	792.46	744.05	720.96	728.36	739.43	792.70	815.19	827.14	830.48	831.74	830.39	826.63
3	790.39	743.23	741.50	728.10	740.01	793.25	816.17	827.37	830.53	831.69	830.30	826.40
4	788.32	742.36	754.00	728.06	740.64	793.87	816.58	827.61	830.55	831.71	830.19	826.30
5	786.17	741.45	753.40	728.10	741.32	794.38	816.86	827.95	830.56	831.75	830.12	826.20
6	783.95	740.84	747.80	727.98	741.92	794.84	816.74	828.27	830.59	831.80	830.01	826.00
7	781.62	741.72	740.20	728.02	742.44	795.26	815.87	828.60	830.72	831.88	829.93	825.90
8	779.16	741.44	733.50	727.99	742.92	795.65	816.27	828.90	830.95	831.88	829.79	825.80
9	776.95	741.51	728.50	728.04	743.35	796.00	813.52	829.20	830.41	831.87	829.69	825.60
10	775.03	739.74	725.50	728.03	743.80	796.33	821.20	829.50	830.27	831.85	829.59	825.50
11	773.40	737.13	723.00	727.98	744.15	796.60	821.40	829.77	830.28	831.84	829.46	825.40
12	771.93	734.05	721.15	727.89	744.63	796.90	821.70	830.00	830.64	831.79	829.29	825.30
13	770.50	731.55	719.47	727.87	745.25	797.17	821.80	830.15	831.51	831.77	829.16	825.10
14	769.04	730.41	717.33	727.93	747.45	797.43	821.80	830.24	832.00	831.75	829.04	824.90
15	767.38	730.02	715.42	727.98	749.31	797.89	821.79	830.49	831.97	831.69	828.97	824.50
16	765.74	729.36	715.17	728.02	755.93	798.40	821.69	830.73	831.92	831.65	828.81	823.40
17	764.04	728.93	714.96	728.05	761.05	799.00	821.70	830.65	831.86	831.60	828.68	821.40
18	762.31	728.79	714.97	728.06	767.56	799.53	821.71	830.69	831.93	831.56	828.58	820.50
19	760.46	728.72	714.81	727.98	774.78	799.99	821.69	830.59	832.07	831.47	828.43	819.00
20	758.58	728.60	714.85	727.93	779.62	800.35	822.00	830.52	832.07	831.42	828.32	817.60
21	756.69	728.55	715.06	727.92	782.58	800.75	822.57	830.51	832.07	831.37	828.20	816.10
22	754.70	726.86	714.40	728.00	784.57	801.35	823.06	830.44	832.08	831.27	828.09	814.60
23	752.76	724.34	701.89	728.13	786.06	801.79	823.53	830.44	832.09	831.21	827.93	813.00
24	750.95	722.27	699.41	728.63	787.58	802.26	824.08	830.48	831.91	831.15	827.82	811.46
25	749.97	719.54	724.99	729.01	788.84	803.36	824.57	830.48	831.85	831.08	827.62	810.10
26	749.37	717.19	734.87	729.94	789.95	804.79	825.06	830.51	831.80	831.04	827.54	808.80
27	749.86	715.13	738.12	731.94	790.83	805.95	825.49	830.49	831.73	830.92	827.40	807.40
28	748.16	714.62	735.47	734.13	791.59	806.86	825.92	830.42	831.73	830.82	827.31	806.10
29	747.30	714.86	733.22	736.10	---	808.01	826.27	830.40	831.73	830.74	827.14	804.70
30	746.47	713.92	731.60	737.40	---	809.73	826.60	830.40	831.71	830.68	826.98	803.60
31	745.61	---	730.25	738.29	---	811.74	---	830.42	---	830.59	826.87	---
MEAN	766.57	730.87	725.24	729.39	760.23	799.49	820.88	829.68	831.35	831.46	828.78	819.47
MAX	794.43	744.79	754.00	738.29	791.59	811.74	826.60	830.73	832.09	831.88	830.44	826.73
MIN	745.61	713.92	699.41	727.87	738.90	792.19	813.52	826.86	830.27	830.59	826.87	803.60
(†)	19880	4910	10710	15220	60510	87730	111900	118600	120900	118900	112400	75920
(‡)	-46350	-14970	+5800	+4500	+45290	+27220	+24170	+6700	+2300	-2000	-6500	-36480

CAL YR 1980 MEAN 790.61 MAX 831.46 MIN 699.41 AC-FT‡ +210
WTR YR 1981 MEAN 789.57 MAX 832.09 MIN 699.41 AC-FT‡ +9690

† 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 left bank 10 ft (3 m) upstream from highway bridge, 1.1 mi (1.8 km) downstream from Fall Creek Dam, 2.3 mi (3.7 km) southeast of town of Fall Creek, and at mile 6.1 (9.8 km).

DRAINAGE AREA.--186 mi² (482 km²).

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 (194.404 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Oct. 1 to Dec. 31, 1911, nonrecording gage at site 0.25 mi (0.40 km) downstream at different datum. Sept. 9, 1935, to Aug. 3, 1950, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records good. Flow regulated since 1966 by Fall Creek Lake (see station 14150900). No diversion above station.

AVERAGE DISCHARGE.--46 years, 579 ft³/s (16.40 m³/s), 42.27 in/yr (1,074 mm/yr), 419,500 acre-ft/yr (517 hm³/yr), adjusted for storage since January 1965.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,700 ft³/s (700 m³/s) Dec. 11, 1956, gage height, 18.80 ft (5.370 m), from rating curve extended above 9,700 ft³/s (275 m³/s); minimum, 1.5 ft³/s (0.042 m³/s) Oct. 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,140 ft³/s (88.9 m³/s) Dec. 5, gage height, 6.72 ft (2.048 m); minimum, 58 ft³/s (1.64 m³/s) May 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	288	1580	749	147	96	75	75	285	175	142	144
2	1180	288	1450	627	147	94	75	75	221	178	142	142
3	1190	292	171	460	101	81	227	75	210	178	140	142
4	1190	299	183	352	75	96	498	72	210	161	140	142
5	1180	296	2750	303	77	94	498	72	210	106	142	142
6	1170	360	2960	306	77	94	498	72	210	102	147	142
7	1210	526	2940	253	77	94	398	72	241	138	147	142
8	1210	613	2550	253	77	94	221	72	1130	142	147	142
9	1100	797	1720	221	77	86	166	72	1740	142	147	140
10	883	1000	1180	210	75	70	467	72	1100	142	147	140
11	743	988	988	210	98	96	1080	72	657	144	147	140
12	697	963	877	213	75	56	1410	72	457	144	147	140
13	692	759	786	194	75	66	1490	107	441	144	147	140
14	687	434	770	161	81	66	1150	161	707	144	147	140
15	682	299	754	158	79	66	976	190	830	144	147	340
16	692	299	539	158	88	67	877	347	682	144	147	907
17	692	233	471	158	86	67	702	559	594	144	147	1210
18	687	147	383	163	120	67	608	714	460	144	144	1210
19	702	124	352	165	101	67	585	1260	471	144	144	1210
20	702	116	329	163	101	67	292	995	526	144	144	1200
21	692	202	348	149	93	67	75	758	467	144	144	1200
22	687	1110	907	138	98	69	75	646	380	144	144	1210
23	677	1190	2410	138	98	67	75	487	376	144	144	1250
24	632	1170	1980	140	99	67	75	566	445	144	144	1270
25	360	976	199	140	116	75	75	1240	348	144	144	1270
26	296	717	61	142	98	74	75	1060	306	144	144	1270
27	296	594	808	142	96	72	75	759	275	144	144	1200
28	296	471	2000	147	96	70	75	603	215	144	144	1120
29	292	707	1550	147	---	74	75	475	213	144	144	963
30	292	1060	1130	147	---	74	75	376	191	142	144	963
31	288	---	938	147	---	77	---	314	---	142	144	---
TOTAL	23277	17318	36064	7052	2633	2380	13043	12488	14578	4485	4486	19771
MEAN	751	577	1163	227	94.0	76.8	435	403	486	145	145	659
MAX	1210	1190	2960	749	147	96	1490	1260	1740	178	147	1270
MIN	288	116	61	138	75	66	75	72	191	102	140	140
AC-FT	46170	34350	71530	13990	5220	4720	25870	24770	28920	8900	8900	39220

CAL YR 1980 TOTAL 177964 MEAN 486 MAX 3930 MIN 34 AC-FT 353000 MEAN† 487 CFSM† 2.62 IN.† 35.61 AC-FT† 353210
WTR YR 1981 TOTAL 157575 MEAN 432 MAX 2960 MIN 61 AC-FT 312500 MEAN† 445 CFSM† 2.39 IN.† 32.49 AC-FT† 322190

† Adjusted for change in contents in Fall Creek Lake.

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.

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, 18.0°C Oct. 10-13; minimum, 5.0°C Dec. 16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	11.5	14.0	13.5	8.0	7.5	9.5	9.0	7.0	6.5	8.0	7.0
2	12.5	12.0	14.0	13.5	9.5	7.0	9.0	8.5	7.0	6.5	8.0	7.0
3	13.5	12.5	14.0	13.5	10.5	9.5	9.0	8.0	7.0	6.0	7.5	7.0
4	14.5	13.5	14.0	13.5	10.0	9.5	8.5	8.0	7.0	6.0	8.5	7.0
5	15.0	14.0	14.0	13.5	9.5	8.0	8.5	8.0	7.0	6.5	9.0	7.5
6	16.0	15.0	14.0	13.5	8.5	8.0	8.0	7.5	7.5	6.0	9.0	7.5
7	17.0	16.0	14.0	13.5	8.0	7.5	8.0	7.5	7.0	6.0	9.0	8.0
8	17.5	17.0	13.5	13.0	7.5	7.0	7.5	7.0	7.0	6.0	9.5	7.5
9	17.5	17.5	13.0	12.5	7.5	7.0	7.5	7.0	6.5	6.0	9.5	7.5
10	18.0	17.5	12.5	11.5	7.5	7.0	7.5	7.0	7.0	6.0	9.0	8.0
11	18.0	17.5	11.5	11.5	7.0	6.5	7.5	7.0	7.0	6.0	9.0	7.5
12	18.0	18.0	11.5	11.0	6.5	6.0	7.5	6.5	7.5	6.5	10.0	7.5
13	18.0	17.5	11.5	10.5	6.5	5.5	7.0	6.5	7.0	7.0	9.0	7.5
14	17.5	17.0	11.0	10.0	6.0	5.5	6.5	6.5	7.0	6.5	10.0	8.0
15	17.0	17.0	10.0	9.0	6.0	5.5	6.5	6.0	7.5	6.5	9.0	7.5
16	17.0	17.0	10.0	9.0	5.5	5.0	6.5	6.0	8.0	6.5	9.5	7.5
17	17.0	16.5	9.0	8.5	5.5	5.5	6.5	6.0	8.0	6.5	10.5	7.5
18	16.5	16.5	9.0	8.5	5.5	5.5	7.0	6.0	8.0	7.5	9.5	8.0
19	16.5	16.5	9.0	8.0	6.0	5.5	6.5	6.0	7.5	7.0	9.0	7.5
20	16.5	16.0	9.0	8.0	6.5	6.0	7.0	6.5	8.5	7.0	9.5	7.5
21	16.0	16.0	9.5	8.5	6.5	6.5	7.5	6.5	8.0	6.5	9.5	8.0
22	16.0	16.0	9.5	9.0	7.5	6.0	7.5	7.0	8.5	7.0	9.5	8.0
23	16.0	15.5	9.5	9.5	8.0	7.5	7.5	7.0	8.0	7.0	9.0	7.5
24	15.5	15.5	9.5	9.0	9.0	7.5	7.5	7.0	8.0	7.0	10.5	7.5
25	15.5	15.0	9.5	8.5	10.0	9.0	7.5	7.0	8.0	7.0	9.0	8.0
26	15.0	14.5	9.0	8.5	10.0	9.5	7.5	7.0	8.0	7.0	9.0	8.0
27	14.5	13.5	8.5	8.0	10.0	9.5	7.5	7.0	8.5	7.0	9.5	8.0
28	14.0	13.5	8.0	8.0	10.0	9.5	7.5	7.0	8.0	7.0	9.5	8.0
29	14.0	13.5	8.5	8.0	9.5	9.0	7.5	7.0	---	---	8.5	8.0
30	14.0	13.5	8.5	8.0	9.5	9.0	7.5	7.0	---	---	9.0	8.0
31	14.0	13.5	---	---	10.0	8.5	7.5	6.5	---	---	8.5	7.5
MONTH	18.0	11.5	14.0	8.0	10.5	5.0	9.5	6.0	8.5	6.0	10.5	7.0

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (8 m) downstream from highway bridge at Jasper, 0.1 mi (0.2 km) downstream from Hills Creek, and at mile 195.0 (313.8 km).

DRAINAGE AREA.--1,340 mi² (3,471 km²).

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 (156.500 m) 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 (0.46 m) higher. Oct. 22, 1952, to Sept. 30, 1953, nonrecording gage at site 25 ft (8 m) upstream at same datum.

REMARKS.--Water-discharge records good. 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.--38 years (water years 1906-11, 1914-16, 1953-81), 4,058 ft³/s (114.9 m³/s), 2,940,000 acre-ft/yr (3.63 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,000 ft³/s (2,660 m³/s) Nov. 23, 1909, gage height, 17.4 ft (5.20 m), datum then in use, from graph based on gage readings, from rating curve extended above 42,000 ft³/s (1,190 m³/s); minimum, 366 ft³/s (10.4 m³/s) Dec. 5, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,200 ft³/s (402 m³/s) Dec. 5, gage height, 7.97 ft (2.429 m); minimum, 1,390 ft³/s (39.4 m³/s) May 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4320	3500	5800	9260	1770	1770	2210	1500	1720	1590	2250	3480
2	4320	3470	7640	9030	1740	1790	2130	1490	1640	1580	2160	3450
3	4300	3470	6810	8800	1690	1760	2140	1490	1590	1560	2230	3470
4	4320	3470	5150	8570	1630	1920	2360	1500	1580	1520	2310	3450
5	4320	3640	12900	8020	1650	1840	2290	1520	1920	1500	2310	3480
6	4240	4060	13700	5580	1610	1730	2250	1540	1700	1520	2290	3480
7	4220	4810	12900	4460	1590	1690	2140	1510	1730	1580	2420	3450
8	4200	4940	12200	4400	1550	1660	1960	1500	2980	1550	2550	3430
9	4140	5210	10800	4320	1530	1630	2130	1510	3800	1510	2570	3430
10	3930	5320	9950	2810	1530	1610	2310	1500	3090	1510	2550	3470
11	3950	5230	9170	2520	1540	1660	2930	1490	2660	1500	2550	3480
12	3930	5170	8540	2130	1510	1610	3570	1440	3130	1490	2570	3550
13	3970	5000	7130	2090	1520	1590	3570	1420	3870	1480	2570	3500
14	3990	4640	6420	2460	1910	1590	3060	1500	4100	1650	2570	3450
15	3890	4500	6040	2480	1850	1810	2770	1550	4460	1660	2600	3590
16	3800	4460	4580	2100	2570	2620	2570	1710	4440	1650	2600	4260
17	3750	4420	4200	2020	2590	2030	2410	2010	4280	1650	2570	4620
18	3760	4260	4080	2010	2810	1660	2250	2310	4100	1830	2590	4620
19	3820	3690	4030	1990	3450	1590	2180	3040	4200	1910	2530	4640
20	3800	2860	3060	1690	3130	1580	1900	2790	4080	2010	2550	4640
21	3820	3450	2930	1580	2570	1590	1630	2480	3540	2070	2490	4680
22	3820	5320	4200	1580	2270	1660	1590	2320	3380	2070	2510	4730
23	3820	5320	6840	1570	2080	1610	1570	2120	2740	2020	2510	4770
24	3800	5320	8540	1610	2140	1580	1580	2230	2360	2050	2520	4600
25	3550	5040	4960	1550	2080	1880	1560	3180	2160	2200	2520	4640
26	3450	4680	4260	1630	1970	2010	1570	3060	2090	2190	2520	4850
27	3310	4520	6040	1760	1900	1860	1560	2640	1880	2160	2520	5000
28	3470	4440	8710	1860	1830	1760	1530	2380	1620	2160	2520	4700
29	3480	4770	11000	2090	---	1830	1510	2080	1580	2160	2530	4120
30	3480	5620	10200	1950	---	1990	1500	1900	1550	2180	2520	3890
31	3480	---	9860	1830	---	2150	---	1810	---	2310	2920	---
TOTAL	120450	134600	232640	105750	56010	55060	64730	60520	83970	55820	77420	120920
MEAN	3885	4487	7505	3411	2000	1776	2158	1952	2799	1801	2497	4031
MAX	4320	5620	13700	9260	3450	2620	3570	3180	4460	2310	2920	5000
MIN	3310	2860	2930	1550	1510	1580	1500	1420	1550	1480	2160	3430
AC-FT	238900	267000	461400	209800	111100	109200	128400	120000	166600	110700	153600	239800

CAL YR 1980 TOTAL 1254190 MEAN 3427 MAX 16700 MIN 1360 AC-FT 2488000
WTR YR 1981 TOTAL 1167890 MEAN 3200 MAX 13700 MIN 1420 AC-FT 2317000

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.

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, 18.0°C July 2; minimum, 5.0°C Feb. 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (1.0 km) north of London, 11.0 mi (17.7 km) south of Cottage Grove, and at mile 35.9 (57.8 km).

DRAINAGE AREA.--72.1 mi^2 (186.7 km^2).

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 (259.866 m) 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.--Water-discharge records excellent. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--46 years, 200 ft^3/s (5.664 m^3/s), 37.67 in/yr (957 mm/yr), 144,900 acre-ft/yr (179 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) Dec. 22, 1964, gage height, 13.37 ft (4.075 m), from rating curve extended above 3,200 ft^3/s (90.6 m^3/s), on basis of slope-area measurement of peak flow; minimum, 6.8 ft^3/s (0.19 m^3/s) Aug. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,100 ft^3/s (59.5 m^3/s) and maximum discharge, 3,890 ft^3/s (110 m^3/s) Dec. 3, gage height, 8.28 ft (2.524 m); minimum, 9.3 ft^3/s (0.26 m^3/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	197	166	126	153	407	86	93	50	18	14
2	14	48	1440	145	111	138	351	83	86	47	18	18
3	13	31	2150	128	99	131	307	79	78	45	19	15
4	12	26	1490	115	92	217	256	79	73	41	18	14
5	12	23	784	105	93	194	230	81	70	40	17	15
6	12	92	561	97	88	174	211	85	78	40	18	14
7	12	337	376	92	81	160	188	78	76	43	19	13
8	12	206	277	86	76	145	177	73	205	40	18	11
9	13	300	221	81	73	131	270	78	233	38	17	11
10	13	194	197	78	71	122	250	75	174	37	16	12
11	13	114	182	73	70	115	311	70	138	36	15	12
12	24	78	171	70	67	109	602	67	133	35	15	11
13	29	60	155	67	75	107	498	64	202	34	16	11
14	40	67	140	64	202	107	372	64	205	33	16	11
15	30	81	148	63	174	113	311	93	168	32	16	10
16	24	64	171	61	508	233	260	117	143	30	16	9.9
17	20	54	155	61	498	230	221	107	122	29	16	10
18	19	48	135	57	462	191	194	194	107	29	14	11
19	18	43	120	56	772	166	174	270	103	29	14	13
20	17	39	124	53	735	143	155	227	92	27	16	14
21	17	45	128	54	462	135	148	177	83	27	15	13
22	17	94	182	61	335	166	133	140	78	26	15	14
23	17	107	171	67	263	150	126	120	75	25	14	14
24	18	128	270	97	281	138	128	148	68	25	14	13
25	28	96	1000	86	253	292	117	394	64	25	14	13
26	30	76	607	117	224	347	120	296	61	23	13	24
27	42	66	453	174	197	274	113	214	60	20	14	208
28	27	74	351	246	174	224	107	166	56	18	14	76
29	22	183	274	260	---	285	99	135	53	18	13	53
30	20	257	227	191	---	385	93	120	52	18	14	35
31	19	---	191	150	---	385	---	103	---	18	15	---
TOTAL	617	3059	13048	3221	6662	5860	6929	4083	3229	978	487	712.9
MEAN	19.9	102	421	104	238	189	231	132	108	31.5	15.7	23.8
MAX	42	337	2150	260	772	385	602	394	233	50	19	208
MIN	12	23	120	53	67	107	93	64	52	18	13	9.9
CFSM	.28	1.42	5.84	1.44	3.30	2.62	3.20	1.83	1.50	.44	.22	.33
IN.	.32	1.58	6.73	1.66	3.44	3.02	3.57	2.11	1.67	.50	.25	.37
AC-FT	1220	6070	25880	6390	13210	11620	13740	8100	6400	1940	966	1410

CAL YR 1980 TOTAL 61173.0 MEAN 167 MAX 2150 MIN 12 CFSM 2.32 IN 31.56 AC-FT 121300
WTR YR 1981 TOTAL 48885.9 MEAN 134 MAX 2150 MIN 9.9 CFSM 1.86 IN 25.22 AC-FT 96970

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.

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, 24.5°C Aug. 9; minimum, 3.0°C Dec. 13, Feb. 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	6.5	15.0	---	13.5	11.5	17.5	13.0	19.5	15.0	17.5	16.0
2	9.0	6.0	12.5	10.5	15.5	12.0	19.0	13.5	17.5	15.5	18.0	14.5
3	9.0	6.5	11.0	9.0	15.5	12.5	20.5	15.0	18.0	15.0	17.5	13.5
4	10.0	6.0	11.5	9.0	16.0	13.5	20.0	15.5	20.0	15.0	17.0	14.0
5	9.0	6.5	10.0	8.5	15.0	13.5	20.0	16.5	20.5	15.0	17.5	13.5
6	8.5	6.0	10.5	8.0	14.5	13.5	17.0	14.0	22.0	16.0	18.5	13.0
7	9.0	6.0	11.5	9.0	13.5	12.0	15.5	12.5	23.0	17.0	19.5	14.0
8	8.5	6.5	11.0	9.5	12.5	12.0	17.0	12.0	24.0	18.0	19.5	15.0
9	9.0	6.5	11.5	10.5	12.5	11.5	15.5	13.0	24.5	18.5	18.5	15.0
10	9.0	6.0	12.5	9.0	13.0	11.5	16.0	13.0	24.0	18.0	18.5	14.5
11	9.0	6.0	12.5	10.0	13.0	11.0	17.0	12.5	24.0	18.5	18.5	14.0
12	9.0	6.0	13.5	9.0	12.0	11.0	16.5	12.5	23.0	18.5	18.5	14.5
13	10.0	6.5	14.0	11.0	11.5	10.0	18.0	13.0	22.5	18.0	18.5	14.5
14	10.5	7.5	13.0	11.5	12.5	10.5	18.5	13.5	22.0	17.5	18.5	14.0
15	10.5	---	11.5	10.0	14.0	10.5	19.5	14.0	21.5	17.5	19.0	14.5
16	---	---	11.0	9.0	13.5	12.0	20.0	14.5	22.0	17.0	19.0	15.5
17	---	---	11.0	10.0	13.5	10.5	20.0	15.5	22.0	16.5	19.0	16.5
18	---	---	11.0	10.5	13.0	12.0	20.5	16.0	22.0	17.0	18.5	15.0
19	---	---	10.5	10.0	15.0	12.5	20.0	15.5	19.5	17.0	17.5	15.5
20	---	---	10.5	9.5	16.5	13.0	20.0	16.0	20.0	15.5	16.0	14.0
21	---	---	11.0	10.0	16.5	12.5	19.0	15.5	19.5	15.0	15.0	12.5
22	---	---	12.5	9.5	15.0	13.5	19.0	14.5	19.5	15.0	14.0	12.5
23	---	---	14.0	11.0	16.5	12.5	16.5	15.0	20.0	15.0	13.5	10.5
24	---	---	13.5	12.0	16.5	12.5	16.0	14.5	18.5	15.5	13.5	10.5
25	---	---	12.5	11.5	18.0	13.5	20.0	14.5	19.0	15.0	13.0	10.0
26	---	---	12.5	10.5	15.5	13.5	21.5	15.5	18.5	14.0	12.5	11.5
27	---	---	13.0	10.5	16.5	12.0	22.5	17.0	18.0	13.5	12.5	11.5
28	---	---	14.0	11.0	17.0	12.5	22.0	17.0	17.5	13.5	12.0	11.5
29	---	---	13.5	12.0	18.0	13.0	20.5	16.5	17.0	14.0	13.0	11.0
30	---	---	14.0	12.0	16.0	14.5	19.5	15.0	17.5	15.0	12.0	9.5
31	---	---	14.5	11.0	---	---	19.5	14.5	18.5	14.0	---	---
MONTH	10.5	6.0	15.0	8.0	18.0	10.0	22.5	12.0	24.5	13.5	19.5	9.5

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 (9.3 km) south of Cottage Grove, and at mile 29.7 (47.8 km).

DRAINAGE AREA.--104 mi² (269 km²).

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.--Reservoir 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 (40.6 hm³) between elevation 719.0 ft (219.15 m), outlet conduit, and 791.0 ft (241.10 m), 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 (45.3 hm³) Dec. 24, 1964, elevation, 794.23 ft (242.081 m); minimum 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, 32,480 acre-ft (40.0 hm³) June 8, 9, elevation, 790.61 ft (240.978 m); minimum, 3,110 acre-ft (3.83 hm³) Dec. 20, elevation, 749.9 ft (228.57 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	772.36	753.01	750.28	751.00	757.27	769.29	782.43	785.42	790.23	789.94	788.70	786.60
2	771.99	752.97	758.18	750.80	757.58	769.37	782.53	785.47	790.27	789.94	788.60	786.52
3	771.62	752.86	769.92	750.50	757.82	769.63	782.54	785.55	790.30	789.94	788.60	786.44
4	771.24	752.75	774.04	750.40	758.00	770.34	782.45	785.60	790.32	789.94	788.50	786.39
5	770.84	752.77	771.74	750.34	758.17	770.91	782.26	785.68	790.34	789.92	788.40	786.34
6	770.45	753.74	767.50	750.28	758.32	771.39	782.15	785.74	790.37	789.91	788.40	786.22
7	770.05	753.91	761.40	750.21	758.41	771.81	782.15	785.78	790.43	789.90	788.30	786.17
8	769.65	753.73	755.60	750.21	758.47	772.17	782.18	785.83	790.61	789.89	788.30	785.53
9	769.05	753.60	753.80	750.28	758.49	772.62	782.57	785.90	790.51	789.86	788.30	784.60
10	768.38	752.88	752.70	750.33	758.55	772.85	782.91	785.93	790.26	789.85	788.10	783.69
11	767.73	751.27	751.50	750.33	758.66	773.09	783.46	785.95	790.14	789.82	788.00	782.78
12	767.11	750.55	750.80	750.31	758.76	773.28	783.97	785.96	790.13	789.78	787.90	781.84
13	766.21	750.29	750.60	750.24	758.98	773.46	783.83	785.97	790.25	789.75	787.90	780.88
14	765.60	750.15	750.40	750.14	759.77	773.64	783.69	785.99	790.37	789.71	787.80	779.89
15	764.94	750.38	750.30	750.08	760.47	773.87	783.69	786.07	790.43	789.68	787.70	779.29
16	764.24	750.50	750.90	750.16	762.59	774.46	783.67	786.23	790.44	789.64	787.70	778.89
17	763.53	750.52	751.00	750.30	764.61	775.00	783.67	786.36	790.40	789.60	787.73	778.49
18	762.80	750.51	750.50	750.44	766.32	775.45	783.65	786.68	790.34	789.56	787.69	778.07
19	762.08	750.45	750.00	750.50	768.01	775.79	783.67	787.13	790.25	789.52	787.60	777.66
20	761.33	750.37	749.90	750.47	768.48	776.07	783.78	787.51	790.14	789.48	787.52	777.26
21	760.57	750.41	750.10	750.43	768.33	776.36	783.99	787.76	790.05	789.43	787.48	776.88
22	759.78	750.51	750.20	750.44	768.38	776.72	784.23	787.92	790.05	789.39	787.37	776.44
23	759.01	750.51	750.20	750.48	768.51	777.01	784.42	788.07	790.07	789.35	787.29	776.02
24	758.25	750.41	752.50	750.76	768.87	777.29	784.59	788.30	790.07	789.20	787.21	775.59
25	757.52	750.20	757.40	751.01	769.14	778.04	784.76	789.04	790.07	789.10	787.14	775.19
26	756.79	750.10	760.70	751.48	769.28	778.86	784.93	789.47	790.07	789.10	787.05	774.94
27	755.90	750.12	760.20	752.46	769.32	779.52	785.07	789.63	790.05	789.00	786.97	775.12
28	754.80	750.37	755.80	753.94	769.33	780.00	785.19	789.81	790.03	788.90	786.89	774.94
29	753.95	750.60	753.00	755.37	---	780.70	785.32	789.96	790.00	788.90	786.81	774.64
30	753.35	750.65	752.20	756.26	---	781.41	785.37	790.09	789.96	788.80	786.75	774.26
31	753.04	---	751.30	756.84	---	782.02	---	790.17	---	788.80	786.69	---
MEAN	763.68	751.37	755.31	751.19	762.82	774.92	783.64	787.13	790.23	789.54	787.72	780.25
MAX	772.36	753.91	774.04	756.84	769.33	782.02	785.37	790.17	790.61	789.94	788.70	786.60
MIN	753.04	750.10	749.90	750.08	757.27	769.29	782.15	785.42	789.96	788.80	786.69	774.26
(†)	4130	3340	3540	5640	12790	23390	26750	31980	31740	30440	28140	16470
(‡)	-11120	-790	+200	-2100	+7150	+10600	+3360	+5230	-240	-1300	-2300	-11670

CAL YR 1980 MEAN 773.20 MAX 790.41 MIN 749.90 AC-FT‡ +190
WTR YR 1981 MEAN 773.20 MAX 790.61 MIN 749.90 AC-FT‡ +1220

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

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 (0.5 km) downstream from Cottage Grove Dam, 5.5 mi (8.8 km) south of Cottage Grove, and at mile 29.4 (47.3 km).

DRAINAGE AREA.--104 mi² (269 km²).

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 (216.713 m) 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 (1.3 km) downstream.

REMARKS.--Records excellent. Flow regulated since 1942 by Cottage Grove Lake (see station 14153000). Small diversions for irrigation above station.

AVERAGE DISCHARGE.--42 years, 273 ft³/s (7.731 m³/s), 35.65 in/yr (906 mm/yr), 197,800 acre-ft/yr (244 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,910 ft³/s (167 m³/s) Dec. 24, 1964, gage height, 11.83 ft (3.606 m); no flow July 5-7, 1945, and for part of Aug. 24, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,020 ft³/s (85.5 m³/s) Dec. 6, gage height, 8.77 ft (2.675 m); minimum, 48 ft³/s (1.36 m³/s) Nov. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	67	316	299	99	248	326	76	81	64	53	51
2	154	49	380	229	99	216	414	76	81	52	53	51
3	154	49	111	225	99	119	414	76	81	52	52	51
4	154	51	546	189	99	81	402	76	81	52	53	51
5	152	51	1990	164	99	81	398	76	81	52	53	51
6	152	76	2430	154	99	81	340	76	81	52	53	51
7	152	186	2440	145	101	81	252	76	88	52	53	51
8	152	309	1790	124	105	83	196	76	246	52	53	312
9	204	333	717	107	105	83	150	76	391	52	53	495
10	240	380	499	107	80	83	152	76	387	52	53	490
11	237	428	486	107	76	83	152	76	249	52	53	486
12	237	210	380	107	78	83	532	76	181	52	53	481
13	235	111	246	107	78	83	731	76	181	52	53	472
14	235	92	246	107	80	83	573	76	181	52	53	464
15	232	60	189	97	83	83	423	76	181	52	53	306
16	232	60	178	76	88	83	343	76	181	52	53	191
17	229	62	210	67	86	85	299	78	181	52	52	191
18	229	62	210	67	258	85	255	78	183	52	52	191
19	229	62	210	72	764	83	215	80	189	52	52	191
20	226	62	191	80	587	80	152	81	189	52	52	189
21	223	62	145	85	387	76	75	80	138	52	52	189
22	220	107	223	94	289	76	73	80	86	52	52	189
23	218	133	252	94	289	76	73	78	76	53	52	186
24	218	176	168	94	289	76	73	81	78	52	52	186
25	215	152	67	94	289	76	75	85	76	52	52	186
26	212	111	66	94	279	78	75	133	76	52	52	186
27	210	76	750	95	265	78	75	176	76	52	52	186
28	246	60	1500	97	248	78	75	107	76	52	52	186
29	237	189	940	97	---	78	76	81	76	53	51	186
30	173	316	513	97	---	152	75	81	76	52	51	183
31	122	---	428	99	---	218	---	81	---	52	51	---
TOTAL	6285	4142	18867	3671	5498	3049	7462	2596	4328	1626	1624	6679
MEAN	203	138	609	118	196	98.4	249	83.7	144	52.5	52.4	223
MAX	246	428	2480	299	764	248	731	176	391	64	53	495
MIN	122	49	66	67	76	76	73	76	76	52	51	51
AC-FT	12470	8220	37420	7280	10910	6050	14800	5150	8580	3230	3220	13250
MEAN†	22.0	125	612	153	325	271	305	169	140	31.4	15.0	26.6
CFSM†	.21	1.20	5.88	1.47	3.12	2.61	2.93	1.62	1.35	.30	.14	.26
IN.†	.24	1.34	6.78	1.69	3.26	3.00	3.27	1.87	1.50	.35	.17	.28
AC-FT†	1350	7430	37620	9380	18060	16650	18160	10380	8340	1930	920	1580

CAL YR 1980 TOTAL 82911 MEAN 227 MAX 2480 MIN 49 AC-FT 164500 MEAN† 227 CFSM† 2.18 IN.† 29.70 AC-FT† 164690
WTR YR 1981 TOTAL 65827 MEAN 180 MAX 2480 MIN 49 AC-FT 130600 MEAN† 182 CFSM† 1.75 IN.† 23.77 AC-FT† 131820

† Adjusted for change in contents in Cottage Grove Lake.

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 (0.8 km) upstream from Pitcher Creek, 1.2 mi (1.9 km) northwest of Dorena, and at mile 13.2 (21.2 km).

DRAINAGE AREA.--211 mi^2 (546 km^2).

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 (260.958 m) National Geodetic Vertical Datum of 1929. Sept. 16, 1935, to Oct. 17, 1938, nonrecording gage at site 450 ft (137 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Slight regulation caused by upsteam logponds. No diversion above station.

AVERAGE DISCHARGE.--46 years, 595 ft^3/s (16.85 m^3/s), 38.29 in/yr (973 mm/yr), 431,100 acre-ft/yr (532 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft^3/s (937 m^3/s) Dec. 22, 1964, gage height, 18.19 ft (5.544 m), from rating curve extended above 12,000 ft^3/s (340 m^3/s), on basis of slope-area measurement of peak flow; minimum, 10 ft^3/s (0.28 m^3/s) Sept. 24, 25, 1951, Oct. 7, 8, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 7,000 ft^3/s (198 m^3/s) and maximum discharge, 12,200 ft^3/s (346 m^3/s) Dec. 2, gage height, 11.23 ft (3.423 m); minimum, 16 ft^3/s (0.45 m^3/s) Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	52	585	429	266	428	1210	323	308	141	43	23
2	25	138	7000	371	235	378	1050	288	277	130	43	28
3	24	82	6360	319	216	349	946	269	247	121	45	28
4	23	61	4250	277	198	447	909	266	224	112	43	25
5	22	54	1840	248	196	435	903	263	207	106	41	24
6	21	202	1240	226	187	413	844	274	224	105	40	23
7	22	1260	856	207	171	396	700	266	219	128	37	22
8	21	821	628	191	159	375	606	252	725	110	36	20
9	21	1040	516	177	151	345	850	252	1020	98	34	18
10	21	661	551	163	149	317	922	245	761	92	32	18
11	22	349	622	153	146	297	891	229	592	87	29	19
12	31	228	617	144	151	280	1560	210	524	84	29	19
13	61	171	565	135	173	269	1410	195	897	81	29	18
14	102	205	470	128	766	255	1190	188	952	76	29	17
15	72	413	534	123	622	260	1190	274	720	73	28	17
16	58	261	644	119	2230	537	965	494	583	70	28	16
17	49	196	547	118	1870	587	827	503	486	69	27	16
18	44	155	447	111	1760	482	751	934	413	66	26	16
19	42	131	377	105	2570	417	720	1480	410	63	26	20
20	40	116	383	100	2250	385	601	1110	378	60	29	22
21	39	121	423	102	1360	355	541	805	329	59	28	22
22	38	628	928	108	1020	474	507	635	297	56	27	24
23	37	644	791	118	788	470	494	511	271	56	26	27
24	38	748	1080	189	756	420	519	621	242	55	25	24
25	52	450	4010	165	700	1100	450	1800	219	55	24	22
26	62	346	2070	230	621	1330	482	1310	198	52	24	32
27	113	277	1420	433	546	959	470	856	184	50	24	635
28	67	308	1150	491	486	756	424	635	168	47	23	258
29	53	565	850	499	---	788	389	498	155	46	23	164
30	48	856	655	390	---	996	365	413	147	45	22	105
31	45	---	516	312	---	1150	---	352	---	43	23	---
TOTAL	1338	11539	42925	6881	20743	16450	23686	16751	12377	2436	943	1722
MEAN	43.2	385	1385	222	741	531	790	540	413	78.6	30.4	57.4
MAX	113	1260	7000	499	2570	1330	1560	1800	1020	141	45	635
MIN	21	52	377	100	146	255	365	188	147	43	22	16
CFSM	.21	1.83	6.56	1.05	3.51	2.52	3.74	2.56	1.96	.37	.14	.27
IN.	.24	2.03	7.57	1.21	3.66	2.90	4.18	2.95	2.18	.43	.17	.30
AC-FT	2650	22890	85140	13650	41140	32630	46980	33230	24550	4830	1870	3420

CAL YR 1980 TOTAL 191844 MEAN 524 MAX 8970 MIN 21 CFSM 2.48 IN 33.82 AC-FT 380500
WTR YR 1981 TOTAL 157791 MEAN 432 MAX 7000 MIN 16 CFSM 2.05 IN 27.82 AC-FT 313000

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 (8.0 km) east of Cottage Grove, and at mile 7.61 (12.24 km).

DRAINAGE AREA.--265 mi² (686 km²).

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 (95.7 hm³) between elevations 739.0 ft (225.25 m), sill of outlet gates, and 835.0 ft (254.51 m), crest of spillway. Dead storage, 18 acre-ft (22,200 m³) below elevation 739.0 ft (225.25 m). 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 (118 hm³) Dec. 23, 1964, elevation, 844.03 ft (257.260 m); minimum observed since first filling, 159 acre-ft (196,000 m³) Dec. 14, 1970, elevation, 743.60 ft (226.649 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 74,400 acre-ft (91.7 hm³) June 14, 15, elevation, 833.28 ft (253.984 m); minimum, 6,690 acre-ft (8.25 hm³) Nov. 13, 14, elevation, 769.70 ft (234.605 m).

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

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

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	812.98	772.80	772.70	771.80	780.00	810.34	823.70	826.84	832.18	832.47	831.70	828.76
2	812.10	772.30	790.80	771.87	780.36	810.37	823.88	827.04	832.20	832.49	831.63	828.65
3	811.21	772.10	807.60	771.51	780.60	810.56	824.00	827.20	832.17	832.49	831.56	828.56
4	810.29	772.00	816.00	770.92	780.78	810.87	824.16	827.32	832.14	832.51	831.49	828.45
5	809.37	771.90	816.00	770.54	780.97	811.06	824.37	827.50	832.14	832.53	831.41	828.35
6	808.45	772.40	813.00	770.47	781.13	811.16	824.49	827.70	832.15	832.56	831.33	828.24
7	807.52	773.60	809.00	770.46	781.19	811.25	824.46	827.90	832.18	832.58	831.26	828.13
8	806.58	775.00	804.30	770.42	781.21	811.31	824.20	828.00	832.62	832.57	831.17	827.44
9	805.47	776.40	798.70	770.60	781.20	811.38	824.36	828.20	832.70	832.53	831.08	826.24
10	804.28	774.40	792.30	770.76	781.22	811.49	824.59	828.20	832.41	832.50	830.99	825.00
11	803.08	770.90	785.10	770.85	781.30	811.59	824.85	828.30	832.33	832.50	830.90	823.78
12	801.93	769.80	779.20	770.97	781.39	811.61	825.58	828.40	832.48	832.50	830.79	822.49
13	800.80	769.70	775.10	770.86	781.59	811.64	825.56	828.50	833.07	832.50	830.70	821.19
14	799.80	769.76	770.40	770.56	783.83	812.01	825.58	828.60	833.28	832.48	830.60	819.91
15	798.50	770.82	769.80	770.46	785.53	812.22	825.61	828.80	833.07	832.47	830.50	818.98
16	796.90	770.82	770.40	770.46	791.34	812.96	825.34	829.30	832.66	832.45	830.40	818.44
17	795.30	770.63	771.10	770.46	797.70	813.76	824.94	829.80	832.46	832.43	830.30	817.89
18	793.70	770.45	771.30	770.47	802.51	814.37	824.90	830.90	832.38	832.40	830.20	817.30
19	792.00	770.28	770.90	770.54	807.08	814.84	825.06	832.10	832.33	832.37	830.09	816.71
20	790.30	770.28	770.80	770.58	807.35	815.24	825.06	832.20	832.21	832.34	830.00	816.11
21	788.60	770.59	771.20	770.52	808.12	815.61	825.07	832.14	832.13	832.31	829.90	815.51
22	786.90	771.83	771.60	770.35	808.42	816.15	825.09	832.12	832.12	832.27	829.80	814.92
23	785.10	772.44	770.50	770.32	808.76	816.66	825.13	832.12	832.22	832.23	829.70	814.32
24	783.50	773.51	770.00	770.74	809.31	817.09	825.24	832.39	832.35	832.19	829.59	813.71
25	781.90	773.15	786.50	771.03	809.83	818.78	825.25	833.02	832.43	832.15	829.49	813.07
26	780.40	772.27	793.40	771.66	810.06	820.81	825.30	832.61	832.48	832.11	829.38	812.58
27	778.90	771.59	794.20	773.48	810.20	821.79	825.58	832.41	832.50	832.05	829.27	813.08
28	777.20	771.69	789.90	775.59	810.34	822.02	825.98	832.30	832.51	832.00	829.17	812.92
29	775.60	772.76	784.60	777.52	---	822.39	826.33	832.25	832.50	831.93	829.06	812.43
30	774.00	773.65	778.60	778.73	---	822.83	826.62	832.17	832.48	831.86	828.96	811.68
31	773.30	---	773.10	779.49	---	823.30	---	832.12	---	831.77	828.85	---
MEAN	795.03	771.99	785.26	771.77	792.98	814.76	825.01	829.95	832.43	832.34	830.36	820.16
MAX	812.98	776.40	816.00	779.49	810.34	823.30	826.62	833.02	833.28	832.58	831.70	828.76
MIN	773.30	769.70	769.80	770.32	780.00	810.34	823.70	826.84	832.12	831.77	828.85	811.68
(†)	8590	8780	8480	12210	39790	57390	62690	72270	72930	71640	66460	41410
(‡)	-35210	+190	-300	+3730	+27580	+17600	+5300	+9580	+660	-1290	-5180	+25050

CAL YR 1980 MEAN 808.79 MAX 832.73 MIN 769.70 AC-FT‡ +1180
WTR YR 1981 MEAN 808.59 MAX 833.28 MIN 769.70 AC-FT‡ -2390

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

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 (2.7 km) upstream from Mosby Creek, 2.1 mi (3.4 km) downstream from Dorena Dam, 3.5 mi (5.6 km) east of Cottage Grove, and at mile 5.5 (8.8 km).

DRAINAGE AREA.--270 mi² (699 km²).

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 (208.861 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Jan. 5 to Oct. 12, 1939, nonrecording gage at site 180 ft (55 m) upstream at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated since October 1949 by Dorena Lake (see station 14155000). No diversion above station.

AVERAGE DISCHARGE.--42 years, 748 ft³/s (21.18 m³/s), 37.62 in/yr (956 mm/yr), 541,900 acre-ft/yr (668 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft³/s (606 m³/s) Dec. 28, 1945, gage height, 18.20 ft (5.547 m); minimum, 0.20 ft³/s (0.006 m³/s) Sept. 25 to Oct. 7, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,050 ft³/s (115 m³/s) Dec. 5, 9, gage height, 7.20 ft (2.195 m); minimum, 87 ft³/s (2.46 m³/s) July 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	232	1020	955	237	549	1250	190	323	166	102	99
2	574	137	870	479	237	468	1220	193	323	143	102	99
3	569	94	193	499	237	370	1160	193	323	140	102	99
4	564	94	422	494	237	437	1040	193	301	112	102	99
5	559	94	2670	422	241	473	974	193	275	97	102	99
6	559	146	4000	323	241	468	949	193	275	97	102	99
7	554	337	3970	288	241	468	882	193	275	120	102	99
8	554	666	3950	266	241	437	968	193	595	140	102	611
9	633	1160	3950	212	241	395	968	193	1220	140	102	999
10	672	1480	3910	197	220	328	968	193	1220	123	102	987
11	666	1410	3890	197	201	301	974	193	777	92	99	980
12	661	606	2990	179	201	301	1430	193	595	94	99	974
13	650	216	1970	224	201	237	1880	193	777	94	99	962
14	644	166	1840	249	208	205	1520	193	1090	92	99	955
15	747	241	864	201	212	205	1460	193	1140	92	99	611
16	795	292	528	172	228	208	1400	193	1140	92	99	370
17	783	262	606	172	245	208	1320	193	783	94	99	384
18	771	208	622	156	254	208	937	193	569	94	99	408
19	753	186	574	140	741	208	695	503	569	92	99	403
20	741	126	494	140	1320	208	695	1400	569	92	99	403
21	729	107	513	166	1330	208	628	1040	468	92	99	403
22	712	417	987	205	1140	212	569	771	370	92	99	398
23	700	601	1180	205	814	212	538	628	232	92	99	398
24	628	606	633	205	695	212	518	543	169	92	99	398
25	590	622	134	205	695	220	518	1660	182	92	99	398
26	580	601	134	208	695	220	518	2130	197	92	99	398
27	569	479	1510	216	633	448	347	1270	193	90	99	393
28	580	337	3470	224	549	747	186	888	197	90	99	393
29	549	437	3280	232	---	753	186	644	193	97	99	484
30	437	851	3050	237	---	931	186	564	193	102	99	580
31	328	---	2330	237	---	1130	---	473	---	102	99	---
TOTAL	19259	13211	56554	8305	12735	11973	26884	15985	15533	3239	3099	13983
MEAN	621	440	1824	268	455	386	896	516	518	104	100	466
MAX	795	1480	4000	955	1330	1130	1880	2130	1220	166	102	999
MIN	328	94	134	140	201	205	186	190	169	90	99	99
AC-FT	38200	26200	112200	16470	25260	23750	53320	31710	30810	6420	6150	27740
MEAN†	48.8	443	1820	329	951	672	985	672	529	83.4	15.8	45.2
CFSM†	.18	1.64	6.74	1.22	3.52	2.49	3.65	2.49	1.96	.31	.05	.17
IN.†	.21	1.83	7.77	1.40	3.67	2.87	4.07	2.87	2.19	.35	.07	.19
AC-FT†	3000	26390	111900	20200	52840	41350	58620	41290	31470	5130	970	2690

CAL YR 1980 TOTAL 240093 MEAN 656 MAX 5000 MIN 92 AC-FT 476200 MEAN† 658 CFSM 2.44 IN.† 36.16 AC-FT† 477380
WTR YR 1981 TOTAL 200760 MEAN 550 MAX 4000 MIN 90 AC-FT 398200 MEAN† 547 CFSM 2.03 IN.† 27.49 AC-FT† 395810

† Adjusted for change in contents in Dorena Lake.

14156500 MOSBY CREEK AT MOUTH, NEAR COTTAGE GROVE, OR

LOCATION.--Lat 43°46'35", long 122°59'55", in SE¼NW¼ sec.1, T.21 S., R.3 W., Lane County, Hydrologic Unit 17090002, on left bank 3.5 mi (5.6 km) southeast of Cottage Grove and at mile 1.0 (1.6 km).

DRAINAGE AREA.--95.3 mi² (246.8 km²).

PERIOD OF RECORD.--September 1946 to September 1981 (discontinued). Monthly discharge only September 1946, published in WSP 1318.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 676.62 ft (206.234 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--35 years, 241 ft³/s (6.825 m³/s), 34.34 in/yr (872 mm/yr), 174,600 acre-ft/yr (215 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s (399 m³/s) Dec. 22, 1964, gage height, 13.37 ft (4.075 m), from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.8 ft³/s (0.079 m³/s) Aug. 15, 1973, Sept. 24, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft³/s (70.8 m³/s) and maximum discharge, 5,210 ft³/s (148 m³/s) Dec. 3, gage height, 8.19 ft (2.496 m); minimum, 3.6 ft³/s (0.10 m³/s) Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	17	292	189	186	182	567	90	100	44	11	5.8
2	8.2	66	2660	160	153	160	470	84	88	40	11	6.7
3	7.8	40	3310	140	134	146	382	80	78	38	12	7.1
4	7.4	29	2470	122	119	262	305	80	73	35	12	6.1
5	7.1	23	1140	108	113	274	266	78	66	33	11	5.8
6	6.7	78	823	100	105	250	246	86	73	31	11	5.8
7	6.4	561	542	93	95	223	214	80	75	33	9.8	5.2
8	6.7	387	376	86	88	193	193	76	274	30	9.0	4.6
9	6.7	420	287	80	84	167	324	76	371	27	7.8	4.3
10	7.1	319	258	76	80	146	344	76	262	26	6.7	4.6
11	7.1	167	246	71	76	137	360	71	197	24	6.4	4.9
12	12	105	230	67	75	128	842	67	171	23	5.8	4.6
13	19	76	202	64	78	122	738	62	262	23	5.8	4.3
14	36	75	167	61	339	122	505	61	315	21	6.1	4.1
15	31	105	171	59	310	128	387	76	250	20	6.4	4.1
16	23	82	202	57	887	310	300	122	197	20	6.4	4.1
17	18	67	182	57	947	387	246	116	160	19	6.1	4.1
18	15	56	153	54	804	287	214	214	131	20	5.2	4.1
19	14	48	131	51	1240	230	186	447	119	18	5.2	4.9
20	13	43	134	48	1150	189	160	387	102	18	5.8	5.5
21	12	44	143	50	692	163	150	274	86	18	6.1	5.8
22	12	178	283	54	464	193	134	206	78	18	5.8	6.1
23	11	178	283	61	344	186	122	160	75	17	5.5	6.1
24	12	234	453	95	329	163	125	182	66	17	5.2	6.1
25	17	160	1780	102	310	398	116	628	61	17	5.2	5.8
26	22	111	996	134	274	614	128	517	56	16	5.2	8.2
27	40	88	663	250	242	431	128	319	54	14	5.2	193
28	28	95	493	349	214	315	119	230	48	12	5.2	100
29	20	227	365	393	---	349	108	174	47	12	5.2	56
30	17	415	283	296	---	476	100	143	44	11	5.2	38
31	16	---	230	230	---	505	---	119	---	12	5.5	---
TOTAL	467.4	4494	19948	3757	9932	7836	8479	5381	3977	707	219.8	525.8
MEAN	15.1	150	643	121	355	253	283	174	133	22.8	7.09	17.5
MAX	40	561	3310	393	1240	614	842	628	371	44	12	193
MIN	6.4	17	131	48	75	122	100	61	44	11	5.2	4.1
CFSM	.16	1.57	6.75	1.27	3.73	2.66	2.97	1.83	1.40	.24	.07	.18
IN.	.18	1.75	7.79	1.47	3.88	3.06	3.31	2.10	1.55	.28	.09	.21
AC-FT	927	8910	39570	7450	19700	15540	16820	10670	7890	1400	436	1040

CAL YR 1980 TOTAL 80803.9 MEAN 221 MAX 3700 MIN 5.8 CFSM 2.32 IN 31.54 AC-FT 160300
WTR YR 1981 TOTAL 65724.0 MEAN 180 MAX 3310 MIN 4.1 CFSM 1.89 IN 25.65 AC-FT 130400

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 (4.0 km) southeast of Goshen, and at mile 6.4 (10.3 km).

DRAINAGE AREA.--642 mi² (1,663 km²).

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 (144.414 m) National Geodetic Vertical Datum of 1929. Aug. 23, 1905, to Feb. 7, 1912, nonrecording gage at site 600 ft (183 m) upstream at different datum.

REMARKS.--Records good. 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 above station.

AVERAGE DISCHARGE.--37 years (water years 1906-11, 1951-81), 1,637 ft³/s (46.36 m³/s), 1,186,000 acre-ft/yr (1.46 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,500 ft³/s (1,660 m³/s) Nov. 22, 1909, gage height, 19.5 ft (5.94 m), site and datum then in use, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum, 36 ft³/s (1.02 m³/s) Sept. 29, 30, Oct. 11, 12, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,700 ft³/s (530 m³/s) Dec. 4, gage height, 14.33 ft (4.368 m); minimum, 140 ft³/s (3.96 m³/s) Aug. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	468	413	1850	2160	874	1350	2620	440	600	327	161	161
2	713	327	6550	1240	807	1230	2580	429	566	262	161	158
3	719	243	10600	1190	756	983	2360	423	547	243	161	161
4	719	219	9850	1100	719	1470	2120	423	522	232	161	158
5	719	205	6960	975	756	1300	1960	440	474	205	158	155
6	719	232	8530	827	744	1180	1860	462	479	202	161	155
7	713	847	7460	744	686	1090	1620	445	491	209	158	155
8	713	1370	6700	713	656	998	1640	429	960	243	158	407
9	756	1820	5260	621	642	888	1750	440	2090	236	155	1400
10	888	2190	4720	566	621	800	1730	434	2070	243	153	1420
11	881	2020	4610	553	553	737	1940	418	1540	202	150	1430
12	902	1330	4040	534	540	713	3170	407	1120	193	150	1420
13	902	522	2680	522	593	649	3740	397	1410	187	150	1420
14	902	445	2480	566	1350	580	3020	402	1820	184	150	1410
15	945	423	1820	540	1120	635	2570	418	1770	187	150	1170
16	1020	497	1080	456	1940	960	2370	474	1670	181	150	593
17	1010	468	1220	434	2450	945	2120	479	1420	178	153	580
18	990	382	1190	429	2070	820	1720	621	1010	175	150	614
19	975	363	1150	387	3290	750	1330	931	990	178	155	614
20	967	310	1050	387	4460	686	1240	2010	960	175	155	607
21	960	281	1080	402	3460	656	1060	1720	867	172	153	607
22	945	725	1750	573	2720	756	945	1230	635	166	153	607
23	931	1060	2240	614	2120	686	895	1060	540	164	153	600
24	924	1160	2570	678	2140	656	861	975	387	166	153	593
25	847	1090	4610	664	2010	1290	840	2170	377	166	150	593
26	847	931	2930	807	1850	1420	840	3150	377	166	153	621
27	840	813	2920	1120	1750	1300	737	2100	373	166	150	807
28	833	586	6080	1430	1450	1470	503	1510	358	155	155	756
29	867	902	5200	1500	---	1700	474	1080	345	150	155	707
30	713	1780	4220	1170	---	2050	456	917	331	158	158	820
31	628	---	3610	983	---	2360	---	847	---	161	161	---
TOTAL	25956	23954	126810	24885	43127	33108	51071	27681	27099	6032	4794	20899
MEAN	837	798	4091	803	1540	1068	1702	893	903	195	155	697
MAX	1020	2190	10600	2160	4460	2360	3740	3150	2090	327	161	1430
MIN	468	205	1050	387	540	580	456	397	331	150	150	155
AC-FT	51480	47510	251500	49360	85540	65670	101300	54910	53750	11960	9510	41450

CAL YR 1980 TOTAL 506869 MEAN 1385 MAX 10600 MIN 153 AC-FT 1005000
WTR YR 1981 TOTAL 415416 MEAN 1138 MAX 10600 MIN 150 AC-FT 824000

14158500 MCKENZIE RIVER AT OUTLET OF CLEAR LAKE, OR

LOCATION.--Lat 44°21'40", long 121°59'40", in SE¼ 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 (46 m) upstream from outlet and at mile 89.6 (144.2 km).

DRAINAGE AREA.--92.4 mi^2 (239.3 km^2), 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 (919.070 m) 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 (1.6 km) north at different datum.

REMARKS.--Records good. Flow regulated by natural storage in lake. At high stages an undetermined flow enters numerous sinkholes in lava rock along south edge of lake above station.

AVERAGE DISCHARGE.--37 years, 467 ft^3/s (13.23 m^3/s), 68.63 in/yr (1,743 mm/yr), 338,300 acre-ft/yr (417 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,300 ft^3/s (93.5 m^3/s) Dec. 23, 1964, gage height, 8.15 ft (2.484 m); minimum, 137 ft^3/s (3.88 m^3/s) Sept. 23, 1977, Nov. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft^3/s (49.3 m^3/s) Dec. 25, gage height, 5.61 ft (1.710 m); minimum observed, 137 ft^3/s (3.88 m^3/s) Nov. 4 (result of discharge measurement).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	140	301	965	326	686	366	491	344	366	199	170
2	154	140	371	906	324	647	366	479	344	360	198	170
3	154	140	661	853	319	609	368	467	339	352	196	170
4	153	137	981	801	311	579	368	455	339	347	196	170
5	152	140	782	749	309	540	371	440	334	337	192	169
6	152	150	668	703	301	507	371	422	329	331	192	169
7	152	173	623	658	294	482	371	407	331	326	190	167
8	151	187	616	609	289	467	374	399	360	316	189	167
9	149	205	623	569	282	452	379	393	363	309	187	169
10	148	229	619	527	277	428	377	385	368	291	187	169
11	146	249	599	491	275	410	382	382	419	289	184	167
12	151	256	572	470	270	402	382	377	473	279	183	166
13	151	258	540	455	275	396	374	371	514	270	183	167
14	146	256	504	431	294	391	377	368	543	261	183	166
15	140	252	479	410	301	388	377	368	556	254	180	166
16	140	247	464	399	388	388	379	360	559	249	179	166
17	140	241	449	393	504	379	377	355	559	243	177	166
18	140	236	431	385	823	371	379	355	546	240	176	166
19	140	231	419	379	1130	368	382	352	536	236	176	166
20	140	227	413	374	961	363	388	347	520	232	176	166
21	140	232	428	368	883	360	393	344	498	227	174	167
22	140	240	543	366	891	360	407	344	479	224	174	167
23	140	243	672	366	887	352	440	342	464	222	173	166
24	140	254	746	368	883	350	520	344	446	218	174	166
25	140	263	1450	360	842	355	530	350	425	217	173	165
26	140	270	1500	363	801	352	514	344	407	212	172	169
27	140	277	1180	358	760	347	495	344	396	210	173	177
28	140	282	1120	352	724	347	485	347	388	208	172	176
29	140	299	1090	344	---	355	482	347	382	207	172	173
30	140	304	1080	339	---	360	488	350	374	204	172	173
31	140	---	1020	334	---	368	---	347	---	201	172	---
TOTAL	4495	6758	21944	15445	14924	13159	12262	11776	12935	8238	5624	5051
MEAN	145	225	708	498	533	424	409	380	431	266	181	168
MAX	156	304	1500	965	1130	686	530	491	559	366	199	177
MIN	140	137	301	334	270	347	366	342	329	201	172	165
CFSM	1.57	2.44	7.66	5.39	5.77	4.59	4.43	4.11	4.67	2.88	1.96	1.82
IN.	1.81	2.72	8.83	6.22	6.01	5.30	4.94	4.74	5.21	3.32	2.26	2.03
AC-FT	8920	13400	43530	30640	29600	26100	24320	23360	25660	16340	11160	10020

CAL YR 1980 TOTAL 133007 MEAN 363 MAX 1640 MIN 137 CFSM 3.93 IN 53.55 AC-FT 263800
WTR YR 1981 TOTAL 132611 MEAN 363 MAX 1500 MIN 137 CFSM 3.93 IN 53.39 AC-FT 263000

NOTE.--No gage-height record Oct. 15 to Nov. 6.

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 (61 m) upstream from Smith River Reservoir, 0.7 mi (1.1 km) downstream from Browder Creek, 10 mi (16 km) north of town of Belknap Springs, and at mile 4.4 (7.1 km).

DRAINAGE AREA.--16.2 mi² (42.0 km²).

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 (795.528 m) National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Sept. 10, 1964, at datum 1.56 ft (0.475 m) higher.

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

AVERAGE DISCHARGE.--21 years, 90.0 ft³/s (2.549 m³/s), 75.44 in/yr (1,916 mm/yr), 65,200 acre-ft/yr (80.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,160 ft³/s (146 m³/s) Dec. 22, 1964, gage height, 11.9 ft (3.63 m), from floodmark, from rating curve extended above 560 ft³/s (15.9 m³/s), on basis of slope-area measurement of peak flow; minimum, 2.5 ft³/s (0.071 m³/s) Sept. 15-18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1000	1,190	33.7	8.05	2.454	Feb. 16	1200	1,030	29.2	7.88	2.402
Dec. 25	1700	*1,300	36.8	*8.15	2.484	Feb. 18	1800	995	28.2	7.84	2.390

Minimum, 2.5 ft³/s (0.071 m³/s) Sept. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	9.9	96	122	22	61	91	81	35	27	7.7	3.7
2	3.2	11	654	103	21	54	78	70	31	25	7.3	3.7
3	3.2	7.7	1030	87	21	51	69	61	27	22	7.3	3.5
4	3.2	6.7	536	73	20	50	63	56	27	21	7.3	3.3
5	3.0	6.4	294	65	21	44	75	52	26	20	7.0	3.2
6	3.0	49	195	58	19	41	72	49	26	20	7.0	3.2
7	3.0	204	141	52	18	39	63	47	39	30	7.0	3.0
8	3.0	262	110	46	18	37	65	46	302	22	6.7	2.8
9	3.0	174	91	43	17	34	68	45	448	19	6.4	2.8
10	3.0	113	75	39	17	32	62	43	251	18	6.1	2.8
11	3.0	75	65	37	19	30	59	39	165	17	5.8	2.8
12	6.1	56	58	34	25	27	53	37	148	16	5.8	2.8
13	9.5	44	53	31	63	26	51	34	173	15	5.8	2.7
14	6.4	41	50	27	237	25	58	34	155	14	5.5	2.7
15	5.0	37	63	26	203	29	75	42	124	13	5.3	2.5
16	4.3	33	98	24	735	34	103	40	114	13	5.0	2.5
17	4.1	31	108	22	459	31	120	43	99	12	4.8	2.5
18	3.9	28	101	21	750	29	153	56	86	11	4.5	2.7
19	3.7	26	91	20	575	27	173	65	91	11	4.5	3.9
20	3.7	25	92	19	330	27	155	61	81	10	5.0	3.7
21	3.5	108	198	19	225	33	141	62	69	9.9	4.1	9.5
22	3.5	178	581	18	178	52	153	57	62	9.5	3.9	8.4
23	3.3	135	401	19	146	47	184	51	57	9.5	3.9	5.5
24	3.7	105	581	20	128	45	184	56	50	9.1	3.7	4.1
25	5.3	87	1120	18	105	82	137	92	44	8.7	3.7	3.7
26	7.7	75	727	27	89	81	114	81	41	8.7	3.5	9.9
27	7.7	73	458	32	76	76	94	65	39	8.4	3.5	35
28	5.8	82	298	33	69	69	87	54	35	8.0	3.5	30
29	4.8	125	218	30	---	86	87	47	33	8.0	3.3	26
30	4.5	120	192	26	---	79	92	43	30	8.0	3.5	15
31	4.3	---	151	24	---	96	---	39	---	7.7	3.5	---
TOTAL	134.7	2527.7	8926	1215	4586	1474	2979	1648	2908	451.5	161.9	207.9
MEAN	4.35	77.6	288	39.2	164	47.5	99.3	53.2	96.9	14.6	5.22	6.93
MAX	9.5	262	1120	122	750	96	184	92	448	30	7.7	35
MIN	3.0	6.4	50	18	17	25	51	34	26	7.7	3.3	2.5
CFSM	.27	4.79	17.8	2.42	10.1	2.93	6.13	3.28	5.98	.90	.32	.43
IN.	.31	5.54	20.50	2.79	10.53	3.38	6.84	3.78	6.68	1.04	.37	.48
AC-FT	267	4620	17700	2410	9100	2920	5910	3270	5770	896	321	412

CAL YR 1980 TOTAL 31892.8 MEAN 87.1 MAX 1120 MIN 3.0 CFSM 5.38 IN 73.23 AC-FT 63260
WTR YR 1981 TOTAL 27019.7 MEAN 74.0 MAX 1120 MIN 2.5 CFSM 4.57 IN 62.04 AC-FT 53590

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 (244 m) upstream from Bunchgrass Creek, 8 mi (13 km) north of town of Belknap Springs, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--18.2 mi^2 (47.1 km^2).

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

GAGE.--Telemark with equipment to transmit elevations at 15-minute intervals. 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 (18.5 hm^3) at elevation 2,605.0 ft (794.00 m) top of spillway gates, and usable capacity is 9,900 acre-ft (12.2 hm^3) between elevations 2,525.0 ft (769.62 m), minimum power pool, and 2,605.0 ft (794.0 m). Storage of 5,100 acre-ft (6.29 hm^3), below elevation 2,525.0 ft (769.62 m), 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 (18.7 hm^3) Dec. 22, 1964, elevation, 2,606.5 ft (794.46 m); minimum, 5,700 acre-ft (7.03 hm^3) Apr. 11, 14, 1964, elevation, 2,532.90 ft (772.028 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,830 acre-ft (18.3 hm^3) June 19, elevation, 2,604.29 ft (793.788 m); minimum, 11,540 acre-ft (14.2 hm^3) Mar. 11, elevation, 2,583.15 ft (787.344 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	2,602.22	14,480	-
Oct. 31	2,598.84	13,910	-570
Nov. 30	2,595.00	13,300	-610
Dec. 31	2,595.13	13,320	+20
CAL YR 1980	-	-	+500
Jan. 31	2,593.97	13,140	-180
Feb. 28	2,595.22	13,340	+200
Mar. 31	2,597.68	13,730	+390
Apr. 30	2,601.02	14,270	+540
May 31	2,600.56	14,200	-70
June 30	2,601.40	14,340	+140
July 31	2,601.38	14,340	0
Aug. 31	2,600.80	14,240	-100
Sept.30	2,601.14	14,290	+50
WTR YR 1981	-	-	-190

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 (0.6 km) downstream from Trail Bridge Dam, 0.5 mi (0.8 km) upstream from Anderson Creek, 5 mi (8 km) north of town of Belknap Springs, and at mile 81.5 (131.1 km).

DRAINAGE AREA.--184 mi² (477 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,980.00 ft (603.504 m) National Geodetic Vertical Datum of 1929 (levels by Eugene Water and Electric Board). Prior to Oct. 11, 1963, at datum 5.60 ft (1.707 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since 1963 by Smith River Reservoir (see station 14158795). Diurnal fluctuations by powerplants and by Trail Bridge reregulating reservoir upstream. Water is diverted from McKenzie River in SW¼ sec.20, T.14 S., R.7 E., to Smith River Reservoir and returned to river above station.

AVERAGE DISCHARGE.--22 years, 1,024 ft³/s (29.00 m³/s), 75.58 in/yr (1,920 mm/yr), 741,900 acre-ft/yr (915 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft³/s (317 m³/s) Dec. 22, 1964, gage height, 12.45 ft (3.795 m), from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurement of peak flow; minimum, 185 ft³/s (5.24 m³/s) Feb. 3, 1963; minimum daily, 425 ft³/s (12.0 m³/s) Nov. 23, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,160 ft³/s (118 m³/s) Dec. 25, gage height, 9.52 ft (2.902 m); minimum, 484 ft³/s (13.7 m³/s) Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	511	538	780	1570	734	1150	920	979	773	800	611	566
2	511	538	1660	1470	734	1130	912	964	753	800	600	549
3	511	516	2530	1370	740	1220	891	920	760	793	589	561
4	516	522	1690	1340	747	1290	869	905	753	753	589	555
5	516	505	1420	1300	747	1220	883	905	760	747	589	549
6	516	600	1400	1280	747	1000	876	883	760	753	589	544
7	516	834	1310	1220	721	1020	827	820	820	760	589	544
8	516	920	1160	1160	715	972	766	820	1180	773	589	544
9	516	800	1120	1140	690	942	766	841	1280	740	589	549
10	511	696	1100	1070	665	934	813	834	1070	734	589	555
11	516	623	1070	979	665	898	957	827	995	708	600	555
12	527	594	1050	912	683	813	869	807	995	696	606	555
13	538	606	995	920	834	813	813	786	1070	696	589	555
14	555	677	972	905	912	813	883	780	1050	690	589	555
15	566	727	898	862	934	807	898	800	1030	665	583	555
16	572	677	934	820	1660	841	912	841	979	641	583	555
17	561	659	979	827	1410	807	934	841	995	641	583	555
18	538	641	979	855	1890	780	972	800	1000	641	589	555
19	527	617	942	862	1840	766	1020	813	1030	641	594	549
20	522	589	891	827	1590	760	995	827	1020	659	594	549
21	522	721	1000	800	1450	740	942	800	972	677	594	555
22	511	780	1570	793	1400	734	898	766	972	665	589	589
23	495	780	1490	747	1290	727	1040	766	942	635	572	577
24	495	747	1780	753	1350	727	1100	848	912	617	572	555
25	500	766	3360	773	1240	753	1090	891	920	606	572	538
26	500	773	2860	827	1230	780	1000	813	876	611	572	561
27	500	753	2140	841	1220	793	987	793	813	623	572	611
28	500	760	1920	786	1170	807	979	793	813	635	572	577
29	500	834	1720	753	---	820	964	793	800	641	572	589
30	505	841	1550	727	---	876	920	793	800	617	572	549
31	522	---	1550	727	---	912	---	793	---	611	572	---
TOTAL	16112	20634	44820	30216	30008	27645	27696	25842	27893	21269	18164	16755
MEAN	520	688	1446	975	1072	892	923	834	930	686	586	559
MAX	572	920	3360	1570	1890	1290	1100	979	1280	800	611	611
MIN	495	505	780	727	665	727	766	766	753	606	572	538
AC-FT	31960	40930	88900	59930	59520	54830	54940	51260	55330	42190	36030	33230
MEAN†	510	678	1146	972	1075	898	932	833	932	686	584	559
CFSM†	2.77	3.68	6.23	5.28	5.84	4.88	5.07	4.53	5.07	3.73	3.17	3.04
IN.†	3.20	4.11	9.06	6.09	6.09	5.63	5.65	5.22	5.65	4.30	3.66	3.39
AC-FT†	31390	40320	88920	59750	59720	55220	55480	51190	55470	42190	35930	33280

CAL YR 1980 TOTAL 312465 MEAN 854 MAX 3360 MIN 495 AC-FT 619800 MEAN† 854 CFSM† 4.64 IN.† 63.23 AC-FT† 620300
WTR YR 1981 TOTAL 307054 MEAN 841 MAX 3360 MIN 495 AC-FT 609000 MEAN† 841 CFSM† 4.57 IN.† 62.05 AC-FT† 608810

† Adjusted for change in contents in Smith River Reservoir.

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.

INSTRUMENTATION.--Dual conductivity-temperature recorder since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 67 micromhos Nov. 9, 10, 1977; minimum recorded, 35 micromhos Dec. 15, 1977.
WATER TEMPERATURES: Maximum recorded, 12.0°C Aug. 1, 1977; minimum recorded, 2.5°C Jan. 26, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 62 micromhos Nov. 3, 4; minimum, 38 micromhos Dec. 25, 26.
WATER TEMPERATURES: Maximum, 11.5°C Aug. 18; minimum, 4.0°C Dec. 8-19, Feb. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	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)
APR												
02...	0930	910	49	7.6	5.5	12.4	16	.00	3.6	1.6	3.5	.9
SEP												
15...	1100	555	55	7.4	8.0	--	18	.00	4.1	1.9	3.8	1.3

DATE	ALKA-LINITY LAB (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, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
APR												
02...	20	< 5.0	.6	.1	.030	.29	< .10	.040	.71	.71	.060	.060
SEP												
15...	27	< 5.0	.4	.1	.070	.20	< .10	.110	.24	.26	.040	.050

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	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)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
APR												
02...	1.0	.1	20	41	43	101	.70	2	2	20	< 100	1
SEP												
15...	.4	.1	23	52	56	77.9	.50	< 1	< 1	20	200	1

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR												
02...	< 1	10	10	< 3	< 1	2	4	< 10	560	1	1	< 1
SEP												
15...	< 1	< 10	10	< 3	1	2	5	11	80	<1	< 1	2

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR											
02...	20	< .1	< .1	3	1	< 1	< 1	< 1	< 1	6	20
SEP											
15...	10	< .1	.1	<1	<1	< 1	< 1	< 1	< 1	19	30

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	61	56	42	50	43	47	48	---	52	56	56
2	60	61	55	43	50	43	47	48	51	53	56	56
3	59	61	51	43	49	43	47	48	53	53	56	56
4	60	61	48	44	50	43	48	48	54	54	56	56
5	60	61	49	44	50	43	48	49	53	54	56	56
6	60	60	48	44	50	44	48	49	53	54	56	55
7	60	59	47	45	50	45	47	49	54	54	56	55
8	60	58	48	45	50	45	48	49	54	55	56	55
9	60	58	47	46	50	45	48	50	51	55	56	56
10	60	58	48	45	50	46	48	49	51	54	56	56
11	60	58	49	46	50	46	48	49	51	55	56	56
12	60	57	50	46	50	47	48	50	51	55	56	56
13	60	57	50	47	50	47	48	50	51	55	56	56
14	60	57	50	47	49	47	48	---	52	55	56	56
15	60	57	50	47	49	47	48	---	52	55	56	56
16	60	57	50	47	47	47	48	---	52	55	57	55
17	60	57	49	48	45	47	48	---	52	55	57	56
18	60	57	50	48	42	48	48	---	52	55	56	56
19	60	58	50	48	40	48	48	---	52	55	56	55
20	60	58	51	48	41	48	48	---	52	55	56	56
21	60	58	50	48	41	48	47	---	52	56	56	56
22	60	57	49	48	41	48	48	---	51	55	56	55
23	60	57	46	49	41	49	47	---	51	56	57	56
24	60	57	45	49	41	48	47	---	51	56	56	55
25	60	57	41	49	42	48	46	---	51	56	55	55
26	60	57	40	49	42	48	46	---	51	55	56	56
27	61	57	40	48	43	48	47	---	52	56	56	55
28	61	56	40	50	43	48	47	---	52	56	56	55
29	61	56	41	53	---	48	47	---	52	56	56	55
30	61	56	42	52	---	48	48	---	53	56	56	55
31	61	---	42	49	---	47	---	---	---	56	56	---
MEAN	60	58	47	47	46	46	48	49	52	55	56	56

14158850 MCKENZIE RIVER BELOW TRAIL BRIDGE DAM, NEAR BELKNAP SPRINGS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	8.0	6.5	6.5	5.5	5.0	5.5	5.5	5.0	4.5	5.5	5.0
2	8.5	8.0	6.5	6.5	5.5	5.0	5.5	5.0	5.0	4.5	5.0	5.0
3	8.5	8.0	6.5	6.5	5.5	5.5	5.5	5.0	5.0	4.5	5.0	5.0
4	8.5	8.0	6.5	6.5	5.5	5.0	5.0	5.0	4.5	4.5	5.0	5.0
5	8.0	8.0	6.5	6.5	5.0	5.0	5.0	5.0	4.5	4.5	5.0	5.0
6	8.0	8.0	6.5	6.5	5.0	4.5	5.0	5.0	4.5	4.5	5.5	5.0
7	8.5	8.0	7.0	6.5	4.5	4.5	5.0	5.0	4.5	4.5	5.0	5.0
8	8.0	8.0	7.0	7.0	4.5	4.0	5.0	5.0	4.5	4.5	5.5	5.0
9	8.5	8.0	7.0	6.5	4.5	4.0	5.0	5.0	4.5	4.5	5.5	5.0
10	8.0	7.5	6.5	6.5	4.5	4.0	5.0	5.0	4.5	4.0	5.0	5.0
11	8.0	7.5	6.5	6.0	4.5	4.0	5.0	5.0	4.5	4.5	5.5	5.0
12	8.0	7.5	6.5	6.0	4.5	4.0	5.0	4.5	5.0	4.5	5.5	5.5
13	8.0	7.5	6.0	6.0	4.0	4.0	5.0	4.5	4.5	4.5	5.5	5.5
14	7.5	7.0	6.0	5.5	4.5	4.0	5.0	4.5	5.0	4.5	5.5	5.5
15	7.5	7.5	6.0	6.0	4.5	4.0	5.0	4.5	5.0	4.5	5.5	5.5
16	7.5	7.0	6.0	5.5	4.5	4.0	4.5	4.5	5.0	4.5	5.5	5.5
17	7.5	7.0	6.0	5.5	4.5	4.0	5.0	4.5	5.0	5.0	6.0	5.5
18	7.5	7.0	6.0	5.5	4.5	4.0	5.0	4.5	5.0	5.0	5.5	5.5
19	7.5	7.0	6.0	5.5	4.5	4.0	5.0	5.0	5.0	5.0	5.5	5.5
20	7.5	7.0	5.5	5.5	4.5	4.5	5.0	5.0	5.0	5.0	5.5	5.0
21	7.5	7.0	5.5	5.5	5.0	4.5	5.0	5.0	5.0	5.0	5.5	5.0
22	7.0	7.0	6.0	5.5	5.0	4.5	5.0	5.0	5.0	5.0	5.5	5.5
23	7.0	6.5	6.0	5.5	5.0	5.0	5.0	5.0	5.0	5.0	5.5	5.5
24	7.0	7.0	5.5	5.5	5.0	5.0	5.0	5.0	5.0	5.0	5.5	5.5
25	7.0	6.5	5.5	5.5	5.5	5.0	5.0	5.0	5.0	5.0	5.5	5.5
26	7.0	6.5	5.5	5.5	5.5	5.5	5.0	5.0	5.0	5.0	5.5	5.5
27	7.0	6.5	5.5	5.5	5.5	5.5	5.0	5.0	5.0	5.0	6.0	5.5
28	7.0	6.5	5.5	5.5	5.5	5.5	5.0	5.0	5.5	5.0	6.0	5.5
29	7.0	6.5	5.5	5.5	5.5	5.5	5.0	5.0	---	---	6.0	5.5
30	6.5	6.5	5.5	5.0	5.5	5.5	5.0	5.0	---	---	5.5	5.5
31	6.5	6.5	---	---	5.5	5.5	5.0	4.5	---	---	5.5	5.5
MONTH	8.5	6.5	7.0	5.0	5.5	4.0	5.5	4.5	5.5	4.0	6.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.5	7.0	6.5	8.0	---	9.0	8.0	10.0	9.0	9.5	9.0
2	5.5	5.5	7.0	6.5	8.0	7.5	9.0	8.5	10.0	9.0	9.5	9.0
3	5.5	5.5	7.0	6.5	8.0	7.5	9.5	8.5	10.0	9.0	9.5	9.0
4	6.0	5.5	7.0	6.5	8.0	7.5	9.5	8.5	10.0	9.0	9.5	9.0
5	5.5	5.5	7.0	6.5	8.0	7.5	9.5	8.5	10.0	9.0	9.5	9.0
6	5.5	5.0	6.5	6.5	8.0	7.5	9.5	8.5	10.0	9.0	10.5	9.0
7	5.5	5.0	7.0	6.5	8.0	7.5	9.0	8.5	10.0	9.0	10.0	9.0
8	5.5	5.5	6.5	6.5	8.5	7.5	9.0	8.0	10.0	9.0	10.0	9.0
9	5.5	5.0	7.0	6.5	8.5	7.5	9.0	8.0	10.0	9.0	9.5	9.0
10	5.5	5.5	7.0	6.5	8.0	7.5	9.0	8.0	10.0	9.0	9.5	8.0
11	5.5	5.0	7.0	6.5	8.0	7.5	9.0	8.0	10.5	9.0	9.0	8.0
12	5.0	5.0	7.0	6.5	8.0	7.5	9.0	8.5	10.5	9.5	9.0	8.5
13	5.5	5.0	7.0	6.5	7.5	7.5	9.0	8.5	10.5	9.0	9.5	8.5
14	6.0	5.0	---	---	8.0	7.5	9.0	8.0	11.0	9.0	9.5	8.5
15	5.5	5.5	---	---	8.0	7.0	9.0	8.5	10.5	9.0	9.0	8.0
16	6.0	5.5	---	---	8.0	7.5	9.5	8.5	10.5	9.0	9.5	8.5
17	6.0	5.5	---	---	8.0	7.0	9.5	8.5	10.5	9.0	9.5	8.5
18	6.5	5.5	---	---	8.0	7.5	9.5	8.5	11.5	9.5	10.0	8.5
19	6.0	5.5	---	---	8.0	7.5	9.5	8.5	11.0	9.5	10.0	8.5
20	6.0	6.0	---	---	8.0	7.5	9.5	8.5	11.0	10.5	9.0	8.5
21	6.0	6.0	---	---	8.0	7.5	9.5	8.5	10.5	10.0	9.0	8.0
22	6.0	6.0	---	---	8.0	7.5	10.0	8.5	10.5	10.0	9.0	8.0
23	6.5	6.0	---	---	9.0	8.0	10.0	9.0	11.0	10.0	9.0	8.0
24	6.5	6.0	---	---	8.5	7.5	10.0	9.0	10.5	9.5	9.0	8.0
25	6.5	6.0	---	---	8.5	8.0	10.0	9.0	10.5	9.5	8.5	8.0
26	6.5	6.0	---	---	9.0	8.0	10.0	9.0	10.5	9.5	8.5	7.5
27	6.5	6.0	---	---	9.0	8.0	10.0	9.0	10.0	9.5	8.5	8.0
28	6.5	6.0	---	---	9.0	8.0	10.0	9.0	10.0	9.5	8.5	8.0
29	7.0	6.5	---	---	9.0	8.0	10.0	9.0	10.0	9.5	8.5	7.5
30	7.0	6.5	---	---	9.0	8.5	10.0	9.0	10.0	9.5	8.0	7.5
31	---	---	---	---	---	---	10.0	9.0	10.0	9.0	---	---
MONTH	7.0	5.0	7.0	6.5	9.0	7.0	10.0	8.0	11.5	9.0	10.5	7.5

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 (0.2 km) upstream from Deer Creek, 4.8 mi (7.7 km) north of town of Belknap Springs.

DRAINAGE AREA.--3.00 mi² (7.77 km²).

PERIOD OF RECORD.--July 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,040 ft (622 m), from topographic map.

REMARKS.--Records fair. No regulation or diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 688 ft³/s (19.5 m³/s) Dec. 25, 1980, gage height, 3.78 ft (1.152 m), from rating curve extended above 180 ft³/s (5.10 m³/s); maximum gage height, 3.82 ft (1.164 m) Jan. 12, 1980; minimum, 0.45 ft³/s (0.013 m³/s) Oct. 8-10, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*), from rating curve extended above 180 ft³/s (5.10 m³/s):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2100	445	12.6	3.33	1.015	Feb. 16	1130	345	9.77	3.09	0.942
Dec. 25	1800	*688	19.5	*3.78	1.152	Feb. 18	1700	237	6.71	2.77	0.844

Minimum, 0.45 ft³/s (0.013 m³/s) Oct. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.2	18	14	5.1	9.0	24	9.9	6.6	4.9	1.6	.89
2	.82	2.6	176	12	4.9	8.1	19	8.7	5.7	4.7	1.6	.89
3	.82	1.5	356	10	4.7	7.6	16	7.8	5.3	4.4	1.5	.84
4	.82	1.2	95	9.0	4.5	7.6	14	7.6	5.5	4.0	1.5	.79
5	.82	1.0	39	8.5	4.5	6.8	16	7.3	5.1	4.0	1.4	.74
6	.82	7.9	25	8.0	4.2	6.4	16	6.8	5.5	4.0	1.3	.74
7	.73	28	19	7.3	4.0	6.1	14	6.6	8.1	6.1	1.3	.70
8	.52	43	16	6.8	4.0	5.5	14	6.1	76	4.5	1.3	.70
9	.52	31	14	6.4	3.9	5.1	16	6.1	62	4.2	1.2	.70
10	.52	17	13	5.5	3.7	4.9	15	5.7	41	3.9	1.1	.65
11	.56	11	12	5.3	4.2	4.7	15	5.5	25	3.6	1.1	.65
12	.99	8.3	12	4.9	4.7	4.4	16	5.1	21	3.4	1.1	.65
13	1.8	6.8	13	4.7	11	4.2	15	4.9	28	3.3	1.1	.65
14	1.3	6.4	13	4.5	45	4.0	15	4.7	26	3.1	1.1	.65
15	.93	6.0	17	4.4	38	4.5	21	6.8	20	3.0	1.1	.61
16	.82	5.4	22	4.2	191	6.4	26	6.8	17	2.9	1.0	.61
17	.73	4.8	21	4.0	81	5.5	26	6.8	14	2.7	1.0	.61
18	.68	4.5	18	3.9	146	5.1	30	9.9	12	2.6	.95	.61
19	.68	4.2	16	3.7	115	4.9	29	13	16	2.5	.95	.79
20	.64	4.0	15	3.4	55	4.9	22	12	16	2.4	.89	.74
21	.64	19	26	3.4	33	5.7	21	11	13	2.4	.89	1.1
22	.60	47	128	3.3	26	11	24	9.6	12	2.3	.89	1.1
23	.60	29	77	3.4	21	9.6	28	8.7	9.9	2.2	.89	.95
24	.68	21	115	3.4	18	8.7	27	9.9	9.0	2.2	.84	.74
25	.87	16	555	3.3	15	14	19	19	8.1	2.1	.84	.70
26	1.5	14	146	6.6	13	16	16	17	7.3	2.0	.84	1.6
27	1.7	12	58	7.8	10	15	13	13	6.6	1.9	.84	7.8
28	1.1	13	28	8.7	9.9	13	12	11	6.1	1.9	.79	5.1
29	.87	22	22	7.8	---	17	12	9.0	5.7	1.8	.79	5.1
30	.77	25	18	6.8	---	18	12	7.8	5.1	1.7	.79	2.7
31	.73	---	16	5.9	---	24	---	7.1	---	1.7	.79	---
TOTAL	26.40	413.8	2119	190.9	880.3	267.7	563	271.2	498.6	96.4	33.28	41.10
MEAN	.85	13.8	68.4	6.16	31.4	8.64	18.8	8.75	16.6	3.11	1.07	1.37
MAX	1.8	47	555	14	191	24	30	19	76	6.1	1.6	7.8
MIN	.52	1.0	12	3.3	3.7	4.0	12	4.7	5.1	1.7	.79	.61
CFSM	.28	4.60	22.8	2.05	10.5	2.88	6.27	2.92	5.53	1.04	.36	.46
IN.	.33	5.13	26.27	2.37	10.91	3.32	6.98	3.36	6.18	1.19	.41	.51
AC-FT	52	821	4200	379	1750	531	1120	538	989	191	66	82

CAL YR 1980 TOTAL 5678.91 MEAN 15.5 MAX 555 MIN .52 CFSM 5.17 IN 70.39 AC-FT 11260
WTR YR 1981 TOTAL 5401.68 MEAN 14.8 MAX 555 MIN .52 CFSM 4.93 IN 66.96 AC-FT 10710

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 (1.6 km) upstream from Glen Creek, 1.7 mi (2.7 km) east of town of McKenzie Bridge, and at mile 69.9 (112.5 km).

DRAINAGE AREA.--348 mi² (901 km²) at cableway 1.2 mi (1.9 km) upstream, where all discharge measurements are made.

WATER-DISCHARGE RECORDS

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 (432.523 m) National Geodetic Vertical Datum of 1929. Prior to June 2, 1932, nonrecording gage at several sites within 2 mi (3 km) of present site at various datums.

REMARKS.--Water-discharge records good except those for periods of no gage-height record, which are fair. Flow regulated since March 1963 by Smith River Reservoir (Carmen-Smith Project) 12 mi (19 km) upstream (see station 14158795). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--71 years, 1,677 ft³/s (47.49 m³/s), 1,215,000 acre-ft/yr (1.50 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s (541 m³/s) Dec. 22, 1964, gage height, 10.36 ft (3.158 m), from rating curve extended above 7,100 ft³/s (201 m³/s) on basis of slope-area measurement of peak flow; minimum, 805 ft³/s (22.8 m³/s) Oct. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,910 ft³/s (252 m³/s) Dec. 25, gage height, 5.56 ft (1.695 m) from peak stage indicator; minimum, 893 ft³/s (25.3 m³/s) Oct. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	916	940	1400	2600	1310	2040	1720	1620	1380	1440	1100	998
2	916	961	3270	2400	1300	1990	1680	1610	1350	1430	1090	980
3	916	925	4950	2400	1300	2040	1640	1530	1340	1420	1070	980
4	916	922	3390	2200	1310	2090	1600	1510	1350	1380	1070	980
5	916	916	2600	2200	1300	1980	1610	1510	1340	1350	1060	972
6	916	1100	2370	2000	1300	1680	1600	1490	1350	1360	1060	964
7	916	1610	2180	1930	1260	1680	1500	1420	1420	1380	1060	964
8	916	1830	1960	1870	1250	1620	1400	1410	2320	1380	1050	964
9	908	1590	1850	1850	1220	1570	1400	1420	2570	1340	1050	964
10	908	1340	1800	1770	1190	1560	1500	1410	2130	1320	1040	980
11	908	1190	1740	1660	1190	1510	1700	1390	1900	1290	1050	972
12	932	1110	1710	1580	1210	1420	1600	1370	1850	1270	1060	972
13	950	1090	1640	1570	1390	1410	1500	1350	1990	1270	1040	964
14	1000	1160	1600	1560	1760	1410	1600	1340	1960	1250	1040	964
15	1000	1200	1500	1500	1770	1410	1600	1380	1880	1220	1030	964
16	1000	1150	1600	1440	3630	1450	1700	1420	1790	1190	1030	964
17	950	1110	1700	1440	3070	1410	1700	1430	1770	1180	1030	964
18	950	1100	1700	1460	4030	1380	1800	1410	1770	1180	1020	972
19	950	1060	1600	1470	4050	1360	1800	1450	1840	1180	1030	964
20	950	1030	1500	1440	3350	1350	1780	1460	1810	1190	1030	964
21	950	1290	1900	1400	2900	1340	1740	1430	1730	1200	1030	972
22	916	1500	2600	1390	2690	1360	1670	1390	1710	1200	1020	1020
23	908	1430	2600	1340	2460	1340	1840	1370	1670	1160	1020	998
24	903	1350	3400	1340	2490	1340	1940	1460	1620	1140	1010	972
25	908	1340	7000	1350	2290	1410	1870	1600	1610	1110	1010	956
26	919	1330	5500	1440	2230	1440	1730	1510	1580	1120	998	980
27	912	1290	4000	1470	2190	1440	1680	1450	1490	1130	998	1110
28	905	1300	3400	1420	2100	1450	1660	1430	1470	1130	998	1040
29	904	1480	3000	1370	---	1520	1640	1420	1450	1140	998	1030
30	906	1500	2800	1330	---	1590	1590	1410	1440	1120	998	989
31	918	---	2600	1320	---	1700	---	1400	---	1100	998	---
TOTAL	28783	37144	80860	51510	57540	48290	49790	44800	50880	38570	32088	29477
MEAN	928	1238	2608	1662	2055	1558	1660	1445	1696	1244	1035	983
MAX	1000	1830	7000	2600	4050	2090	1940	1620	2570	1440	1100	1110
MIN	903	916	1400	1320	1190	1340	1400	1340	1340	1100	998	956
AC-FT	57090	73680	160400	102200	114100	95780	98760	88860	100900	76500	63650	58470

CAL YR 1980 TOTAL 554187 MEAN 1514 MAX 7000 MIN 903 AC-FT 1099000
WTR YR 1981 TOTAL 549732 MEAN 1506 MAX 7000 MIN 903 AC-FT 1090000

NOTE.--No gage-height record Oct. 13-21, Dec. 15 to Jan. 6, Apr. 7-19.

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: November 1976 to current year.

INSTRUMENTATION.--Conductivity and temperature recorder since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 78 micromhos Jan. 2, 1977; minimum, 22 micromhos Nov. 25, 1977.
WATER TEMPERATURES: Maximum recorded, 13.5°C Aug. 1, 3, 1977; minimum, 3.0°C Dec. 31, 1978, Jan. 1, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 71 micromhos Oct. 28; minimum, 33 micromhos Dec. 25.
WATER TEMPERATURES: Maximum, 13.0°C Aug. 11, 18; minimum, 4.0°C Dec. 7, 8, 13, Feb. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	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)
APR 02...	1315	1680	50	7.5	6.5	12.0	16	.00	3.7	1.7	3.7	1.0
SEP 15...	1500	980	56	7.6	10.0	--	20	.00	4.7	1.9	3.9	2.3

DATE	ALKA-LINITY LAB (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, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
APR 02...	19	<5.0	1.3	.1	.010	.23	<.10	.020	.27	.27	.060	.060
SEP 15...	27	<5.0	2.2	.1	.050	.24	<.10	.080	.29	.29	.030	.040

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	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)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
APR 02...	.6	.1	21	39	44	177	.80	1	2	20	<100	1
SEP 15...	<.1	.1	23	50	59	132	.50	2	1	14	100	1

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR 02...	<1	10	10	<3	<1	3	7	20	360	<1	<1	<1
SEP 15...	<1	<10	10	<3	1	3	14	12	60	1	3	5

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 02...	10	<.1	<.1	5	1	<1	<1	<1	<1	7	20
SEP 15...	10	<.1	.2	1	<1	<1	<1	<1	<1	20	10

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	62	56	47	55	49	48	50	55	55	59	58
2	63	62	48	48	56	48	49	51	55	56	59	59
3	63	63	42	48	55	49	49	50	55	56	59	59
4	63	62	44	49	55	48	50	51	55	56	59	57
5	63	62	47	50	55	49	50	51	56	56	60	58
6	63	60	49	49	55	49	50	51	56	56	60	57
7	62	55	49	50	55	50	50	52	55	56	60	58
8	63	53	50	51	55	50	---	52	50	56	59	58
9	63	54	50	51	55	51	---	52	48	57	59	58
10	63	57	51	51	56	51	---	52	50	56	59	57
11	63	58	51	51	56	51	---	52	51	57	59	57
12	63	58	51	53	56	51	---	53	51	57	59	56
13	---	58	52	53	54	52	---	53	51	57	59	56
14	---	58	52	53	51	52	---	53	52	57	59	57
15	---	58	52	53	51	52	---	52	53	57	59	57
16	---	59	52	54	43	51	---	52	53	57	60	56
17	---	59	51	54	43	52	---	53	53	57	59	56
18	---	59	51	54	40	52	---	52	53	57	60	56
19	---	59	52	54	40	52	---	52	53	58	59	55
20	---	59	52	54	43	52	---	52	53	57	59	56
21	---	58	51	55	45	53	---	53	53	58	60	57
22	65	54	43	55	45	52	---	53	53	58	60	57
23	64	55	43	55	46	52	49	54	53	58	59	58
24	63	56	42	55	46	51	48	53	54	58	59	58
25	63	56	35	55	47	51	48	52	54	58	59	58
26	63	57	39	55	48	51	49	53	54	58	59	57
27	63	57	42	54	48	50	49	53	55	59	59	57
28	63	57	44	54	48	51	50	54	55	58	59	58
29	63	55	45	54	---	50	50	54	55	58	58	58
30	63	55	47	55	---	49	51	54	55	58	58	58
31	62	---	46	55	---	49	---	54	---	59	59	---
MEAN	63	58	48	53	50	51	49	52	53	57	59	57

14159000 MCKENZIE RIVER AT MCKENZIE BRIDGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

14159030 SEPARATION CREEK NEAR MCKENZIE BRIDGE, OR

LOCATION.--Lat 44°07'29", long 122°02'08", in NW¼NW¼ sec.1, T.17 S., R.6 E., Lane County, Hydrologic Unit 17090004, on left bank 250 ft (76 m) upstream from mouth, 7.2 mi (11.6 km) southeast of McKenzie Bridge, and at mile 0.0 (0.1 km).

DRAINAGE AREA.--63.0 mi^2 (163.2 km^2).

PERIOD OF RECORD.--July to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	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 LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUN												
18...	1020	300	67	7.3	7.0	20	3.9	2.5	5.4	1.5	30	<1.0
JUL												
31...	1145	223	83	7.5	8.0	22	4.3	2.8	6.0	1.6	35	<1.0
AUG												
27...	1100	192	76	7.5	7.0	25	4.7	3.1	6.3	1.6	41	<1.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN											
18...	1.7	<.1	<.1	.55	.55	.040	.020	28	61	<10	1
JUL											
31...	2.1	.1	.10	.14	.24	.080	.060	31	--	<10	1
AUG											
27...	2.7	.1	.11	.30	--	.030	.050	33	28	11	2

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 (30 m) upstream from Tipsoo Creek, 8.0 mi (12.9 km) south of Rainbow, 9.0 mi (14.5 km) southeast of town of Blue River, and at mile 10.4 (16.7 km).

DRAINAGE AREA.--160 mi² (414 km²) at cableway 0.2 mi (0.3 km) 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 (521.059 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--24 years, 630 ft³/s (17.84 m³/s), 53.47 in/yr (1,358 mm/yr), 456,400 acre-ft/yr (563 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) Dec. 22, 1964, gage height, 20.06 ft (6.114 m), from floodmark, from rating curve extended above 7,600 ft³/s (215 m³/s), on basis of slope-area measurement of peak flow; minimum, 171 ft³/s (4.84 m³/s) Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1730	3,190	90.3	8.59	2.618	Feb. 16	1430	3,420	96.9	8.84	2.694
Dec. 25	1600	*4,910	139	*10.31	3.142						

Minimum, 171 ft³/s (4.84 m³/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	182	207	507	855	317	628	756	632	438	342	222	189
2	182	225	2310	756	309	585	693	589	412	328	220	189
3	180	203	2620	697	304	559	656	548	390	320	220	187
4	180	196	1940	636	298	555	616	522	396	309	217	187
5	180	191	1280	585	301	511	660	504	383	309	217	184
6	178	350	945	540	293	486	648	483	396	314	215	184
7	178	735	752	504	288	469	608	469	412	362	212	182
8	178	672	648	476	283	448	597	455	1230	322	210	180
9	178	656	581	448	280	432	632	458	1470	304	207	180
10	175	490	533	425	275	415	612	438	1140	296	205	180
11	178	374	500	406	280	402	620	422	907	288	203	180
12	203	317	486	387	288	393	672	402	827	280	203	178
13	220	285	483	371	322	383	652	390	911	275	203	178
14	205	288	472	359	604	374	664	390	966	270	200	178
15	196	283	544	347	589	387	735	442	846	265	200	175
16	191	268	640	342	2290	432	783	445	778	263	198	175
17	187	255	632	333	1970	402	792	458	710	258	198	175
18	184	246	597	322	2570	390	841	585	652	255	196	175
19	182	239	555	317	2800	393	911	701	664	250	196	184
20	182	234	577	312	1990	393	837	676	608	248	196	182
21	182	365	714	306	1510	396	796	648	555	246	196	187
22	180	636	1440	304	1290	462	796	600	522	241	193	203
23	178	577	1350	304	1120	452	855	562	497	239	193	189
24	180	500	1820	306	1030	442	888	644	465	239	191	182
25	193	428	4510	296	902	566	800	837	438	236	191	182
26	210	387	3190	362	809	628	756	770	415	234	191	227
27	220	368	2360	380	739	636	684	676	396	229	191	432
28	198	402	1760	383	680	600	648	600	377	227	189	293
29	189	570	1400	368	---	668	644	540	362	225	189	250
30	187	600	1180	347	---	676	656	500	350	225	189	222
31	184	---	992	331	---	752	---	469	---	222	187	---
TOTAL	5820	11547	38318	13105	24731	15315	21508	16855	18913	8421	6238	5989
MEAN	188	385	1236	423	883	494	717	544	630	272	201	200
MAX	220	735	4510	855	2800	752	911	837	1470	362	222	432
MIN	175	191	472	296	275	374	597	390	350	222	187	175
CFSM	1.18	2.41	7.73	2.64	5.52	3.09	4.48	3.40	3.94	1.70	1.26	1.25
IN.	1.35	2.68	8.91	3.05	5.75	3.56	5.00	3.92	4.40	1.96	1.45	1.39
AC-FT	11540	22900	76000	25990	49050	30380	42660	33430	37510	16700	12370	11880

CAL YR 1980 TOTAL 209415 MEAN 572 MAX 5740 MIN 175 CFSM 3.58 IN 48.69 AC-FT 415400
WTR YR 1981 TOTAL 186760 MEAN 512 MAX 4510 MIN 175 CFSM 3.20 IN 43.42 AC-FT 370400

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.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 16.5°C July 27, Aug. 7-13; minimum, 3.0°C Dec. 7, 8, Feb. 7-9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14159200 SOUTH FORK MCKENZIE RIVER ABOVE COUGAR LAKE, NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14159400 COUGAR LAKE NEAR RAINBOW, OR

LOCATION.--Lat 44°07'40", long 122°14'25", in SE¼SE¼ 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 (4.3 km) south of Rainbow, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--207 mi² (536 km²).

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.--Reservoir 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 (270 hm³) at elevation 1,699 ft (517.9 m), maximum pool, and usable capacity is 164,800 acre-feet (203 hm³) between elevations 1,516 ft (462.1 m), minimum power pool, and 1,699 ft (517.9 m). 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, 214,100 acre-ft (264 hm³) June 29, 1977, elevation, 1,695.06 ft (516.654 m); minimum, 33,690 acre-ft (41.5 hm³) Oct. 31 to Nov. 2, 1965, elevation, 1,475.40 ft (449.702 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 209,300 acre-ft (258 hm³) July 2, 3, elevation, 1,691.23 ft (515.487 m); minimum, 63,560 acre-ft (78.4 hm³) Jan. 13, 14, elevation, 1,531.45 ft (466.786 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1616.00	1565.61	1534.53	1554.53	1540.63	1611.79	1636.51	1676.08	1690.59	1691.22	1687.87	1658.69
2	1614.55	1563.94	1541.00	1544.52	1540.86	1612.76	1637.94	1676.88	1690.53	1691.23	1687.19	1657.39
3	1613.05	1562.09	1555.00	1538.77	1541.11	1613.68	1639.25	1677.58	1690.45	1691.23	1686.51	1656.05
4	1611.53	1560.30	1563.10	1534.35	1541.33	1614.58	1640.37	1678.23	1690.47	1691.16	1685.82	1654.74
5	1610.06	1558.45	1565.16	1532.10	1541.60	1615.33	1641.64	1678.82	1690.61	1691.13	1685.14	1653.45
6	1608.33	1557.30	1566.13	1531.84	1541.80	1616.02	1642.82	1679.42	1690.74	1691.09	1684.45	1652.15
7	1606.83	1557.80	1566.00	1531.70	1541.96	1616.66	1643.88	1679.95	1690.68	1691.16	1683.76	1650.87
8	1605.29	1557.47	1565.25	1531.54	1542.09	1617.22	1645.01	1680.48	1691.06	1691.16	1683.07	1649.57
9	1603.68	1557.10	1564.20	1531.51	1542.24	1617.73	1646.22	1681.00	1690.91	1691.09	1682.36	1648.26
10	1602.10	1555.72	1563.05	1531.50	1542.38	1618.19	1647.33	1681.48	1690.89	1691.00	1681.79	1646.96
11	1600.48	1553.87	1561.83	1531.48	1542.56	1618.64	1648.58	1681.91	1690.84	1690.90	1681.10	1645.59
12	1598.97	1551.73	1560.50	1531.49	1542.73	1619.05	1649.92	1682.29	1690.75	1690.77	1680.37	1644.28
13	1597.55	1549.47	1558.78	1531.45	1543.23	1619.42	1651.15	1682.63	1690.89	1690.64	1679.64	1642.96
14	1596.05	1547.21	1557.45	1531.45	1545.00	1619.78	1652.37	1683.02	1690.99	1690.50	1678.93	1641.63
15	1594.37	1545.66	1556.19	1531.70	1546.67	1620.30	1653.86	1683.58	1690.83	1690.35	1678.31	1640.18
16	1592.80	1544.34	1555.55	1531.89	1556.35	1620.97	1655.45	1684.08	1690.69	1690.19	1677.58	1638.70
17	1591.18	1542.93	1554.85	1532.03	1563.48	1621.44	1657.02	1684.65	1690.70	1690.01	1676.57	1637.19
18	1589.44	1541.50	1553.90	1532.13	1574.04	1621.87	1658.73	1685.53	1690.79	1689.84	1675.44	1635.81
19	1587.75	1539.96	1552.73	1532.35	1584.41	1622.34	1660.60	1686.69	1690.51	1689.65	1674.33	1634.35
20	1586.07	1538.50	1551.65	1532.90	1590.94	1622.80	1662.31	1687.75	1690.09	1689.58	1673.22	1632.76
21	1584.48	1537.20	1551.30	1533.39	1595.36	1623.34	1663.79	1688.50	1690.04	1689.57	1672.08	1631.26
22	1582.67	1537.15	1553.92	1533.80	1598.83	1624.12	1665.23	1688.81	1690.02	1689.54	1670.91	1629.78
23	1580.90	1537.45	1555.00	1534.33	1601.65	1624.82	1666.87	1689.00	1690.11	1689.51	1669.72	1628.19
24	1579.22	1537.37	1557.96	1534.81	1604.20	1625.48	1668.60	1689.46	1690.41	1689.48	1668.53	1626.58
25	1577.61	1536.81	1575.43	1535.25	1606.24	1626.60	1670.02	1690.26	1690.66	1689.44	1667.33	1624.95
26	1576.05	1536.61	1586.27	1536.10	1607.96	1627.82	1671.28	1690.73	1690.85	1689.40	1666.12	1623.58
27	1574.40	1536.24	1592.23	1537.05	1609.42	1629.05	1672.33	1690.92	1690.99	1689.35	1664.91	1622.86
28	1572.65	1536.45	1592.99	1538.05	1610.68	1630.16	1673.30	1690.95	1691.09	1689.29	1663.68	1621.58
29	1570.92	1536.58	1585.01	1538.90	---	1631.65	1674.24	1690.86	1691.16	1689.23	1662.45	1620.09
30	1569.12	1535.80	1576.77	1539.62	---	1633.06	1675.20	1690.68	1691.21	1689.03	1661.20	1618.47
31	1567.28	---	1566.10	1540.29	---	1634.77	---	1690.63	---	1688.54	1659.96	---
MEAN	1592.30	1547.29	1562.58	1534.93	1565.71	1621.66	1655.73	1684.61	1690.69	1690.20	1675.82	1638.96
MAX	1616.00	1565.61	1592.99	1554.53	1610.68	1634.77	1675.20	1690.95	1691.21	1691.23	1687.87	1658.69
MIN	1567.28	1535.80	1534.53	1531.45	1540.63	1611.79	1636.51	1676.08	1690.02	1688.54	1659.96	1618.47
(†)	88420	66350	87640	69310	124100	146900	190100	208500	209300	206000	172900	131300
(‡)	-41880	-22070	+21190	-18230	+54790	+22800	+43200	+18400	+800	-3300	-33100	-41600

CAL YR 1980 MEAN 1625.35 MAX 1692.41 MIN 1534.53 AC-FT‡ +13100
WTR YR 1981 MEAN 1622.04 MAX 1691.23 MIN 1531.45 AC-FT‡ +1000

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

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 (0.3 km) upstream from Cougar Creek, 0.6 mi (1.0 km) downstream from Cougar Dam, 2.1 mi (3.4 km) south of Rainbow, and at mile 3.9 (6.3 km).

DRAINAGE AREA.--208 mi² (539 km²).

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 (376.861 m) National Geodetic Vertical Datum of 1929 (Bureau of Public Roads bench mark). Oct. 1 to Nov. 4, 1947, nonrecording gage at site 40 ft (12 m) upstream at datum 0.80 ft (0.244 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since 1963 by Cougar Lake (see station 14159400), usable capacity, 165,000 acre-ft (203 hm³). No diversion above station.

AVERAGE DISCHARGE.--34 years, 864 ft³/s (24.47 m³/s), 56.41 in/yr (1,433 mm/yr), 626,000 acre-ft/yr (772 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s (498 m³/s) Dec. 11, 1956, gage height, 8.66 ft (2.640 m), from rating curve extended above 8,100 ft³/s (229 m³/s); maximum gage height, 8.90 ft (2.713 m) Dec. 22, 1955 (backwater from debris); minimum discharge, 17 ft³/s (0.48 m³/s) Nov. 18, 1965; minimum daily, 85 ft³/s (2.41 m³/s) Apr. 26-28, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s (694 m³/s) Dec. 28, 1945, gage height, 8.8 ft (2.68 m), from floodmarks, at Corps of Engineers gage at site 40 ft (12 m) upstream at datum 0.80 ft (0.244 m) higher; gage height at present site and datum, about 9.3 ft (2.83 m), computed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,940 ft³/s (168 m³/s) Dec. 29, gage height, 5.15 ft (1.570 m); minimum, 23 ft³/s (0.65 m³/s) Mar. 15; minimum daily, 225 ft³/s (6.37 m³/s) Jan. 20, 22-25, 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	748	796	1010	4930	278	290	290	286	540	392	603	820
2	756	804	740	4050	294	290	290	282	522	392	603	829
3	764	796	344	2560	294	290	286	286	505	392	597	829
4	764	796	571	2010	294	290	286	282	439	392	597	829
5	764	804	1020	1280	294	294	282	282	382	392	590	820
6	764	796	1040	663	294	290	282	282	439	392	597	804
7	772	970	1040	623	294	286	286	282	578	387	590	804
8	788	1080	1050	565	290	290	286	278	1510	387	590	797
9	780	1070	1040	517	290	290	286	278	2040	387	522	804
10	764	1080	1040	494	290	290	282	278	1540	392	528	797
11	764	1090	1040	466	290	290	286	282	1240	392	590	804
12	788	1070	1050	455	290	286	290	282	1140	392	597	797
13	788	1040	1050	450	290	286	286	282	1150	392	597	789
14	788	1050	1070	382	290	286	282	282	1190	392	584	797
15	788	812	1080	344	290	239	254	282	1190	392	540	829
16	788	705	1080	344	290	254	262	282	1050	387	590	864
17	788	705	1080	344	294	290	282	282	838	387	728	873
18	796	705	1080	344	294	286	282	282	743	387	789	812
19	796	698	1080	294	290	286	282	282	1000	382	773	873
20	804	698	1080	225	290	282	286	286	990	278	751	892
21	796	883	1070	228	290	286	286	418	684	286	766	892
22	796	883	1270	225	290	290	286	584	643	286	773	892
23	796	691	1540	225	294	286	286	603	522	282	781	910
24	788	691	1620	225	290	282	286	597	387	282	781	901
25	788	691	670	225	290	286	286	721	382	282	789	910
26	796	620	490	228	290	286	286	766	387	282	781	910
27	796	529	960	225	290	282	290	751	387	282	781	910
28	796	529	1990	225	290	282	282	736	387	286	789	910
29	796	804	4280	228	---	282	290	736	387	358	789	910
30	796	1040	4950	228	---	286	290	699	392	528	797	910
31	796	---	4930	228	---	290	---	590	---	597	797	---
TOTAL	24292	24926	43355	23830	8144	8823	8516	12841	23584	11437	20980	25518
MEAN	784	831	1399	769	291	285	284	414	786	369	677	851
MAX	804	1090	4950	4930	294	294	290	766	2040	597	797	910
MIN	748	529	344	225	278	239	254	278	382	278	522	789
AC-FT	48180	49440	85990	47270	16150	17500	16890	25470	46780	22690	41610	50610
MEAN†	39	460	1740	472	1280	655	1010	713	800	315	138	151
CFSM†	.19	2.21	8.37	2.27	6.15	3.15	4.86	3.43	3.85	1.51	.66	.73
IN.†	.21	2.47	9.66	2.62	6.40	3.63	5.42	3.96	4.29	1.75	.77	.81
AC-FT†	2380	27370	107180	29040	70940	40300	60090	43870	47580	19390	8510	9010

CAL YR 1980 TOTAL 259443 MEAN 709 MAX 4970 MIN 209 AC-FT 514600 MEAN† 727 CFSM† 3.50 IN† 47.58 AC-FT† 527700
WTR YR 1981 TOTAL 236246 MEAN 647 MAX 4950 MIN 225 AC-FT 468600 MEAN† 649 CFSM† 3.12 IN† 42.34 AC-FT† 469600

† Adjusted for change in contents in Cougar Lake.

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1955 to current year.

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 several days in October; minimum, 5.0°C many days during winter months.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14159500 SOUTH FORK MCKENZIE RIVER NEAR RAINBOW, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	5.5	7.0	5.5	6.5	6.0	8.5	6.0	9.0	7.5	10.5	9.5
2	6.0	5.5	6.5	5.5	6.5	6.0	8.5	6.5	9.0	7.5	10.0	10.0
3	6.0	5.0	6.5	5.5	6.5	6.5	8.5	6.5	9.0	7.5	10.5	9.5
4	6.0	5.0	6.5	5.5	6.5	6.0	8.5	6.5	9.5	8.0	10.5	9.5
5	5.5	5.0	6.0	5.5	6.5	6.5	8.0	6.5	9.5	7.5	10.5	9.5
6	6.0	5.0	6.5	5.5	6.5	6.0	8.0	6.5	9.5	7.5	10.5	10.0
7	6.5	5.5	6.5	5.5	7.0	6.0	8.0	6.5	9.5	8.0	10.5	9.5
8	5.5	5.0	6.0	5.5	7.0	6.5	8.5	7.5	9.5	8.0	10.5	10.0
9	6.0	5.0	7.0	5.5	7.0	6.5	8.5	6.5	9.5	8.0	10.5	9.5
10	6.0	5.5	7.0	5.5	7.0	6.5	8.5	6.5	10.0	7.5	10.5	9.5
11	5.5	5.5	7.0	5.5	7.0	6.5	8.5	7.0	9.5	8.0	10.5	10.0
12	6.0	5.5	7.0	5.5	7.0	6.0	8.5	6.5	9.5	8.0	11.0	10.0
13	6.5	5.5	6.5	5.5	7.0	6.5	8.5	6.5	9.5	8.5	11.0	10.0
14	6.5	5.5	6.5	5.5	7.0	6.5	9.0	6.5	9.5	8.5	11.0	10.0
15	6.0	5.0	6.5	5.5	7.0	6.5	9.0	6.5	9.5	8.0	11.0	10.0
16	6.5	5.5	6.5	6.0	7.0	6.0	9.0	7.0	10.0	7.5	11.0	10.5
17	6.5	5.5	6.5	5.5	7.5	6.5	9.0	7.0	9.5	8.5	11.5	10.5
18	6.5	5.5	6.5	5.5	7.5	6.5	9.0	6.5	9.5	8.5	11.5	10.0
19	6.0	5.5	6.5	5.5	7.5	6.5	9.0	7.0	9.5	8.5	11.5	10.0
20	6.0	5.5	6.5	5.5	7.5	7.0	9.5	7.0	9.5	9.0	11.5	11.0
21	6.0	5.5	6.0	6.0	7.5	6.5	9.5	6.5	10.0	9.0	11.5	11.0
22	7.0	5.5	6.5	6.0	7.5	6.5	9.5	7.0	10.0	8.5	11.5	11.0
23	7.0	5.5	6.5	6.0	7.5	6.5	9.5	7.0	10.0	8.5	12.0	11.0
24	6.5	5.5	6.5	6.0	7.5	6.5	9.5	7.0	10.0	9.0	12.0	11.0
25	6.0	5.5	6.5	6.0	7.5	6.5	9.0	6.5	10.0	8.5	12.0	11.0
26	6.0	5.5	6.5	6.0	7.5	6.5	9.5	7.0	10.0	9.0	12.0	11.5
27	6.5	5.5	6.5	6.0	8.0	6.5	10.0	7.0	10.0	9.0	12.5	12.0
28	7.0	6.0	6.5	6.0	8.0	6.5	9.5	7.0	10.0	9.0	12.5	12.0
29	7.5	5.5	6.5	6.0	8.0	6.5	9.5	7.0	10.0	9.0	12.5	12.0
30	7.0	6.0	6.5	6.0	7.5	6.5	9.5	7.0	10.5	9.5	12.5	12.5
31	---	---	7.0	6.0	---	---	9.0	7.0	10.0	9.5	---	---
MONTH	7.5	5.0	7.0	5.5	8.0	6.0	10.0	6.0	10.5	7.5	12.5	9.5

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 (0.3 km) downstream from Tidbits Creek, 5.5 mi (8.8 km) northeast of town of Blue River, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--45.8 mi² (118.6 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,386.90 ft (422.727 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 256 ft³/s (7.250 m³/s), 75.91 in/yr (1,928 mm/yr), 185,500 acre-ft/yr (229 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft³/s (351 m³/s) Dec. 22, 1964, gage height, 15.32 ft (4.670 m), from floodmarks, from rating curve extended above 2,800 ft³/s (79.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 8.2 ft³/s (0.23 m³/s) Sept. 28, 29, Oct. 2-4, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	4,400	125	8.93	2.722	Feb. 16	1300	3,280	92.9	8.07	2.460
Dec. 25	1730	*4,720	134	*9.14	2.786						

Minimum, 11 ft³/s (0.31 m³/s) Sept. 15-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	31	255	276	109	170	448	131	101	66	25	14
2	13	50	2770	231	99	156	336	119	95	62	24	14
3	13	34	3430	199	93	145	283	110	87	61	24	14
4	13	29	1610	174	87	145	248	104	89	58	24	14
5	13	25	748	156	90	131	268	109	85	56	23	14
6	12	270	455	141	87	122	273	110	85	56	22	13
7	12	838	316	129	82	116	235	113	112	77	21	13
8	12	787	245	118	78	107	235	115	959	61	20	12
9	12	627	205	109	75	101	322	112	937	54	19	12
10	12	351	182	100	73	96	281	106	554	51	18	12
11	12	208	167	95	74	92	286	99	348	49	18	12
12	17	148	159	89	87	86	345	90	297	47	18	12
13	37	116	167	83	174	83	299	85	419	46	18	12
14	31	112	163	79	748	79	305	82	367	44	17	12
15	22	113	214	75	566	86	391	116	283	42	17	11
16	19	97	289	72	2140	116	374	136	235	40	16	11
17	17	86	260	69	1330	109	351	131	197	39	16	11
18	16	79	219	67	1780	100	381	167	178	37	16	11
19	15	73	184	64	1710	97	387	208	208	36	16	13
20	14	67	182	61	1000	97	305	195	192	35	16	13
21	14	348	377	61	631	106	270	174	163	33	16	16
22	14	619	1550	59	452	199	276	154	145	33	16	21
23	13	371	1100	61	342	182	302	136	129	32	16	18
24	13	302	1740	73	307	157	302	141	115	31	15	14
25	17	233	4300	68	260	273	235	270	104	31	15	14
26	29	186	2200	139	231	297	199	245	95	29	15	23
27	38	167	1120	203	208	286	172	192	86	28	15	136
28	26	178	729	214	186	235	159	161	79	27	14	99
29	21	345	502	172	---	258	152	141	73	27	14	110
30	19	345	419	143	---	294	146	124	69	26	14	57
31	18	---	330	122	---	477	---	110	---	25	14	---
TOTAL	548	7235	26587	3702	13099	4998	8566	4286	6886	1339	552	758
MEAN	17.7	241	858	119	468	161	286	138	230	43.2	17.8	25.3
MAX	38	838	4300	276	2140	477	448	270	959	77	25	136
MIN	12	25	159	59	73	79	146	82	69	25	14	11
CFSM	.39	5.26	18.7	2.60	10.2	3.52	6.25	3.01	5.02	.94	.39	.55
IN.	.45	5.88	21.59	3.01	10.64	4.06	6.96	3.48	5.59	1.09	.45	.62
AC-FT	1090	14350	52740	7340	25980	9910	16990	8500	13660	2660	1090	1500

CAL YR 1980	TOTAL	90210	MEAN 246	MAX 4300	MIN 12	CFSM 5.37	IN 73.27	AC-FT 178900				
WTR YR 1981	TOTAL	78556	MEAN 215	MAX 4300	MIN 11	CFSM 4.69	IN 63.80	AC-FT 155800				

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.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.5°C Aug. 12; minimum, 2.5°C Dec. 8, Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14161100 BLUE RIVER BELOW TIDBITS CREEK, NEAR BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (9.7 km) northeast of town of Blue River, and at mile 0.5 (0.8 km).

DRAINAGE AREA.--24.1 mi^2 (62.4 km^2).

WATER-DISCHARGE RECORDS

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 (419.941 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--24 years, 126 ft^3/s (3.568 m^3/s), 71.00 in/yr (1,803 mm/yr), 91,290 acre-ft/yr (113 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft^3/s (189 m^3/s) Dec. 22, 1964, gage height, 8.88 ft (2.707 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s), on basis of slope-area measurement of peak flow; minimum, 4.8 ft^3/s (0.14 m^3/s) Sept. 16, 17, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	1130	1,310	37.1	5.50	1.676	Feb. 18	1800	1,120	31.7	5.18	1.579
Dec. 25	1700	*2,220	62.9	*6.48	1.975						

Minimum, 4.8 ft^3/s (0.14 m^3/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	119	160	56	99	198	86	65	49	15	7.5
2	11	23	694	139	53	91	166	78	60	46	14	7.9
3	9.8	16	1130	123	50	86	145	71	56	44	14	7.1
4	9.8	13	684	109	47	87	129	69	57	42	14	6.7
5	9.8	11	374	97	49	78	131	68	53	41	14	6.3
6	9.2	82	257	89	47	74	129	64	55	40	13	6.3
7	9.2	209	193	81	44	69	119	64	65	50	12	6.0
8	9.2	254	156	77	43	65	123	60	360	41	12	5.7
9	9.2	251	131	71	42	63	147	61	368	37	11	5.7
10	9.2	161	117	65	41	59	137	57	268	34	11	5.7
11	9.2	109	106	61	43	56	143	55	188	32	10	5.7
12	15	85	100	57	45	55	168	53	164	32	10	5.4
13	23	71	97	54	69	53	156	50	179	30	10	5.4
14	18	67	94	52	219	50	145	49	168	29	9.4	5.4
15	13	64	104	49	205	55	152	63	147	28	8.8	5.1
16	11	56	129	48	350	68	158	63	135	25	8.8	5.1
17	11	52	131	46	450	61	158	63	117	24	8.3	5.1
18	9.8	48	119	44	860	57	168	81	109	23	8.3	5.1
19	9.2	46	109	42	797	57	173	106	129	23	8.3	7.5
20	8.6	44	114	41	507	56	156	101	117	22	8.3	6.0
21	8.6	112	176	40	341	60	147	95	104	21	7.9	8.3
22	8.1	211	569	38	259	89	154	89	95	20	7.9	10
23	7.9	167	466	38	198	83	168	81	87	20	7.5	7.5
24	8.3	138	630	42	179	78	166	87	78	18	7.5	6.3
25	13	115	1750	38	152	109	139	141	72	18	7.5	6.0
26	20	101	1050	71	135	123	125	131	67	18	7.1	12
27	21	93	561	89	119	121	109	111	63	18	7.1	60
28	15	94	357	89	108	109	101	97	57	16	7.1	40
29	12	123	265	80	---	135	97	86	54	15	6.7	43
30	11	134	234	69	---	149	95	78	52	15	6.7	21
31	10	---	186	63	---	198	---	71	---	15	6.7	---
TOTAL	360.1	2967	11202	2162	5508	2593	4302	2429	3589	886	299.9	334.8
MEAN	11.6	98.9	361	69.7	197	83.6	143	78.4	120	28.6	9.67	11.2
MAX	23	254	1750	160	860	198	198	141	368	50	15	60
MIN	7.9	11	94	38	41	50	95	49	52	15	6.7	5.1
CFSM	.48	4.10	15.0	2.89	8.17	3.47	5.93	3.25	4.98	1.19	.40	.47
IN.	.56	4.58	17.29	3.34	8.50	4.00	6.64	3.75	5.54	1.37	.46	.52
AC-FT	714	5890	22220	4290	10930	5140	8530	4820	7120	1760	595	664

CAL YR 1980 TOTAL 42165.1 MEAN 115 MAX 1750 MIN 7.9 CFSM 4.77 IN 65.08 AC-FT 83630
WTR YR 1981 TOTAL 36632.8 MEAN 100 MAX 1750 MIN 5.1 CFSM 4.15 IN 56.54 AC-FT 72660

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1950 to September 1955, September 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 8, 1978; minimum, 0.0°C on several days in 1969, 1977 to 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.0°C Aug. 12; minimum recorded, 2.5°C Feb. 4, 7-10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14161500 LOOKOUT CREEK NEAR BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (2.3 km) north of town of Blue River, and at mile 1.7 (2.7 km).

DRAINAGE AREA.--87.3 mi² (226.1 km²).

PERIOD OF RECORD.--October 1968 to current year. Prior of 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 (110 hm³) at elevation 1,357 ft (413.6 m), maximum pool, and usable capacity is 85,550 acre-ft (105 hm³) between elevations 1,180 ft (359.7 m), minimum flood control pool, and 1,357 ft (413.6 m), 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 (106 hm³) June 12, 13, 1977, elevation, 1,353.02 ft (412.400 m); minimum observed since first filling in 1968, 305 acre-ft (376,000 m³) Dec. 7, 1973, elevation, 1,125.47 ft (343.043 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 84,100 acre-ft (104 hm³) June 8, elevation, 1,351.36 ft (411.895 m); minimum, 3,860 acre-ft (4.76 hm³) Jan. 14, elevation, 1,179.17 ft (359.411 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1247.54	1225.83	1181.71	1226.87	1214.56	1302.79	1327.08	1344.53	1350.22	1350.06	1321.70	1264.12
2	1247.38	1224.44	1229.67	1207.41	1216.29	1302.70	1327.72	1344.97	1350.21	1350.06	1320.33	1261.44
3	1247.22	1222.66	1263.62	1193.10	1217.80	1302.96	1328.05	1345.38	1350.15	1350.06	1318.88	1258.72
4	1247.04	1220.77	1275.33	1182.37	1219.15	1303.65	1328.16	1345.78	1350.13	1350.14	1317.47	1255.95
5	1246.87	1218.77	1276.15	1180.56	1220.62	1304.31	1328.42	1346.22	1350.11	1350.16	1316.04	1253.13
6	1246.71	1219.58	1269.24	1180.01	1221.93	1304.90	1328.62	1346.58	1350.13	1349.96	1314.61	1250.28
7	1246.53	1224.75	1258.45	1179.70	1223.10	1305.48	1328.64	1346.99	1350.44	1349.76	1313.17	1247.37
8	1246.36	1226.09	1245.51	1179.44	1224.16	1305.98	1328.95	1347.39	1351.06	1349.42	1311.70	1246.18
9	1246.16	1224.53	1228.42	1179.59	1225.18	1306.45	1329.83	1347.79	1349.19	1349.05	1310.21	1245.98
10	1245.97	1218.01	1211.92	1179.62	1226.14	1306.91	1330.41	1348.14	1349.10	1348.55	1308.65	1245.84
11	1245.79	1208.07	1201.01	1179.97	1227.17	1307.30	1331.17	1348.46	1349.79	1347.82	1306.97	1245.68
12	1245.77	1198.98	1194.91	1179.94	1228.41	1307.65	1332.24	1348.75	1349.91	1346.85	1305.27	1245.53
13	1245.88	1193.34	1192.55	1179.41	1230.89	1307.98	1332.96	1349.00	1350.06	1345.80	1303.57	1245.36
14	1245.92	1188.73	1190.00	1179.74	1240.17	1308.30	1333.76	1349.27	1349.81	1344.74	1301.84	1245.20
15	1245.89	1183.44	1188.40	1180.48	1246.19	1308.73	1334.94	1349.78	1349.43	1343.68	1300.11	1245.08
16	1245.80	1180.53	1188.84	1180.70	1266.86	1309.34	1336.03	1349.96	1349.72	1342.61	1298.35	1244.88
17	1245.67	1180.32	1188.49	1180.66	1277.87	1309.84	1337.06	1350.02	1349.82	1341.53	1296.57	1244.70
18	1245.52	1180.67	1186.84	1180.43	1291.18	1310.26	1338.17	1350.27	1350.00	1340.33	1294.76	1244.54
19	1245.37	1181.14	1184.15	1179.98	1300.21	1310.72	1339.29	1350.69	1350.17	1339.08	1292.93	1244.43
20	1245.21	1181.30	1181.61	1180.12	1301.72	1311.16	1339.91	1350.84	1350.10	1337.81	1291.07	1244.30
21	1244.10	1188.74	1185.49	1180.59	1301.53	1311.73	1340.23	1350.81	1350.03	1336.53	1289.13	1244.23
22	1242.57	1199.60	1210.04	1180.90	1301.68	1312.75	1340.59	1350.67	1350.01	1335.25	1287.21	1244.21
23	1240.99	1202.13	1208.13	1182.06	1302.10	1313.64	1341.18	1350.46	1349.98	1333.90	1285.24	1244.12
24	1239.42	1202.76	1216.94	1184.27	1302.63	1314.38	1341.65	1350.34	1350.00	1332.60	1283.13	1243.98
25	1237.87	1197.25	1265.36	1186.07	1302.82	1315.87	1341.82	1350.66	1350.08	1331.27	1280.96	1243.84
26	1236.48	1189.14	1283.03	1190.83	1302.81	1317.42	1341.86	1350.69	1350.11	1329.96	1278.72	1243.96
27	1235.06	1186.22	1288.14	1196.80	1302.76	1318.82	1342.20	1350.47	1350.12	1328.62	1276.46	1245.46
28	1233.34	1185.57	1284.01	1202.40	1302.79	1319.95	1342.86	1350.34	1350.11	1327.26	1274.16	1246.35
29	1231.45	1185.36	1274.69	1206.73	---	1321.48	1343.45	1350.28	1350.06	1325.86	1271.82	1247.29
30	1229.56	1184.04	1262.47	1210.01	---	1323.28	1344.02	1350.25	1350.03	1324.48	1269.30	1247.63
31	1227.59	---	1247.30	1212.53	---	1325.67	---	1350.22	---	1323.11	1266.72	---
MEAN	1242.68	1200.76	1227.82	1187.85	1258.53	1310.72	1335.38	1348.90	1350.00	1340.53	1297.00	1247.66
MAX	1247.54	1226.09	1288.14	1226.87	1302.82	1325.67	1344.02	1350.84	1351.06	1350.16	1321.70	1264.12
MIN	1227.59	1180.32	1181.61	1179.41	1214.56	1302.70	1327.08	1344.53	1349.10	1323.11	1266.72	1243.84
(†)	12850	4520	18380	9420	44930	61670	77300	83030	82850	59650	25420	18490
(‡)	-5660	-8330	+13860	-8960	+35510	+16740	+15630	+5730	-180	-23200	-34230	-6930

CAL YR 1980 MEAN 1283.35 MAX 1352.36 MIN 1175.85 AC-FT‡ +14450
WTR YR 1981 MEAN 1279.10 MAX 1351.06 MIN 1179.41 AC-FT‡ +20

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

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 (0.5 km) upstream from Simmonds Creek, 0.7 mi (1.1 km) north of town of Blue River, 0.8 mi (1.3 km) downstream from Blue River Dam, and at mile 0.9 (1.4 km).

DRAINAGE AREA.--87.7 mi² (227.1 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,056.53 ft (322.030 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Aug. 25, 1966, nonrecording gage at datum 0.80 ft (0.244 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since October 1968 by Blue River Lake (see station 14162100). No diversion above station. Discharge not adjusted for storage or release from Blue River Lake as losses from reservoir at times exceed natural flow.

AVERAGE DISCHARGE.--15 years, 463 ft³/s (13.11 m³/s), 335,400 acre-ft/yr (414 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,270 ft³/s (206 m³/s) Feb. 23, 1968, gage height, 8.93 ft (2.722 m); minimum, 0.80 ft³/s (0.023 m³/s) Oct. 8, 10, 11, 1968; minimum daily, 3.7 ft³/s (0.10 m³/s) Oct. 8, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,620 ft³/s (103 m³/s) Dec. 31, gage height, 8.10 ft (2.467 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 15; minimum daily, 39 ft³/s (1.10 m³/s) Mar. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	250	596	3390	50	318	351	57	195	135	554	559
2	50	250	559	2270	50	315	454	57	195	135	554	554
3	54	248	312	1430	51	197	454	57	195	135	550	550
4	54	245	382	934	51	75	454	57	195	83	550	541
5	54	242	1220	399	51	47	454	57	166	117	545	536
6	54	462	2470	315	52	47	454	57	152	212	541	528
7	54	967	2800	285	52	47	454	57	152	264	541	519
8	54	1340	2800	259	52	47	396	57	1500	264	536	232
9	54	1390	2770	224	53	47	355	57	2490	264	536	52
10	54	1340	2030	214	53	39	358	57	1090	318	559	51
11	54	1250	1180	184	53	52	358	57	378	413	582	51
12	55	934	733	190	54	52	362	57	568	498	573	51
13	55	573	477	197	55	52	362	57	739	528	563	51
14	54	469	465	154	59	52	303	57	823	523	563	51
15	54	473	489	133	60	52	248	57	717	523	559	40
16	54	312	502	146	69	53	250	171	365	523	554	54
17	54	171	502	154	61	53	250	248	362	523	554	52
18	54	133	498	152	59	53	250	248	312	563	550	50
19	54	117	485	152	650	53	250	248	378	582	545	51
20	62	117	473	124	1530	49	335	315	450	582	545	51
21	273	173	469	114	1310	46	399	365	375	577	541	51
22	273	424	1120	114	835	47	399	365	328	577	536	51
23	270	515	2140	84	568	47	362	365	288	577	532	51
24	270	523	2200	56	462	47	396	362	234	573	550	51
25	267	806	506	57	458	48	399	403	193	573	559	51
26	267	835	51	60	454	50	399	465	193	568	554	52
27	264	462	755	62	413	49	207	465	193	568	550	53
28	261	368	2400	66	341	49	57	372	193	563	545	53
29	259	587	3150	54	---	50	57	294	193	563	541	54
30	256	706	3460	49	---	52	57	264	158	559	559	53
31	253	---	3460	49	---	121	---	217	---	559	563	---
TOTAL	3999	16682	41454	12071	8006	2306	9884	6022	13770	13442	17084	5144
MEAN	129	556	1337	389	286	74.4	329	194	459	434	551	171
MAX	273	1390	3460	3390	1530	318	454	465	2490	582	582	559
MIN	50	117	51	49	50	39	57	57	152	83	532	40
AC-FT	7930	33090	82220	23940	15880	4570	19600	11940	27310	26660	33890	10200

CAL YR 1980 TOTAL 159726 MEAN 436 MAX 3500 MIN 18 AC-FT 316800
WTR YR 1981 TOTAL 149864 MEAN 411 MAX 3460 MIN 39 AC-FT 297300

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C July 6, 1968; minimum, 0.0°C Jan. 5-9, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C Sept. 15; minimum recorded, 3.0°C Dec. 14-16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14162200 BLUE RIVER AT BLUE RIVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	---	---	9.5	8.5	11.5	11.0	19.0	18.5
2			---	---	---	---	9.5	8.0	11.5	11.0	19.5	19.0
3			---	---	8.0	---	9.5	8.0	11.5	11.0	20.5	19.5
4			---	---	7.5	7.0	10.5	8.5	11.5	11.0	20.5	20.0
5			---	---	8.0	7.0	9.0	8.5	11.5	11.0	21.0	20.5
6			---	---	8.0	7.0	8.5	8.5	12.0	11.0	21.0	20.5
7			---	---	---	7.5	9.5	8.5	12.0	11.5	21.0	21.0
8			---	---	---	---	9.5	8.5	12.0	11.5	21.5	20.0
9			---	---	---	---	9.5	8.5	12.0	11.5	21.0	19.5
10			---	---	---	---	9.5	8.5	12.0	11.5	21.0	19.5
11			---	---	---	---	9.5	8.5	12.5	11.5	21.0	19.5
12			8.5	---	7.5	7.5	9.5	8.5	12.5	11.5	21.0	19.5
13			8.5	7.0	8.0	7.5	9.5	9.0	13.0	12.0	21.0	19.5
14			7.5	6.5	8.0	7.5	9.5	9.0	13.0	12.0	21.0	19.0
15			8.0	7.0	8.0	7.5	9.5	9.0	13.0	12.5	24.0	19.0
16			---	---	9.5	7.5	10.0	9.0	13.5	12.5	21.0	19.0
17			---	---	8.5	7.5	10.0	9.5	13.5	12.5	21.0	19.5
18			---	---	8.0	7.5	10.0	9.5	13.5	13.0	21.0	19.5
19			---	---	8.0	8.0	10.0	9.5	13.5	13.0	20.5	19.5
20			---	---	8.5	7.5	10.5	9.5	14.0	13.5	20.0	19.0
21			---	---	8.5	7.5	10.5	10.0	14.5	13.5	20.0	19.5
22			---	---	8.5	8.0	10.5	10.0	14.5	14.0	20.0	19.0
23			---	---	9.0	8.0	10.5	10.0	15.0	14.5	20.0	18.5
24			---	---	9.0	8.0	10.5	10.0	15.0	14.5	19.5	18.5
25			---	---	9.0	8.0	10.5	10.0	15.5	15.0	19.5	18.0
26			---	---	9.0	8.0	11.0	10.0	16.0	15.5	18.5	18.0
27			---	---	9.0	8.0	11.0	10.0	16.5	16.0	19.0	17.5
28			---	---	9.0	8.0	11.0	10.5	17.0	16.5	17.5	16.5
29			---	---	9.5	8.0	11.0	10.5	17.5	17.0	17.5	16.0
30			---	---	9.5	8.5	11.0	10.5	18.0	17.5	17.0	15.5
31			---	---	---	---	11.5	10.5	18.5	18.0	---	---
MONTH			8.5	6.5	9.5	7.0	11.5	8.0	18.5	11.0	24.0	15.5

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 (0.6 km) downstream from Mason Creek, 5.4 mi (8.7 km) east of Vida, and at mile 47.7 (76.7 km).

DRAINAGE AREA.--930 mi² (2,409 km²) at cableway 0.4 mi (0.6 km) downstream, where all discharge measurement are made.

WATER-DISCHARGE RECORDS

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 (260.820 m) 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 (5 km) downstream at different datum. Sept. 1, 1924, to Nov. 16, 1928, nonrecording gage at site 20 ft (6 m) upstream at datum 0.15 ft (0.046 m) lower. Nov. 17, 1928, to Sept. 23, 1968, water-stage recorder at present site on left bank at datum 0.15 ft (0.046 m) lower.

REMARKS.--Water-discharge records excellent. Flow regulated since 1963 by Smith River Reservoir (see station 14158795) and Cougar Lake (see station 14159400), and since 1968 by Blue River Lake (see station 14162100). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--57 years (water years 1925-81), 4,023 ft³/s (113.9 m³/s), 2,915,000 acre-ft/yr (3.59 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,400 ft³/s (1,820 m³/s) Dec. 28, 1945, gage height, 17.70 ft (5.395 m), site and datum then in use, from rating curve extended above 32,000 ft³/s (906 m³/s); minimum, 1,260 ft³/s (35.7 m³/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 (5.24 m), from floodmarks, discharge, 62,000 ft³/s (1,760 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,100 ft³/s (484 m³/s) Dec. 25, gage height, 6.72 ft (2.048 m); minimum, 1,720 ft³/s (48.7 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	2380	4170	12100	2230	3650	3950	2670	2710	2550	2620	2760
2	2040	2480	8680	10200	2230	3490	3750	2640	2600	2500	2620	2740
3	2040	2380	11700	7670	2220	3390	3610	2500	2550	2480	2600	2720
4	2040	2350	8830	6450	2200	3330	3430	2450	2520	2380	2600	2710
5	2040	2330	7370	5190	2220	3170	3450	2450	2400	2350	2590	2670
6	2060	2920	7800	4150	2200	2770	3390	2430	2450	2470	2590	2650
7	2070	4720	7550	3910	2150	2740	3220	2330	2720	2640	2570	2640
8	2070	5450	7120	3670	2100	2650	3100	2280	7300	2590	2570	2350
9	2070	5600	6850	3510	2070	2570	3390	2310	9580	2500	2540	2090
10	2070	4830	6020	3330	2040	2480	3290	2280	6970	2500	2450	2100
11	2070	4330	5050	3130	2010	2470	3490	2230	5120	2550	2570	2100
12	2140	3810	4570	2990	2060	2330	3970	2180	5030	2600	2590	2090
13	2220	3290	4200	2950	2310	2280	3590	2140	5470	2640	2590	2070
14	2170	3260	4090	2810	3470	2250	3410	2090	5570	2620	2550	2070
15	2170	3150	4130	2650	3410	2300	3390	2250	5230	2590	2480	2090
16	2150	2760	4330	2590	7520	2470	3350	2480	4550	2540	2540	2140
17	2150	2500	4370	2590	6820	2450	3350	2540	4220	2500	2650	2150
18	2100	2430	4260	2590	8500	2330	3390	2720	3930	2540	2740	2100
19	2100	2370	4150	2550	9820	2280	3510	3020	4350	2550	2740	2140
20	2090	2300	4090	2380	8650	2260	3410	2990	4460	2480	2740	2200
21	2220	2920	4440	2300	7020	2250	3410	3040	3830	2430	2720	2220
22	2310	4440	7970	2300	5920	2520	3280	3130	3630	2430	2720	2310
23	2300	3890	8950	2200	5140	2420	3430	3060	3430	2380	2720	2280
24	2300	3710	10400	2170	4970	2330	3710	3290	3040	2350	2720	2220
25	2370	3690	15900	2150	4570	2670	3490	4200	2930	2310	2740	2200
26	2420	3610	12000	2450	4310	2900	3330	4070	2880	2300	2720	2280
27	2430	3020	9760	2640	4070	2830	3020	3710	2760	2300	2710	3010
28	2350	2970	10300	2570	3830	2690	2760	3430	2710	2300	2710	2590
29	2310	3950	12200	2480	---	2920	2720	3220	2650	2310	2710	2520
30	2310	4700	12800	2330	---	3240	2670	3100	2600	2350	2720	2380
31	2310	---	12300	2250	---	3670	---	2860	---	2480	2720	---
TOTAL	67550	102540	236350	113250	116060	84100	101260	86090	120190	76510	81850	70590
MEAN	2179	3418	7624	3653	4145	2713	3375	2777	4006	2468	2640	2353
MAX	2430	5600	15900	12100	9820	3670	3970	4200	9580	2640	2740	3010
MIN	2040	2300	4090	2150	2010	2250	2670	2090	2400	2300	2450	2070
AC-FT	134000	203400	468800	224600	230200	166800	200800	170800	238400	151800	162300	140000

CAL YR 1980 TOTAL 1354860 MEAN 3702 MAX 15900 MIN 1610 AC-FT 2687000
WTR YR 1981 TOTAL 1256340 MEAN 3442 MAX 15900 MIN 2010 AC-FT 2492000

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to current year.
WATER TEMPERATURES: June 1961 to current year.

INSTRUMENTATION.--Graphic temperature recorder since June 1961. Dual conductivity-temperature recorder since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 72 micromhos Nov. 20, 1980; minimum recorded, 24 micromhos Nov. 25, 1977.
WATER TEMPERATURES: Maximum, 16.0°C July 6, 7, 28, 1968; minimum recorded, 0.5°C Jan. 1, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 72 micromhos Nov. 20; minimum, 30 micromhos Dec. 25, 26.
WATER TEMPERATURES: Maximum, 15.5°C July 25, Aug. 7-13, 15, Sept. 6, 7; minimum, 4.0°C Dec. 13, Feb. 2-4, 7-10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	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)
APR 02...	1500	3890	48	7.3	7.5	12.1	15	.00	3.9	1.3	3.3	.8
SEP 18...	0930	2140	50	7.6	11.0	--	17	.00	3.9	1.7	3.3	1.1

DATE	ALKA-LINITY LAB (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, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)
APR 02...	18	<5.0	2.2	.1	.080	.42	<.10	.050	.47	.47	.050	.050
SEP 18...	20	<5.0	1.0	.1	.140	.27	<.10	.110	.36	--	.020	.040

DATE	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	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)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)
APR 02...	1.3	.1	19	40	42	420	1.3	2	2	10	<100	<1
SEP 18...	.5	.2	21	46	49	266	.60	2	2	15	200	<1

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
APR 02...	1	10	10	<3	1	2	5	20	220	1	7	<1
SEP 18...	<1	<10	10	<3	1	2	9	12	190	1	5	1

DATE	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
APR 02...	20	<.1	<.1	2	3	<1	<1	<1	<1	9	10
SEP 18...	10	<.1	.1	<1	2	<1	<1	<1	<1	8	30

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	63	50	37	50	45	45	48	48	54	48	59
2	55	61	---	37	50	46	46	48	49	55	48	60
3	55	58	---	37	50	46	46	49	49	55	49	60
4	57	58	---	39	50	47	47	49	49	56	50	61
5	57	56	---	40	49	47	47	49	50	56	50	62
6	59	57	---	42	50	48	47	49	49	54	51	62
7	60	60	---	43	50	48	47	49	48	53	51	59
8	60	59	---	43	50	49	47	50	46	53	52	60
9	59	60	---	44	50	49	47	49	47	53	53	58
10	57	62	---	44	50	49	47	49	50	53	52	59
11	57	64	---	45	50	49	47	50	53	53	52	59
12	57	65	---	45	50	50	46	50	53	52	52	59
13	56	65	---	46	49	50	47	50	52	52	53	58
14	55	65	43	46	46	50	48	50	51	51	53	59
15	57	66	43	47	45	50	48	49	52	51	53	57
16	59	65	43	48	43	49	48	49	52	52	52	57
17	63	64	43	49	40	50	48	48	52	51	52	57
18	65	68	44	49	40	49	48	47	53	51	51	57
19	66	69	43	48	39	49	47	46	52	50	50	57
20	64	70	43	49	40	49	47	45	52	51	51	54
21	64	69	42	49	42	49	47	46	54	51	51	54
22	64	62	39	49	44	48	47	45	54	50	52	55
23	63	52	36	49	44	49	46	46	55	50	51	53
24	63	49	35	49	44	49	45	46	56	50	50	54
25	64	49	32	50	46	48	46	45	55	51	52	55
26	64	50	36	48	44	48	46	45	55	51	53	54
27	66	50	37	49	44	48	47	44	54	51	54	56
28	64	52	37	48	45	48	49	46	54	50	56	56
29	64	50	37	49	---	47	49	47	54	49	57	55
30	63	50	37	49	---	47	48	47	54	49	58	55
31	63	---	37	49	---	46	---	48	---	49	57	---
MEAN	60	60	40	46	46	48	47	48	52	52	52	57

14162500 MCKENZIE RIVER NEAR VIDA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	11.0	9.0	11.5	8.5	14.5	9.5	14.5	10.0	13.5	12.0
2	7.5	6.0	10.0	8.0	12.5	9.0	14.5	9.5	13.5	10.5	15.0	11.5
3	7.5	6.0	9.0	7.5	12.5	9.0	15.0	10.0	13.5	10.5	15.0	11.5
4	9.0	6.0	9.5	7.0	10.5	9.5	15.0	10.5	14.5	10.5	14.5	12.0
5	7.5	6.0	8.0	7.0	11.5	9.0	13.0	11.0	14.5	10.0	15.0	11.5
6	7.5	6.0	8.5	6.5	11.5	9.5	11.5	10.0	15.0	10.5	15.5	12.0
7	8.0	6.0	10.5	7.0	9.5	8.5	12.5	9.0	15.5	10.5	15.5	12.0
8	7.0	6.0	9.0	7.0	9.0	8.5	13.5	8.5	15.5	11.0	14.5	12.0
9	7.5	6.0	11.5	8.0	9.5	8.5	12.5	9.5	15.5	11.0	14.0	10.5
10	8.0	6.0	11.5	7.5	11.0	8.5	13.0	9.5	15.5	11.0	14.0	10.0
11	7.0	6.0	11.0	7.5	10.5	8.0	13.5	9.0	15.5	11.0	13.5	10.0
12	7.5	6.0	12.0	6.5	9.5	8.5	13.0	9.0	15.5	11.0	14.0	10.0
13	9.0	5.5	11.0	8.0	9.5	8.0	13.5	9.5	15.5	11.0	13.5	10.0
14	10.0	6.0	10.0	8.5	10.5	8.0	14.0	9.0	15.0	11.0	13.5	10.0
15	8.5	6.5	9.0	7.5	11.5	8.0	14.5	9.5	15.5	11.0	13.5	10.0
16	9.5	7.0	10.0	7.0	10.5	9.0	15.0	10.0	15.0	11.0	14.0	10.5
17	10.0	6.5	9.5	7.5	12.0	8.0	15.0	10.0	15.0	11.0	14.0	11.0
18	11.0	7.0	9.5	8.0	10.0	9.0	14.5	10.0	14.5	11.0	13.5	10.5
19	9.0	7.5	9.5	8.0	10.5	9.0	14.5	10.0	13.0	11.0	13.0	11.0
20	9.0	7.0	8.5	8.0	12.5	9.0	15.0	10.0	14.5	11.0	11.5	10.5
21	8.5	7.0	9.0	7.5	12.5	9.0	15.0	10.0	14.5	10.5	12.0	10.5
22	10.5	7.5	11.5	7.5	11.0	9.5	15.0	10.0	15.0	10.5	11.5	10.5
23	10.5	7.5	11.5	8.0	13.0	9.0	15.0	10.0	15.0	11.0	12.0	9.5
24	9.0	7.5	10.5	8.5	14.0	9.0	14.5	10.5	14.5	11.5	12.0	9.5
25	8.5	7.0	11.0	8.5	14.5	9.5	15.5	10.5	14.5	11.5	12.0	10.0
26	8.0	7.0	11.5	8.0	13.0	9.5	15.0	10.5	14.0	10.5	11.0	10.5
27	9.0	7.0	11.5	8.0	14.0	9.5	15.0	10.5	14.5	10.5	12.0	10.5
28	11.5	7.5	12.5	8.0	13.5	9.0	15.0	11.0	14.5	10.5	11.5	10.5
29	12.0	8.0	12.0	8.5	14.5	9.5	14.5	11.0	14.0	11.0	12.5	10.5
30	12.0	8.5	11.0	9.0	12.5	10.0	14.5	10.0	14.5	12.0	12.0	9.5
31	---	---	12.5	8.0	---	---	14.5	10.0	15.0	11.5	---	---
MONTH	12.0	5.5	12.5	6.5	14.5	8.0	15.5	8.5	15.5	10.0	15.5	9.5

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 (91 m) downstream from bridge on State Highway 126, at Vida, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--47.6 mi² (123.3 km²).

PERIOD OF RECORD.--June 1951 to September 1957; annual maximums, water years 1958-65; August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 764.56 ft (233.038 m) 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.--Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--21 years (water years 1952-57, 1967-81), 213 ft³/s (6.032 m³/s), 60.77 in/yr (1,544 mm/yr), 154,300 acre-ft/yr (190 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,140 ft³/s (202 m³/s) Dec. 22, 1964, gage height, 12.18 ft (3.712 m), from slope-area measurement of peak flow; minimum, 12 ft³/s (0.34 m³/s) Nov. 26, 27, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1900	*2,120	60.0	*6.83	2.082	Dec. 25	1630	*2,120	60.0	*6.83	2.082

Minimum, 15 ft³/s (0.42 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	28	238	270	124	196	472	112	114	91	37	24
2	18	42	1350	238	116	178	384	109	108	85	37	26
3	16	31	1780	217	108	172	338	106	100	80	37	23
4	16	26	1160	193	102	180	293	105	100	77	37	21
5	16	24	616	178	109	164	283	124	96	75	35	21
6	16	174	445	164	103	152	263	137	100	75	33	20
7	16	384	324	154	97	146	233	127	117	88	32	18
8	16	341	261	146	93	137	254	119	468	75	31	18
9	16	375	227	137	93	130	378	117	461	69	30	18
10	15	231	210	130	94	125	330	109	322	67	28	18
11	16	139	196	124	94	119	367	103	238	64	27	18
12	28	103	198	117	97	114	525	97	207	62	27	18
13	42	84	196	111	120	111	431	93	306	61	28	17
14	59	88	178	108	346	106	364	93	288	57	27	16
15	28	93	191	103	295	112	332	120	238	56	27	16
16	24	78	212	100	946	156	288	150	219	54	27	16
17	22	70	185	96	720	141	256	134	193	54	26	16
18	21	64	164	93	994	127	233	200	185	53	24	16
19	20	60	148	88	1080	117	212	227	210	50	25	24
20	20	56	146	85	778	111	191	198	205	48	27	21
21	20	203	198	85	544	119	191	174	172	47	26	27
22	19	341	529	84	412	156	176	154	158	46	24	32
23	18	240	514	84	338	139	164	137	145	45	24	26
24	20	233	915	94	327	127	164	158	132	45	23	21
25	32	174	1980	89	290	222	150	275	124	44	22	23
26	43	137	1350	172	263	247	146	249	116	42	22	32
27	48	125	850	196	238	224	137	193	109	40	22	145
28	31	139	593	203	214	189	132	164	103	39	22	93
29	25	251	448	198	---	238	125	145	97	38	21	89
30	22	293	367	160	---	349	119	134	94	38	22	48
31	21	---	311	137	---	514	---	122	---	38	23	---
TOTAL	722	4627	16480	4354	9135	5318	7931	4485	5525	1803	853	921
MEAN	23.3	154	532	140	326	172	264	145	184	58.2	27.5	30.7
MAX	48	384	1980	270	1080	514	525	275	468	91	37	145
MIN	15	24	146	84	93	106	119	93	94	38	21	16
CFSM	.49	3.24	11.2	2.94	6.85	3.61	5.55	3.05	3.87	1.22	.58	.65
IN.	.56	3.62	12.88	3.40	7.14	4.16	6.20	3.51	4.32	1.41	.67	.72
AC-FT	1430	9180	32690	8640	18120	10550	15730	8900	10960	3580	1690	1830

CAL YR 1980 TOTAL 66238 MEAN 181 MAX 1980 MIN 15 CFSM 3.80 IN 51.76 AC-FT 131400
WTR YR 1981 TOTAL 62154 MEAN 170 MAX 1980 MIN 15 CFSM 3.57 IN 48.57 AC-FT 123300

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 (15 m) downstream from bridge, 1.3 mi (2.1 km) northeast of Springfield, and at mile 1.59 (2.56 km).

DRAINAGE AREA.--177 mi² (458 km²).

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 (134.865 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1935, to Sept. 30, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good. Many diversions for irrigation above station.

AVERAGE DISCHARGE.--35 years, 529 ft³/s (14.98 m³/s), 40.59 in/yr (1,031 mm/yr), 383,300 acre-ft/yr (473 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) Dec. 22, 1964, gage height, 22.60 ft (6.888 m); minimum, 8.2 ft³/s (0.23 m³/s) Sept. 9, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached at stage of 22.9 ft (6.98 m), from floodmark, probably affected by backwater from McKenzie River, discharge, 9,200 ft³/s (261 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 4	0130	*7,980	226	*16.97	5.172	Dec. 26	0330	5,790	164	14.14	4.310

Minimum, 19 ft³/s (0.53 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	42	458	900	412	619	890	288	270	215	65	32
2	28	86	2460	800	375	567	791	282	251	203	65	39
3	27	60	5660	700	352	539	751	275	231	193	85	33
4	24	49	5360	650	329	683	651	270	229	196	80	30
5	24	44	2760	600	359	598	605	314	224	184	76	28
6	24	168	1940	507	332	549	559	306	231	189	68	27
7	24	429	1370	474	306	520	517	280	272	226	56	26
8	24	370	1050	444	290	479	544	264	664	205	44	23
9	24	444	869	416	280	444	733	272	1130	189	41	23
10	24	311	748	390	280	425	648	251	818	179	38	24
11	24	184	629	368	272	401	887	239	582	160	36	25
12	33	137	562	347	259	385	1380	226	539	146	36	25
13	62	114	507	324	324	361	1170	217	611	144	39	24
14	73	109	467	308	745	347	972	215	585	135	39	23
15	49	124	435	296	672	366	842	249	507	114	38	22
16	41	105	428	285	1270	486	742	249	474	109	39	21
17	38	95	414	280	1490	421	640	234	439	107	37	21
18	35	87	387	264	1840	390	598	322	401	105	34	23
19	34	82	359	251	2870	370	549	401	407	103	31	26
20	33	76	354	241	2250	352	512	375	375	99	37	30
21	33	109	396	270	1620	340	524	340	334	101	36	35
22	32	549	762	282	1280	401	495	308	316	101	34	56
23	31	375	943	288	1060	363	458	280	329	97	33	48
24	31	352	1940	319	1050	350	437	347	322	91	32	36
25	41	277	4800	298	915	613	401	534	301	91	31	36
26	65	222	4720	416	848	680	405	512	272	82	30	49
27	92	191	2990	529	777	585	380	432	256	75	30	236
28	56	231	2000	592	683	524	375	380	244	68	30	128
29	44	375	1400	626	---	544	352	342	229	65	30	116
30	40	564	1200	529	---	580	316	319	222	67	30	71
31	39	---	1000	458	---	722	---	290	---	65	32	---
TOTAL	1176	6361	49368	13452	23540	15004	19124	9613	12065	4104	1332	1336
MEAN	37.9	212	1593	434	841	484	637	310	402	132	43.0	44.5
MAX	92	564	5660	900	2870	722	1380	534	1130	226	85	236
MIN	24	42	354	241	259	340	316	215	222	65	30	21
CFSM	.21	1.20	9.00	2.45	4.75	2.73	3.60	1.75	2.27	.75	.24	.25
IN.	.25	1.34	10.58	2.83	4.95	3.15	4.02	2.02	2.54	.86	.28	.28
AC-FT	2330	12620	97920	26680	46690	29760	37930	19070	23930	8140	2640	2650

CAL YR 1980 TOTAL 174521 MEAN 477 MAX 5660 MIN 24 CFSM 2.70 IN 36.68 AC-FT 346200
WTR YR 1981 TOTAL 156475 MEAN 429 MAX 5660 MIN 21 CFSM 2.42 IN 32.89 AC-FT 310400

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 (23 m) north of intersection of First Street and Kesling Street in Harrisburg and at mile 161.0 (259.0 km).

DRAINAGE AREA.--3,420 mi² (8,860 km²), 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 (87.901 m) National Geodetic Vertical Datum of 1929. Oct 1 to Nov. 14, 1944, nonrecording gage at bridge 1,110 ft (338 m) upstream at different datum. Nov. 15, 1944, to Aug. 15, 1973, at site 1,100 ft (335 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge records good. Flow regulated by 8 reservoirs above station (see elsewhere in this report). Many small diversions above station for irrigation.

AVERAGE DISCHARGE.--37 years, 12,190 ft³/s (345.2 m³/s), 8,832,000 acre-ft/yr (10.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 210,000 ft³/s (5,950 m³/s) Dec. 29, 1945, gage height, 19.69 ft (6.002 m), from rating curve extended above 115,000 ft³/s (3,260 m³/s); minimum, 1,990 ft³/s (56.4 m³/s) Oct 30, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 20.5 ft (6.25 m) was reached in December 1861, and 20.1 ft (6.13 m) in February 1890 (information from Corps of Engineers). Flood of Jan. 1, 1943, reached a stage of 19.1 ft (5.82 m) from National Weather Service.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 68,000 ft³/s (1,930 m³/s) Dec. 4, gage height, 12.95 ft (3.947 m); minimum, 4,150 ft³/s (118 m³/s) July 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6900	6420	13800	30800	6240	9160	11700	5420	6030	4730	4980	5990
2	7080	6420	23200	27700	6030	8700	11600	5380	5700	4620	4880	6270
3	7130	6270	45100	22800	5810	8240	10800	5250	5440	4490	4920	6200
4	7150	6070	57400	20300	5600	9030	10500	5150	5310	4390	5020	6180
5	7150	6010	36400	18100	5640	8750	9910	5210	5290	4230	4940	6160
6	7080	6990	41200	14500	5640	7960	9750	5340	5400	4260	4920	6160
7	7010	9830	38100	11400	5440	7420	9160	5170	5420	4490	4940	6070
8	6990	13200	34600	10900	5250	7110	8620	5020	8140	4570	5050	6030
9	6990	14100	30300	10300	5170	6740	9400	5000	18500	4440	5130	6690
10	6920	14500	27200	9080	5090	6440	9560	4960	16700	4330	5040	6850
11	6940	12900	24100	7800	4980	6240	10400	4810	11600	4330	4980	6900
12	7110	11900	22300	7300	4960	6070	13500	4700	10600	4330	5110	6970
13	7220	9940	18400	6510	5070	5850	15000	4550	11800	4370	5150	6920
14	7350	9110	16500	6830	7600	5680	13300	4530	13300	4440	5110	6760
15	7150	8970	15400	6740	8830	5680	11600	4680	13100	4440	5110	6830
16	7130	8620	12900	6350	10800	7010	11100	5170	12700	4420	5110	6760
17	6990	8090	12100	5990	19600	7350	10300	5580	11600	4370	5130	7250
18	6970	7600	11700	5910	16300	6330	9780	6240	10500	4460	5250	7370
19	6970	7130	11300	5810	24400	5890	8970	7700	10300	4620	5290	7370
20	6940	6140	10600	5560	25500	5700	8640	8830	11000	4700	5330	7500
21	6920	5930	10000	5190	20000	5540	7880	8540	9800	4720	5210	7570
22	7060	11000	13500	5270	16200	6010	7370	7750	8700	4680	5230	7620
23	7060	11800	21600	5420	13500	5970	7130	7320	8090	4600	5230	7700
24	7060	11800	25000	5420	12500	5760	7300	7300	6900	4570	5190	7570
25	6940	11200	41100	5360	12100	6710	7200	9450	6240	4700	5210	7400
26	6830	10600	39900	5580	11100	8640	7060	12400	5910	4700	5210	7620
27	6870	9720	29000	6850	10700	8140	6830	10500	5680	4620	5210	9050
28	6710	9130	31900	7600	9780	7880	6120	9110	5190	4550	5190	9110
29	6710	9400	36900	8350	---	7750	5810	7930	4980	4550	5210	8190
30	6550	14000	36100	7420	---	9080	5640	7130	4810	4570	5250	7500
31	6440	---	34000	6690	---	10100	---	6710	---	4700	5480	---
TOTAL	216320	284790	821600	309830	289830	222930	281930	202830	264730	139990	159010	212560
MEAN	6978	9493	26500	9995	10350	7191	9398	6543	8824	4516	5129	7085
MAX	7350	14500	57400	30800	25500	10100	15000	12400	18500	4730	5480	9110
MIN	6440	5930	10000	5190	4960	5540	5640	4530	4810	4230	4880	5990
AC-FT	429100	564900	1630000	614500	574900	442200	559200	402300	525100	277700	315400	421600

CAL YR 1980 TOTAL 3777660 MEAN 10320 MAX 57400 MIN 3880 AC-FT 7493000
WTR YR 1981 TOTAL 3406350 MEAN 9332 MAX 57400 MIN 4230 AC-FT 6756000

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

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, 20.5°C July 27, Aug. 9; minimum recorded, 5.5°C Jan. 14, 15.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14166000 WILLAMETTE RIVER AT HARRISBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (0.3 km) upstream from Southern Pacific Railroad bridge, 0.8 mi (1.3 km) downstream from Noti Creek, 1.3 mi (2.1 km) southeast of Noti, and at mile 37.4 (60.2 km).

DRAINAGE AREA.--89.3 mi^2 (231.3 km^2).

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 (118.582 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Weather Bureau). Prior to Nov. 6, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good. Slight regulation caused by logpond above Noti. No diversion above station.

AVERAGE DISCHARGE.--46 years, 231 ft^3/s (6.542 m^3/s), 35.13 in/yr (892 mm/yr), 167,400 acre-ft/yr (206 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,990 ft^3/s (198 m^3/s) Dec. 22, 1955, gage height, 20.17 ft (6.148 m); minimum, 0.04 ft^3/s (0.001 m^3/s) Aug. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	0700	2,770	78.4	15.03	4.581	Dec. 26	0900	*3,990	113	*16.85	5.136

Minimum, 6.3 ft^3/s (0.18 m^3/s) Oct. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	21	159	373	207	246	322	108	69	52	20	15
2	9.2	48	1050	327	195	231	289	106	66	51	19	15
3	7.7	35	2590	300	176	219	256	107	66	49	21	13
4	7.2	25	2220	260	172	249	224	105	64	46	22	12
5	9.2	22	1100	241	170	231	204	118	64	43	21	12
6	7.2	51	889	226	162	210	194	145	64	42	19	12
7	7.2	161	540	212	150	203	176	121	66	44	17	11
8	6.8	153	394	202	146	191	175	110	139	44	19	10
9	6.3	128	305	192	146	181	203	103	239	44	17	10
10	6.3	104	259	180	142	173	190	100	194	43	15	10
11	6.8	65	221	170	138	167	337	92	142	41	12	11
12	12	52	197	165	135	163	554	90	122	39	10	11
13	22	43	180	158	190	158	428	86	128	38	11	11
14	24	39	153	151	414	152	344	83	167	35	11	10
15	20	42	145	145	358	159	287	85	150	33	13	8.7
16	18	43	138	141	578	170	255	90	134	32	12	8.2
17	17	37	129	141	753	155	224	86	127	31	12	8.2
18	21	32	146	141	699	146	205	113	116	30	12	9.2
19	16	34	138	135	1070	146	192	139	106	30	12	12
20	14	33	124	130	862	144	178	115	100	30	15	16
21	13	59	133	128	603	142	167	101	91	28	16	22
22	12	256	372	172	488	160	159	91	82	28	16	31
23	12	139	417	201	417	166	151	85	74	27	17	28
24	12	106	554	175	384	172	146	90	72	27	16	23
25	17	90	2710	159	340	204	138	113	68	27	14	20
26	31	78	3560	181	314	229	134	114	64	28	13	22
27	41	68	1680	233	299	216	123	100	61	25	13	60
28	28	71	963	309	264	190	122	89	60	23	11	60
29	22	117	664	308	---	201	121	80	58	21	11	42
30	18	176	532	267	---	220	115	77	56	20	13	28
31	17	---	439	226	---	241	---	74	---	20	15	---
TOTAL	470.9	2328	23101	6349	9972	5835	6613	3116	3009	1071	465	561.3
MEAN	15.2	77.6	745	205	356	188	220	101	100	34.5	15.0	18.7
MAX	41	256	3560	373	1070	249	554	145	239	52	22	60
MIN	6.3	21	124	128	135	142	115	74	56	20	10	8.2
CFSM	.17	.87	8.34	2.30	3.99	2.11	2.46	1.13	1.12	.39	.17	.21
IN.	.20	.97	9.62	2.64	4.15	2.43	2.75	1.30	1.25	.45	.19	.23
AC-FT	934	4620	45820	12590	19780	11570	13120	6180	5970	2120	922	1110

CAL YR 1980 TOTAL 78446.6 MEAN 214 MAX 3560 MIN 6.3 CFSM 2.40 IN 32.68 AC-FT 155600
WTR YR 1981 TOTAL 62891.2 MEAN 172 MAX 3560 MIN 6.3 CFSM 1.93 IN 26.20 AC-FT 124700

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 (1.6 km) downstream from Spencer Creek, 4.3 mi (6.9 km) northeast of Crow, and at mile 3.8 (6.1 km).

DRAINAGE AREA.--95.1 mi² (246.3 km²).

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 (114.00 m) 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.--Records good. No regulation. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years, 175 ft³/s (4.956 m³/s), 24.99 in/yr (635 mm/yr), 126,800 acre-ft/yr (156 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s (300 m³/s) Feb. 10, 1961, gage height, 14.43 ft (4.398 m), from rating curve extended above 4,700 ft³/s (133 m³/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft³/s (45.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 4	0130	*5,850	166	*12.97	3.953	Dec. 25	1930	2,410	68.3	11.04	3.365

No flow Aug. 19 to Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.6	96	219	190	188	200	52	28	8.7	.18	.00
2	1.0	2.9	1270	178	159	157	182	51	25	8.1	.08	.00
3	.71	4.0	3610	148	140	140	164	50	24	6.6	.06	.00
4	.47	5.0	3890	123	122	329	137	50	23	2.9	.06	.00
5	.37	4.0	1720	107	119	256	120	56	22	3.1	.04	.12
6	.24	5.8	1120	95	119	200	110	60	23	4.3	.03	.21
7	.24	22	702	85	100	176	95	54	25	5.0	.03	.18
8	.18	43	396	79	90	149	88	50	64	6.2	.32	.15
9	.15	38	277	73	85	125	115	49	71	6.2	1.9	.15
10	.13	38	212	68	80	109	98	46	58	5.8	1.1	.15
11	.15	26	163	64	76	98	337	43	47	5.0	.91	.21
12	.28	17	131	61	71	90	624	42	41	5.0	.24	.24
13	.53	12	108	59	93	81	464	41	45	5.0	.07	.21
14	.37	9.2	90	58	243	78	313	38	58	4.3	.05	.13
15	.24	8.1	77	56	234	87	240	38	45	3.4	.04	.12
16	.53	7.6	71	54	411	191	207	41	33	3.1	.03	.09
17	.76	7.1	66	54	558	139	159	39	33	2.9	.02	.09
18	.59	6.6	62	54	563	109	132	49	29	3.1	.01	.13
19	.53	5.8	59	51	820	103	110	59	28	2.9	.00	.15
20	.47	5.4	62	50	788	93	96	53	26	2.2	.00	.13
21	.47	7.6	81	54	554	89	87	46	23	2.2	.00	.15
22	.42	76	300	98	370	102	83	41	21	2.2	.00	.24
23	1.4	80	303	135	290	86	75	37	20	2.0	.00	.18
24	1.1	61	559	117	328	85	71	42	18	1.9	.00	.18
25	1.0	45	2060	97	287	211	65	76	17	1.9	.00	.28
26	1.1	37	1750	142	275	197	64	62	14	1.5	.00	.86
27	2.9	28	1140	256	284	161	62	49	13	1.4	.00	4.0
28	2.4	29	760	381	222	127	60	42	12	1.1	.00	7.6
29	4.6	49	476	398	---	145	58	37	10	.91	.00	10
30	3.4	92	345	310	---	186	56	33	9.2	.76	.00	3.7
31	4.3	---	268	238	---	174	---	30	---	.42	.00	---
TOTAL	32.73	774.7	22224	3962	7671	4461	4672	1456	905.2	110.09	5.17	29.65
MEAN	1.06	25.8	717	128	274	144	156	47.0	30.2	3.55	.17	.99
MAX	4.6	92	3890	398	820	329	624	76	71	8.7	1.9	10
MIN	.13	2.6	59	50	71	78	56	30	9.2	.42	.00	.00
CFSM	.01	.27	7.54	1.35	2.88	1.51	1.64	.49	.32	.04	.002	.01
IN.	.01	.30	8.69	1.55	3.00	1.74	1.83	.57	.35	.04	.00	.01
AC-FT	65	1540	44080	7860	15220	8850	9270	2890	1800	218	10	59

CAL YR 1980	TOTAL	61071.11	MEAN	167	MAX	3890	MIN	.04	CFSM	1.76	IN	23.89	AC-FT	121100
WTR YR 1981	TOTAL	46303.54	MEAN	127	MAX	3890	MIN	.00	CFSM	1.34	IN	18.11	AC-FT	91840

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 (7.2 km) northeast of Elmira, and at mile 25.7 (41.4 km).

DRAINAGE AREA.--252 mi² (653 km²), 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.--Reservoir 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 (144 hm³) at elevation 375.1 ft (114.33 m), maximum pool elevation. Usable capacity, 101,100 acre-ft (125 hm³) between elevations 340.0 ft (103.63 m), sill of outlet gate, and 373.5 ft (113.84 m), 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 Reservoir; drainage area at point of diversion, 21.3 mi² (55.2 km²).

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 124,500 acre-ft (154 hm³) Dec. 27, 1955, elevation, 375.83 ft (114.553 m); minimum since first filling in 1942, 163 acre-ft (201,000 m³) Nove. 11, 1950, elevation, 344.00 ft (104.851 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 102,300 acre-ft (126 hm³) June 8, elevation, 373.63 ft (113.882 m); minimum, 7,110 acre-ft (8.77 hm³) Nov. 17, 20, 26, elevation, 352.96 ft (107.582 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	371.38	361.38	353.58	357.43	360.34	368.11	371.79	373.48	373.47	373.42	372.82	371.98
2	371.36	360.85	357.42	355.18	360.61	368.12	371.93	373.48	373.47	373.41	372.79	371.96
3	371.34	360.28	362.75	353.68	360.85	368.24	372.04	373.47	373.48	373.40	372.77	371.93
4	371.31	359.67	366.34	353.30	361.06	368.53	372.14	373.50	373.48	373.41	372.75	371.91
5	371.29	359.10	367.50	353.09	361.26	368.72	372.23	373.55	373.49	373.37	372.72	371.87
6	371.14	358.63	367.55	353.04	361.47	368.88	372.30	373.53	373.49	373.36	372.70	371.85
7	370.86	358.39	367.07	353.08	361.64	369.02	372.37	373.49	373.56	373.33	372.68	371.83
8	370.52	357.96	366.14	353.07	361.78	369.13	372.44	373.47	373.62	373.33	372.66	371.79
9	370.22	357.46	364.94	353.07	361.93	369.24	372.53	373.47	373.52	373.32	372.62	371.77
10	369.90	356.77	363.47	353.07	362.07	369.34	372.61	373.47	373.48	373.30	372.60	371.74
11	369.59	355.97	361.68	353.15	362.20	369.42	372.89	373.49	373.47	373.29	372.57	371.72
12	369.27	354.99	359.49	353.27	362.32	369.51	372.99	373.50	373.50	373.27	372.53	371.69
13	368.95	354.06	357.56	353.36	362.63	369.57	373.05	373.50	373.54	373.25	372.50	371.67
14	368.60	353.49	355.48	353.42	363.10	369.65	373.16	373.51	373.54	373.23	372.47	371.64
15	368.25	353.22	354.22	353.45	363.54	369.76	373.26	373.52	373.53	373.21	372.44	371.62
16	367.89	353.05	353.85	353.48	364.27	369.91	373.34	373.52	373.51	373.20	372.41	371.58
17	367.51	352.97	353.43	353.52	365.04	370.00	373.38	373.55	373.50	373.18	372.40	371.56
18	367.13	352.98	353.29	353.54	365.89	370.09	373.42	373.58	373.51	373.16	372.35	371.56
19	366.74	352.97	353.31	353.62	366.65	370.16	373.43	373.56	373.51	373.13	372.32	371.54
20	366.31	352.96	353.16	353.82	367.07	370.24	373.44	373.52	373.51	373.12	372.29	371.52
21	365.92	353.57	353.47	354.14	367.26	370.34	373.45	373.50	373.52	373.10	372.28	371.52
22	365.57	353.59	353.67	354.75	367.34	370.44	373.46	373.48	373.51	373.08	372.26	371.51
23	365.20	353.36	353.57	355.35	367.43	370.54	373.46	373.51	373.50	373.05	372.23	371.49
24	364.83	353.07	355.07	355.79	367.63	370.65	373.46	373.54	373.50	373.03	372.20	371.47
25	364.46	352.99	359.34	356.14	367.76	370.86	373.47	373.52	373.49	373.02	372.17	371.44
26	364.11	353.08	363.16	356.62	367.91	371.01	373.49	373.50	373.49	373.00	372.14	371.51
27	363.69	353.09	364.55	357.37	368.02	371.13	373.51	373.50	373.47	372.97	372.10	371.58
28	363.26	353.09	364.11	358.29	368.08	371.23	373.51	373.49	373.46	372.94	372.08	371.59
29	362.80	353.35	363.01	359.07	---	371.37	373.51	373.49	373.45	372.91	372.05	371.58
30	362.32	353.44	361.62	359.62	---	371.49	373.50	373.48	373.43	372.87	372.03	371.56
31	361.83	---	359.78	360.02	---	371.63	---	373.48	---	372.85	372.01	---
MEAN	367.53	355.33	359.47	354.83	364.18	369.88	372.99	373.50	373.50	373.18	372.42	371.67
MAX	371.38	361.38	367.55	360.02	368.08	371.63	373.51	373.58	373.62	373.42	372.82	371.98
MIN	361.83	352.96	353.16	353.04	360.34	368.11	371.79	373.47	373.43	372.85	372.01	371.44
(†)	28840	7850	21990	22730	58820	84630	101100	100900	100400	95120	87810	84050
(‡)	-53820	-20990	+14140	+740	+36090	+25810	+16470	-200	-500	-5280	-7310	-3760

CAL YR 1980 MEAN 367.54 MAX 374.00 MIN 352.96 AC-FT‡ +14140
WTR YR 1981 MEAN 367.39 MAX 373.62 MIN 352.96 AC-FT‡ +1390

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

14169001 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 (0.3 km) downstream from Fern Ridge Dam, 1.7 mi (2.7 km) west of Alvadore, and at mile 25.5 (41.0 km).

DRAINAGE AREA.--252 mi² (653 km²), 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."

REVISED RECORDS.--WSP 1248: 1940-41, 1948.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 332.00 ft (101.194 m) 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 (4.0 km) downstream at datum 11.09 ft (3.380 m) lower.

REMARKS.--Records good. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions for irrigation above station. Records include diversion to Coyote Creek Channel. Point of diversion is 500 ft (152 m) upstream and point of return, 2.3 mi (3.7 km) downstream. 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.--42 years, 527 ft³/s (14.92 m³/s), 381,800 acre-ft/yr (471 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s (326 m³/s) Jan. 1, 1943, gage height, 15.12 ft (4.609 m), site and datum then in use; minimum daily, 2 ft³/s (0.057 m³/s) Aug. 7, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,270 ft³/s (121 m³/s) Jan. 2; minimum daily, 45 ft³/s (1.27 m³/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	902	378	3940	56	456	53	177	55	49	66	64
2	73	909	729	2950	57	456	57	157	57	49	66	63
3	73	923	379	1610	57	205	59	157	55	49	66	61
4	73	916	130	748	56	58	57	97	53	49	66	60
5	73	902	1210	554	52	59	54	148	49	49	66	63
6	506	889	2710	426	52	58	54	304	53	49	66	64
7	1030	905	3350	355	52	58	56	345	59	49	66	64
8	1120	905	3650	356	51	57	45	273	361	49	66	65
9	1120	905	3990	319	49	55	51	117	817	47	66	64
10	1110	903	3990	311	49	52	62	60	458	47	66	64
11	1140	904	4010	255	49	52	67	60	221	46	66	64
12	1150	910	3960	215	50	52	1060	63	96	47	66	64
13	1140	707	2870	217	50	52	953	62	162	47	66	64
14	1120	444	2350	218	51	52	374	62	217	47	66	64
15	1130	203	1320	219	51	52	232	62	221	49	66	64
16	1130	154	500	220	52	52	232	83	224	49	66	64
17	1120	94	494	220	51	53	252	99	161	50	64	64
18	1120	49	328	215	51	53	255	274	76	50	59	64
19	1120	49	283	171	554	54	263	375	53	69	54	65
20	1120	49	358	111	1030	53	263	317	53	64	53	64
21	987	101	385	107	1030	54	261	236	52	55	53	65
22	909	387	830	105	924	54	246	191	50	62	51	65
23	888	499	1090	55	689	53	235	105	52	66	60	65
24	888	386	1310	52	445	50	235	149	52	66	71	65
25	902	233	833	51	440	50	170	365	50	66	66	65
26	909	97	95	52	451	51	133	277	50	66	63	65
27	916	140	1380	53	451	53	131	161	49	66	65	69
28	909	146	3540	53	456	53	183	137	49	66	66	66
29	909	200	4020	53	---	53	206	105	49	66	66	65
30	916	327	4020	54	---	53	209	78	49	66	66	65
31	902	---	4000	56	---	50	---	62	---	66	67	---
TOTAL	26576	15138	58492	14321	7406	2613	6508	5158	4003	1715	1980	1928
MEAN	857	505	1887	462	265	84.3	217	166	133	55.3	63.9	64.3
MAX	1150	923	4020	3940	1030	456	1060	375	817	69	71	69
MIN	73	49	95	51	49	50	45	60	49	46	51	60
AC-FT	52710	30030	116000	28410	14690	5180	12910	10230	7940	3400	3930	3820

CAL YR 1980 TOTAL 180464 MEAN 493 MAX 4040 MIN 41 AC-FT 358000
WTR YR 1981 TOTAL 145838 MEAN 400 MAX 4020 MIN 45 AC-FT 289300

14169500 AMAZON CREEK NEAR EUGENE, OR

LOCATION.--Lat 44°03'40", long 123°11'40", in SE¼ sec.29, T.17 S., R.4 W., Lane County, Hydrologic Unit 17090003, on right bank 250 ft (76 m) upstream from diversion structure, 5 mi (8 km) west of Eugene, and at mile 12.3 (19.8 km).

DRAINAGE AREA.--21.3 mi² (55.2 km²).

PERIOD OF RECORD.--October 1954 to September 1968, October 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 372.41 ft (113.511 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. During summer and fall, several diversions by pumping for irrigation; natural flow (if any) may be augmented slightly by return flow in and below city of Eugene. Records include diversion at station to Fern Ridge Lake.

AVERAGE DISCHARGE.--16 years, 28.7 ft³/s (0.813 m³/s), 18.30 in/yr (465 mm/yr), 20,790 acre-ft/yr (25.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,070 ft³/s (86.9 m³/s) Feb. 10, 1961, gage height, 9.58 ft (2.920 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (22.7 m³/s) and maximum discharge, 1,790 ft³/s (50.7 m³/s) Dec. 3, gage height, 9.36 ft (2.853 m); minimum, 0.65 ft³/s (0.018 m³/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	9.6	28	33	35	30	26	8.1	4.8	2.5	2.0	2.3
2	.76	7.4	702	31	33	27	23	5.9	4.1	2.3	2.1	2.5
3	.81	1.8	817	30	32	32	20	5.5	3.4	2.5	2.0	2.3
4	.81	1.2	254	28	31	67	18	5.8	3.5	2.8	1.8	2.2
5	.84	1.1	101	28	35	36	19	16	3.5	2.8	2.0	2.3
6	.81	35	75	27	32	30	17	8.1	9.6	2.9	2.1	2.4
7	.81	62	54	27	31	28	16	5.9	18	9.8	2.2	2.4
8	.81	38	44	26	30	26	18	5.2	31	8.5	2.3	2.4
9	.81	38	39	26	30	23	20	5.1	18	7.5	2.4	2.2
10	.84	18	37	26	29	22	17	4.3	16	7.0	2.6	2.2
11	1.1	6.6	35	26	29	21	67	3.5	12	6.5	3.1	2.0
12	15	3.5	34	25	29	19	53	4.2	12	6.5	3.0	2.0
13	15	2.7	32	24	43	19	28	5.1	20	6.0	2.5	2.0
14	14	10	31	24	61	18	22	5.6	17	5.0	2.6	2.0
15	2.1	11	31	24	42	27	22	9.8	13	4.6	2.4	2.0
16	1.6	3.2	30	24	78	34	20	12	11	4.2	2.2	1.6
17	1.4	2.5	30	25	50	22	18	11	11	4.0	2.2	1.8
18	1.3	2.3	29	25	89	30	17	18	5.0	3.8	2.4	1.9
19	1.2	2.2	29	24	93	19	16	16	4.8	3.6	2.5	12
20	1.2	2.2	36	24	59	18	16	12	4.0	3.4	2.5	2.8
21	1.2	28	50	30	43	19	16	11	2.2	3.2	2.5	17
22	1.2	39	82	47	38	21	16	9.8	1.6	3.0	2.5	7.8
23	1.1	36	55	39	35	19	15	7.3	1.6	2.8	2.6	4.1
24	.74	24	224	37	59	19	16	16	1.5	2.6	2.6	2.7
25	5.8	18	179	33	41	43	14	24	1.5	2.4	2.3	2.4
26	16	8.5	80	43	49	28	14	13	1.8	2.2	2.3	23
27	8.5	6.6	78	67	41	23	15	12	2.0	2.0	2.3	62
28	1.6	14	47	70	33	19	15	10	2.0	2.0	2.3	17
29	1.2	37	41	51	---	24	13	9.6	2.1	2.3	2.3	9.0
30	.99	34	39	42	---	21	11	9.2	2.4	2.1	2.3	3.3
31	.90	---	35	37	---	26	---	7.6	---	2.0	2.2	---
TOTAL	101.22	503.4	3378	1023	1230	810	618	296.6	240.4	122.8	73.1	201.6
MEAN	3.27	16.8	109	33.0	43.9	26.1	20.6	9.57	8.01	3.96	2.36	6.72
MAX	16	62	817	70	93	67	67	24	31	9.8	3.1	62
MIN	.74	1.1	28	24	29	18	11	3.5	1.5	2.0	1.8	1.6
CFSM	.15	.79	5.12	1.55	2.06	1.23	.97	.45	.38	.19	.11	.32
IN.	.18	.88	5.90	1.79	2.15	1.41	1.08	.52	.42	.21	.13	.35
AC-FT	201	998	6700	2030	2440	1610	1230	588	477	244	145	400

CAL YR 1980 TOTAL 10145.28 MEAN 27.7 MAX 817 MIN .74 CFSM 1.30 IN 17.72 AC-FT 20120
WTR YR 1981 TOTAL 8598.12 MEAN 23.6 MAX 817 MIN .74 CFSM 1.11 IN 15.02 AC-FT 17050

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 (34 m) upstream from bridge on State Highway 99W, 0.1 mi (0.2 km) downstream from Shafer Creek, and at mile 6.8 (10.9 km).

DRAINAGE AREA.--391 mi² (1,013 km²).

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 (82.470 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1944, nonrecording gage at various sites ranging from present site to 1.5 mi (2.4 km) downstream at different datums.

REMARKS.--Records good. Flow regulated since 1941 by Fern Ridge Lake (see station 14168000). Several small diversions above station.

AVERAGE DISCHARGE.--58 years (water years 1922-25, 1928-81), 764 ft³/s (21.64 m³/s), 553,500 acre-ft/yr (682 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s (547 m³/s) Jan. 2, 1943, gage height, 17.14 ft (5.224 m), 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 observed prior to regulation, 7 ft³/s (0.20 m³/s) Sept. 29, Oct. 1, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,890 ft³/s (167 m³/s) Dec. 25, gage height, 8.59 ft (2.618 m); minimum, 20 ft³/s (0.57 m³/s) July 16, 17, 19, 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	939	487	4380	279	741	316	279	120	45	35	37
2	63	960	2460	3910	256	712	291	239	112	42	39	37
3	60	980	4280	2360	239	561	267	233	100	37	39	37
4	60	970	3500	1280	228	503	228	206	85	39	37	37
5	60	950	2360	789	228	411	212	176	78	47	37	35
6	215	950	3540	760	222	304	206	397	85	42	35	37
7	895	1020	4000	578	201	273	196	448	108	42	37	39
8	1080	1060	3870	552	191	250	191	404	310	39	37	37
9	1070	1030	4340	527	181	233	196	262	939	35	37	39
10	1070	1020	4280	479	176	212	206	138	676	32	30	39
11	1080	991	4260	433	176	206	479	133	362	39	26	42
12	1130	970	4220	349	176	201	1410	129	212	39	26	39
13	1140	868	3610	342	419	191	1810	125	186	39	30	39
14	1120	527	2750	336	789	186	760	125	316	30	32	39
15	1120	285	2080	336	511	201	471	125	304	30	37	37
16	1130	186	685	329	950	256	456	133	291	26	37	35
17	1110	161	648	329	889	233	441	166	262	24	42	37
18	1110	71	544	329	1000	201	433	291	161	26	37	37
19	1120	68	376	323	1850	191	419	511	112	28	32	45
20	1120	65	503	222	2140	186	404	463	104	45	32	50
21	1030	82	622	262	1770	186	390	349	100	26	30	62
22	939	441	1290	349	1590	244	383	273	85	22	26	62
23	919	622	1650	411	1290	250	356	222	89	32	30	62
24	909	535	2410	285	939	239	349	166	71	35	45	68
25	929	336	5450	222	889	397	316	433	65	39	42	75
26	939	222	3730	304	848	376	244	487	59	47	35	78
27	960	147	2300	433	889	279	233	250	56	42	26	96
28	960	201	4240	569	789	239	256	228	62	32	30	116
29	950	250	4690	511	---	250	304	191	59	32	35	108
30	950	411	4590	376	---	262	304	152	50	30	42	92
31	939	---	4490	323	---	250	---	138	---	32	39	---
TOTAL	26240	17318	88255	22988	20105	9224	12527	7872	5619	1095	1074	1593
MEAN	846	577	2847	742	718	298	418	254	187	35.3	34.6	53.1
MAX	1140	1060	5450	4380	2140	741	1810	511	939	47	45	116
MIN	60	65	376	222	176	186	191	125	50	22	26	35
AC-FT	52050	34350	175100	45600	39880	18300	24850	15610	11150	2170	2130	3160

CAL YR 1980 TOTAL 266389 MEAN 728 MAX 5450 MIN 22 AC-FT 528400
WTR YR 1981 TOTAL 213910 MEAN 586 MAX 5450 MIN 22 AC-FT 424300

14171000 MARYS RIVER NEAR PHILOMATH, OR

LOCATION.--Lat 44°31'35", long 123°20'00", in NE¼SE¼ sec.18, T.12 S., R.5 W., Benton County, Hydrologic Unit 17090003, on left bank 50 ft (15 m) downstream from bridge on Bellfountain Road, 0.6 mi (1.0 km) downstream from Newton Creek, 2.0 mi (3.2 km) southeast of Philomath, and at mile 9.4 (15.1 km).

DRAINAGE AREA.--159 mi² (412 km²), including drainage area of Evergreen Creek above Bellfountain Road, 1.4 mi (2.3 km) south of station.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1218: Drainage area. WSP 1935: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 224.01 ft (68.278 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Oct. 1, 1961, nonrecording gage at bridge 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. Records include flow of Evergreen Creek at Bellfountain Road crossing 1.4 mi (2.3 km) south of station, with which overflow from Marys River may at times be mingled. Slight regulation by small storage reservoir on Rock Creek from which municipal supply is diverted for city of Corvallis. Other small diversions above station for irrigation.

AVERAGE DISCHARGE.--41 years, 453 ft³/s (12.83 m³/s), 38.69 in/yr (983 mm/yr), 328,200 acre-ft/yr (405 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s (385 m³/s) Dec. 22, 1964, gage height, 20.72 ft (6.315 m); maximum gage height, 20.91 ft (6.373 m) Jan. 15, 1974; minimum discharge, 0.60 ft³/s (0.017 m³/s) Aug. 23, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,200 ft³/s (90.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1800	3,480	98.6	17.67	5.386	Dec. 25	2130	*10,500	297	*20.86	6.358

Minimum, 10 ft³/s (0.28 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	19	433	736	369	368	947	168	112	97	37	25
2	12	32	1930	623	334	338	798	164	109	92	37	25
3	13	29	2770	547	306	331	658	160	103	86	38	23
4	13	27	2490	484	281	471	549	158	99	80	39	23
5	14	23	1940	436	284	402	499	189	102	78	38	22
6	12	31	1560	397	261	358	474	212	106	75	35	22
7	11	178	1060	366	237	335	430	175	143	76	35	21
8	12	235	754	342	224	306	441	159	334	78	33	21
9	13	177	579	317	216	281	664	151	418	71	32	20
10	15	129	476	293	211	262	648	142	354	67	30	20
11	16	86	405	274	209	247	991	134	284	65	27	19
12	18	61	352	257	205	233	1140	128	232	63	28	20
13	22	49	310	241	338	223	954	121	271	61	27	19
14	28	45	275	231	654	212	790	115	289	59	28	20
15	25	47	251	220	519	232	664	129	239	55	28	18
16	20	45	228	209	724	239	566	142	219	54	29	18
17	17	41	209	203	786	196	494	140	226	53	28	18
18	15	38	190	200	975	198	438	240	191	53	27	18
19	15	37	175	189	1580	195	392	261	190	53	27	22
20	14	35	180	182	1520	188	354	210	200	51	26	22
21	14	109	377	219	1130	190	326	179	180	48	27	25
22	14	228	1040	229	894	205	304	159	165	47	27	27
23	13	165	1060	255	742	226	281	147	158	46	26	28
24	13	114	1790	235	668	252	267	159	149	46	25	26
25	14	99	5610	220	566	339	243	222	137	44	23	26
26	18	89	5840	345	504	339	227	200	126	43	23	28
27	27	79	3580	509	452	298	210	165	115	41	23	67
28	24	93	2170	586	405	267	207	148	109	38	23	67
29	21	212	1450	563	---	306	192	134	104	38	23	58
30	18	521	1120	482	---	380	178	130	98	38	23	40
31	18	---	892	418	---	662	---	122	---	38	23	---
TOTAL	513	3073	41496	10808	15594	9079	15326	5063	5562	1834	895	808
MEAN	16.5	102	1339	349	557	293	511	163	185	59.2	28.9	26.9
MAX	28	521	5840	736	1580	662	1140	261	418	97	39	67
MIN	11	19	175	182	205	188	178	115	98	38	23	18
CFSM	.10	.64	8.42	2.20	3.50	1.84	3.21	1.03	1.16	.37	.18	.17
IN.	.12	.72	9.71	2.53	3.65	2.12	3.59	1.18	1.30	.43	.21	.19
AC-FT	1020	6100	82310	21440	30930	18010	30400	10040	11030	3640	1780	1600

CAL YR 1980 TOTAL 152043.7 MEAN 415 MAX 5960 MIN 9.7 CFSM 2.61 IN 35.57 AC-FT 301600
WTR YR 1981 TOTAL 110051.0 MEAN 302 MAX 5840 MIN 11 CFSM 1.90 IN 25.75 AC-FT 218300

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 (1.0 km) upstream from gaging station at Albany, 0.4 mi (0.6 km) upstream from Calapooia River, and at mile 119.9 (192.9 km).

DRAINAGE AREA.--4,460 mi² (11,600 km²), approximately.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 3, 1977; minimum, 0.5°C Jan. 26, 1969, Dec. 11, 1972.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 8-11; minimum, 5.5°C on several days December to February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	15.0	12.5	12.0	8.5	8.0	9.0	8.5	6.5	6.5	---	---
2	16.5	15.0	13.0	12.0	8.0	7.0	8.5	8.0	6.5	6.0	---	---
3	16.5	15.0	13.5	13.0	---	---	8.0	7.5	6.5	5.5	---	---
4	16.5	15.0	14.0	13.0	---	---	7.5	7.5	6.0	5.5	---	---
5	17.0	15.0	13.5	13.0	---	---	7.5	7.0	6.0	5.5	---	---
6	17.0	15.5	13.5	13.0	7.0	6.5	7.5	7.0	6.5	5.5	---	---
7	17.0	15.5	13.0	12.0	6.5	6.0	7.5	7.0	6.0	6.0	---	---
8	17.0	15.0	12.5	11.0	6.0	5.5	7.0	7.0	6.0	5.5	---	---
9	15.5	14.5	11.0	9.5	5.5	5.5	7.0	7.0	6.0	5.5	---	---
10	15.0	14.0	10.5	9.5	6.0	5.5	7.5	7.0	6.0	5.5	---	---
11	15.0	14.5	10.0	9.0	6.0	6.0	7.0	6.5	6.5	5.5	---	---
12	14.5	14.0	9.0	8.5	6.0	5.5	6.5	6.0	8.0	6.5	---	---
13	14.5	14.0	9.5	9.0	5.5	5.5	6.5	6.0	8.5	8.0	---	---
14	14.5	14.0	9.0	8.5	6.0	5.5	6.0	5.5	9.0	8.5	---	---
15	14.5	13.5	9.5	8.5	6.0	5.5	6.0	5.5	9.0	9.0	---	---
16	14.0	13.5	10.5	9.5	6.0	6.0	5.5	5.5	9.5	9.0	---	---
17	14.0	13.0	10.0	9.5	6.0	6.0	7.0	5.5	---	---	---	---
18	14.0	13.0	10.0	9.5	6.0	6.0	7.0	7.0	---	---	---	---
19	14.0	13.0	10.0	9.5	6.0	6.0	7.0	6.5	---	---	---	---
20	14.0	13.0	9.5	9.0	6.5	6.0	7.5	7.0	---	---	---	---
21	14.0	13.0	9.0	8.5	8.0	7.0	---	7.5	---	---	---	---
22	14.0	13.0	9.0	8.5	8.5	8.0	8.0	---	---	---	---	---
23	13.0	12.0	8.5	8.0	8.5	7.5	8.5	8.0	---	---	---	---
24	12.5	12.0	9.0	8.5	8.0	7.5	8.5	8.0	---	---	---	---
25	12.5	12.0	9.0	8.5	10.0	8.0	8.0	7.5	---	---	---	---
26	12.5	12.0	9.0	8.5	10.0	9.5	7.5	7.5	---	---	---	---
27	13.0	12.0	9.0	8.5	10.0	9.5	7.5	7.0	---	---	---	---
28	12.5	11.5	8.5	8.0	9.5	8.5	7.0	7.0	---	---	10.5	10.0
29	12.5	11.5	8.0	7.5	8.5	8.0	7.0	6.5	---	---	11.0	10.5
30	12.0	11.0	8.0	7.5	8.5	8.0	7.0	6.5	---	---	10.5	9.5
31	12.0	11.0	---	---	9.0	8.5	7.0	6.5	---	---	9.5	8.5
MONTH	17.0	11.0	14.0	7.5	10.0	5.5	9.0	5.5	9.5	5.5	11.0	8.5

14171750 WILLAMETTE RIVER ABOVE CALAPOOIA RIVER, AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	8.0	16.0	15.0	15.5	14.5	18.5	16.5	20.5	18.5	18.5	17.5
2	8.0	8.0	15.0	14.0	16.0	14.5	19.0	16.5	19.5	18.5	18.0	16.5
3	9.0	8.0	14.0	12.5	16.5	15.0	20.5	18.0	18.5	17.5	18.0	16.0
4	9.5	8.5	12.5	11.5	16.0	15.5	21.5	19.5	19.0	17.0	18.0	16.5
5	10.5	9.5	12.0	11.0	16.0	15.0	20.5	19.5	20.0	18.0	18.0	16.5
6	9.5	9.0	11.0	10.5	15.5	15.0	19.5	17.0	19.5	19.0	18.5	16.5
7	9.5	8.5	12.0	10.5	15.0	13.5	17.5	16.0	22.0	20.0	19.0	17.0
8	9.5	9.0	12.5	11.5	14.5	13.0	17.5	15.0	22.5	20.5	19.0	17.5
9	9.0	8.5	13.5	11.5	14.0	12.0	17.5	16.0	22.5	21.0	19.0	17.5
10	9.0	8.5	14.0	12.0	12.5	11.5	17.5	16.0	22.5	21.0	18.5	17.0
11	9.0	8.5	14.5	12.5	13.5	12.0	18.0	16.0	22.5	21.0	18.5	17.0
12	9.0	8.0	15.0	13.0	13.5	13.0	18.5	16.5	22.0	20.5	18.5	17.0
13	9.0	8.0	16.0	14.0	13.5	12.5	18.5	17.0	21.0	19.5	18.0	17.0
14	10.5	9.0	15.5	14.5	13.0	12.0	19.5	17.0	21.0	19.0	---	---
15	11.0	10.0	14.5	13.5	14.0	12.5	20.5	18.0	20.5	19.0	---	---
16	11.0	10.0	14.0	12.5	15.0	13.5	21.0	18.5	20.0	18.5	---	---
17	12.0	10.5	13.0	12.5	14.5	13.0	20.5	18.5	20.5	18.5	---	---
18	12.5	11.0	13.0	12.5	14.0	13.5	20.0	18.0	21.0	19.0	---	---
19	12.0	11.5	12.5	11.5	14.5	13.5	20.0	18.0	20.0	18.0	---	---
20	11.5	10.5	12.0	11.5	14.5	13.0	20.5	18.5	18.0	17.0	---	---
21	10.5	10.5	12.0	11.5	15.5	14.0	20.5	18.5	18.5	16.5	---	---
22	11.5	10.5	13.0	11.5	16.0	15.0	20.0	18.5	19.5	17.5	---	---
23	13.0	11.5	14.5	12.5	16.0	14.5	19.5	18.5	19.5	18.0	---	---
24	13.5	12.5	15.0	14.5	17.0	14.5	19.0	17.5	19.0	18.0	---	---
25	12.5	11.5	15.0	14.0	18.5	16.0	19.5	17.0	18.5	17.5	---	---
26	11.5	10.5	14.5	13.5	18.0	17.0	20.5	18.0	18.5	17.0	---	---
27	10.5	10.0	14.5	13.0	17.5	15.5	22.0	20.0	18.5	17.0	---	---
28	12.5	10.0	15.5	13.5	17.5	15.5	22.0	20.0	18.5	17.0	---	---
29	15.0	12.5	15.5	14.5	19.0	16.5	20.5	19.0	18.0	16.5	---	---
30	16.5	14.5	16.0	14.5	18.5	17.5	20.0	18.0	17.5	16.5	---	---
31	---	---	15.5	14.0	---	---	20.5	18.5	18.0	16.5	---	---
MONTH	16.5	8.0	16.0	10.5	19.0	11.5	22.0	15.0	22.5	16.5	19.0	16.0

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 (61 m) downstream from bridge on State Highway 228, 0.3 mi (0.5 km) southwest of Holley, 5.0 mi (8.0 km) upstream from Brush Creek, and at mile 45.4 (73.0 km).

DRAINAGE AREA.--105 mi² (272 km²).

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 (160.806 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1963, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records excellent except those for period of no gage-height record, which are fair. Slight regulation at times during low-water periods by small dam upstream. Diversions for irrigation above station.

AVERAGE DISCHARGE.--46 years, 438 ft³/s (12.40 m³/s), 56.65 in/yr (1,439 mm/yr), 317,300 acre-ft/yr (391 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) Dec. 22, 1964, gage height, 14.60 ft (4.450 m); maximum gage height, 15.30 ft (4.663 m) Dec. 22, 1964 (backwater from debris); minimum discharge observed, 13 ft³/s (0.37 m³/s) Sept. 8, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,400 ft³/s (96.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1830	*6,110	173	*8.06	2.457	Dec. 25	2000	5,270	149	7.25	2.210

Minimum, 23 ft³/s (0.65 m³/s) Oct. 6-8, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	44	452	576	350	450	783	238	251	164	59	37
2	27	74	3080	500	290	410	666	223	229	154	59	39
3	26	57	5100	443	250	430	603	215	212	143	61	37
4	25	48	3280	395	220	460	535	209	209	134	58	35
5	24	44	1710	358	230	420	540	229	200	132	56	33
6	24	248	1170	327	210	400	535	241	209	130	53	33
7	24	745	849	298	190	360	475	245	245	162	52	31
8	24	751	672	277	170	320	485	238	912	141	50	30
9	24	714	560	264	170	300	695	241	1250	124	47	31
10	24	471	504	245	175	290	598	226	877	118	44	31
11	23	294	461	226	180	260	745	209	637	112	43	31
12	33	217	430	215	200	240	933	195	571	106	43	30
13	61	176	408	203	250	220	796	184	701	104	44	30
14	66	171	370	195	980	212	732	184	643	99	44	29
15	47	190	386	184	850	223	738	241	535	95	44	29
16	40	157	430	179	1400	301	666	312	480	92	44	28
17	35	139	391	174	1600	274	592	287	421	89	43	28
18	33	126	346	166	1900	251	550	391	378	85	40	28
19	31	116	312	159	2400	235	535	495	408	82	41	33
20	31	110	305	152	2000	229	471	448	399	80	43	34
21	31	223	391	164	1500	229	448	399	338	79	41	39
22	30	720	1240	164	1100	327	430	354	309	77	40	53
23	30	461	1180	166	840	298	421	312	284	76	39	45
24	30	434	1940	230	800	270	425	350	257	76	38	37
25	42	346	4590	220	720	466	362	672	235	74	37	35
26	56	287	3370	330	660	504	342	626	217	71	36	41
27	74	261	1940	400	580	471	309	480	203	67	36	206
28	52	301	1300	500	520	412	294	399	190	63	36	147
29	43	500	985	510	---	421	274	342	179	58	35	166
30	38	592	822	460	---	471	257	305	169	62	35	102
31	36	---	678	410	---	732	---	274	---	61	37	---
TOTAL	1111	9017	39652	9090	20735	10886	16235	9764	12148	3110	1378	1508
MEAN	35.8	301	1279	293	741	351	541	315	405	100	44.5	50.3
MAX	74	751	5100	576	2400	732	933	672	1250	164	61	206
MIN	23	44	305	152	170	212	257	184	169	58	35	28
CFSM	.34	2.87	12.2	2.79	7.06	3.34	5.15	3.00	3.86	.95	.42	.48
IN.	.39	3.19	14.05	3.22	7.35	3.86	5.75	3.46	4.30	1.10	.49	.53
AC-FT	2200	17890	78650	18030	41130	21590	32200	19370	24100	6170	2730	2990

CAL YR 1980 TOTAL 140992 MEAN 385 MAX 5100 MIN 23 CFSM 3.67 IN 49.95 AC-FT 279700
WTR YR 1981 TOTAL 134634 MEAN 369 MAX 5100 MIN 23 CFSM 3.51 IN 47.70 AC-FT 267000

NOTE.--No gage-height record Jan. 24 to Mar. 11.

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

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, 28.0°C Aug. 8-10; minimum, 3.5°C Dec. 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	14.0	13.5	11.0	7.5	6.5	9.0	7.5	5.5	4.0	9.5	5.5
2	19.5	13.0	14.0	11.0	9.0	7.5	7.5	6.5	5.5	4.5	9.0	5.5
3	19.5	14.0	15.0	12.5	9.0	7.0	7.5	6.0	5.0	4.5	8.5	6.5
4	19.0	13.0	15.0	12.5	7.5	7.0	7.5	7.0	6.0	4.0	8.0	6.5
5	19.5	13.5	14.0	12.5	7.0	6.5	7.5	6.5	7.0	6.0	8.5	5.5
6	19.5	14.0	13.5	12.5	7.0	6.0	7.0	5.5	7.0	6.0	8.0	4.0
7	19.5	14.0	13.0	10.5	6.0	5.0	7.0	5.5	6.0	5.0	9.0	6.5
8	18.5	15.0	10.5	10.0	5.0	4.5	8.0	6.0	5.5	4.0	9.5	6.0
9	16.5	11.5	10.0	9.0	5.5	5.0	8.0	7.0	6.0	4.0	9.5	6.0
10	16.0	11.0	9.0	7.5	6.0	4.5	7.5	6.5	7.0	5.0	10.0	8.0
11	14.5	11.5	8.0	7.0	5.5	4.5	6.5	5.0	8.0	5.5	12.0	9.0
12	16.0	13.0	7.5	6.0	5.0	4.0	6.0	5.0	9.5	7.5	10.0	7.5
13	14.5	13.0	6.0	5.0	5.0	3.5	6.0	5.0	9.0	8.0	9.5	8.0
14	14.0	12.5	7.0	5.5	6.5	4.5	5.5	4.5	8.5	7.5	10.0	7.0
15	14.5	12.0	8.0	6.5	6.0	5.0	6.0	4.5	8.0	7.0	8.5	8.0
16	14.5	10.5	7.0	5.5	6.5	5.5	5.5	5.0	12.0	8.0	9.5	6.5
17	14.0	9.5	9.0	7.0	6.0	5.5	7.0	5.5	10.0	7.5	8.5	4.5
18	14.0	9.5	8.5	7.5	5.5	5.5	8.5	7.0	10.5	7.5	7.0	4.5
19	14.0	9.5	8.5	7.0	7.0	5.5	9.0	7.5	10.5	6.5	8.0	5.5
20	14.0	10.0	8.5	7.0	8.5	7.0	8.5	6.5	8.5	6.0	8.5	5.5
21	15.0	11.0	9.5	8.0	9.0	8.0	9.5	8.0	8.5	6.0	8.5	6.0
22	12.5	8.5	9.0	8.5	9.0	8.0	10.0	9.5	9.0	6.0	9.5	7.0
23	12.5	7.5	9.0	8.0	8.0	7.0	9.5	8.5	8.5	7.0	8.5	6.5
24	11.0	8.5	8.0	7.0	9.0	7.5	9.0	8.0	8.0	6.0	9.0	6.0
25	12.0	10.5	8.5	7.0	9.5	9.0	8.0	6.0	7.5	5.0	9.5	7.5
26	11.5	10.5	7.5	7.0	9.5	9.0	8.5	7.0	7.0	5.5	8.5	6.5
27	13.0	10.5	9.0	6.5	12.0	8.0	7.5	6.0	9.0	5.5	9.5	6.5
28	12.0	9.0	9.5	8.5	10.0	7.0	7.0	6.0	8.5	5.5	10.5	6.0
29	11.5	8.0	9.5	7.5	11.0	7.0	7.0	5.5	---	---	9.0	6.5
30	11.0	8.5	7.5	7.0	12.0	8.5	7.0	5.5	---	---	7.5	5.5
31	12.0	9.5	---	---	10.5	8.5	6.5	5.0	---	---	6.5	5.5
MONTH	19.5	7.5	15.0	5.0	12.0	3.5	10.0	4.5	12.0	4.0	12.0	4.0

14172000 CALAPOOIA RIVER AT HOLLEY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	5.0	14.5	12.0	15.5	11.5	19.5	13.5	24.5	17.5	20.5	19.0
2	7.0	5.0	12.0	10.0	17.0	12.5	21.0	15.0	20.0	17.5	22.0	16.5
3	7.5	5.5	11.0	9.0	16.0	13.0	22.5	16.5	19.5	16.5	22.0	16.0
4	9.0	5.0	11.5	8.5	14.5	13.5	22.0	17.5	22.5	17.0	22.0	16.5
5	8.0	6.0	9.5	8.0	15.0	13.0	21.0	18.5	24.0	18.0	22.5	15.5
6	7.5	5.0	10.0	8.0	14.5	13.5	19.0	15.0	26.0	18.5	23.5	16.0
7	8.0	5.0	11.0	8.5	13.5	12.0	16.5	13.5	27.5	20.0	24.0	17.0
8	7.0	6.0	10.5	8.0	12.5	10.5	19.0	12.5	28.0	21.0	24.5	18.0
9	8.0	5.5	11.5	9.5	12.0	10.0	18.5	15.0	28.0	22.0	22.5	18.0
10	7.5	5.0	13.0	8.5	13.0	10.0	17.0	14.5	28.0	21.0	23.0	17.0
11	6.5	5.5	13.5	10.0	15.0	9.5	19.5	14.0	27.5	21.5	23.0	17.0
12	7.5	5.0	15.0	9.0	13.5	10.5	19.0	14.5	26.5	21.0	22.5	16.5
13	9.0	4.0	15.5	11.5	12.0	9.5	20.5	15.5	25.5	20.0	22.0	16.0
14	10.5	5.5	13.5	11.5	13.0	9.5	21.5	15.5	26.0	19.5	22.0	16.0
15	9.0	6.5	11.5	10.0	15.5	9.5	22.5	16.5	25.0	20.5	22.5	16.5
16	10.0	7.0	12.0	8.5	14.0	11.5	24.0	18.0	25.5	20.0	22.5	17.5
17	10.5	6.0	12.0	10.0	15.0	10.0	21.5	17.5	25.5	19.0	22.0	18.0
18	11.5	6.5	11.5	10.5	14.0	12.0	22.5	17.5	25.5	19.5	21.5	17.0
19	10.0	8.0	10.5	9.0	14.0	11.5	22.5	17.5	22.0	19.5	21.0	18.0
20	9.0	7.0	10.0	9.0	15.5	12.0	22.5	19.0	22.0	18.5	18.0	16.5
21	8.5	7.0	11.0	9.0	16.0	12.5	23.5	18.5	23.0	17.0	17.5	15.5
22	12.0	8.0	13.5	9.5	15.0	13.5	22.0	16.5	23.0	17.5	16.0	14.5
23	13.0	9.0	15.0	11.0	17.0	12.5	20.5	17.0	23.5	18.5	17.5	13.0
24	11.5	9.0	14.0	12.5	18.0	13.0	18.5	16.5	22.5	18.5	16.5	13.0
25	10.0	7.5	13.0	11.0	20.0	15.0	21.5	15.5	22.5	18.0	16.5	13.5
26	10.0	7.5	14.0	9.5	18.0	15.0	24.5	17.5	22.0	16.5	15.0	14.0
27	9.5	7.0	14.5	10.0	18.5	13.0	26.5	19.0	22.0	16.0	16.0	14.0
28	13.5	8.5	16.5	10.5	18.5	13.5	26.0	20.0	22.0	16.0	16.0	13.5
29	15.0	10.5	15.5	12.5	20.0	14.5	21.5	18.5	19.5	17.0	15.0	13.5
30	17.0	12.5	15.0	12.5	18.0	15.5	22.5	15.5	21.0	17.5	14.5	11.5
31	---	---	16.5	11.0	---	---	24.0	16.0	22.0	16.5	---	---
MONTH	17.0	4.0	16.5	8.0	20.0	9.5	26.5	12.5	28.0	16.0	24.5	11.5

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 (1.0 km) downstream from Oak Creek, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--372 mi² (963 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to September 1981 (discontinued). Prior to October 1963, published as Calapooya River at Albany.

REVISED RECORDS.--WSP 1218: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 180.85 ft (55.123 m) National Geodetic Vertical Datum of 1929. Prior to May 11, 1962, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records excellent. Higher flows are affected by backwater from Willamette River at times. Diurnal fluctuation caused by ponds at flour mills near Shedd. Diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years, 895 ft³/s (25.35 m³/s), 32.67 in/yr (830 mm/yr), 648,400 acre-ft/yr (799 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,700 ft³/s (926 m³/s) Dec. 22, 1955, gage height, 22.12 ft (6.742 m); maximum gage height, 25.5 ft (7.77 m) Jan. 2, 1943, from graph based on gage readings (backwater from Willamette River); minimum discharge, 3.5 ft³/s (0.099 m³/s) Sept. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,800 ft³/s (504 m³/s) Dec. 4, gage height, 20.00 ft (6.096 m); minimum, 8.7 ft³/s (0.25 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	60	954	1280	763	864	1470	388	394	223	67	34
2	30	28	1830	1060	660	741	1300	383	352	210	50	26
3	30	56	7140	927	597	700	1140	323	320	196	53	31
4	27	87	16100	847	555	2180	961	328	297	182	61	27
5	17	51	9750	760	574	1870	836	333	292	175	58	25
6	11	86	5760	691	634	1040	879	374	279	167	49	19
7	20	220	3460	648	544	857	797	388	300	165	58	22
8	30	919	1830	593	482	822	731	371	516	194	47	23
9	31	985	1330	559	449	703	942	366	1490	178	40	23
10	19	923	1100	523	462	628	1020	352	1600	153	36	22
11	23	613	961	489	469	581	1190	338	1150	152	43	25
12	23	410	850	462	499	534	2160	312	857	138	39	14
13	18	305	794	433	719	499	1740	297	883	131	30	15
14	28	249	722	409	2590	469	1280	264	1140	120	32	21
15	66	232	672	391	2160	472	1110	272	946	116	31	25
16	62	244	678	377	1990	716	1070	346	754	107	26	23
17	58	218	685	366	2870	709	953	403	716	111	33	24
18	41	194	645	371	2890	589	829	424	631	130	39	25
19	37	176	597	352	3720	520	797	616	574	67	32	27
20	34	162	622	330	4060	485	719	700	585	93	31	29
21	39	162	879	409	3210	509	672	619	541	91	23	32
22	47	512	1760	672	1870	578	648	559	465	82	27	36
23	27	881	2100	1040	1440	747	625	495	415	82	26	40
24	32	727	2390	825	1450	767	619	456	385	86	28	50
25	31	645	6180	703	1620	1080	616	619	346	75	38	45
26	30	542	11600	868	1200	1400	520	1060	317	80	24	38
27	46	454	9020	1250	1190	1080	502	894	289	80	26	36
28	72	470	5460	1820	1010	872	475	688	264	74	29	45
29	69	613	3070	1970	---	767	446	574	255	62	22	200
30	61	1090	1980	1270	---	861	418	489	232	62	24	150
31	50	---	1570	916	---	923	---	440	---	64	19	---
TOTAL	1142	12314	102489	23611	40677	25563	27465	14471	17585	3846	1141	1152
MEAN	36.8	410	3306	762	1453	825	916	467	586	124	36.8	38.4
MAX	72	1090	16100	1970	4060	2180	2160	1060	1600	223	67	200
MIN	11	28	597	330	449	469	418	264	232	62	19	14
CFSM	.10	1.10	8.89	2.05	3.91	2.22	2.46	1.26	1.58	.33	.10	.10
IN.	.11	1.23	10.25	2.36	4.07	2.56	2.75	1.45	1.76	.38	.11	.12
AC-FT	2270	24420	203300	46830	80680	50700	54480	28700	34880	7630	2260	2280

CAL YR 1980 TOTAL 307663 MEAN 841 MAX 16100 MIN 11 CFSM 2.26 IN 30.77 AC-FT 610200
WTR YR 1981 TOTAL 271456 MEAN 744 MAX 16100 MIN 11 CFSM 2.00 IN 27.15 AC-FT 538400

14173500 CALAPOOIA RIVER AT ALBANY, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1964 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.5°C Aug. 16, 17, 19-21, 1967, Aug. 9, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C July 27; minimum, 4.5°C Dec. 8-10, 13, 14, Jan. 15-17.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	17.5	11.5	10.5	---	---	10.0	10.0	6.5	6.5	9.5	8.0
2	19.0	17.0	13.5	11.0	---	---	10.0	9.0	6.5	6.0	10.0	8.5
3	19.5	17.0	13.5	13.0	---	---	9.0	8.0	6.0	5.5	9.5	9.0
4	19.0	16.5	13.0	12.0	---	---	8.0	7.5	5.5	5.0	9.5	8.0
5	19.0	16.5	12.0	11.0	---	---	8.0	7.5	5.5	5.5	8.5	8.0
6	19.0	17.0	10.5	9.5	5.5	5.5	8.0	7.5	6.0	5.0	8.5	7.5
7	19.0	17.0	9.5	9.0	5.5	5.0	7.5	7.0	6.0	5.5	8.5	7.5
8	18.5	17.0	---	---	5.0	4.5	7.0	7.0	5.5	5.5	9.5	8.0
9	17.0	15.0	---	---	4.5	4.5	7.0	7.0	6.0	5.0	10.0	8.0
10	16.0	14.5	---	---	5.0	4.5	7.5	7.0	6.0	5.0	10.5	9.0
11	15.5	14.0	---	---	5.0	5.0	7.0	6.5	6.5	5.5	10.5	9.5
12	14.5	14.0	---	---	5.0	5.0	6.5	6.0	8.0	6.5	11.0	9.5
13	14.5	13.5	---	---	5.0	4.5	6.0	5.5	9.0	8.0	11.5	10.0
14	14.5	13.5	---	---	5.0	4.5	5.5	5.0	10.0	9.0	12.0	10.5
15	14.0	13.0	---	---	5.5	5.0	5.5	4.5	10.0	9.5	11.5	10.5
16	13.5	12.5	---	---	6.0	5.5	5.0	4.5	10.5	9.5	11.5	10.5
17	13.0	11.5	---	---	6.0	6.0	5.5	4.5	11.0	10.0	11.0	10.0
18	12.5	11.5	---	---	6.0	6.0	6.0	5.0	10.0	9.5	11.0	9.5
19	12.5	11.5	---	---	6.0	5.5	6.5	6.0	11.0	10.0	10.0	9.0
20	12.5	11.5	---	---	6.5	6.0	7.0	6.0	10.5	9.0	9.5	8.0
21	13.5	12.0	---	---	9.0	6.5	7.5	7.0	9.0	8.5	10.0	9.0
22	12.0	11.0	---	---	10.0	9.0	8.5	7.5	9.0	8.5	11.5	9.5
23	11.5	10.0	---	---	9.5	8.5	9.5	8.5	9.0	8.5	11.5	10.5
24	11.0	10.5	---	---	9.0	8.0	9.0	8.5	9.5	9.0	11.5	10.5
25	11.0	10.0	---	---	12.0	9.5	8.5	7.5	9.0	8.0	11.5	10.5
26	10.5	10.0	---	---	12.5	11.5	7.5	7.5	8.0	7.5	12.0	11.5
27	12.0	10.5	---	---	11.5	10.5	7.5	7.5	8.5	7.5	11.5	10.5
28	11.5	10.5	---	---	10.5	9.0	7.5	7.0	9.0	7.5	12.0	10.5
29	11.0	10.0	---	---	9.0	8.5	7.0	6.5	---	---	12.0	11.0
30	10.5	10.0	---	---	9.5	8.5	6.5	6.5	---	---	12.0	11.0
31	10.5	10.0	---	---	10.5	9.5	7.0	6.5	---	---	11.0	10.0
MONTH	20.0	10.0	13.5	9.0	12.5	4.5	10.0	4.5	11.0	5.0	12.0	7.5

WILLAMETTE RIVER BASIN

14173500 CALAPOOIA RIVER AT ALBANY, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.0	18.5	16.5	18.0	15.5	21.0	18.5	24.5	21.0		
2	9.5	9.0	17.5	15.5	18.5	15.5	22.0	19.0	22.5	20.5		
3	10.0	9.0	16.0	14.5	18.0	16.0	23.0	20.0	21.5	19.5		
4	10.5	9.0	14.5	13.0	18.5	17.0	24.5	21.0	22.5	20.0		
5	11.5	10.0	13.0	12.0	18.0	17.0	23.5	21.5	24.0	20.0		
6	11.5	10.5	12.5	11.5	17.5	16.0	22.0	19.5	---	---		
7	11.0	9.5	13.5	11.5	17.0	15.5	20.5	18.5	---	---		
8	10.5	9.5	13.5	12.0	15.5	14.5	20.5	18.0	---	---		
9	10.5	9.5	15.0	12.5	14.5	13.0	19.5	18.5	---	---		
10	10.0	9.0	16.0	13.0	13.5	12.5	20.5	18.0	---	---		
11	10.0	9.5	16.0	13.5	14.5	13.0	21.0	17.5	---	---		
12	10.0	9.0	17.0	13.5	14.5	13.5	21.5	18.0	---	---		
13	10.0	9.0	17.5	15.0	14.0	13.0	21.5	18.5	---	---		
14	11.5	9.0	17.0	15.5	14.0	12.5	22.5	18.5	---	---		
15	12.0	11.0	16.5	15.0	15.5	13.0	24.0	19.5	---	---		
16	12.5	11.0	15.5	14.0	16.5	14.5	24.5	20.5	---	---		
17	13.5	12.0	14.5	13.5	16.5	15.0	23.5	21.0	---	---		
18	14.0	12.0	14.5	13.5	16.0	15.0	23.5	20.5	---	---		
19	13.5	12.5	14.0	13.0	16.5	15.0	24.0	20.5	---	---		
20	13.0	12.0	13.0	12.5	16.5	15.0	23.5	21.5	---	---		
21	12.5	11.5	13.0	12.0	17.5	15.0	24.0	21.0	---	---		
22	13.0	11.5	15.0	12.0	18.0	16.0	24.0	21.0	---	---		
23	14.0	12.5	16.5	14.0	19.0	16.0	23.0	21.0	---	---		
24	15.0	13.0	17.0	15.5	19.5	15.5	22.5	20.5	---	---		
25	14.0	13.0	17.5	16.0	21.0	17.0	24.0	20.0	---	---		
26	13.0	12.0	16.0	15.0	20.5	18.0	25.5	21.5	---	---		
27	12.0	11.5	16.5	14.5	20.5	17.5	26.5	23.0	---	---		
28	14.0	11.5	17.5	15.0	20.0	17.5	26.0	23.0	---	---		
29	16.5	13.0	17.5	15.5	21.5	18.0	24.0	22.0	---	---		
30	18.5	15.5	18.5	16.5	21.0	19.0	24.0	20.5	---	---		
31	---	---	18.5	16.0	---	---	24.0	20.5	---	---		
MONTH	18.5	9.0	18.5	11.5	21.5	12.5	26.5	17.5	24.5	19.5		

14174000 WILLAMETTE RIVER AT ALBANY, OR

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 (1.5 m) upstream from bridge on U.S. Highway 20 (Ellsworth Street) in Albany, 0.2 mi (0.3 km) downstream from Calapooia River, and at mile 119.31 (191.97 km).

DRAINAGE AREA.--4,840 mi² (12,500 km²), approximately.

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.

REVISED RECORDS.--WSP 694: Drainage area. WSP 904: 1939. WSP 964: 1881, 1890, 1894, 1897, 1901, 1903, 1908, 1910, 1916, 1923, 1927, 1932(M). WSP 984: 1916. WSP 1248: 1895, 1902, 1907, 1915(M), 1917(M), 1918-19, 1934(M). WSP 1318 (monthly and annual figures only): 1894, 1897, 1901-3, 1907-8, 1910, 1916, 1918-19, 1923, 1927.

GAGE.--Water-stage recorder. Datum of gage is 167.18 ft (50.956 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1906, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 5.00 ft (1.524 m) higher. Sept. 27, 1906, to Nov. 12, 1934, nonrecording gage at site 300 ft (91 m) upstream at datum 5.00 ft (1.524 m) higher. Nov. 14, 1934, to Sept. 30, 1962, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records excellent. Flow regulated by nine reservoirs above station (see elsewhere in this report). Albany power canal diverts water from South Santiam River at Lebanon and discharges into Calapooia River near mouth; small diversions for irrigation and municipal water supply.

AVERAGE DISCHARGE.--87 years (water years 1894, 1896-81), 14,420 ft³/s (408.4 m³/s), 40.46 in/yr (1,028 mm/yr), 10,450,000 acre-ft/yr (12.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266,000 ft³/s (7,530 m³/s) Jan. 14, 1881, gage height, 37.8 ft (11.52 m), present datum; minimum, 1,840 ft³/s (52.1 m³/s) Sept. 1, 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4, 1861, reached a stage of 41.0 ft (12.50 m), discharge, 340,000 ft³/s (9,630 m³/s), from rating curve extended above 220,000 ft³/s (6,230 m³/s). Flood of Feb. 4, 1890, reached a stage of 38.9 ft (11.86 m), discharge, 291,000 ft³/s (8,240 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74,400 ft³/s (2,110 m³/s) Dec. 5, gage height, 22.50 ft (6.858 m); minimum, 4,670 ft³/s (132 m³/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7500	8180	16200	40500	9240	12800	14600	7000	7620	5630	5100	5970
2	7540	8040	20100	36700	8520	11900	15300	6840	7020	5500	5260	6440
3	7700	7990	45000	31800	8050	11300	14400	6670	6670	5340	5220	6460
4	7700	7820	67500	26300	7700	13100	13500	6540	6420	5190	5290	6440
5	7740	7680	69500	22800	7560	14100	12700	6480	6310	5060	5310	6440
6	7710	7920	57900	20100	7680	11900	12300	6790	6400	4890	5220	6420
7	8000	9820	51200	16000	7400	10500	11700	6880	6460	4980	5220	6400
8	8470	14300	46200	14100	7080	9840	11000	6690	7320	5220	5240	6350
9	8510	15700	39100	13300	6840	9190	11400	6500	15400	5130	5380	6440
10	8510	16700	34600	12500	6730	8650	12400	6310	21100	4920	5380	6960
11	8470	15600	31500	10600	6670	8260	13000	6120	17200	4860	5260	7060
12	8730	14400	28700	9790	6570	8010	17300	5920	13300	4840	5290	7080
13	8830	13000	26500	8930	7080	7680	21000	5740	13000	4820	5380	7160
14	9010	11200	22900	8620	12000	7420	19100	5610	14800	4800	5420	7060
15	9030	10400	20100	8690	14800	7300	16200	5650	15300	4870	5380	6980
16	8900	9970	17000	8430	14300	8010	14700	5990	14800	4820	5380	6940
17	8830	9310	14900	7890	22900	9440	13700	6520	13900	4770	5450	7100
18	8720	8620	14300	7680	23700	8710	12700	7200	12800	4790	5450	7440
19	8700	8190	13600	7520	29400	7850	11900	8540	11700	4890	5520	7600
20	8720	7460	13200	7320	35700	7480	11100	10100	12000	5050	5590	7600
21	8590	7000	12800	6980	32600	7300	10400	10500	11800	5080	5580	7700
22	8580	9310	14800	7260	25200	7440	9770	9720	10500	5050	5500	7850
23	8520	11500	23600	8330	20600	8220	9240	8990	9630	5010	5520	7890
24	8440	13300	29100	8120	18000	8180	9060	8540	8650	4960	5520	7930
25	8600	13000	46800	7760	17700	8750	9150	9400	7640	4980	5500	7760
26	8500	12600	67600	7950	16000	11700	8750	13400	7120	5100	5490	7870
27	8530	11600	63600	9720	15100	11600	8540	13500	6820	5060	5490	8520
28	8390	10700	48900	12500	14000	10500	8100	11500	6420	4940	5490	9720
29	8370	10400	45300	13700	---	10000	7500	10000	6050	4870	5500	9120
30	8270	13500	45400	12400	---	10700	7260	8840	5810	4870	5540	8410
31	8140	---	43400	10400	---	12000	---	8160	---	4910	5580	---
TOTAL	260250	325210	1091300	424690	409120	299830	367770	246640	309960	155200	167450	219110
MEAN	8395	10840	35200	13700	14610	9672	12260	7956	10330	5006	5402	7304
MAX	9030	16700	69500	40500	35700	14100	21000	13500	21100	5630	5590	9720
MIN	7500	7000	12800	6980	6570	7300	7260	5610	5810	4770	5100	5970
CFSM	1.74	2.24	7.27	2.83	3.02	2.00	2.53	1.64	2.13	1.03	1.12	1.51
IN.	2.00	2.50	8.39	3.26	3.14	2.30	2.83	1.90	2.38	1.19	1.29	1.68
AC-FT	516200	645100	2165000	842400	811500	594700	729500	489200	614800	307800	332100	434600

CAL YR 1980	TOTAL	4773150	MEAN	13040	MAX	69500	MIN	4060	CFSM 2.69	IN 36.69	AC-FT	9468000
WTR YR 1981	TOTAL	4276530	MEAN	11720	MAX	69500	MIN	4770	CFSM 2.42	IN 32.87	AC-FT	8482000

NOTE.--No gage-height record Oct. 1 to Dec. 29.

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 (0.8 km) downstream from Boulder Creek, 3.0 mi (4.8 km) southeast of Detroit, and at mile 70.7 (113.8 km).

DRAINAGE AREA.--216 mi² (559 km²).

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.

GAGE.--Water-stage recorder. Datum of gage is 1,590.07 ft (484.653 m) National Geodetic Vertical Datum of 1929. See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--Water-discharge records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--55 years, 1,002 ft³/s (28.38 m³/s), 63.00 in/yr (1,600 mm/yr), 725,900 acre-ft/yr (895 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) Dec. 22, 1964, gage height, 13.76 ft (4.194 m), temporary backwater from debris, from rating curve extended above 6,600 ft³/s (187 m³/s) on basis of slope-area measurement of peak flow; minimum, 250 ft³/s (7.08 m³/s) Sept. 13, 1909.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,700 ft³/s (105 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1030	7,320	207	8.1	2.469	Feb. 16	1400	5,470	155	7.32	2.231
Dec. 22	2100	3,810	108	6.54	1.993	Feb. 18	2030	6,060	172	7.58	2.310
Dec. 25	2000	*14,300	405	*10.54	3.213	June 9	0300	3,830	108	6.55	1.996

Minimum, 293 ft³/s (8.30 m³/s) Oct. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	331	793	1480	570	1000	993	1000	737	655	457	408
2	311	406	2570	1320	565	941	920	934	707	639	457	404
3	311	356	5990	1200	565	892	892	872	689	628	453	396
4	311	339	3720	1100	555	892	858	838	743	622	448	392
5	308	323	2340	1020	555	845	878	812	737	628	448	392
6	308	542	1740	956	540	812	858	780	767	617	448	388
7	308	1140	1390	913	530	793	838	761	885	661	448	388
8	304	1740	1180	865	525	761	851	737	2520	611	448	388
9	300	1410	1030	825	516	737	899	725	3200	585	448	388
10	296	1010	930	793	521	719	865	707	2200	570	448	384
11	296	778	852	761	525	701	899	695	1680	560	440	380
12	319	640	793	737	560	683	913	672	1500	550	440	380
13	356	565	749	713	719	666	878	661	1530	550	436	377
14	339	530	714	689	1370	655	885	666	1400	540	432	373
15	323	508	721	672	1340	661	920	749	1250	535	432	373
16	315	475	800	661	3540	707	993	725	1200	535	428	377
17	308	455	837	650	3180	666	1030	719	1110	530	424	377
18	304	445	837	639	4210	655	1130	845	1050	521	420	380
19	304	430	815	622	4740	633	1220	970	1090	511	420	388
20	300	420	852	617	3040	622	1160	913	1000	506	415	380
21	300	640	1300	628	2270	633	1140	899	920	502	408	424
22	296	1330	3400	617	1850	743	1210	865	892	497	408	440
23	296	1040	2950	611	1600	707	1300	825	858	493	408	408
24	296	875	4000	606	1520	678	1410	920	812	488	408	388
25	327	763	10500	585	1360	818	1230	1220	780	483	404	392
26	344	686	7440	650	1260	838	1130	1060	761	483	400	424
27	344	647	4230	661	1140	831	1020	956	731	483	396	650
28	323	693	2920	655	1060	793	963	885	701	483	396	555
29	311	906	2240	622	---	872	963	851	683	474	396	506
30	304	914	2000	606	---	872	1000	818	678	466	396	453
31	304	---	1690	585	---	985	---	767	---	461	396	---
TOTAL	9681	21337	72323	24059	40726	23811	30246	25847	33811	16867	13206	12353
MEAN	312	711	2333	776	1455	768	1008	834	1127	544	426	412
MAX	356	1740	10500	1480	4740	1000	1410	1220	3200	661	457	650
MIN	296	323	714	585	516	622	838	661	678	461	396	373
CFSM	1.44	3.29	10.8	3.59	6.74	3.56	4.67	3.86	5.22	2.52	1.97	1.91
IN.	1.67	3.67	12.46	4.14	7.01	4.10	5.21	4.45	5.82	2.90	2.27	2.13
AC-FT	19200	42320	143500	47720	80780	47230	59990	51270	67060	33460	26190	24500

CAL YR 1980 TOTAL 337357 MEAN 922 MAX 10500 MIN 296 CFSM 4.27 IN 58.10 AC-FT 669100
WTR YR 1981 TOTAL 324267 MEAN 888 MAX 10500 MIN 296 CFSM 4.11 IN 55.85 AC-FT 643200

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 19.0°C July 8, 18, 19, 1970; minimum, 0.0°C at times during 1954, 1956, 1974, 1978-80.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 17.5°C July 26, Aug. 8-12; minimum, 2.0°C Dec. 7, 8, 10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14178000 NORTH SANTIAM RIVER BELOW BOULDER CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (2.6 km) upstream from confluence with Humbug Creek, and 6.3 mi (10.1 km) northeast of Detroit.

DRAINAGE AREA.--7.32 mi² (19.0 km²).

PERIOD OF RECORD.--August 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,050 ft (625 m), from topographic map.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft³/s (37.1 m³/s) Dec. 25, 1980, gage height, 4.42 ft (1.347 m); minimum, 2.0 ft³/s (0.057 m³/s) Oct. 7-11, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	unknown	1,160	32.9	4.33	1.320	Feb. 18	1900	490	13.9	3.75	1.143
Dec. 25	1030	*1,310	37.1	*4.42	1.347	June 8	1030	294	8.33	3.45	1.052
Feb. 16	1000	742	21.0	4.02	1.225						

Minimum, 2.0 ft³/s (0.057 m³/s) Oct. 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	3.4	25	44	14	27	47	21	13	14	6.1	3.3
2	2.3	7.0	100	35	13	24	35	19	13	13	6.1	3.1
3	2.3	4.5	372	30	13	23	30	18	13	13	5.8	3.0
4	2.2	3.4	177	27	13	22	28	18	13	13	5.8	3.0
5	2.2	2.7	80	25	13	20	35	18	12	12	5.5	2.8
6	2.2	15	52	23	12	19	35	18	12	12	5.3	2.8
7	2.2	58	39	21	12	18	30	18	22	14	5.1	2.7
8	2.2	94	33	19	11	17	33	17	214	12	4.8	2.7
9	2.2	63	29	18	11	16	44	16	172	11	4.6	2.7
10	2.1	50	26	17	11	16	37	16	79	11	4.4	2.7
11	2.2	38	24	16	12	15	34	15	51	11	4.2	2.7
12	3.2	30	24	15	19	15	32	15	41	10	4.2	2.6
13	6.4	24	24	14	39	14	30	14	48	10	4.2	2.6
14	3.5	19	24	13	112	13	36	13	43	9.6	4.0	2.6
15	2.8	16	33	13	89	14	55	17	35	9.2	4.0	2.6
16	2.6	14	49	13	498	15	59	17	32	9.2	3.8	2.5
17	2.3	12	43	13	240	14	56	17	29	8.8	3.6	2.5
18	2.3	11	37	13	339	14	61	19	27	8.8	3.6	2.5
19	2.2	9.8	32	12	327	13	59	20	29	8.2	3.4	2.7
20	2.2	9.0	36	12	159	13	45	19	28	8.2	3.4	2.8
21	2.1	25	115	12	91	14	39	17	24	7.8	3.4	4.6
22	2.1	70	337	12	66	21	45	16	23	7.8	3.4	4.2
23	2.0	42	184	12	51	21	52	16	21	7.5	3.3	3.4
24	2.0	32	360	13	45	18	44	16	19	7.5	3.3	3.3
25	2.5	26	1080	13	39	30	35	20	19	7.2	3.3	4.0
26	3.3	22	498	17	35	28	30	19	18	7.2	3.3	7.5
27	3.4	20	198	20	31	27	27	17	17	6.6	3.3	21
28	2.7	23	115	21	29	23	25	16	16	6.6	3.1	16
29	2.4	28	75	18	---	26	23	15	15	6.3	3.1	16
30	2.2	29	71	16	---	32	22	15	15	6.3	3.4	10
31	2.1	---	56	15	---	55	---	13	---	6.3	3.3	---
TOTAL	78.7	800.8	4348	563	2344	637	1163	525	1113	295.1	128.1	144.9
MEAN	2.54	26.7	140	18.2	83.7	20.5	38.8	16.9	37.1	9.52	4.13	4.83
MAX	6.4	94	1080	44	498	55	61	21	214	14	6.1	21
MIN	2.0	2.7	24	12	11	13	22	13	12	6.3	3.1	2.5
CFSM	.35	3.65	19.1	2.49	11.4	2.80	5.30	2.31	5.07	1.30	.56	.66
IN.	.40	4.07	22.09	2.86	11.91	3.24	5.91	2.67	5.66	1.50	.65	.74
AC-FT	156	1590	8620	1120	4650	1260	2310	1040	2210	585	254	287

CAL YR 1980 TOTAL 14067.5 MEAN 38.4 MAX 1080 MIN 2.0 CFSM 5.25 IN 71.48 AC-FT 27900
WTR YR 1981 TOTAL 12140.6 MEAN 33.3 MAX 1080 MIN 2.0 CFSM 4.55 IN 61.69 AC-FT 24080

NOTE.--No gage-height record Oct. 16 to Dec. 3.

14179000 BREITENBUSH RIVER ABOVE CANYON 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 (183 m) upstream from Canyon Creek, 1.5 mi (2.4 km) northeast of Detroit, and at mile 2.0 (3.2 km).

DRAINAGE AREA.--106 mi^2 (275 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1932 to current year. Monthly discharge only June 1932, published in WSP 1318. Prior to October 1952, published as "above French Creek, near Detroit."

REVISED RECORDS.--WSP 1044: 1943(M). WSP 1248: 1947.

GAGE.--Water-stage recorder. Datum of gage is 1,573.95 ft (479.740 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1952, at site 0.2 mi (0.3 km) downstream at datum 13.46 ft (4.103 m) lower.

REMARKS.--Water-discharge records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--49 years, 574 ft^3/s (16.26 m^3/s), 73.54 in/yr (1,868 mm/yr), 415,900 acre-ft/yr (513 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s (479 m^3/s) Dec. 22, 1964, gage height, 14.55 ft (4.435 m); minimum, 87 ft^3/s (2.46 m^3/s) Sept. 2, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	1130	5,290	150	8.27	2.521	Feb. 16	1200	6,570	186	9.20	2.804
Dec. 25	2130	*10,300	292	*11.37	3.466	Feb. 18	2230	5,380	152	8.34	2.542

Minimum, 107 ft^3/s (3.03 m^3/s) Oct. 22-24, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	137	575	1260	280	520	814	711	390	272	160	130
2	114	193	2710	1100	270	480	662	564	360	258	160	130
3	114	160	4500	977	260	450	592	475	340	249	160	125
4	114	152	2310	854	260	450	548	433	370	242	158	125
5	111	140	1420	755	258	430	575	407	370	239	155	123
6	111	386	1010	650	249	410	564	386	400	233	152	121
7	109	1190	781	590	239	390	527	369	800	265	150	118
8	109	1430	662	540	235	360	543	358	1600	239	147	118
9	109	1110	581	490	230	350	644	351	1900	230	145	116
10	109	781	516	460	225	330	592	351	1300	220	142	116
11	109	548	465	430	239	314	620	343	980	211	142	116
12	125	416	438	400	311	307	662	329	860	208	142	114
13	147	347	407	375	527	300	603	321	880	205	140	114
14	132	314	394	350	1390	296	592	329	820	199	140	114
15	123	296	446	330	1320	296	662	390	740	196	140	111
16	118	272	626	315	4630	321	717	373	660	191	137	109
17	116	255	668	300	2570	304	717	365	600	185	137	109
18	114	239	626	290	3770	293	768	455	550	182	135	111
19	111	227	564	280	3810	289	841	553	580	182	137	116
20	111	217	586	270	2280	282	775	490	510	177	137	116
21	109	495	1080	260	1640	289	711	460	470	174	135	142
22	109	999	2560	250	1310	377	794	438	440	171	135	150
23	109	680	1960	260	1080	369	969	424	410	182	132	132
24	109	548	2840	270	999	351	969	548	377	180	130	123
25	125	470	7610	260	820	521	781	889	369	177	130	128
26	137	411	5370	300	730	527	656	720	351	174	130	160
27	142	416	2980	340	640	501	564	640	329	171	128	390
28	125	480	2180	370	580	460	543	560	304	168	128	321
29	118	680	1760	340	---	521	609	520	289	166	128	318
30	116	698	1740	310	---	632	698	460	286	163	130	242
31	116	---	1490	290	---	841	---	420	---	163	130	---
TOTAL	3637	14687	51855	14266	31148	12561	20312	14432	18635	6272	4352	4458
MEAN	117	490	1673	460	1112	405	677	466	621	202	140	149
MAX	147	1430	7610	1260	4630	841	969	889	1900	272	160	390
MIN	109	137	394	250	223	282	527	321	286	163	128	109
CFSM	1.10	4.62	15.8	4.34	10.5	3.82	6.39	4.40	5.86	1.91	1.32	1.41
IN.	1.28	5.15	18.20	5.01	10.93	4.41	7.13	5.06	6.54	2.20	1.53	1.56
AC-FT	7210	29130	102900	28300	61780	24910	40290	28630	36960	12440	8630	8840

CAL YR 1980 TOTAL 203574 MEAN 556 MAX 7610 MIN 109 CFSM 5.25 IN 71.44 AC-FT 403800
WTR YR 1981 TOTAL 196615 MEAN 539 MAX 7610 MIN 109 CFSM 5.09 IN 69.00 AC-FT 390000

14179000 BREITENBUSH RIVER ABOVE CANYON 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.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 17.0°C Aug. 9, 11, 12; minimum recorded, 2.5°C Dec. 7, 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14179000 BREITENBUSH RIVER ABOVE CANYON CREEK, NEAR DETROIT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (7.9 km) west of Detroit, and at mile 60.9 (98.0 km).

DRAINAGE AREA.--437 mi^2 (1,132 km^2).

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 (12.8 m) by 28-ft (8.5 m) control gates. Length of dam is 1,580 ft (481.6 m), built by Corps of Engineers. Storage began in January 1953. Total capacity is 455,100 acre-ft (561 hm^3) and usable capacity is 340,100 acre-ft (419 hm^3) between elevations 1,425.0 ft (434.34 m), proposed lower limit of operation, and 1,569.0 ft (478.23 m), 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 (565 hm^3) July 13, 1972, elevation, 1,569.79 ft (478.472 m); minimum, 115,500 acre-ft (142 hm^3) Jan. 30, 1969, elevation, 1,425.37 ft (434.453 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 447,000 acre-ft (551 hm^3) June 9, elevation, 1,566.66 ft (477.518 m); minimum, 157,500 acre-ft (194 hm^3) Dec. 1, elevation, 1,451.79 ft (442.506 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1512.43	1477.29	1452.03	1498.30	1462.58	1524.18	1539.15	1563.27	1564.12	1564.50	1561.80	1549.91
2	1510.94	1476.62	1461.87	1492.17	1462.73	1524.78	1540.10	1563.50	1564.24	1564.60	1561.62	1549.15
3	1509.35	1475.79	1479.67	1487.53	1462.86	1525.39	1541.01	1563.53	1564.32	1564.64	1561.43	1548.36
4	1507.83	1474.87	1487.66	1485.13	1462.92	1526.04	1541.70	1563.42	1564.48	1564.67	1561.27	1547.59
5	1506.28	1473.96	1489.99	1482.45	1463.03	1526.57	1542.52	1563.44	1564.58	1564.73	1561.10	1546.82
6	1504.71	1474.18	1488.91	1479.44	1463.08	1526.95	1543.30	1563.44	1564.68	1564.76	1560.90	1546.04
7	1503.10	1476.55	1486.91	1476.36	1463.12	1527.31	1543.98	1563.49	1564.80	1564.93	1560.69	1545.23
8	1501.47	1479.24	1484.32	1473.03	1463.16	1527.64	1544.77	1563.52	1566.22	1564.98	1560.45	1544.42
9	1500.00	1480.24	1481.37	1469.65	1463.17	1527.90	1545.71	1563.54	1566.15	1564.92	1560.19	1543.59
10	1498.59	1479.99	1478.04	1468.04	1463.19	1528.12	1546.49	1563.48	1564.58	1564.90	1560.06	1542.52
11	1497.32	1478.97	1474.35	1466.36	1463.21	1528.48	1547.48	1563.46	1564.03	1564.87	1559.64	1541.41
12	1496.31	1477.61	1470.48	1464.56	1463.41	1528.65	1548.37	1563.51	1564.20	1564.81	1559.35	1540.29
13	1495.21	1475.96	1466.37	1462.78	1464.83	1528.80	1549.17	1563.47	1564.69	1564.77	1559.10	1539.16
14	1494.03	1474.28	1462.26	1461.39	1468.86	1529.02	1549.95	1563.64	1564.99	1564.70	1558.82	1538.03
15	1492.96	1472.46	1458.28	1459.87	1472.40	1529.22	1550.77	1564.04	1565.00	1564.65	1558.54	1536.75
16	1491.71	1470.57	1457.29	1458.68	1485.16	1529.56	1551.81	1564.36	1564.92	1564.57	1558.27	1535.45
17	1490.44	1468.67	1456.14	1458.63	1493.04	1529.78	1552.86	1564.64	1564.13	1564.44	1557.78	1534.13
18	1489.58	1466.61	1455.16	1458.59	1503.80	1529.90	1554.04	1564.71	1564.08	1564.34	1557.28	1532.72
19	1488.69	1464.50	1453.96	1458.51	1514.16	1530.07	1555.27	1564.75	1564.20	1564.23	1556.78	1531.42
20	1487.81	1462.25	1452.83	1458.62	1519.00	1530.23	1556.35	1564.73	1564.04	1564.16	1556.30	1530.07
21	1486.92	1461.38	1453.75	1458.75	1520.86	1530.47	1557.15	1564.67	1563.75	1563.85	1555.79	1528.84
22	1486.04	1462.08	1460.45	1458.89	1521.85	1530.89	1558.05	1564.55	1563.68	1563.42	1555.29	1527.58
23	1485.10	1461.49	1463.05	1459.04	1522.37	1531.38	1559.21	1564.36	1563.81	1563.19	1554.78	1524.90
24	1484.19	1460.38	1470.49	1459.24	1522.69	1531.78	1560.48	1564.29	1563.83	1563.04	1554.26	1524.90
25	1483.44	1459.07	1497.75	1459.34	1522.82	1532.65	1561.11	1564.55	1563.75	1562.90	1553.80	1523.60
26	1482.69	1457.54	1513.14	1459.86	1522.68	1533.40	1561.51	1564.60	1563.72	1562.77	1553.32	1522.45
27	1481.87	1455.87	1518.46	1460.48	1522.95	1534.12	1561.84	1564.62	1563.92	1562.60	1552.78	1521.75
28	1480.97	1454.44	1516.45	1461.20	1523.47	1534.70	1561.80	1564.54	1564.08	1562.51	1552.25	1520.79
29	1480.02	1453.96	1512.87	1461.76	---	1535.58	1562.17	1564.37	1564.29	1562.36	1551.70	1519.81
30	1479.07	1453.28	1508.75	1462.15	---	1536.62	1562.75	1564.34	1564.38	1562.18	1551.17	1518.65
31	1478.09	---	1503.80	1462.40	---	1537.95	---	1564.23	---	1562.00	1550.64	---
MEAN	1493.13	1468.67	1477.96	1467.20	1487.76	1529.94	1551.70	1564.03	1564.39	1564.00	1557.33	1535.21
MAX	1512.43	1480.24	1518.46	1498.30	1523.47	1537.95	1562.75	1564.75	1566.22	1564.98	1561.80	1549.91
MIN	1478.09	1453.28	1452.03	1458.51	1462.58	1524.18	1539.15	1563.27	1563.68	1562.00	1550.64	1518.65
(†)	207100	160100	263600	176700	313600	354200	433400	438500	439100	430800	392900	300800
(‡)	-81400	-47000	+103500	-86900	+136900	+40600	+79200	+5100	+600	-8300	-37900	-92100

CAL YR 1980 MEAN 1519.98 MAX 1563.76 MIN 1452.03 AC-FT‡ +104300
WTR YR 1981 MEAN 1521.97 MAX 1566.22 MIN 1452.03 AC-FT‡ +12300

† 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 (0.2 km) downstream from Little Sardine Creek, 0.8 mi (1.3 km) downstream from Big Cliff Dam, 2.1 mi (3.4 km) east of Niagara, and at mile 57.3 (92.2 km).

DRAINAGE AREA.--453 mi² (1,173 km²).

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 (333.384 m) National Geodetic Vertical Datum of 1929 (Bureau of Public Roads bench mark). See WSP 1738 for history of changes prior to Oct. 1, 1952.

REMARKS.--Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft (3.61 hm³). No diversion above station.

AVERAGE DISCHARGE.--53 years (water years 1910-19, 1939-81), 2,327 ft³/s (65.90 m³/s), 69.76 in/yr (1,772 mm/yr), 1,686,000 acre-ft/yr (2.08 km³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 63,200 ft³/s (1,790 m³/s) Nov. 22, 1909, gage height, 16.4 ft (5.00 m), from floodmark, site and datum then in use, from rating curve extended above 35,000 ft³/s (991 m³/s); minimum, 19 ft³/s (0.54 m³/s) Aug. 21, 1963; minimum daily, 395 ft³/s (11.2 m³/s) Mar. 25, 26, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,900 ft³/s (309 m³/s) Dec. 31, gage height, 7.92 ft (2.414 m); minimum, 784 ft³/s (22.2 m³/s) Feb. 12; minimum daily, 890 ft³/s (25.2 m³/s) Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2380	1530	2960	9940	942	966	950	1310	1510	981	974	1780
2	2300	1530	2190	9910	974	958	950	1580	1140	974	958	1780
3	2400	1460	966	7430	966	958	974	1730	1120	950	966	1790
4	2410	1510	966	4540	935	950	966	1790	1140	942	974	1780
5	2380	1530	3150	4610	927	935	966	1620	1230	974	958	1790
6	2370	1620	4950	4690	935	966	974	1490	1370	974	974	1800
7	2440	2050	4890	4710	920	958	966	1500	1830	974	966	1770
8	2330	2720	4950	4630	927	942	966	1490	6240	950	1070	1810
9	2410	3050	5030	4690	935	958	966	1460	9240	974	1050	1800
10	2090	2990	5140	2960	927	950	966	1440	8600	981	1080	2200
11	1800	2910	5240	2920	905	935	966	1460	4800	981	1060	2190
12	1850	2910	5200	2840	890	942	958	1250	3300	966	1050	2200
13	1870	2860	5200	2880	905	935	958	1300	2700	1010	1050	2210
14	1890	2880	5120	2450	935	935	989	958	2780	958	1060	2260
15	1810	2880	5070	2460	942	942	989	981	2630	974	1050	2410
16	1940	2930	3010	2090	942	942	974	989	3060	958	1070	2460
17	1890	2910	2890	1190	950	942	958	981	3300	981	1370	2460
18	1410	2850	2910	1150	950	942	958	1740	2370	989	1380	2490
19	1440	2890	2860	1140	958	950	950	2170	2110	966	1390	2490
20	1410	2890	2930	942	1990	958	974	1870	2480	974	1380	2510
21	1460	2910	2920	927	2950	942	1370	2020	2440	1320	1390	2490
22	1400	2950	3880	935	2850	905	1410	1990	1900	1480	1380	2520
23	1490	2990	5160	958	2890	958	1410	1960	1440	1130	1380	2530
24	1450	2950	4200	974	2840	958	1420	2140	1580	958	1400	2480
25	1430	2930	1040	966	2730	935	1690	2050	1580	966	1360	2410
26	1390	2890	1030	966	2690	966	1720	2650	1470	958	1300	2420
27	1460	2890	3880	1050	1900	958	1550	2050	950	950	1370	2490
28	1470	2860	9740	942	1420	950	2110	1940	974	942	1390	2510
29	1560	3050	10000	898	---	958	1410	1910	981	942	1400	2450
30	1530	2960	10000	935	---	958	1190	1760	958	950	1400	2370
31	1470	---	10000	942	---	950	---	1650	---	997	1380	---
TOTAL	56930	78280	137472	88665	40025	29402	34598	51229	77223	31024	36980	66650
MEAN	1836	2609	4435	2860	1429	948	1153	1653	2574	1001	1193	2222
MAX	2440	3050	10000	9940	2950	966	2110	2650	9240	1480	1400	2530
MIN	1390	1460	966	898	890	905	950	958	950	942	958	1770
AC-FT	112900	155300	272700	175900	79390	58320	68630	101600	153200	61540	73350	132200
MEAN†	512	1820	6118	1447	3895	1608	2484	1735	2585	865	576	674
CFSM†	1.13	4.02	13.51	3.19	8.60	3.55	5.48	3.83	5.71	1.91	1.27	1.49
IN.†	1.30	4.48	15.58	3.68	8.96	4.09	6.12	4.42	6.37	2.20	1.47	1.66
AC-FT†	31500	108300	376200	89000	216300	98900	147800	106700	153800	53200	35400	40100

CAL YR 1980 TOTAL 726349 MEAN 1985 MAX 10000 MIN 883 AC-FT 1441000 MEAN† 2134 CFSM† 4.71 IN.† 63.98 AC-FT† 1545300
WTR YR 1981 TOTAL 728478 MEAN 1996 MAX 10000 MIN 890 AC-FT 1445000 MEAN† 2013 CFSM† 4.44 IN.† 60.33 AC-FT† 1457300

† Adjusted for change in contents of Detroit Lake.

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1953 to current year.

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 recorded, 14.5°C Oct. 9, 10; minimum, 4.5°C Feb. 8, 11, 21, 22, Mar. 6.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14181500 NORTH SANTIAM RIVER AT NIAGARA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	7.0	6.5	---	---	9.0	8.5	---	---	10.0	10.0
2	6.0	5.5	6.5	6.5	---	---	9.0	8.5	---	---	10.5	10.0
3	5.5	5.5	6.5	6.0	---	---	9.5	8.5	---	---	10.5	10.0
4	6.0	5.5	6.0	6.0	---	---	10.0	9.0	---	---	10.5	10.0
5	5.5	5.5	6.0	6.0	---	---	9.0	8.5	---	---	10.5	10.0
6	6.0	5.5	6.0	6.0	---	---	8.5	8.0	---	---	10.5	10.5
7	5.5	5.5	6.5	6.0	---	---	9.0	8.5	---	---	11.0	10.5
8	6.0	5.5	6.5	6.0	---	---	9.0	8.5	---	---	11.0	10.5
9	6.0	5.5	6.5	6.0	---	---	9.0	8.5	---	---	10.5	10.5
10	6.0	6.0	---	---	---	---	---	---	---	---	10.5	10.5
11	6.0	5.5	---	---	---	---	---	---	---	---	10.5	10.5
12	6.0	5.5	---	---	---	---	---	---	---	---	11.0	10.5
13	6.0	5.5	---	---	---	---	---	---	---	---	11.0	10.5
14	6.5	5.5	---	---	---	---	---	---	---	---	11.5	11.0
15	7.0	6.5	---	---	---	---	---	---	---	---	11.5	11.0
16	6.5	6.0	---	---	---	---	---	---	---	---	12.0	11.0
17	6.5	6.0	---	---	---	---	---	---	---	---	11.5	11.5
18	6.5	6.0	---	---	---	---	---	---	---	---	12.0	11.5
19	6.5	6.5	---	---	---	---	---	---	---	---	12.0	11.5
20	6.5	6.0	---	---	---	---	---	---	10.0	9.5	12.0	11.5
21	6.5	6.0	---	---	---	---	---	---	10.0	9.5	12.5	12.0
22	6.5	6.0	---	---	---	---	---	---	10.0	9.5	12.5	12.0
23	6.5	6.5	---	---	---	---	---	---	10.0	9.5	13.0	12.5
24	6.5	6.0	---	---	---	---	---	---	10.0	9.5	13.0	12.5
25	6.5	6.0	---	---	---	---	---	---	10.0	9.5	13.0	12.5
26	6.5	6.0	---	---	9.0	8.5	---	---	10.0	10.0	13.0	13.0
27	6.5	6.0	---	---	9.0	8.0	---	---	10.0	10.0	13.5	13.0
28	6.5	6.0	---	---	9.0	8.5	---	---	10.0	10.0	13.5	13.0
29	6.5	6.0	---	---	9.0	8.0	---	---	10.0	9.5	13.5	13.0
30	7.0	6.5	---	---	9.0	8.5	---	---	10.0	9.5	13.5	13.5
31	---	---	---	---	---	---	---	---	10.0	10.0	---	---
MONTH	7.0	5.0	7.0	6.0	9.0	8.0	10.0	8.0	10.0	9.5	13.5	10.0

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 (3.2 km) east of Mehama and at mile 2.0 (3.2 km).

DRAINAGE AREA.--112 mi² (290 km²) at cableway 1.2 mi (1.9 km) downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1931 to current year. Records for July to September 1924 and July to September 1931 at site 4 mi (6.4 km) 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 (199.769 m) National Geodetic Vertical Datum of 1929. Prior to June 12, 1948, nonrecording gage at about same site and datum.

REMARKS.--Records excellent. No regulation or diversion above station. Records herein are for measuring site.

AVERAGE DISCHARGE.--50 years, 768 ft³/s (21.75 m³/s), 93.12 in/yr (2,365 mm/yr), 556,400 acre-ft/yr (686 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) Dec. 22, 1964, gage height, 16.73 ft (5.099 m), from rating curve extended above 17,000 ft³/s (481 m³/s); minimum, 13 ft³/s (0.37 m³/s) Aug. 30, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,200 ft³/s (232 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 25	2230	*20,800	589	*13.04	3.975	Feb. 16	1300	10,400	295	10.20	3.109

Minimum, 27 ft³/s (0.76 m³/s) Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	74	826	968	373	452	1290	580	329	257	62	42
2	48	92	4480	791	333	403	1000	480	295	234	60	46
3	45	92	6510	662	306	373	914	425	267	213	62	40
4	44	92	3150	574	281	398	791	429	295	198	60	37
5	42	84	1800	500	284	357	826	490	310	187	58	34
6	41	650	1250	443	257	329	847	505	365	178	55	34
7	40	2420	907	398	240	306	706	626	602	267	52	32
8	40	2510	718	365	225	292	812	614	4220	254	50	31
9	40	1710	608	341	219	270	1300	574	3710	207	48	31
10	38	1190	546	306	216	247	968	515	1950	184	45	31
11	38	712	510	281	225	231	929	452	1350	173	43	30
12	43	500	500	260	369	219	992	403	1090	160	43	29
13	73	390	510	240	620	204	869	361	1410	155	42	29
14	92	353	495	225	1750	195	812	345	1240	145	42	29
15	68	390	602	213	1700	195	1050	495	945	133	42	28
16	60	341	819	198	6060	231	1270	591	847	124	41	27
17	56	299	764	189	2870	225	1100	515	778	115	40	27
18	50	267	638	181	4850	207	1130	602	687	111	40	27
19	51	244	535	170	4830	195	1200	706	1070	105	39	29
20	49	225	608	160	2590	187	976	602	992	101	40	32
21	46	650	1070	181	1700	181	953	580	771	95	40	38
22	45	1650	4200	195	1270	244	1150	552	687	92	39	53
23	43	891	2930	189	992	318	1330	480	662	86	38	50
24	43	693	4080	260	877	333	1400	574	568	84	36	40
25	58	557	12700	274	738	693	960	1110	490	83	36	42
26	73	466	7080	520	644	731	758	1020	425	79	35	52
27	136	510	3290	712	580	699	638	725	381	74	34	321
28	115	899	2150	706	510	580	585	574	341	69	34	292
29	92	1130	1570	580	---	656	614	485	306	66	34	386
30	78	1150	1550	485	---	899	656	425	281	66	37	250
31	69	---	1210	420	---	1490	---	373	---	63	43	---
TOTAL	1806	21231	68606	11987	35909	12340	28826	17208	27664	4358	1370	2169
MEAN	58.3	708	2213	387	1282	398	961	555	922	141	44.2	72.3
MAX	136	2510	12700	968	6060	1490	1400	1110	4220	267	62	386
MIN	38	74	495	160	216	181	585	345	267	63	34	27
CFSM	.52	6.32	19.8	3.46	11.4	3.55	8.58	4.96	8.23	1.26	.40	.65
IN.	.60	7.05	22.79	3.98	11.93	4.10	9.57	5.72	9.19	1.45	.46	.72
AC-FT	3580	42110	136100	23780	71230	24480	57180	34130	54870	8640	2720	4300

CAL YR 1980 TOTAL 240034 MEAN 656 MAX 12700 MIN 31 CFSM 5.86 IN 79.72 AC-FT 476100
WTR YR 1981 TOTAL 233474 MEAN 640 MAX 12700 MIN 27 CFSM 5.71 IN 77.55 AC-FT 463100

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 (91 m) downstream from highway bridge at Mehama, 0.5 mi (0.8 km) downstream from Little North Santiam River, and at mile 38.71 (62.28 km).

DRAINAGE AREA.--655 mi² (1,696 km²), at cableway 0.8 mi (1.3 km) downstream, where all discharge measurements are made.

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 (183.639 m) National Geodetic Vertical Datum of 1929. Prior to June 15, 1933, nonrecording gage at site 100 ft (30 m) upstream at same datum.

REMARKS.--Records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500) and Big Cliff Reservoir, usable capacity for reregulating purposes, 2,930 acre-ft (3.61 hm³). No diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--65 years (water years 1906, 1911-14, 1922-81), 3,356 ft³/s (95.04 m³/s), 2,431,000 acre-ft/yr (3.00 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft³/s (2,170 m³/s) Dec. 28, 1945, gage height, 15.37 ft (4.685 m), from rating curve extended above 36,000 ft³/s (1,020 m³/s), on basis of slope-area measurement of peak flow; maximum gage height, 17.5 ft (5.33 m) 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 (7.19 m³/s) Aug. 3, 1970; minimum daily, 420 ft³/s (11.9 m³/s) Sept. 18, 1924.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,800 ft³/s (787 m³/s) Dec. 25, gage height, 10.10 ft (3.078 m); minimum, 1,090 ft³/s (30.9 m³/s) July 29, 30; minimum daily, 1,120 ft³/s (31.7 m³/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2510	1670	4250	11300	1480	1780	2830	2100	2200	1460	1160	1840
2	2410	1690	9410	11000	1460	1620	2470	2280	1740	1400	1130	1910
3	2430	1640	11400	8720	1430	1580	2380	2400	1640	1360	1150	1870
4	2490	1670	6040	5850	1370	1660	2200	2460	1710	1310	1150	1860
5	2460	1640	5320	5490	1360	1550	2200	2430	1780	1330	1130	1880
6	2490	2370	7020	5490	1330	1540	2200	2320	1990	1330	1140	1840
7	2470	5050	6370	5460	1300	1520	2060	2430	2670	1480	1130	1840
8	2430	5750	6090	5350	1280	1470	2130	2430	12600	1390	1210	1880
9	2490	5230	5990	5370	1260	1430	2730	2340	15700	1330	1180	1870
10	2200	4600	6010	3650	1290	1410	2400	2250	12500	1320	1210	2190
11	1940	3890	6010	3210	1260	1380	2440	2190	7460	1320	1210	2230
12	1940	3610	5990	3120	1400	1340	2550	1950	5420	1280	1200	2280
13	1980	3400	5990	3180	1700	1360	2410	1900	5160	1300	1180	2280
14	2030	3400	5910	2850	3040	1310	2310	1610	4940	1250	1180	2310
15	1920	3420	5910	2760	3040	1330	2510	1820	4290	1240	1180	2440
16	2030	3400	4390	2440	8440	1390	2620	1960	4600	1230	1210	2490
17	2030	3340	3760	1670	5020	1370	2490	1860	4870	1230	1430	2490
18	1610	3230	3680	1450	7600	1340	2470	2550	3760	1250	1500	2520
19	1520	3270	3490	1430	8040	1330	2520	3470	3700	1210	1500	2540
20	1520	3210	3630	1250	5800	1320	2350	2900	3930	1220	1520	2550
21	1580	3800	4180	1230	5370	1300	2600	3040	3650	1450	1520	2570
22	1480	5160	8720	1250	4760	1380	2900	2970	3120	1700	1520	2520
23	1560	4270	8940	1280	4410	1490	3160	2880	2440	1450	1490	2540
24	1540	4000	10300	1380	4200	1500	3230	3140	2490	1180	1520	2490
25	1580	3780	17300	1380	3890	1980	2970	3720	2320	1170	1500	2520
26	1520	3550	10700	1640	3700	2090	2810	4510	2220	1160	1410	2440
27	1670	3630	7830	1950	2900	2030	2460	3320	1690	1150	1490	2860
28	1650	4090	13100	1920	2310	1870	3040	2970	1530	1130	1490	2850
29	1660	4710	12400	1730	---	1960	2370	2780	1530	1120	1530	2860
30	1670	4710	12300	1620	---	2250	2160	2550	1450	1130	1530	2650
31	1600	---	11800	1550	---	2930	---	2350	---	1180	1500	---
TOTAL	60410	107180	234230	107970	90440	49810	75970	79880	125100	40060	41200	69410
MEAN	1949	3573	7556	3483	3230	1607	2532	2577	4170	1292	1329	2314
MAX	2510	5750	17300	11300	8440	2930	3230	4510	15700	1700	1530	2860
MIN	1480	1640	3490	1230	1260	1300	2060	1610	1450	1120	1130	1840
AC-FT	119800	212600	464600	214200	179400	98800	150700	158400	248100	79460	81720	137700

CAL YR 1980 TOTAL 1101390 MEAN 3009 MAX 17300 MIN 1050 AC-FT 2185000
WTR YR 1981 TOTAL 1081660 MEAN 2963 MAX 17300 MIN 1120 AC-FT 2145000

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR

LOCATION.--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 (30 m) downstream from bridge at Cascadia ranger station, 0.5 mi (0.8 km) downstream from Mouse Creek, 0.5 mi (0.8 km) upstream from Deer Creek, 1.5 mi (2.4 km) southwest of Cascadia, and at mile 48.5 (78.0 km).

DRAINAGE AREA.--174 mi² (451 km²), at gaging cable 0.7 mi (1.1 km) upstream.

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 (231.611 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 1, 1955, nonrecording gage.

REMARKS.--Water-discharge records good except those for period of no gage-height record Aug. 25 to Sept. 30, which are fair. No regulation or diversion above station. All records given herein are for measuring site.

AVERAGE DISCHARGE.--46 years, 818 ft³/s (23.17 m³/s), 63.84 in/yr (1,622 mm/yr), 592,600 acre-ft/yr (731 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft³/s (782 m³/s) Dec. 22, 1964, gage height, 19.68 ft (5.998 m), from rating curve extended above 14,000 ft³/s (396 m³/s); minimum, 23 ft³/s (0.65 m³/s) Dec. 1, 2, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,700 ft³/s (161 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1830	*10,500	297	*11.70	3.566	Feb. 18	2030	7,120	202	9.74	2.969
Dec. 25	1930	9,450	268	11.13	3.392	June 9	0500	6,870	195	9.57	2.917
Feb. 16	1300	7,380	209	9.91	3.021						

Minimum, 42 ft³/s (1.19 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	78	863	968	402	568	1490	568	468	352	116	63
2	51	182	5220	833	366	522	1260	517	431	332	111	66
3	48	136	8740	726	342	497	1120	482	394	308	111	63
4	47	119	4900	649	326	517	942	455	399	293	111	60
5	46	98	2650	603	338	468	950	464	377	281	108	58
6	44	561	1800	541	311	440	934	459	431	278	104	56
7	44	1580	1310	509	297	421	801	482	507	360	101	54
8	44	2050	1030	470	283	403	822	478	3150	304	96	54
9	44	2060	851	445	279	381	1290	473	5370	267	92	53
10	42	1200	782	413	283	360	1100	450	2880	253	87	52
11	42	726	754	387	311	347	1120	426	1880	240	84	51
12	60	531	743	362	402	381	1400	394	1560	230	81	50
13	95	429	720	346	588	324	1160	372	1960	221	81	49
14	117	413	671	326	1960	312	1030	368	1700	209	81	48
15	90	421	726	304	1740	308	1140	527	1300	200	81	47
16	75	354	833	293	5060	482	1140	665	1130	192	80	46
17	66	323	816	279	3640	445	1070	618	958	187	79	45
18	62	297	737	266	5160	403	1120	858	851	182	74	44
19	60	269	660	256	5190	377	1200	1200	1010	174	73	44
20	56	253	660	243	3340	381	1050	1100	950	169	74	46
21	55	420	887	250	2210	372	1010	966	801	164	76	52
22	52	1220	3070	228	1650	601	1070	844	714	160	73	70
23	50	881	2870	237	1210	563	1160	720	665	155	71	63
24	50	851	4000	311	1090	512	1300	794	585	153	69	50
25	80	676	8040	276	903	844	990	1770	532	148	67	55
26	116	555	5550	398	780	942	873	1550	487	144	66	140
27	159	509	3340	569	695	942	733	1110	455	136	64	400
28	113	603	2260	618	624	787	677	844	421	128	62	280
29	93	1010	1660	574	---	815	641	683	399	124	60	250
30	78	1180	1420	487	---	990	618	590	372	120	60	180
31	73	---	1160	441	---	1520	---	522	---	118	60	---
TOTAL	2106	19985	69723	13608	39780	17225	31211	21749	33137	6582	2553	2589
MEAN	67.9	666	2249	439	1421	556	1040	702	1105	212	82.4	86.3
MAX	159	2060	8740	968	5190	1520	1490	1770	5370	360	116	400
MIN	42	78	660	228	279	308	618	368	372	118	60	44
CFSM	.39	3.83	12.9	2.52	8.17	3.20	5.98	4.03	6.35	1.22	.47	.50
IN.	.45	4.27	14.91	2.91	8.50	3.68	6.67	4.65	7.08	1.41	.55	.55
AC-FT	4180	39640	138300	26990	78900	34170	61910	43140	65730	13060	5060	5140

CAL YR 1980 TOTAL 271259 MEAN 741 MAX 8740 MIN 41 CFSM 4.26 IN 57.99 AC-FT 538000
WTR YR 1981 TOTAL 260248 MEAN 713 MAX 8740 MIN 42 CFSM 4.10 IN 55.64 AC-FT 516200

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.

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, 23.5°C Aug. 11, 12; minimum, 3.0°C Feb. 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14185000 SOUTH SANTIAM RIVER BELOW CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	5.5	13.5	11.0	14.0	11.0	16.5	13.0	---	---	18.0	16.5
2	7.0	5.5	11.0	9.5	15.0	12.0	17.5	13.5	---	---	18.5	16.0
3	7.0	6.0	10.0	9.0	14.5	12.5	19.0	15.5	---	---	18.5	15.5
4	---	---	9.5	8.0	14.0	12.5	18.0	16.0	---	---	18.5	15.5
5	---	---	9.0	7.5	14.0	11.5	18.0	16.5	---	---	19.0	15.5
6	---	---	8.5	7.5	13.5	12.5	17.0	13.5	---	---	19.0	15.5
7	---	---	10.0	8.0	12.5	11.0	14.5	12.0	---	---	20.0	16.0
8	---	---	10.0	7.5	11.5	10.5	15.5	11.5	---	---	20.5	17.0
9	---	---	11.0	9.5	10.5	10.0	15.0	13.5	---	---	19.5	17.0
10	---	---	11.5	8.5	11.5	10.0	15.0	13.0	---	---	19.5	16.5
11	---	---	11.5	9.5	12.0	9.0	15.5	12.5	23.5	20.5	19.5	16.0
12	---	---	12.5	8.5	11.0	9.5	15.5	13.0	23.5	20.5	19.5	16.0
13	---	---	12.5	10.5	10.5	9.0	16.5	14.5	23.0	20.0	19.0	16.0
14	---	---	12.0	10.5	11.5	9.0	17.0	14.0	22.5	19.5	19.0	15.5
15	---	---	10.5	8.5	13.5	9.0	18.0	15.0	22.5	20.0	19.5	16.0
16	---	---	10.0	7.5	12.0	11.0	19.0	16.0	22.5	19.5	19.5	16.5
17	---	---	10.5	9.0	13.5	10.0	18.5	16.5	22.5	19.0	19.0	16.5
18	---	---	10.5	9.5	12.0	11.0	19.0	16.5	22.0	19.0	18.5	16.5
19	---	---	10.0	9.5	12.5	11.0	19.0	16.5	20.0	18.0	18.5	16.5
20	---	---	9.5	9.0	14.0	11.5	19.5	17.0	19.5	17.0	17.0	15.5
21	---	---	10.0	9.0	13.5	11.0	18.5	16.5	20.0	16.5	15.5	14.5
22	---	---	12.0	9.0	13.0	12.0	18.5	16.0	20.0	17.0	14.5	13.5
23	---	---	13.0	10.0	15.0	11.0	18.0	16.5	20.5	17.5	13.5	12.5
24	---	---	12.5	11.5	16.0	11.5	17.5	16.5	20.0	18.5	13.5	12.0
25	---	---	12.0	11.0	17.0	13.0	19.0	15.5	20.5	18.0	14.5	12.5
26	---	---	13.0	10.0	16.0	13.0	20.5	17.5	19.5	16.5	13.5	13.0
27	---	---	13.5	10.0	15.5	12.0	---	---	19.0	15.5	14.5	13.5
28	---	---	15.0	10.5	15.5	12.0	---	---	18.5	15.5	14.0	13.5
29	---	---	14.5	12.0	17.0	12.5	---	---	17.5	15.5	13.5	13.0
30	14.5	11.0	13.5	12.0	16.0	14.0	---	---	18.5	16.0	13.0	12.0
31	---	---	14.5	10.0	---	---	---	---	18.5	15.5	---	---
MONTH	14.5	5.5	15.0	7.5	17.0	9.0	20.5	11.5	23.5	15.5	20.5	12.0

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 (1.3 km) upstream from Bear Creek, 7.5 mi (12.1 km) north of Upper Soda, and at mile 23.9 (38.5 km).

DRAINAGE AREA.--74.6 mi² (193.2 km²).

PERIOD OF RECORD.--October 1980 to September 1981.

GAGE.--Water-stage recorder. Altitude of gage is 1,500 ft (457.2 m), from topographic map.

REMARKS.--Records good except those above 2,000 ft³/s (57 m³/s), which are fair.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1100	4,510	128	a6.82	2.079	Feb. 16	-	4,500	127	(c)	-
Dec. 25	1800	*9,000	255	b*8.58	2.615	Feb. 18	-	4,000	113	(c)	-

Minimum, 22 ft³/s (0.62 m³/s) Sept. 16-20.

a From floodmark.
b 9.20 ft (2.804 m), from floodmark.
c No gage-height record; discharge estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	44	413	531	200	355	508	405	280	243	72	33
2	28	97	2000	459	189	326	459	373	252	232	69	36
3	28	71	4000	405	183	309	442	344	235	218	68	33
4	26	59	2000	366	175	302	417	326	243	205	68	32
5	26	50	1400	333	170	276	437	319	235	189	65	30
6	25	267	1000	306	165	261	437	312	258	183	63	29
7	24	570	750	283	158	249	413	312	306	216	60	29
8	24	896	550	267	153	238	421	302	1290	192	57	28
9	23	781	460	252	148	224	485	299	2170	181	54	27
10	23	522	381	241	146	216	459	292	1330	170	51	26
11	23	381	355	226	163	205	450	280	916	163	49	26
12	30	296	330	218	205	194	459	267	757	146	48	25
13	59	246	312	205	264	192	437	255	818	146	46	24
14	61	229	299	205	627	183	433	255	757	139	46	23
15	45	218	323	205	596	181	476	286	648	133	44	23
16	38	197	397	197	2800	208	522	296	585	124	43	22
17	34	183	421	192	1800	194	531	289	517	120	42	22
18	31	170	409	186	2800	183	580	316	459	128	40	22
19	30	163	381	175	2600	175	643	373	499	126	39	22
20	28	153	385	170	1700	173	611	373	472	122	39	23
21	28	397	565	170	1100	173	580	358	429	118	38	31
22	27	659	1570	163	850	238	611	344	401	110	37	43
23	26	494	1500	160	680	238	676	319	373	105	37	39
24	26	417	2240	168	611	232	739	330	340	101	36	30
25	36	355	7050	163	527	309	616	450	319	97	35	29
26	51	312	4000	216	467	330	551	467	306	96	34	39
27	68	306	2000	252	425	330	481	429	292	91	33	189
28	48	330	1220	255	385	316	454	389	280	84	32	151
29	39	490	902	241	---	347	442	340	267	76	32	128
30	35	494	793	224	---	381	442	319	252	75	32	87
31	33	---	632	210	---	485	---	292	---	73	32	---
TOTAL	1053	9847	39038	7644	20287	8023	15212	10311	16286	4402	1441	1301
MEAN	34.0	328	1259	247	725	259	507	333	543	142	46.5	43.4
MAX	68	896	7050	531	2800	485	739	467	2170	243	72	189
MIN	23	44	299	160	146	173	413	255	235	73	32	22
CFSM	.46	4.40	16.9	3.31	9.72	3.47	6.80	4.46	7.28	1.90	.62	.58
IN.	.53	4.91	19.47	3.81	10.12	4.00	7.59	5.14	8.12	2.20	.72	.65
AC-FT	2090	19530	77430	15160	40240	15910	30170	20450	32300	8730	2860	2580

WTR YR 1981 TOTAL 134845 MEAN 369 MAX 7050 MIN 22 CFSM 4.95 IN 67.24 AC-FT 267500

NOTE.--No gage-height record Dec. 2-9, Feb. 16-23.

WILLAMETTE RIVER BASIN

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR

LOCATION.--Lat 44°30'55", long 122°22'15", in NE¼ sec.19, T.12 S., R.4 E., Linn County, Hydrologic Unit 17090006, on right bank 5.6 mi (9.0 km) downstream from Bear Creek, 10 mi (16 km) northeast of Cascadia, and at mile 17.5 (28.2 km).

DRAINAGE AREA.--104 mi² (269 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1963 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (320 m), from topographic map.

REMARKS.--Water-discharge records excellent. No regulation or diversion above station.

AVERAGE DISCHARGE.--18 years, 630 ft³/s (17.84 m³/s), 82.26 in/yr (2,089 mm/yr), 456,400 acre-ft/yr (563 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft³/s (649 m³/s) Dec. 22, 1964, gage height, 15.75 ft (4.801 m), from floodmark, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of slope-area measurement of peak flow; minimum, 28 ft³/s (0.79 m³/s) Oct. 17, 26, 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1130	6,370	180	8.52	2.597	Feb. 16	1200	6,470	183	8.58	2.615
Dec. 25	1930	*10,800	306	*10.89	3.319	Feb. 18	1930	5,870	166	8.21	2.502

Minimum, 40 ft³/s (1.13 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	73	666	868	260	491	903	559	346	269	93	58
2	48	131	3520	742	244	448	768	495	317	249	92	62
3	47	105	5620	647	233	419	742	452	292	236	91	60
4	45	93	3270	568	220	419	671	430	307	220	89	57
5	44	85	1810	508	223	379	706	430	295	215	88	55
6	43	613	1250	460	210	352	696	415	359	212	86	55
7	44	1260	920	419	197	339	623	437	475	257	82	52
8	42	1780	747	386	190	317	661	430	2550	223	80	51
9	41	1570	637	359	190	298	874	419	3310	207	79	50
10	41	1010	568	333	185	280	758	390	1900	195	76	50
11	41	661	516	307	212	272	747	362	1300	187	75	49
12	56	491	491	286	295	260	795	333	1080	180	74	50
13	92	397	472	269	483	249	721	310	1280	178	74	48
14	93	352	452	255	1350	238	721	307	1120	171	73	48
15	73	330	524	241	1130	241	834	422	914	164	71	48
16	65	286	651	230	4530	304	909	437	817	156	70	47
17	59	260	651	220	2960	272	897	415	711	156	68	45
18	54	244	600	212	4560	255	962	520	637	146	67	45
19	53	225	541	202	4180	246	1060	609	857	153	66	45
20	52	210	568	200	2530	238	950	563	752	146	66	48
21	51	637	857	197	1670	246	903	541	632	139	65	49
22	48	1220	2800	185	1280	426	1010	508	568	141	65	59
23	47	851	2530	185	1020	404	1110	460	520	146	63	61
24	48	706	3770	207	903	369	1210	550	464	131	62	54
25	69	577	8730	190	758	590	932	950	419	124	60	56
26	95	495	5530	356	671	600	817	806	383	134	59	139
27	123	472	2920	422	600	563	691	647	352	126	59	280
28	91	533	1880	419	541	495	637	541	326	108	59	195
29	75	817	1420	369	---	590	628	472	304	96	58	173
30	68	845	1300	320	---	701	618	422	283	96	58	120
31	65	---	1040	286	---	969	---	379	---	95	58	---
TOTAL	1862	17329	57251	10848	31825	12270	24554	15011	23870	5256	2226	2209
MEAN	60.1	578	1847	350	1137	396	818	484	796	170	71.8	73.6
MAX	123	1780	8730	868	4560	969	1210	950	3310	269	93	280
MIN	41	73	452	185	185	238	618	307	283	95	58	45
CFSM	.58	5.56	17.8	3.37	10.9	3.81	7.87	4.65	7.65	1.64	.69	.71
IN.	.67	6.20	20.48	3.88	11.38	4.39	8.78	5.37	8.54	1.88	.80	.79
AC-FT	3690	34370	113600	21520	63120	24340	48700	29770	47350	10430	4420	4380

CAL YR 1980 TOTAL 209182 MEAN 572 MAX 8730 MIN 41 CFSM 5.50 IN 74.82 AC-FT 414900
WTR YR 1981 TOTAL 204511 MEAN 560 MAX 8730 MIN 41 CFSM 5.39 IN 73.15 AC-FT 405600

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to September 1981 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1963 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 2, 3, 6, 11-13, 16, 17, 1977; minimum, 0.0°C several days in 1978-79.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 8-12; minimum, 3.0°C on several days in December and February.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14185800 MIDDLE SANTIAM RIVER NEAR CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (24 m) downstream from Panther Creek, 10 mi (16 km) north of Cascadia, and at mile 6.6 (10.6 km).

DRAINAGE AREA.--99.2 mi² (256.9 km²).

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. Altitude of gage is 1,050 ft (320 m), from topographic map. Aug. 13, 1963, to Dec. 22, 1964, water-stage recorder on left bank at present datum.

REMARKS.--Water-discharge records excellent except those for period of no gage-height record Aug. 27 to Sept. 29, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--17 years (water years 1964, 1966-81), 669 ft³/s (18.95 m³/s), 91.58 in/yr (2,326 mm/yr), 484,700 acre-ft/yr (598 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s (634 m³/s) Jan. 20, 1972, gage height, 16.38 ft (4.993 m); minimum, 14 ft³/s (0.40 m³/s) Aug. 19-23, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 36,500 ft³/s (1,030 m³/s) Dec. 22, 1964, from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,500 ft³/s (127 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 8	0600	5,270	149	10.22	3.115	Dec. 25	1700	*13,800	391	*13.90	4.237
Nov. 21	2230	4,670	132	9.86	3.005	Feb. 16	1200	8,920	253	12.05	3.673
Dec. 2	1800	11,900	337	13.24	4.036	Feb. 18	2000	7,060	200	11.19	3.411
Dec. 22	0200	6,170	175	10.73	3.271	June 8	1130	4,920	139	10.01	3.051

Minimum, 27 ft³/s (0.76 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	82	698	786	284	397	1290	417	278	207	75	42
2	32	215	6790	645	260	359	939	363	254	194	73	46
3	31	119	7210	542	242	337	831	327	234	184	72	45
4	30	96	3230	466	226	359	715	323	248	174	72	44
5	30	80	1600	409	228	323	758	341	240	169	69	43
6	30	1050	1050	367	217	300	752	348	288	162	67	42
7	30	2540	758	334	204	294	635	385	595	194	64	41
8	30	3820	600	310	194	278	769	397	3770	167	63	40
9	29	2390	519	291	191	263	1190	382	2800	150	61	40
10	28	1280	475	266	191	248	867	341	1570	142	59	39
11	28	725	445	248	226	234	884	310	1030	137	58	38
12	40	488	449	231	348	226	958	281	849	131	58	38
13	96	367	479	220	843	215	814	257	1180	129	57	37
14	86	334	484	209	2510	207	837	254	1010	123	56	37
15	57	352	704	202	1650	217	1080	401	763	119	55	36
16	48	294	884	191	5970	327	1120	497	651	113	55	36
17	42	257	731	184	3140	297	977	441	552	110	53	36
18	39	228	590	179	5100	266	1000	556	497	106	52	36
19	38	209	497	169	4650	245	1040	630	661	103	51	36
20	37	194	552	164	2450	234	837	542	590	99	52	38
21	36	1220	1560	184	1420	248	763	484	484	96	51	39
22	34	1980	4950	169	1010	615	915	441	445	94	51	44
23	33	1000	3020	169	791	552	1010	389	409	91	50	46
24	35	791	5230	212	693	454	1020	479	359	89	49	42
25	63	585	11500	207	590	1040	731	1060	323	88	48	43
26	99	471	5370	466	528	861	615	878	291	86	47	100
27	127	441	2920	590	479	731	524	615	266	83	44	400
28	80	571	1760	595	437	590	488	484	245	80	44	300
29	63	1010	1250	479	---	736	497	405	231	78	43	272
30	55	1000	1310	385	---	939	488	352	217	78	43	172
31	50	---	996	327	---	1750	---	307	---	76	43	---
TOTAL	1489	24189	68611	10196	35072	14142	25344	13687	21330	3852	1735	2248
MEAN	48.0	806	2213	329	1253	456	845	442	711	124	56.0	74.9
MAX	127	3820	11500	786	5970	1750	1290	1060	3770	207	75	400
MIN	28	80	445	164	191	207	488	254	217	76	43	36
CFSM	.48	8.13	22.3	3.32	12.6	4.60	8.52	4.46	7.17	1.25	.57	.76
IN.	.56	9.07	25.73	3.82	13.15	5.30	9.50	5.13	8.00	1.44	.65	.84
AC-FT	2950	47980	136100	20220	69570	28050	50270	27150	42310	7640	3440	4460

CAL YR 1980 TOTAL 228456 MEAN 624 MAX 11500 MIN 28 CFSM 6.29 IN 85.67 AC-FT 453100
WTR YR 1981 TOTAL 221895 MEAN 608 MAX 11500 MIN 28 CFSM 6.13 IN 83.21 AC-FT 440100

NOTE.--No gage-height record Aug. 27 to Sept. 29.

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.

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, 24.0°C Aug. 8; minimum, 3.0°C Dec. 8, Feb. 4, 7-10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14185900 QUARTZVILLE CREEK NEAR CASCADIA, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	6.0	12.5	11.0	14.5	11.5	17.0	12.5	20.5	16.5	18.0	17.0
2	7.0	6.0	11.0	9.5	15.0	12.5	18.5	13.5	18.5	17.0	18.5	15.5
3	7.5	6.0	10.0	9.0	15.0	12.5	19.5	15.5	18.5	16.5	18.5	15.5
4	9.0	6.0	10.5	8.0	14.0	12.5	19.5	15.5	20.0	16.5	18.5	16.5
5	7.5	6.5	9.0	7.5	14.0	12.0	18.5	17.0	20.5	16.5	18.5	15.5
6	7.5	5.5	9.0	7.5	13.5	12.5	17.5	14.0	22.0	17.5	18.5	16.0
7	8.0	6.0	10.0	8.0	12.5	11.0	14.0	12.5	23.0	19.0	19.5	16.5
8	7.0	6.5	10.0	7.0	11.0	10.0	16.0	11.5	24.0	20.0	19.5	17.0
9	7.5	6.0	11.5	9.0	10.5	9.5	15.0	13.5	23.5	20.0	19.0	17.0
10	7.5	6.0	12.0	8.5	11.0	9.5	14.5	13.0	23.5	19.5	19.0	16.5
11	7.0	5.5	11.0	9.5	12.0	9.0	16.5	12.0	23.5	20.0	19.0	16.5
12	7.5	5.5	13.0	8.0	10.5	9.5	15.5	13.0	23.5	20.5	19.0	16.5
13	9.0	5.5	13.0	10.5	10.5	9.0	16.0	13.5	23.0	20.0	19.0	16.5
14	10.5	6.0	12.0	10.5	10.5	9.0	18.0	13.5	23.0	19.5	18.5	16.5
15	9.0	6.5	10.5	8.5	13.5	8.5	19.5	15.0	22.5	19.5	19.0	16.5
16	9.5	7.0	10.5	8.0	12.5	11.0	20.5	16.5	22.5	19.0	19.0	17.0
17	10.5	7.0	10.0	8.5	14.0	10.0	20.0	16.5	22.5	19.0	19.0	17.0
18	11.0	6.5	10.5	9.5	12.0	11.0	20.5	17.0	22.0	19.0	19.0	17.0
19	9.0	7.0	10.0	9.0	12.5	11.0	20.5	16.5	21.0	18.0	18.0	16.5
20	8.5	7.0	9.5	9.0	13.5	11.0	21.0	17.0	20.0	17.5	16.5	15.5
21	9.0	7.0	10.5	9.0	13.5	11.0	20.5	17.0	20.0	16.5	15.5	15.0
22	10.0	8.0	12.0	9.5	13.0	12.0	20.0	16.5	20.5	17.0	15.0	14.0
23	10.5	8.0	13.0	10.0	15.5	11.0	20.0	16.5	20.5	17.5	14.5	13.0
24	9.5	7.5	12.5	11.5	16.5	11.5	20.0	17.0	20.0	18.5	14.5	12.5
25	9.0	7.0	11.5	10.5	17.5	13.0	20.5	16.5	20.0	18.0	14.5	13.0
26	9.0	7.5	13.5	9.5	16.5	13.5	21.5	17.5	19.0	16.5	14.0	13.0
27	9.0	7.5	14.0	10.0	16.0	12.5	22.5	18.0	19.0	15.5	13.5	13.0
28	12.5	8.5	15.0	10.5	16.5	12.0	22.0	18.5	18.5	15.5	13.5	13.0
29	13.5	10.0	15.0	12.0	17.5	12.5	19.5	17.5	17.5	16.0	14.0	12.5
30	14.0	10.5	14.0	12.5	16.5	14.0	20.0	15.5	18.0	16.5	13.0	11.0
31	---	---	15.0	10.5	---	---	20.5	16.0	18.5	15.5	---	---
MONTH	14.0	5.5	15.0	7.0	17.5	8.5	22.5	11.5	24.0	15.5	19.5	11.0

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 (11.3 km) northeast of Foster and at mile 5.7 (9.2 km).

DRAINAGE AREA.--273 mi² (707 km²).

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 (528 hm³) usable capacity 330,800 acre-ft (408 hm³) between elevations 887.0 ft (270.36 m), proposed lower limit of operation, and 1,015.0 ft (309.37 m), 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 (518 hm³) June 9, 1981, elevation, 1,012.86 ft (308.720 m); minimum, 116,900 acre-ft (144 hm³) Dec. 15, 1972, elevation, 899.20 ft (274.076 m).

EXTREMES FOR CURRENT YEAR.--Maximun contents, 420,200 acre-ft (518 hm³) June 9, elevation, 1,012.86 ft (308.720 m); minimum, 172,500 acre-ft (213 hm³) Jan. 20, elevation, 927.95 ft (282.839 m).

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

899	116,600	960	251,100
900	118,300	980	309,700
920	115,700	1,000	374,800
940	199,900	1,013	420,700

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	980.35	961.73	942.90	954.20	933.34	982.92	999.87	1010.54	1010.48	1011.38	1007.58	997.61
2	979.83	961.66	951.13	950.49	933.48	982.86	1000.68	1010.58	1010.44	1011.35	1007.33	997.10
3	979.30	960.64	961.99	948.31	933.76	982.89	1001.36	1010.57	1010.43	1011.35	1007.08	996.58
4	978.80	959.62	967.75	945.95	933.86	983.21	1001.76	1010.76	1010.46	1011.31	1006.83	996.11
5	978.28	958.63	968.89	943.47	934.00	983.34	1002.33	1011.03	1010.46	1011.36	1006.58	995.67
6	977.77	959.07	968.02	941.31	934.07	983.42	1002.84	1011.07	1010.51	1011.39	1006.33	995.24
7	977.25	961.19	966.52	939.71	934.10	983.68	1003.07	1011.16	1010.80	1011.47	1006.08	994.80
8	976.72	963.66	964.71	937.98	934.12	983.93	1002.96	1011.23	1011.83	1011.44	1005.69	994.27
9	976.17	964.51	962.66	936.36	934.16	984.08	1003.53	1011.32	1012.76	1011.43	1005.27	993.74
10	975.58	963.28	960.44	935.29	934.18	984.42	1003.84	1011.32	1010.72	1011.43	1005.24	993.21
11	975.04	961.29	958.12	934.20	934.37	984.75	1004.24	1011.32	1010.38	1011.40	1005.28	992.78
12	974.56	958.96	955.75	933.08	934.63	985.04	1004.59	1011.03	1010.79	1011.36	1005.32	992.29
13	974.17	956.63	953.32	931.82	935.76	985.33	1004.66	1010.70	1011.00	1011.34	1004.77	991.80
14	973.45	955.10	950.84	930.53	939.46	985.62	1004.74	1010.42	1011.28	1011.25	1004.15	991.30
15	972.93	953.53	948.54	929.40	942.43	985.98	1004.99	1010.38	1011.14	1011.16	1003.95	990.75
16	972.34	951.79	946.51	928.36	951.96	986.46	1005.25	1010.51	1011.18	1011.01	1003.66	990.20
17	971.73	950.03	944.34	928.31	957.40	986.85	1005.43	1010.63	1011.05	1010.87	1003.33	989.64
18	971.46	949.11	941.90	928.28	965.80	987.19	1005.68	1010.77	1011.14	1010.72	1002.97	989.07
19	971.20	948.37	939.95	928.18	973.23	987.51	1005.92	1010.86	1010.85	1010.56	1002.57	988.63
20	970.38	947.59	938.66	928.17	977.37	987.79	1006.01	1010.85	1010.89	1010.32	1002.19	988.18
21	969.59	947.66	938.41	928.21	979.50	988.16	1006.19	1010.92	1010.97	1010.21	1001.89	987.51
22	968.77	948.12	942.86	928.24	980.70	988.89	1006.70	1010.72	1011.11	1009.86	1001.54	986.87
23	967.95	948.33	944.70	928.26	981.00	989.52	1007.34	1010.62	1011.07	1009.56	1001.18	985.84
24	967.14	948.19	949.41	928.30	981.60	990.06	1007.98	1010.71	1011.15	1009.53	1000.78	985.12
25	966.95	947.18	965.61	928.28	982.09	991.27	1008.32	1011.17	1011.15	1009.44	1000.42	984.41
26	966.85	946.00	973.28	928.99	982.48	992.30	1008.53	1011.18	1011.18	1009.07	1000.06	984.03
27	965.99	945.03	973.53	929.94	982.75	993.17	1008.94	1010.95	1011.22	1008.84	999.70	984.14
28	965.02	944.19	971.36	930.99	982.86	993.92	1009.48	1010.69	1011.24	1008.56	999.33	983.71
29	964.00	944.03	967.81	931.82	---	994.90	1009.97	1010.62	1011.25	1008.32	998.96	982.99
30	962.96	943.79	963.92	932.48	---	996.17	1010.42	1010.63	1011.28	1008.08	998.60	981.89
31	961.90	---	959.42	932.95	---	998.21	---	1010.59	---	1007.84	998.09	---
MEAN	972.08	953.63	956.23	934.25	953.73	987.54	1005.25	1010.83	1011.01	1010.43	1003.31	990.18
MAX	980.35	964.51	973.53	954.20	982.86	998.21	1010.42	1011.32	1012.76	1011.47	1007.58	997.61
MIN	961.90	943.79	938.41	928.17	933.34	982.86	999.87	1010.38	1010.38	1007.84	998.09	981.89
(†)	256400	209000	249500	183500	318700	368700	411400	412000	414500	402100	368300	315600
(‡)	-56000	-47400	+40500	-66000	+135200	+50000	+42700	+600	+2500	-12400	-33800	-52700

CAL YR 1980 MEAN 979.47 MAX 1011.14 MIN 925.84 AC-FT‡ +83100
WTR YR 1981 MEAN 982.53 MAX 1012.76 MIN 928.17 AC-FT‡ +3200

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

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 (0.5 km) above Wiley Creek, 0.5 mi (0.8 km) north of Foster, and at mile 37.7 (60.7 km).

DRAINAGE AREA.--492 mi² (1,274 km²).

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.--Reservoir 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 (74.9 hm³) and usable capacity 33,210 acre-ft (40.9 hm³) between elevations 609.0 ft (185.52 m), proposed lower limit of operation, and 641.0 ft (195.38 m), top of spillway gates. Reservoir 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 (74.1 hm³) Sept. 17, 1968, elevtion, 640.45 ft (195.209 m); minimum, 26,590 acre-ft (32.8 hm³) Nov. 15, 16, 1971, elevation, 607.85 ft (185.273 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 58,540 acre-ft (72.2 hm³) Sept. 29, elevation, 639.20 ft (194.828 m); minimum, 29,310 acre-ft (36.2 hm³) Apr. 7, elevation, 611.01 ft (186.236 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	637.05	619.29	614.09	613.14	613.80	621.93	615.29	614.38	636.99	636.89	637.17	637.33
2	637.05	616.41	614.57	613.18	614.01	621.76	614.44	614.60	636.91	637.09	637.20	637.44
3	637.00	616.66	615.58	613.36	613.89	622.39	612.73	614.62	637.10	637.12	637.17	637.55
4	636.92	616.68	612.89	613.31	614.27	622.72	612.42	614.44	637.18	637.14	637.17	637.56
5	636.85	616.73	612.99	613.49	614.73	622.68	613.26	614.36	637.06	636.92	637.18	637.45
6	636.79	617.32	613.10	614.19	615.07	622.73	611.72	615.01	637.06	636.82	637.16	637.32
7	636.71	617.39	612.92	614.71	615.38	622.55	611.01	614.77	637.26	636.96	637.15	637.18
8	636.66	617.57	612.89	615.04	615.62	622.21	614.65	614.80	637.96	637.10	637.53	637.30
9	636.69	615.45	612.98	614.78	615.86	622.29	614.75	614.73	636.93	637.03	637.92	637.39
10	636.73	614.72	613.09	614.40	616.15	622.05	614.46	614.47	636.97	636.95	637.28	637.52
11	636.78	613.64	613.05	614.10	616.26	621.61	614.01	615.41	637.19	636.90	636.38	637.37
12	636.91	613.07	613.28	614.56	616.71	621.31	614.40	617.77	636.91	636.80	635.47	637.35
13	637.09	613.91	613.05	614.45	617.18	620.96	614.60	619.98	636.69	636.71	636.41	637.34
14	637.17	613.72	613.04	614.20	620.10	620.61	614.45	622.16	637.12	636.70	637.45	637.32
15	636.30	613.48	613.15	614.18	621.18	620.26	614.62	624.74	636.77	636.71	637.11	637.35
16	635.11	613.70	613.37	614.43	621.95	619.98	614.63	626.89	636.98	636.84	637.05	637.21
17	633.90	613.60	613.34	614.23	621.76	619.79	614.61	628.88	636.98	636.92	637.11	637.37
18	631.80	613.48	613.22	613.95	622.45	619.58	614.59	631.81	636.60	637.00	637.17	637.51
19	629.64	613.74	613.64	614.11	622.30	619.37	614.58	635.19	637.01	637.06	637.39	637.42
20	628.94	613.85	614.23	614.01	621.93	619.16	614.47	636.97	637.08	637.34	637.56	637.29
21	628.21	614.15	614.53	614.10	621.63	619.01	614.59	636.76	637.08	637.19	637.40	637.38
22	627.49	615.66	614.26	614.15	620.91	619.48	614.57	636.35	637.02	637.28	637.37	637.46
23	626.74	614.32	614.12	614.26	621.93	619.82	614.59	636.01	637.06	637.17	637.33	638.44
24	626.03	613.46	614.14	614.59	622.84	619.47	614.52	636.17	636.80	636.67	637.43	638.51
25	623.85	614.15	614.48	614.79	622.73	619.83	614.57	637.51	637.12	636.37	637.41	638.57
26	621.57	613.97	612.70	614.82	622.54	620.47	614.62	636.66	637.02	636.95	637.39	638.24
27	621.62	613.22	613.25	614.76	622.12	620.62	614.93	637.21	637.04	636.99	637.37	638.19
28	621.61	613.27	613.15	614.55	621.95	620.04	614.46	637.12	637.00	637.14	637.35	638.47
29	621.62	614.37	613.27	613.94	---	619.52	614.75	636.98	637.00	637.17	637.32	638.39
30	621.62	615.09	613.49	613.87	---	618.61	614.46	637.24	636.98	637.16	637.30	637.93
31	621.55	---	613.37	613.91	---	616.15	---	637.15	---	637.17	637.29	---
MEAN	631.42	614.87	613.52	614.18	618.83	620.61	614.19	626.17	637.03	636.98	637.19	637.64
MAX	637.17	619.29	615.58	615.04	622.84	622.73	615.29	637.51	637.96	637.34	637.92	638.57
MIN	621.55	613.07	612.70	613.14	613.80	616.15	611.01	614.36	636.60	636.37	635.47	637.18
(†)	39080	32960	31400	31880	39470	33930	32380	56050	55850	56080	56220	56990
(‡)	-16820	-6120	-1560	+480	+7590	-5540	-1550	+23670	-200	+230	+140	+770

CAL YR 1980 MEAN 625.95 MAX 637.70 MIN 612.70 AC-FT‡ -690
WTR YR 1981 MEAN 625.26 MAX 638.57 MIN 611.01 AC-FT‡ +1090

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

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 right bank 1.5 mi (2.4 km) downstream from Jackson Creek, 1.0 mi (1.6 km) southeast of Foster, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--62.3 mi² (161.4 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 590 ft (179.8 m), from topographic map. Prior to May 2, 1974, at present site at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records good except those for period of indefinite stage-discharge relation Dec. 2, 3, which are fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--8 years, 230 ft³/s (6.514 m³/s), 50.13 in/yr (1,273 mm/yr), 166,600 acre-ft/yr (205 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,320 ft³/s (179 m³/s) Jan. 15, 1974, gage height, 9.28 ft (2.829 m); minimum, 3.1 ft³/s (0.088 m³/s) Oct. 19, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,300 ft³/s (65.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	-	a*3,000	85.0	b*8.23	2.509	Dec. 25	1930	2,620	74.2	b7.49	2.283

Minimum, 7.4 ft³/s (0.21 m³/s) Sept. 8, 9, 12.

a Estimated.
b Backwater from log.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	22	295	283	149	223	616	115	151	69	21	10
2	9.7	44	1600	242	132	194	516	108	132	61	22	12
3	9.2	34	2500	214	115	180	443	103	116	55	24	10
4	8.8	28	1720	185	100	226	355	102	113	51	22	9.7
5	8.3	23	928	168	107	205	344	116	107	50	21	9.2
6	8.3	165	720	149	97	183	316	130	123	49	19	9.0
7	8.3	456	510	136	86	173	279	134	178	69	18	8.1
8	8.3	529	379	125	81	160	312	125	749	52	16	7.4
9	8.3	575	303	120	77	142	503	130	1220	46	15	7.4
10	8.3	325	264	110	82	130	410	120	764	45	13	7.6
11	8.3	194	239	102	83	121	535	110	522	43	13	7.6
12	13	134	223	94	83	113	705	98	450	42	13	7.4
13	28	107	202	86	121	107	561	91	522	40	13	8.5
14	33	111	191	81	473	105	485	92	479	39	13	10
15	23	125	223	77	430	110	467	163	373	38	12	9.0
16	17	98	260	74	772	191	423	239	329	37	13	8.5
17	14	85	239	70	772	180	355	214	279	36	12	8.5
18	13	72	208	67	885	156	312	391	257	36	11	9.0
19	12	64	183	63	1150	140	287	548	260	34	11	13
20	12	58	178	59	982	130	257	436	229	34	13	14
21	11	138	242	71	698	130	253	349	196	33	12	16
22	11	391	787	69	516	196	232	275	178	33	12	28
23	11	275	727	74	397	178	214	235	160	32	11	20
24	11	268	963	111	403	160	220	279	134	32	10	16
25	25	211	1980	98	338	355	188	643	115	33	10	15
26	37	168	1470	165	308	361	183	555	110	30	10	18
27	42	156	982	229	287	329	163	397	98	27	10	100
28	28	180	713	268	253	283	154	303	88	24	9.7	54
29	21	361	548	268	---	279	138	249	80	23	9.5	51
30	17	416	436	214	---	303	125	211	74	22	9.7	37
31	16	---	338	175	---	548	---	178	---	22	10	---
TOTAL	490.8	5813	20551	4247	9977	6291	10351	7239	8586	1237	428.9	540.9
MEAN	15.8	194	663	137	356	203	345	234	286	39.9	13.8	18.0
MAX	42	575	2500	283	1150	548	705	643	1220	69	24	100
MIN	8.3	22	178	59	77	105	125	91	74	22	9.5	7.4
CFSM	.25	3.11	10.6	2.20	5.71	3.26	5.54	3.76	4.59	.64	.22	.29
IN.	.29	3.47	12.27	2.54	5.96	3.76	6.18	4.32	5.13	.74	.26	.32
AC-FT	974	11530	40760	8420	19790	12480	20530	14360	17030	2450	851	1070

CAL YR 1980 TOTAL 81705.5 MEAN 223 MAX 2500 MIN 8.3 CFSM 3.58 IN 48.79 AC-FT 162100
WTR YR 1981 TOTAL 75752.6 MEAN 208 MAX 2500 MIN 7.4 CFSM 3.34 IN 45.23 AC-FT 150300

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 (1.0 km) downstream from Wiley Creek and at mile 37.0 (59.5 km).

DRAINAGE AREA.--557 mi^2 (1,443 km^2).

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 (0.8 km) upstream not equivalent owing to inflow between sites.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (171 m), from topographic map.

REMARKS.--Water-dischage records 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 above station.

AVERAGE DISCHARGE.--8 years, 2,859 ft^3/s (80.97 m^3/s), 2,071,000 acre-ft/yr (2.55 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s (479 m^3/s) Jan. 15, 1974; maximum gage height, 16.16 ft (4.926 m) Dec. 24, 1977; minimum discharge, 425 ft^3/s (12.0 m^3/s) July 26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,900 ft^3/s (450 m^3/s) Dec. 3, gage height, 15.93 ft (4.855 m); minimum, 693 ft^3/s (19.6 m^3/s) Aug. 14; minimum daily, 709 ft^3/s (20.1 m^3/s) Aug. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1760	4600	11800	1060	2160	2930	1810	1750	996	810	1080
2	1020	2130	10400	8790	1040	2140	3460	1680	1470	976	810	1050
3	1010	1830	14700	5600	967	1610	3630	1720	1190	976	810	1020
4	1010	1800	9490	5550	891	1380	2880	1410	1240	947	810	1020
5	1010	1800	6970	5310	873	1620	2170	1250	1310	938	802	1020
6	1020	2140	6920	4410	891	1550	3200	1470	1320	919	802	1020
7	1010	3710	6640	3630	891	1310	2440	1720	1590	864	802	1020
8	1010	5430	6000	3630	873	1310	2670	1540	8640	846	802	1020
9	996	7480	5870	3630	873	1120	3850	1530	12400	846	802	1010
10	986	6720	5770	2870	873	947	3670	1560	11100	819	742	1010
11	986	6100	5770	2720	873	1020	4010	1010	5620	802	709	1010
12	996	5620	5620	2360	864	909	4240	830	3830	802	709	1020
13	1010	4600	5800	2690	900	909	4110	830	5260	802	709	1020
14	1390	3710	5520	2670	1290	909	3770	850	3970	802	751	1010
15	1560	3730	5520	2390	1910	928	3830	900	4190	802	802	1080
16	1790	3360	5600	2060	6260	1160	3810	900	3270	793	802	1150
17	1790	3590	5700	1160	5260	1060	3630	950	3250	793	802	1020
18	1750	2320	5670	1140	6580	996	3530	1360	2850	802	802	1020
19	1760	1770	4490	928	8000	947	3710	2310	3690	793	802	1030
20	1750	1800	3710	947	5310	928	3530	2850	2900	802	837	1030
21	1760	2720	3830	891	4200	909	3140	3570	2410	802	846	1350
22	1760	3970	7420	891	3930	947	2830	3030	2130	1060	855	1390
23	1770	3890	8860	882	3330	947	2830	2610	2180	1100	855	1380
24	1760	3630	10600	996	2720	1210	3090	2480	1910	828	855	1380
25	1770	3400	14300	986	2650	1390	2670	3480	1500	802	846	1390
26	1790	3590	13400	1090	2530	1390	2510	4670	1540	802	846	1410
27	1800	3480	12700	1300	2510	1610	1750	3420	1360	810	846	1600
28	1770	3250	12400	1440	2330	1750	1580	3100	1310	810	846	1620
29	1760	3500	12200	1570	---	1760	1280	2400	1210	810	855	2230
30	1760	3910	11900	1150	---	2130	1510	1750	1120	810	846	2750
31	1770	---	11800	1080	---	3630	---	1820	---	810	1100	---
TOTAL	44334	106740	250170	86561	70679	42586	92260	60810	97510	26564	25313	37160
MEAN	1430	3558	8070	2792	2524	1374	3075	1962	3250	857	817	1239
MAX	1800	7480	14700	11800	8000	3630	4240	4670	12400	1100	1100	2750
MIN	986	1760	3710	882	864	909	1280	830	1120	793	709	1010
AC-FT	87940	211700	496200	171700	140200	84470	183000	120600	193400	52690	50210	73710

CAL YR 1980 TOTAL 932453 MEAN 2548 MAX 14700 MIN 793 AC-FT 1850000
WTR YR 1981 TOTAL 940687 MEAN 2577 MAX 14700 MIN 709 AC-FT 1866000

NOTE.--No gage-height record May 9 to June 17.

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: July 1973 to current year.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 15.5°C several days in July and August; minimum, 5.0°C Feb. 8-10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14187200 SOUTH SANTIAM RIVER NEAR FOSTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (0.2 km) downstream from highway bridge at Waterloo, 2.1 mi (3.4 km) upstream from Hamilton Creek, and at mile 23.3 (37.5 km).

DRAINAGE AREA.--640 mi² (1,658 km²).

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 (112.895 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 31, 1911, nonrecording gage at site 0.5 mi (0.8 km) downstream at datum about 5.0 ft (1.52 m) lower. July 1, 1923, to Nov. 12, 1934, nonrecording gage, at present site and datum.

REMARKS.--Water-discharge records 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 above station.

AVERAGE DISCHARGE.--59 years (water years 1906, 1924-81), 2,924 ft³/s (82.81 m³/s), 2,118,000 acre-ft/yr (2.61 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,200 ft³/s (2,696 m³/s) Dec. 22, 1964, gage height, 24.50 ft (7.468 m); minimum, 61 ft³/s (1.73 m³/s) Oct. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,100 ft³/s (541 m³/s) Dec. 3, gage height, 10.17 ft (3.100 m); minimum, 662 ft³/s (18.7 m³/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	973	1850	4690	11300	1280	2570	3410	1580	1950	1080	782	1100
2	984	2170	10400	9520	1250	2440	3670	1810	1760	971	782	1060
3	973	1960	16600	5740	1170	2000	3880	1960	1500	1030	782	1030
4	984	1880	11700	5790	1050	1780	3450	1720	1410	971	782	1020
5	984	1880	7620	5530	1010	1890	2320	1270	1490	971	771	1030
6	984	2210	8020	4760	1050	1840	3310	1260	1530	913	771	1030
7	973	3860	7160	3980	1010	1620	2860	1480	2660	936	771	1030
8	973	5460	6530	3810	995	1590	2460	1550	7290	857	771	1020
9	962	7670	6190	3810	995	1350	4200	1620	11700	846	782	1020
10	962	6970	6050	3220	1020	1110	3940	1710	12600	824	730	1020
11	951	6280	6020	3010	995	1140	4280	1370	6260	792	672	1010
12	984	5870	5740	2610	995	1040	4670	971	4160	792	681	1020
13	995	4930	6000	2860	995	1010	4460	846	5510	782	681	1020
14	1340	3860	5760	2910	1580	1010	4140	857	4570	792	691	1010
15	1560	3900	5720	2680	2320	1020	4020	924	4610	792	782	1070
16	1810	3570	5720	2320	5690	1310	4060	995	3620	771	792	1140
17	1870	3700	5860	1400	6660	1200	3900	1040	3490	771	782	1060
18	1820	2740	5790	1290	6460	1130	3750	1190	3100	782	782	1030
19	1810	1820	4910	1060	8750	1060	3820	1660	3710	771	782	1030
20	1810	1880	3940	1070	6560	1030	3750	2380	3220	782	803	1030
21	1810	2720	3980	995	4840	1010	3400	2960	2600	782	835	1270
22	1820	4140	6340	1010	4480	1040	3030	3130	2250	995	835	1410
23	1820	4140	9180	1040	3980	1050	2980	2980	2330	1160	846	1400
24	1820	3980	10100	1120	3650	1260	3290	2980	2110	824	835	1370
25	1840	3540	14900	1160	3180	1590	2890	4120	1580	782	824	1380
26	1850	3780	14800	1210	2980	1670	2710	5010	1640	782	824	1390
27	1880	3700	13000	1530	2920	1760	2020	4260	1480	782	824	1580
28	1840	3500	12300	1680	2760	1960	1730	3520	1350	782	824	1600
29	1820	3760	11900	2020	---	1970	1380	2820	1310	782	835	2040
30	1820	4180	11600	1520	---	2260	1620	2190	1160	782	824	2600
31	1840	---	11300	1330	---	3710	---	2000	---	782	1040	---
TOTAL	44862	111900	259820	93285	80625	48420	99400	64163	103950	26461	24518	36820
MEAN	1447	3730	8381	3009	2879	1562	3313	2070	3465	854	791	1227
MAX	1880	7670	16600	11300	8750	3710	4670	5010	12600	1160	1040	2600
MIN	951	1820	3940	995	995	1010	1380	846	1160	771	672	1010
AC-FT	88980	222000	515400	185000	159900	96040	197200	127300	206200	52490	48630	73030

CAL YR 1980 TOTAL 976844 MEAN 2669 MAX 16600 MIN 721 AC-FT 1938000
WTR YR 1981 TOTAL 994224 MEAN 2724 MAX 16600 MIN 672 AC-FT 1972000

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

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 July 27; minimum, 5.5°C Feb. 3, 4, 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14187500 SOUTH SANTIAM RIVER AT WATERLOO, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (0.5 km) upstream from bridge on State Highway 226, 1.6 mi (2.6 km) upstream from Mill Creek, 4.2 mi (6.8 km) east of Scio, and at mile 14.6 (23.5 km).

DRAINAGE AREA.--109 mi² (282 km²).

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WRD Oreg. 1971: 1965(P), 1966(P), 1969(P).

GAGE.--Water-stage recorder. Datum of gage is 380.84 ft (116.080 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--19 years, 493 ft³/s (13.96 m³/s), 61.42 in/yr (1,560 mm/yr), 357,200 acre-ft/yr (440 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) Dec. 22, 1964, gage height, 18.44 ft (5.621 m), from rating curve extended above 7,200 ft³/s (204 m³/s), on basis of slope-area measurement of peak flow; maximum gage height, 19.58 ft (5.968 m) Jan. 21, 1972, backwater from debris; minimum discharge, 7.8 ft³/s (0.22 m³/s) Aug. 20, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1900	7,990	226	11.17	3.405	Feb. 16	1230	3,570	101	7.89	2.405
Dec. 25	2130	*10,500	297	*12.53	3.819	Feb. 19	0800	3,680	104	8.00	2.438

Minimum, 16 ft³/s (0.45 m³/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	54	685	715	345	418	1130	239	254	173	43	30
2	23	107	3780	605	308	373	880	227	227	155	43	37
3	21	77	6250	526	284	355	775	218	206	142	46	28
4	21	68	3190	462	263	486	655	230	212	132	44	25
5	21	58	1810	414	275	414	645	263	203	128	41	25
6	20	369	1260	369	254	369	590	254	236	125	38	24
7	20	1190	922	338	230	352	522	263	387	155	36	21
8	20	1230	730	311	212	331	660	251	2070	128	33	19
9	20	982	605	299	209	302	928	257	1920	114	33	19
10	19	725	526	269	224	278	745	233	1240	108	29	21
11	19	470	474	248	227	263	1020	215	886	101	27	21
12	27	341	438	233	251	245	1080	195	800	96	28	19
13	65	272	406	215	450	227	874	180	976	94	29	19
14	78	269	387	200	1030	218	775	175	820	89	29	18
15	47	278	442	188	946	227	800	278	665	83	28	18
16	38	233	514	180	2350	296	835	348	660	78	30	17
17	34	206	474	173	1720	260	710	308	580	74	27	18
18	31	183	418	160	2550	239	645	414	510	72	26	18
19	30	168	369	153	2940	224	605	510	538	72	26	21
20	29	153	438	146	1800	212	526	446	470	67	29	23
21	27	470	630	173	1220	209	518	418	410	64	28	29
22	26	934	1840	190	922	287	514	373	390	64	26	50
23	25	635	1400	227	745	327	486	331	359	64	26	50
24	25	522	2430	338	735	334	498	406	311	60	24	35
25	46	430	6140	299	625	630	402	770	281	59	24	34
26	59	359	4380	426	565	610	366	720	254	58	24	48
27	91	387	2630	555	526	542	327	550	230	51	23	218
28	59	510	1630	620	466	470	308	446	212	47	23	155
29	47	898	1220	560	---	580	281	373	193	45	23	142
30	42	928	1080	462	---	660	260	327	183	47	25	89
31	39	---	850	390	---	1190	---	290	---	45	27	---
TOTAL	1094	13506	48348	10444	22672	11928	19360	10508	16683	2790	938	1291
MEAN	35.3	450	1560	337	810	385	645	339	556	90.0	30.3	43.0
MAX	91	1230	6250	715	2940	1190	1130	770	2070	173	46	218
MIN	19	54	369	146	209	209	260	175	183	45	23	17
CFSM	.32	4.13	14.3	3.09	7.43	3.53	5.92	3.11	5.10	.83	.28	.39
IN.	.37	4.61	16.50	3.56	7.74	4.07	6.61	3.59	5.69	.95	.32	.44
AC-FT	2170	26790	95900	20720	44970	23660	38400	20840	33090	5530	1860	2560

CAL YR 1980 TOTAL 168185 MEAN 460 MAX 6250 MIN 19 CFSM 4.22 IN 57.40 AC-FT 333600
WTR YR 1981 TOTAL 159562 MEAN 437 MAX 6250 MIN 17 CFSM 4.01 IN 54.46 AC-FT 316500

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 (107 m) upstream from Southern Pacific railroad bridge at Jefferson, 2.1 mi (3.4 km) downstream from confluence of North and South Santiam Rivers, and at mile 9.62 (15.5 km).

DRAINAGE AREA.--1,790 mi² (4,640 km²), 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 (60.847 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1940, nonrecording gages at sites within 350 ft (107 m) downstream at datum 3.00 ft (0.914 m) higher.

REMARKS.--Water-discharge records excellent. Flow regulated since 1953 by Detroit Lake (see station 14180500), since 1966 by Green Peter Lake (see station 14186100) and by Foster Lake (see 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 West Stayton; some return flow reaches North Santiam River above station. Albany power canal diverts from South Santiam River at Lebanon; return flow reaches Willamette River at Albany.

AVERAGE DISCHARGE.--51 years (water years 1908-16, 1940-81), 7,762 ft³/s (219.8 m³/s), 5,624,000 acre-ft/yr (6.93 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197,000 ft³/s (5,580 m³/s) Dec. 22, 1964, gage height, 24.22 ft (7.382 m); minimum observed, 260 ft³/s (7.36 m³/s) Aug. 15-22, Aug. 24 to Sept. 2, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood stage of 25.0 ft (7.62 m) was reached in December 1861, and 23.4 ft (7.13 m) in February 1890 (information from Corps of Engineers). On Nov. 21, 1921, the stage reached 19.5 ft (5.94 m) at gage on railroad bridge 350 ft (107 m) downstream, corresponding gage height at present site and datum, 24.4 ft (7.44 m), from curve of relation, discharge, 202,000 ft³/s (5,720 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 61,100 ft³/s (1,730 m³/s) Dec. 26, gage height, 16.87 ft (5.142 m); minimum, 1,350 ft³/s (38.2 m³/s) Aug. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3210	3330	10500	25300	4250	6230	9370	4180	4680	2660	1530	2270
2	3180	3640	21600	23700	4020	5430	8310	4290	3950	2340	1540	2520
3	3120	3630	43000	17600	3850	4950	8280	4420	3370	2310	1550	2470
4	3170	3430	39900	14700	3560	6130	7550	4530	3180	2200	1550	2440
5	3210	3400	20400	13100	3580	5260	6090	4060	3400	2170	1520	2430
6	3180	4000	21100	12300	3500	4810	6730	3970	3580	2110	1470	2430
7	3170	9060	17800	11200	3300	4510	6420	4380	4000	2300	1460	2400
8	3180	12900	16000	10800	3200	4250	5390	4490	17100	2260	1460	2420
9	3120	14500	14900	10800	3120	3880	8900	4270	29700	2090	1520	2390
10	3050	13600	14400	9060	3240	3510	8140	4290	28300	2030	1480	2540
11	2790	11300	14100	7760	3170	3330	8640	3990	18500	1990	1400	2730
12	2730	10400	13700	7130	3260	3140	9990	3200	11500	1950	1370	2790
13	2790	9310	13600	7130	3860	3020	9120	2930	12100	1920	1370	2810
14	3120	7730	13300	6910	7600	2940	8310	2700	12400	1850	1380	2840
15	3290	7870	13000	6420	8310	2960	8030	2810	10600	1740	1450	2930
16	3400	7500	12300	5880	15500	3510	8530	3540	9650	1700	1510	3080
17	3610	7370	11200	4640	18500	3370	7840	3350	9700	1660	1630	3090
18	3430	6730	11000	3630	18300	3180	7550	3740	8450	1720	1790	3050
19	3090	5410	10200	3350	27400	3020	7500	5830	7920	1720	1790	3140
20	3150	5300	9170	3170	19900	2930	7260	5900	8670	1710	1810	3170
21	3150	5880	9960	3080	14800	2840	7030	6510	7210	1680	1820	3350
22	3080	10900	16600	3230	12900	2990	6830	6590	6470	2120	1850	3530
23	3110	9900	22500	3350	11500	3260	7080	6270	5630	2400	1840	3660
24	3170	9510	23200	3690	10700	3460	7470	6200	5260	1790	1850	3540
25	3200	8420	42400	3760	10000	4680	6760	8420	4400	1650	1850	3580
26	3300	8310	48400	4110	9120	5360	6350	11100	4270	1650	1780	3590
27	3380	8060	29300	5410	8360	5030	5470	8980	3760	1590	1770	4330
28	3350	8840	30700	6110	6980	4950	5280	7470	3140	1520	1800	4510
29	3270	9590	28500	6440	---	4990	4680	6610	3060	1490	1850	4780
30	3300	11300	27600	5240	---	5740	4230	5280	2790	1490	1900	5090
31	3210	---	26000	4590	---	8330	---	4830	---	1500	1960	---
TOTAL	98510	241120	646330	253590	245780	131990	219130	159130	256740	59310	50850	93900
MEAN	3178	8037	20850	8180	8778	4258	7304	5133	8558	1913	1640	3130
MAX	3610	14500	48400	25300	27400	8330	9990	11100	29700	2660	1960	5090
MIN	2730	3330	9170	3080	3120	2840	4230	2700	2790	1490	1370	2270
AC-FT	195400	478300	1282000	503000	487500	261800	434600	315600	509200	117600	100900	186300

CAL YR 1980 TOTAL 2489600 MEAN 6802 MAX 48400 MIN 1350 AC-FT 4938000
WTR YR 1981 TOTAL 2456380 MEAN 6730 MAX 48400 MIN 1370 AC-FT 4872000

14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1963 to current year.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 23.5°C Aug. 9; minimum recorded, 5.0°C Jan. 15, Feb. 2-11.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14189000 SANTIAM RIVER AT JEFFERSON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.0	14.5	12.5	14.5	13.0	18.0	14.0	21.0	17.0	17.0	15.0
2	8.5	7.5	12.5	11.5	15.5	13.0	20.0	15.5	19.0	16.5	16.5	13.5
3	9.0	7.5	11.5	10.5	15.5	14.5	21.5	17.5	17.5	15.5	16.5	14.0
4	10.0	8.0	11.0	9.5	14.5	13.5	21.5	18.0	19.5	16.0	16.5	14.5
5	10.0	9.0	10.5	9.5	14.0	12.5	19.5	18.0	20.5	16.5	16.5	14.0
6	9.0	8.0	10.5	9.0	14.0	13.5	18.0	15.5	22.0	17.5	17.5	14.5
7	9.5	8.0	11.5	9.5	13.5	11.5	16.5	13.5	22.5	18.5	18.0	15.0
8	9.0	8.5	11.0	10.0	12.0	11.0	18.5	14.0	23.0	19.0	17.5	15.0
9	9.0	7.5	13.5	11.0	12.0	11.0	17.5	15.5	23.5	19.0	16.5	15.0
10	9.0	7.5	13.0	11.0	12.5	11.5	17.5	15.0	23.0	19.0	16.5	14.0
11	8.5	8.0	13.5	11.5	13.0	10.5	18.0	14.0	23.0	19.0	16.5	14.5
12	9.5	7.5	14.5	10.5	12.5	11.0	19.0	15.5	22.5	18.5	16.5	14.0
13	9.5	7.5	15.0	13.0	12.5	10.5	18.5	16.0	21.0	18.0	16.0	14.0
14	11.0	8.5	14.0	12.5	12.5	10.5	20.0	15.5	21.5	17.5	16.0	13.5
15	11.0	10.0	13.0	11.0	14.0	10.5	21.0	16.5	20.0	17.5	16.0	14.0
16	11.5	9.5	13.0	10.5	14.0	12.0	21.5	17.5	20.0	16.5	16.5	14.5
17	11.5	9.5	12.5	12.0	13.5	10.5	20.0	17.5	21.0	17.0	16.5	14.5
18	12.0	10.0	12.0	11.5	13.0	11.5	19.0	16.5	20.0	17.0	15.5	14.0
19	12.0	10.0	11.5	10.0	13.0	11.5	20.0	16.5	18.0	15.0	15.0	14.0
20	10.5	9.0	10.5	10.0	13.5	12.0	20.5	17.0	16.0	14.5	14.5	13.5
21	10.0	9.5	11.0	10.0	14.0	12.0	20.0	17.0	18.0	14.0	14.5	13.0
22	11.5	10.0	13.5	10.0	13.5	12.5	19.0	16.0	18.5	15.5	14.5	13.0
23	11.5	10.5	14.0	11.5	15.5	12.0	18.0	16.0	19.0	15.5	14.5	12.0
24	11.5	10.0	13.5	12.0	16.0	13.5	18.5	15.5	18.0	16.0	14.5	13.0
25	11.0	9.5	13.0	11.5	17.5	15.0	19.5	16.0	17.0	15.0	15.0	13.0
26	11.0	9.5	13.5	10.5	17.0	15.0	22.0	17.0	17.5	14.0	14.0	13.0
27	10.5	9.5	14.0	11.0	17.0	14.0	23.0	18.5	17.5	14.0	15.5	13.5
28	12.5	10.0	14.5	11.5	18.0	14.5	22.0	18.5	18.0	14.5	15.0	14.0
29	14.0	11.5	14.5	13.0	19.0	15.5	19.5	17.5	16.0	14.5	14.5	13.0
30	16.0	13.0	14.0	12.5	17.5	15.5	20.0	16.0	16.5	14.0	14.5	12.5
31	---	---	15.0	11.5	---	---	20.5	16.5	17.0	14.0	---	---
MONTH	16.0	7.0	15.0	9.0	19.0	10.5	23.0	13.5	23.5	14.0	18.0	12.0

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 (3 m) upstream from highway bridge at Helmick State Park, 3.0 mi (4.8 km) northwest of Suver, 4.7 mi (7.6 km) downstream from Little Luckiamute River, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--240 mi^2 (622 km^2).

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 (52.401 m) 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.--Records good. Some diurnal fluctuation during periods of low flow caused by millpond above station. A few small diversions for irrigation above station.

AVERAGE DISCHARGE.--47 years, 905 ft^3/s (25.63 m^3/s), 51.21 in/yr (1,301 mm/yr), 655,700 acre-ft/yr (808 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,900 ft^3/s (932 m^3/s) Dec. 22, 1964, gage height, 34.52 ft (10.522 m); minimum, 0.65 ft^3/s (0.018 m^3/s) Aug. 13, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,600 ft^3/s (187 m^3/s) and maximum discharge, 23,500 ft^3/s (666 m^3/s) Dec. 26, gage height, 32.69 ft (9.964 m); minimum, 23 ft^3/s (0.65 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	46	1020	1710	653	815	1900	397	240	217	61	43
2	29	100	1840	1450	599	747	1550	385	233	202	65	41
3	27	118	4950	1260	559	705	1290	374	224	184	68	40
4	26	109	5230	1120	522	984	1090	389	220	170	61	40
5	26	96	4160	997	541	847	965	428	226	166	59	40
6	27	86	2990	899	509	751	909	448	239	160	57	42
7	26	571	1940	821	465	709	815	413	245	163	54	42
8	26	984	1420	753	442	667	821	390	774	172	51	38
9	24	688	1150	696	426	610	1260	375	1260	148	52	37
10	24	516	976	644	415	571	1190	353	1120	137	51	36
11	24	362	866	599	420	543	1590	332	836	131	44	36
12	27	275	786	560	492	514	2300	316	667	131	43	36
13	42	220	724	524	504	485	1930	302	667	125	43	37
14	72	190	668	496	874	461	1560	288	693	112	45	39
15	68	190	640	469	1030	469	1310	317	579	105	57	35
16	52	166	611	448	2210	537	1150	360	531	99	54	33
17	43	149	575	433	3370	465	1010	312	527	95	53	32
18	39	145	533	424	3080	438	907	404	456	96	46	32
19	38	148	494	401	4540	427	819	496	474	97	43	40
20	36	137	509	380	4700	410	748	426	504	96	44	49
21	36	162	806	403	3140	396	697	390	465	87	50	54
22	36	1010	2810	433	2070	430	662	360	425	83	48	62
23	35	662	3450	506	1640	430	621	333	407	80	45	58
24	34	497	3030	452	1490	481	588	336	369	77	47	53
25	37	407	10400	427	1280	560	552	368	333	76	45	51
26	46	363	19000	576	1110	702	514	355	303	79	43	55
27	77	318	8460	804	1010	638	481	314	283	77	40	161
28	79	421	5490	894	897	579	481	291	261	63	39	165
29	57	607	3490	915	---	603	449	275	248	62	39	112
30	49	1130	2670	800	---	756	422	267	230	65	39	87
31	46	---	2070	715	---	1230	---	253	---	63	46	---
TOTAL	1239	10873	93758	22009	38988	18960	30581	11047	14039	3618	1532	1626
MEAN	40.0	362	3024	710	1392	612	1019	356	468	117	49.4	54.2
MAX	79	1130	19000	1710	4700	1230	2300	496	1260	217	68	165
MIN	24	46	494	380	415	396	422	253	220	62	39	32
AC-FT	2460	21570	186000	43650	77330	37610	60660	21910	27850	7180	3040	3230

CAL YR 1980 TOTAL 296610 MEAN 810 MAX 19000 MIN 23 AC-FT 588300
WTR YR 1981 TOTAL 248270 MEAN 680 MAX 19000 MIN 24 AC-FT 492400

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 (91 m) upstream from Center Street Bridge in Salem and at mile 84.16 (135.41 km).

DRAINAGE AREA.--7,280 mi² (18,900 km²), approximatley.

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 (32.351 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1909, to Dec. 31, 1916, nonrecording gage at site 0.5 mi (0.8 km) upstream at datum 8.00 ft (2.438 m) higher. Jan. 1, 1923, to Nov. 26, 1934, nonrecording gage at Center Street Bridge at datum 8.00 ft (2.438 m) higher. Nov. 27, 1934, to Sept. 30, 1962, water-stage recorder at present site at datum 8.00 ft (2.438 m) higher.

REMARKS.--Water-discharge records excellent. Flow regulated by 12 reservoirs above station (see elsewhere in this report). Many small diversions for irrigation above station; part of flow of Salem Canal, which diverts water from North Santiam River, returns to Willamette River below station, through Mill Creek at Salem.

AVERAGE DISCHARGE.--65 years, 23,450 ft³/s (664.1 m³/s), 43.74 in/yr (1,111 mm/yr), 16,990,000 acre-ft/yr (20.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 348,000 ft³/s (9,860 m³/s) Jan. 8, 1923, gage height, 38.3 ft (11.67 m), present datum; minimum, 2,470 ft³/s (70.0 m³/s) Aug. 27, 1940, gage height, 3.55 ft (1.082 m), present datum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 500,000 ft³/s (14,200 m³/s) Dec. 4, 1861, gage height, about 47 ft (14.3 m) present datum, from rating curve extended above 250,000 ft³/s (7,080 m³/s) in 1916. Floods of Jan. 16, 1881, and Feb. 5, 1890, reached stages of 44.3 ft (13.50 m), discharge, 428,000 ft³/s (12,100 m³/s), and 45.1 ft (13.75 m), discharge, 448,000 ft³/s (12,700 m³/s), respectively, from floodmarks and information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 140,000 ft³/s (3,965 m³/s) Dec. 27, gage height, 26.75 ft (8.153 m); minimum, 6,580 ft³/s (186 m³/s) July 30, gage height, 5.05 ft (1.539 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10200	10900	27600	70200	15500	21100	26100	12200	13200	9180	6750	8080
2	10100	11100	35200	65500	14300	19100	26400	12000	12200	8820	6980	8900
3	10200	11400	76500	56500	13400	18000	25300	11900	11000	8490	7060	9130
4	10300	10900	107000	46400	12800	20500	23500	11900	10400	8240	7030	9100
5	10400	10800	111000	39400	12500	22000	21100	11600	10400	8000	7080	9100
6	10300	11000	93100	35500	12500	19400	20200	11600	10400	7790	6950	9110
7	10400	14900	76700	30400	12100	17300	20000	11900	10900	7770	6880	9100
8	11000	24700	66300	26600	11500	16100	18300	12100	16100	8060	6830	8990
9	11100	29300	58900	25400	11200	15100	20600	11800	40500	7920	7000	8930
10	11100	30400	53400	23700	11000	14100	22500	11500	51900	7630	7080	9380
11	10800	27900	49000	20200	10900	13300	22900	11100	44500	7450	6930	9900
12	10800	25100	45400	18500	10900	12800	29600	10300	28900	7370	6770	9990
13	11000	22800	42400	17300	11300	12300	33000	9670	25500	7290	6880	10100
14	11300	19600	38100	16700	18100	11800	31400	9410	28600	7180	6950	10200
15	11800	18100	34800	16200	24200	11600	27300	9180	27100	7060	7000	10000
16	11700	17400	32400	15600	28000	12200	25400	9900	25700	6980	7160	10200
17	11900	16600	27400	14400	44600	13700	23800	10500	24900	6850	7260	10200
18	11800	16000	26100	12600	46400	13500	22000	11200	22900	6800	7580	10500
19	11300	14000	24900	12100	59200	12400	21000	13800	20300	6930	7060	10900
20	11300	13200	23000	11600	64100	11700	19900	16000	21400	7030	7670	10900
21	11300	12600	23500	11200	56700	11400	18900	17100	20500	7060	7770	11200
22	11200	17400	32300	11400	45400	11300	18000	17100	18400	7240	7270	11500
23	11100	23400	47800	12500	37200	12200	17600	16200	16600	7550	7400	11800
24	11200	22100	54000	12900	32300	12800	17300	15300	15300	7370	7410	11800
25	11300	21800	84500	12700	30800	13600	17300	16600	13600	6930	7580	11600
26	11300	20900	121000	13000	27800	17600	16300	22200	12500	6980	7580	11700
27	11300	19900	134000	15700	25800	18600	15500	24300	11700	7000	7500	12500
28	11400	19600	106000	19800	23600	17200	14500	20200	10700	6800	7550	14100
29	11200	19800	85700	21900	---	16300	13700	17900	10100	6620	7500	14200
30	11200	24100	79200	20500	---	17000	12500	15600	9580	6600	7660	13800
31	11000	---	75100	17400	---	19800	---	14000	---	6650	7740	---
TOTAL	342300	557700	1892300	743800	724100	475800	641900	426060	595780	229640	223860	316910
MEAN	11040	18590	61040	23990	25860	15350	21400	13740	19860	7408	7221	10560
MAX	11900	30400	134000	70200	64100	22000	33000	24300	51900	9180	7770	14200
MIN	10100	10800	23000	11200	10900	11300	12500	9180	9580	6600	6750	8080
CFSM	1.52	2.55	8.39	3.30	3.55	2.11	2.94	1.89	2.73	1.02	.99	1.45
IN.	1.75	2.85	9.67	3.80	3.70	2.43	3.28	2.18	3.04	1.17	1.14	1.62
AC-FT	679000	1106000	3753000	1475000	1436000	943700	1273000	845100	1182000	455500	444000	628600

CAL YR 1980	TOTAL	7749590	MEAN	21170	MAX	134000	MIN	5860	CFSM 2.91	IN 39.60	AC-FT	15370000
WTR YR 1981	TOTAL	7170150	MEAN	19640	MAX	134000	MIN	6600	CFSM 2.70	IN 36.64	AC-FT	14220000

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 curent year.
WATER TEMPERATURES: February 1951 to current year.

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.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 97 micromhos Jan. 24; minimum, 41 micromhos June 10, 14, 19.
WATER TEMPERATURES: Maximum, 23.5°C Aug. 8-11; minimum, 5.5°C Jan. 15-18, Feb. 3-11.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	74	61	---		---	71	74	66	76	80	82
2	59	75	60	---		---	70	72	66	76	79	79
3	58	73	52	---		---	70	71	69	77	78	78
4	59	75	49	---		---	70	72	70	78	79	78
5	60	75	51	---		---	70	72	70	78	80	77
6	61	75	55	---		---	71	74	69	77	81	78
7	61	72	54	---		---	69	74	69	77	81	77
8	64	64	53	---		---	71	73	66	76	81	78
9	62	60	52	---		---	71	73	47	77	81	79
10	63	59	53	---		---	69	72	43	79	81	78
11	64	60	53	---		---	69	73	46	79	81	77
12	65	59	54	---		---	70	75	53	80	86	77
13	66	58	55	---		---	70	78	54	80	86	78
14	68	60	58	---		86	65	80	52	79	85	76
15	69	61	58	---		87	66	82	53	79	86	76
16	69	60	59	---		88	65	81	54	79	85	77
17	69	61	62	---		87	65	79	55	79	85	76
18	70	61	62	---		86	66	78	56	79	84	76
19	69	64	62	---		87	67	75	58	79	84	75
20	70	65	64	---		88	67	70	56	77	84	76
21	70	66	---	---		88	68	68	55	77	83	75
22	71	63	---	---		89	68	66	57	77	83	74
23	70	59	---	94		88	67	66	60	76	84	74
24	71	59	---	97		89	66	69	62	76	84	74
25	71	60	---	93		89	65	67	64	78	83	74
26	72	60	---	91		88	66	64	68	78	84	76
27	72	60	---	91		86	66	59	68	79	84	77
28	72	61	---	87		81	67	61	71	80	83	76
29	73	62	---	84		80	69	61	72	81	84	73
30	74	62	---	83		79	73	63	75	80	83	73
31	74	---	---	83		75	---	65	---	81	82	---
MEAN	67	64	56	89		86	68	71	61	78	83	76

14191000 WILLAMETTE RIVER AT SALEM, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	15.5	12.0	11.5	8.5	8.0	9.0	8.5	6.5	6.5	9.0	8.0
2	16.5	15.5	12.5	12.0	8.5	8.0	8.5	8.0	6.5	6.0	9.0	8.5
3	16.5	15.5	13.0	12.5	8.5	8.5	8.0	7.5	6.0	5.5	9.0	8.5
4	16.5	15.5	13.0	13.0	8.5	7.5	7.5	7.5	6.0	5.5	8.5	8.5
5	16.5	15.5	13.5	13.0	7.5	7.0	7.5	7.5	5.5	5.5	8.5	8.0
6	17.0	15.5	13.5	13.0	7.0	6.5	7.5	7.5	6.0	5.5	8.0	7.5
7	17.0	16.0	13.5	13.0	7.0	6.5	7.5	7.0	6.0	5.5	8.5	8.0
8	17.0	16.0	13.0	12.0	6.0	6.0	7.0	7.0	6.0	5.5	9.0	8.0
9	16.0	15.0	12.0	11.0	6.0	6.0	7.5	7.0	5.5	5.5	9.5	8.5
10	15.0	14.0	11.0	10.0	6.0	6.0	7.0	7.0	6.0	5.5	9.5	9.0
11	14.5	14.0	10.0	9.5	6.5	6.0	7.0	6.5	6.0	5.5	10.0	9.0
12	14.5	14.0	10.0	9.5	6.5	6.0	6.5	6.0	7.5	6.0	10.5	9.5
13	14.0	14.0	9.5	8.5	6.0	6.0	6.0	6.0	8.5	7.5	10.5	9.5
14	14.0	14.0	9.0	8.5	6.5	6.0	6.0	6.0	9.0	8.5	10.5	10.0
15	14.0	13.5	9.5	9.0	6.5	6.5	6.0	5.5	9.0	9.0	10.5	10.0
16	14.0	13.5	9.0	8.5	6.5	6.5	5.5	5.5	9.5	9.0	10.5	9.5
17	13.5	12.5	9.0	8.5	6.5	6.5	6.0	5.5	9.0	9.0	10.5	9.5
18	13.0	12.5	10.0	9.0	6.5	6.5	6.5	5.5	9.0	9.0	9.5	9.0
19	13.5	12.5	10.5	10.0	6.5	6.5	7.0	6.5	9.5	9.0	9.0	8.5
20	13.0	12.5	10.5	10.0	7.0	6.5	7.0	6.5	9.0	8.5	9.0	8.0
21	13.5	13.0	10.0	10.0	8.0	7.0	7.5	7.0	8.5	8.0	9.5	9.0
22	13.5	12.5	10.0	9.0	8.5	8.5	8.0	7.5	8.0	8.0	10.5	9.0
23	12.5	12.0	9.0	9.0	8.5	8.0	8.5	8.0	8.5	8.0	10.5	10.0
24	12.0	11.5	9.0	8.5	8.0	8.0	8.5	8.0	8.5	8.5	10.5	10.0
25	12.5	11.5	8.5	8.5	10.0	8.0	8.0	7.5	8.5	7.5	10.5	10.0
26	12.0	12.0	9.0	8.5	10.5	10.0	7.5	7.5	7.5	7.0	11.0	10.5
27	12.5	12.0	9.0	9.0	10.5	10.0	7.5	7.0	8.0	7.0	11.0	10.5
28	12.5	12.0	9.0	9.0	10.0	9.0	7.0	6.5	8.5	7.5	10.5	10.5
29	12.0	11.5	9.0	9.0	9.0	8.5	6.5	6.5	---	---	11.0	10.5
30	11.5	11.0	9.0	8.5	9.0	8.5	6.5	6.5	---	---	10.5	9.5
31	11.5	11.0	---	---	9.0	9.0	7.0	6.5	---	---	9.5	9.0
MONTH	17.0	11.0	13.5	8.5	10.5	6.0	9.0	5.5	9.5	5.5	11.0	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.5	16.0	15.5	---	---	18.5	17.0	21.0	19.5	18.5	17.5
2	8.5	8.5	15.5	14.0	---	---	19.5	17.5	20.5	19.5	18.5	17.5
3	9.0	8.5	14.0	13.0	---	---	21.0	18.5	19.5	18.5	18.0	16.5
4	9.5	9.0	13.0	12.0	---	---	22.0	20.0	19.5	18.5	18.5	17.0
5	10.5	9.5	12.0	11.5	---	---	21.5	20.5	20.0	18.5	18.5	17.0
6	10.5	9.5	11.5	11.0	---	---	20.5	18.5	21.5	19.5	18.5	17.0
7	10.0	9.5	12.0	11.0	---	---	18.0	17.0	22.5	20.5	19.0	17.5
8	9.5	9.5	12.0	11.5	---	---	18.0	16.5	23.5	21.5	19.5	18.0
9	9.5	9.0	13.5	11.5	---	---	17.5	17.0	23.5	22.5	19.0	18.0
10	9.5	9.0	14.0	12.5	---	---	17.5	16.5	23.5	22.5	18.5	17.0
11	9.0	9.0	14.5	13.0	---	---	18.0	16.5	23.5	22.5	18.5	17.5
12	9.0	8.5	15.0	13.5	---	---	18.5	17.0	23.0	22.0	18.5	17.0
13	9.5	8.5	16.0	14.5	---	---	19.0	17.5	22.5	21.0	18.5	17.0
14	10.5	9.0	15.5	15.0	---	---	19.5	18.0	22.0	20.5	18.0	17.0
15	11.0	10.5	15.5	14.5	---	---	20.5	18.5	21.5	20.0	18.5	17.0
16	11.5	10.5	14.5	13.5	---	---	21.5	19.5	20.5	19.5	18.5	17.0
17	12.0	11.0	14.0	13.5	---	---	21.0	20.0	21.0	19.5	18.5	17.5
18	12.5	11.5	13.5	13.0	---	---	20.5	19.5	21.5	20.0	18.0	17.0
19	12.5	11.5	13.0	12.0	---	---	20.5	19.0	21.0	19.0	17.0	16.0
20	11.5	11.0	12.0	12.0	---	---	20.5	19.0	19.0	18.0	16.5	15.5
21	11.0	10.5	12.0	11.5	---	---	21.0	19.5	18.5	17.0	15.5	15.0
22	11.5	10.5	13.5	11.5	---	---	21.0	19.5	19.5	17.5	15.0	14.5
23	12.5	11.5	14.5	13.0	---	---	20.5	19.0	20.0	18.5	15.0	14.0
24	13.0	11.5	15.0	14.0	---	---	19.5	19.0	20.0	19.0	15.0	14.0
25	12.5	11.5	15.0	14.0	---	---	20.0	18.5	19.5	18.5	15.0	14.0
26	12.0	11.5	14.5	13.5	18.5	17.5	21.0	19.0	18.5	17.5	14.5	14.0
27	11.0	10.5	14.5	13.5	17.5	16.5	22.5	20.5	19.0	17.5	15.0	14.0
28	12.0	10.5	15.5	14.0	18.0	16.5	22.5	21.5	19.0	17.5	15.0	14.5
29	14.5	12.0	15.5	15.0	19.0	17.0	22.0	20.5	18.5	17.5	15.0	14.5
30	16.5	14.5	---	---	19.0	18.0	20.5	19.5	18.0	17.0	15.0	14.0
31	---	---	---	---	---	---	21.0	19.5	18.0	16.5	---	---
MONTH	16.5	8.5	16.0	11.0	19.0	16.5	22.5	16.5	23.5	16.5	19.5	14.0

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 (3.7 km) southwest of Willamina, 2.8 mi (4.5 km) upstream from Willamina Creek, and at mile 45.5 (73.2 km).

DRAINAGE AREA.--133 mi² (344 km²).

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 (71.796 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Slight regulation occasionally at low flows by millpond upstream. No diversion above station.

AVERAGE DISCHARGE.--47 years, 620 ft³/s (17.56 m³/s), 63.31 in/yr (1,608 mm/yr), 449,200 acre-ft/yr (554 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s (555 m³/s) Dec. 22, 1964, gage height, 17.07 ft (5.203 m); minimum, 2.6 ft³/s (0.074 m³/s) Oct. 11, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,700 ft³/s (161 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1630	7,010	199	9.28	2.829	Dec. 25	2230	*12,200	346	*12.93	3.941

Minimum, 12 ft³/s (0.34 m³/s) Oct. 7-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	73	973	1060	430	479	1540	222	141	159	40	23
2	15	168	3890	881	392	434	1170	235	136	144	40	26
3	14	141	3560	752	362	470	996	225	130	133	44	24
4	13	141	2350	643	338	667	815	268	133	122	44	22
5	13	96	1770	564	366	512	799	304	139	117	41	21
6	14	307	1410	504	315	466	726	300	147	112	37	20
7	13	1570	1080	450	289	442	652	289	222	122	34	19
8	12	1400	858	411	271	415	955	268	1280	112	31	18
9	13	1010	711	385	258	381	1280	254	1500	100	30	17
10	12	662	615	346	248	354	1130	235	955	98	26	19
11	13	462	555	319	254	330	1940	222	716	94	25	19
12	17	350	512	293	315	307	1750	207	596	89	25	18
13	32	275	462	271	419	285	1410	195	648	83	26	17
14	48	285	446	254	864	271	1140	185	534	79	26	17
15	31	282	426	238	1050	315	949	275	454	75	26	16
16	23	231	400	225	3060	330	804	254	446	73	26	17
17	20	210	358	238	2630	282	677	235	400	70	26	16
18	20	258	311	235	3000	261	582	354	362	66	24	17
19	19	225	285	213	4570	251	508	346	385	66	23	23
20	19	204	346	207	2880	238	454	304	374	64	27	27
21	19	696	1290	275	1900	231	423	282	346	61	31	37
22	19	903	4130	326	1370	264	396	258	322	57	27	54
23	18	610	2700	419	1100	385	362	241	304	56	26	54
24	19	479	4250	426	1010	370	366	268	271	54	24	38
25	34	415	10100	385	799	487	319	251	248	52	23	34
26	57	358	7550	662	686	466	289	222	225	49	23	56
27	110	407	4310	662	605	411	285	201	210	45	22	150
28	56	525	2500	643	538	381	293	185	195	42	21	153
29	40	1240	1850	591	---	529	258	172	178	42	20	100
30	34	1180	1720	521	---	741	238	168	165	44	23	70
31	30	---	1300	470	---	1690	---	153	---	41	25	---
TOTAL	814	15163	63018	13869	30319	13445	23506	7578	12162	2521	886	1142
MEAN	26.3	505	2033	447	1083	434	784	244	405	81.3	28.6	38.1
MAX	110	1570	10100	1060	4570	1690	1940	354	1500	159	44	153
MIN	12	73	285	207	248	231	238	153	130	41	20	16
CFSM	.20	3.80	15.3	3.36	8.14	3.26	5.90	1.84	3.05	.61	.22	.29
IN.	.23	4.24	17.63	3.88	8.48	3.76	6.57	2.12	3.40	.71	.25	.32
AC-FT	1610	30080	125000	27510	60140	26670	46620	15030	24120	5000	1760	2270

CAL YR 1980 TOTAL 220794 MEAN 603 MAX 10100 MIN 11 CFSM 4.53 IN 61.76 AC-FT 437900
WTR YR 1981 TOTAL 184423 MEAN 505 MAX 10100 MIN 12 CFSM 3.80 IN 51.58 AC-FT 365800

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 (7.2 km) north of Willamina and at mile 6.2 (10.0 km).

DRAINAGE AREA.--64.7 mi² (167.6 km²).

PERIOD OF RECORD.--June 1934 to current year.

REVISED RECORDS.--WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315 ft (96.0 m) 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 (0.305 m) higher. Oct. 1, 1939, to Aug. 5, 1968, water-stage recorder at site on left bank at present datum.

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

AVERAGE DISCHARGE.--47 years, 259 ft³/s (7.335 m³/s), 54.36 in/yr (1,381 mm/yr), 187,600 acre-ft/yr (231 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) Dec. 22, 1964, gage height, 13.54 ft (4.126 m), from rating curve extended above 3,400 ft³/s (96.3 m³/s) on basis of slope-area measurement at gage height 11.65 ft (3.551 m); minimum, 5.4 ft³/s (0.15 m³/s) July 15, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1931, reached a stage of about 12 ft (3.6 m) from information by local resident, discharge, 8,200 ft³/s (232 m³/s) from rating curve extended above 3,400 ft³/s (96.3 m³/s) on basis of slope-area measurement at gage height 11.65 ft (3.551 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,300 ft³/s (65.1 m³/s) and maximum discharge, 4,390 ft³/s (124 m³/s) Dec. 25, gage height, 9.19 ft (2.801 m); minimum, 11 ft³/s (0.31 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	35	284	433	152	232	595	133	87	87	34	20
2	13	56	1150	373	144	212	472	133	84	82	34	20
3	13	51	1000	324	139	225	416	131	82	76	36	19
4	13	44	724	287	135	260	354	135	84	72	36	18
5	13	33	571	260	135	220	345	148	85	69	33	18
6	12	85	461	237	124	203	321	144	87	69	30	18
7	12	295	360	217	118	191	298	137	133	75	29	17
8	12	373	298	203	114	177	406	129	370	67	27	16
9	12	235	255	186	112	169	509	120	367	62	26	16
10	12	160	230	175	108	158	476	114	278	62	24	18
11	12	116	212	165	116	152	737	108	232	61	24	17
12	15	90	208	154	137	146	750	103	210	58	24	16
13	21	75	200	146	184	141	647	99	240	56	24	16
14	23	79	191	141	327	135	543	96	215	55	24	16
15	17	81	184	133	447	154	465	148	189	52	24	15
16	16	70	175	129	1230	152	399	133	184	50	24	15
17	15	65	162	129	1210	137	345	124	169	49	23	15
18	15	85	152	120	1470	131	303	193	165	48	22	16
19	15	81	142	114	1950	127	268	186	182	47	22	22
20	15	73	154	112	1270	120	242	162	169	47	25	22
21	15	250	454	122	865	120	227	148	156	45	26	39
22	15	287	1170	129	647	131	212	139	150	44	24	39
23	14	200	888	142	520	177	198	131	142	43	22	30
24	15	165	1650	135	444	167	186	141	131	42	22	25
25	22	150	3480	127	367	193	175	135	120	41	21	26
26	38	133	2840	198	318	193	162	120	112	39	21	48
27	41	160	1630	198	281	177	162	112	106	37	21	90
28	25	191	1010	193	252	167	158	105	101	35	20	73
29	21	321	763	186	---	208	148	99	94	36	20	47
30	19	306	651	173	---	295	139	96	90	37	22	36
31	19	---	516	162	---	639	---	90	---	36	21	---
TOTAL	534	4345	22165	5803	13316	5909	10658	3992	4814	1679	785	803
MEAN	17.2	145	715	187	476	191	355	129	160	54.2	25.3	26.8
MAX	41	373	3480	433	1950	639	750	193	370	87	36	90
MIN	12	33	142	112	108	120	139	90	82	35	20	15
CFSM	.27	2.24	11.1	2.89	7.36	2.95	5.49	1.99	2.47	.84	.39	.41
IN.	.31	2.50	12.74	3.34	7.66	3.40	6.13	2.30	2.77	.97	.45	.46
AC-FT	1060	8620	43960	11510	26410	11720	21140	7920	9550	3330	1560	1590

CAL YR 1980	TOTAL 89227	MEAN 244	MAX 3480	MIN 12	CFSM 3.77	IN 51.30	AC-FT 177000			
WTR YR 1981	TOTAL 74803	MEAN 205	MAX 3480	MIN 12	CFSM 3.17	IN 43.01	AC-FT 148400			

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 fo Whiteson Bridge on State Highway 99W, 1.3 mi (2.1 km) northwest of Whiteson, 1.4 mi (2.3 km) downstream from Salt Creek, and at mile 16.71 (26.89 km).

DRAINAGE AREA.--502 mi² (1,300 km²).

PERIOD OF RECORD.--July 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 82.30 ft (25.085 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1940, nonrecording gage at present site and datum.

REMARKS.--Records good. Slight regulation during low-water periods by logpond upstream. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years, 1,753 ft³/s (49.64 m³/s), 47.42 in/yr (1,204 mm/yr), 1,270,000 acre-ft/yr (1.57 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,200 ft³/s (1,340 m³/s) Dec. 23, 1964, gage height, 47.20 ft (14.387 m); minimum, 3.2 ft³/s (0.091 m³/s) Aug. 24, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1937 reached a stage of 46.9 ft (14.30 m), from Oregon State Highway Department bridge plans.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 13,000 ft³/s (368 m³/s) and maximum discharge, 29,200 ft³/s (827 m³/s) Dec. 26, gage height, 43.78 ft (13.344 m); minimum, 18 ft³/s (0.51 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	88	2190	2950	1370	1450	4450	667	398	392	87	41
2	33	201	2690	2470	1230	1320	3640	642	379	368	84	38
3	30	337	7270	2110	1130	1240	2950	638	365	337	92	33
4	26	308	8110	1840	1050	2140	2430	651	359	309	94	36
5	24	262	6160	1640	1050	2060	2090	701	367	288	97	36
6	29	220	4500	1500	1000	1720	2050	742	384	277	83	36
7	23	1550	3150	1370	925	1470	1810	690	390	276	71	36
8	26	2860	2310	1260	868	1360	1800	674	1330	294	62	32
9	26	2360	1820	1180	830	1240	3000	643	3260	257	62	28
10	28	1640	1520	1100	799	1130	3050	605	2590	242	58	28
11	28	1100	1390	1030	767	1060	3700	562	1800	234	41	28
12	29	817	1300	970	858	998	5100	533	1370	227	33	29
13	33	631	1200	911	913	938	4600	497	1320	212	34	27
14	53	517	1150	840	1730	890	3630	475	1400	199	44	26
15	99	570	1100	786	2370	876	2870	508	1140	187	44	27
16	73	510	1050	750	4220	1040	2400	681	1010	170	42	20
17	56	446	940	727	6460	946	2040	568	988	161	46	19
18	48	436	850	763	6120	872	1770	642	870	161	43	20
19	45	487	800	711	8200	827	1560	952	856	161	40	33
20	44	436	780	672	10900	786	1390	801	868	159	42	41
21	44	423	2500	729	8580	746	1270	712	805	149	48	58
22	44	2080	6000	821	5160	765	1160	654	738	141	52	79
23	43	1490	8180	1090	3310	827	1100	619	699	133	44	125
24	44	1100	6990	1160	2840	1090	1030	626	651	125	43	111
25	45	884	14000	1090	2430	1150	970	654	594	113	37	85
26	56	786	27500	1250	2050	1500	903	606	541	109	40	84
27	143	688	21100	1820	1790	1500	827	540	501	109	41	199
28	205	988	15400	1970	1610	1310	864	497	471	96	39	356
29	121	1360	9770	2150	---	1260	786	464	441	82	34	305
30	91	2750	5820	1890	---	1670	724	447	408	89	34	211
31	84	---	3930	1590	---	2700	---	423	---	97	34	---
TOTAL	1706	28325	171470	41140	80560	38881	65964	19114	27293	6154	1645	2227
MEAN	55.0	944	5531	1327	2877	1254	2199	617	910	199	53.1	74.2
MAX	205	2860	27500	2950	10900	2700	5100	952	3260	392	97	356
MIN	23	88	780	672	767	746	724	423	359	82	33	19
CFSM	.11	1.88	11.0	2.64	5.73	2.50	4.38	1.23	1.81	.40	.11	.15
IN.	.13	2.10	12.71	3.05	5.97	2.88	4.89	1.42	2.02	.46	.12	.17
AC-FT	3380	56180	340100	81600	159800	77120	130800	37910	54140	12210	3260	4420

CAL YR 1980 TOTAL 643510 MEAN 1758 MAX 27500 MIN 19 CFSM 3.50 IN 47.69 AC-FT 1276000
WTR YR 1981 TOTAL 484479 MEAN 1327 MAX 27500 MIN 19 CFSM 2.64 IN 35.90 AC-FT 961000

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 (0.6 km) downstream from small tributary, 1.3 mi (2.1 km) upstream from Kutch Creek, 2.1 mi (3.4 km) west of Fairdale, 9.5 mi (15.3 km) west of Yamhill and at mile 28.4 (45.7 km).

DRAINAGE AREA.--9.03 mi² (23.39 km²).

PERIOD OF RECORD.--October 1958 to March 1966, October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 560 ft (171 m), from topographic map.

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

AVERAGE DISCHARGE.--21 years (water years 1959-65, 1968-81), 47.7 ft³/s (1.351 m³/s), 71.73 in/yr (1,822 mm/yr), 34,560 acre-ft/yr (42.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s (66.0 m³/s) Dec. 22, 1964, gage height, 6.88 ft (2.097 m), from rating curve extended above 1,000 ft³/s (28.3 m³/s); maximum gage height, 9.7 ft (2.96 m) Dec. 23, 1964 (backwater from debris); minimum discharge, 2.3 ft³/s (0.065 m³/s) Sept. 23-26, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum discharge (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 25	2000	*620	17.6	*4.92	1.500	Feb. 19	0430	356	10.1	4.11	1.253
Feb. 16	0730	353	10.0	4.10	1.250						

Minimum, 2.7 ft³/s (0.076 m³/s) Oct. 2-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	15	67	89	35	47	110	28	18	19	7.4	5.2
2	3.0	15	200	79	33	43	88	27	18	18	7.4	4.9
3	2.8	15	180	69	30	46	79	27	18	16	8.1	4.6
4	2.8	10	128	61	29	50	68	28	18	16	8.1	4.6
5	2.8	8.9	99	57	28	42	70	29	18	15	7.4	4.6
6	2.8	37	76	52	25	39	68	29	18	15	6.7	4.4
7	2.8	91	60	46	24	38	63	28	25	16	6.3	3.9
8	2.8	110	51	42	24	34	87	26	72	14	6.0	3.9
9	2.8	67	45	38	23	32	102	26	82	14	5.7	4.1
10	2.8	46	42	36	22	30	97	25	65	13	5.4	4.4
11	3.2	34	41	33	25	29	115	24	54	13	5.2	4.1
12	4.1	26	46	31	43	28	115	23	49	13	5.2	3.7
13	6.7	21	47	29	55	27	101	22	53	12	5.4	3.5
14	4.4	21	46	27	87	26	88	21	46	12	5.4	3.5
15	3.7	19	47	26	139	29	81	25	41	11	5.2	3.3
16	3.3	17	46	24	310	28	76	22	40	10	5.4	3.3
17	3.3	18	44	25	250	25	70	23	38	10	5.2	3.5
18	3.3	21	39	24	260	24	65	33	35	9.8	4.6	4.1
19	3.3	20	35	22	323	22	58	30	39	10	4.9	5.2
20	3.3	18	36	22	219	21	53	28	38	9.8	5.7	6.0
21	3.3	67	92	24	153	21	50	26	36	9.8	5.4	16
22	3.2	73	182	27	118	21	45	25	34	9.3	5.2	9.8
23	3.0	53	150	28	98	27	42	24	31	8.9	4.9	6.7
24	3.7	41	192	25	85	25	40	25	29	8.9	4.9	6.0
25	4.4	35	491	24	75	32	36	24	27	8.5	4.9	6.0
26	7.7	29	455	44	67	31	33	23	25	8.1	4.9	14
27	6.0	39	274	47	58	28	34	21	24	7.4	4.6	18
28	4.4	42	179	50	53	28	32	20	22	7.4	4.6	19
29	3.9	69	139	46	---	46	30	20	21	8.1	4.6	14
30	3.7	73	122	42	---	70	28	19	20	8.1	5.2	9.8
31	4.4	---	103	38	---	118	---	18	---	7.7	4.9	---
TOTAL	114.9	1150.9	3754	1227	2691	1107	2024	769	1054	358.8	174.8	204.1
MEAN	3.71	38.4	121	39.6	96.1	35.7	67.5	24.8	35.1	11.6	5.64	6.80
MAX	7.7	110	491	89	323	118	115	33	82	19	8.1	19
MIN	2.8	8.9	35	22	22	21	28	18	18	7.4	4.6	3.3
CFSM	.41	4.25	13.4	4.39	10.6	3.95	7.48	2.75	3.89	1.29	.63	.75
IN.	.47	4.74	15.46	5.05	11.08	4.56	8.34	3.17	4.34	1.48	.72	.84
AC-FT	228	2280	7450	2430	5340	2200	4010	1530	2090	712	347	405

CAL YR 1980 TOTAL 15282.8 MEAN 41.8 MAX 491 MIN 2.8 CFSM 4.63 IN 62.95 AC-FT 30310
WTR YR 1981 TOTAL 14629.5 MEAN 40.1 MAX 491 MIN 2.8 CFSM 4.44 IN 60.26 AC-FT 29020

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 (76 m) upstream from dam on Haskins Creek, 11 mi (18 km) northwest of McMinnville, and at mile 5.1 (8.2 km).

DRAINAGE AREA.--6.88 mi^2 (17.82 km^2).

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. The maximum contents for water year 1978 published in the report for that year is in error and should not be used, see revision published in the report for water year 1979.

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 (6.10 m) 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 (248.56 m) elevation. Capacity of reservoir is 733 acre-ft (904,000 m^3) between elevations 741.5 ft (226.01 m), invert of outlet tunnel, and 815.0 ft (248.41 m), crest of siphon spillways. Dead storage negligible. Rated capacity of three siphons is 700 ft^3/s (19.8 m^3/s) each and remaining two siphons 350 ft^3/s (9.91 m^3/s) each. 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 some temporary storage. 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 (922,000 m^3) Nov. 17, 1954, elevation, 815.65 ft (248.610 m), present datum; no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 733 acre-ft (904,000 m^3) many days during the year, elevation, 815.0 ft (248.41 m), present datum; no contents Jan. 25 to Feb. 9.

MONTHEND ELEVATIONS AND CONTENTS AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	828.0	583	-
Oct. 31	820.6	449	-134
Nov. 30	835.0	733	+284
Dec. 31	835.0	733	0
CAL YR 1980	-	-	+733
Jan. 31	-	0	-733
Feb. 28	815.0	733	+733
Mar. 31	815.0	733	0
Apr. 30	815.0	733	0
May 31	815.0	733	0
June 30	815.0	733	0
July 31	809.5	613	-120
Aug. 31	814.5	722	+109
Sept.30	815.0	733	+11
WTR YR 1981	-	-	+150

14196001 HASKINS CREEK BELOW RESERVOIR, NEAR MCMINNVILLE, OR

LOCATION (REVISED).--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 (244 m) downstream from Haskins Creek Reservoir, 11 mi (18 km) northwest of McMinnville, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--6.90 mi^2 (17.87 km^2).

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. Altitude of gage is 707 ft (215 m) National Geodetic Vertical Datum of 1929 (topographic survey of 1955). Prior to Aug. 5, 1952, water-stage recorder at site 600 ft (183 m) upstream at different datum.

REMARKS.--Records good. All records given herein include flow in pipeline which diverts 600 ft (183 m) above station for municipal supply of McMinnville. Flow regulated by Haskin Creek Reservoir (see station 14195500); during winter months reservoir is empty except when inflow exceeds capacity of outlet tunnel.

COOPERATION.--Meter readings for diversion and elevations of Haskins Creek Reservoir furnished by city of McMinnville.

AVERAGE DISCHARGE.--26 years (water years 1952-76, 1979), 33.2 ft^3/s (0.940 m^3/s), 66.34 in/yr (1,660 mm/yr), 24,050 acre-ft/yr (29.7 hm^3/yr), adjusted for storage and diversion. 30 years, 32.1 ft^3/s (0.909 m^3/s), 63.17 in/yr (1,605 mm/yr), 23,260 acre-ft/yr (28.7 hm^3/s), adjusted for diversion only.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft^3/s (29.2 m^3/s) Dec. 23, 1964, gage height, 5.98 ft (1.823 m), from floodmark, from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of slope-area measurement of peak flow; maximum daily, 515 ft^3/s (14.6 m^3/s) Jan. 21, 1972; minimum daily, 0.10 ft^3/s (0.003 m^3/s) Oct. 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 255 ft^3/s (7.22 m^3/s) Dec. 25; minimum daily, 4.0 ft^3/s (0.11 m^3/s) Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	4.9	30	50	20	34	56	19	11	11	11	8.7
2	8.4	5.2	109	46	19	31	52	19	12	10	9.8	8.7
3	7.1	6.1	106	43	19	32	45	20	10	12	10	9.0
4	6.8	6.0	88	37	17	34	38	20	10	10	7.7	9.2
5	7.4	6.1	84	35	17	29	38	20	11	8.5	11	8.0
6	7.8	5.0	82	31	16	27	37	20	11	7.2	13	8.1
7	7.7	4.7	81	29	16	25	34	19	16	8.8	15	9.1
8	7.2	4.3	74	26	14	24	43	16	42	8.2	14	11
9	7.0	4.4	32	25	14	23	51	16	40	9.8	14	11
10	6.1	5.3	6.4	23	9.8	22	53	16	30	12	16	8.3
11	5.4	11	6.6	21	5.2	20	69	15	25	10	15	8.1
12	4.7	14	7.2	21	5.1	19	69	14	24	8.2	11	9.4
13	4.6	9.8	7.2	20	4.7	19	68	14	24	9.4	9.7	10
14	4.6	10	7.3	18	4.9	18	55	14	23	11	11	7.3
15	4.4	11	7.3	17	5.2	21	55	17	20	11	12	8.3
16	4.5	8.6	6.7	16	52	19	51	14	20	11	12	10
17	7.7	9.9	6.5	17	144	18	44	15	20	10	11	10
18	7.7	13	6.6	17	178	14	40	23	19	9.9	12	8.1
19	5.5	11	6.5	73	210	14	37	20	20	8.6	10	4.1
20	4.9	9.4	17	109	139	13	34	17	19	9.8	10	4.3
21	5.3	26	71	101	97	13	32	15	18	8.2	9.2	5.5
22	5.2	28	126	89	74	14	30	14	17	12	15	6.4
23	5.1	21	91	74	67	17	28	14	18	11	16	5.6
24	5.2	16	120	33	60	17	26	15	15	9.4	14	5.2
25	5.3	15	255	16	51	22	24	15	15	9.0	13	7.3
26	5.2	14	249	28	46	19	23	14	14	10	12	6.8
27	4.4	17	162	28	40	17	23	13	12	14	11	11
28	4.0	19	95	28	37	17	24	13	12	12	10	10
29	4.4	35	76	25	---	24	22	13	12	9.0	8.3	6.8
30	4.5	34	67	23	---	35	21	12	12	8.1	6.2	4.4
31	4.4	---	58	22	---	60	---	10	---	9.4	7.6	---
TOTAL	179.1	384.7	2141.3	1141	1381.9	711	1222	496	552	308.5	357.5	239.7
MEAN	5.78	12.8	69.1	36.8	49.4	22.9	40.7	16.0	18.4	9.95	11.5	7.99
MAX	8.4	35	255	109	210	60	69	23	42	14	16	11
MIN	4.0	4.3	6.4	16	4.7	13	21	10	10	7.2	6.2	4.1
AC-FT	355	763	4250	2260	2740	1410	2420	984	1090	612	709	475

CAL YR 1980 TOTAL 10798.3 MEAN 29.5 MAX 255 MIN 3.8 AC-FT 21420
WTR YR 1981 TOTAL 9114.7 MEAN 25.0 MAX 255 MIN 4.0 AC-FT 18080

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 (0.8 km) upstream from Pine Creek, 5 mi (8 km) southeast of Wilhoit, and at mile 32.5 (52.3 km).

DRAINAGE AREA.--97.0 mi² (251.2 km²), at gaging cable 0.2 mi (0.3 km) 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 (241.203 m) 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 (0.5 km) downstream at datums 8.42 ft (2.566 m) and 10.44 ft (3.182 m) lower, respectively. Feb. 10, 1961, to July 21, 1966, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 5.99 ft (1.826 m) lower.

REMARKS.--Records excellent. No regulation or diversion above station. Records given herein are for measuring site.

AVERAGE DISCHARGE.--46 years, 543 ft³/s (15.38 m³/s), 76.02 in/yr (1,931 mm/yr), 393,400 acre-ft/yr (485 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft³/s (688 m³/s) Dec. 22, 1964, gage height, 16.3 ft (4.97 m), from floodmark, site and datum then in use, from rating curve extended above 5,200 ft³/s (147 m³/s); minimum, 18 ft³/s (0.51 m³/s) Oct. 3, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,600 ft³/s (102 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1630	9,650	273	10.69	3.258	Feb. 16	1030	3,780	107	7.53	2.295
Dec. 22	0500	3,910	111	7.62	2.323	Feb. 18	2030	3,610	102	7.41	2.259
Dec. 25	2100	*10,600	300	*11.11	3.386						

Minimum, 24 ft³/s (0.68 m³/s) Oct. 6, 8, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	70	598	712	300	386	968	364	244	186	55	41
2	37	108	4970	596	273	350	756	329	224	171	55	45
3	35	84	5920	516	251	329	658	304	207	159	60	39
4	34	81	2980	452	234	377	563	304	217	150	60	35
5	34	70	1580	400	230	341	585	312	217	150	55	35
6	31	433	1020	364	211	324	574	312	230	140	55	34
7	33	1780	727	329	201	316	511	355	346	180	50	31
8	30	2010	569	304	189	308	574	368	2350	165	50	30
9	32	1330	478	284	186	288	756	355	2170	153	48	30
10	30	869	423	262	180	273	629	329	1290	140	46	30
11	31	520	399	244	183	262	712	312	913	130	44	30
12	33	376	390	227	230	247	775	288	781	125	44	29
13	59	288	376	214	433	237	676	265	807	116	42	28
14	61	270	367	204	1030	224	647	258	724	111	42	28
15	51	285	452	195	1070	227	775	337	601	107	42	27
16	49	246	553	186	2550	258	947	377	585	102	40	26
17	46	208	509	177	1840	240	833	350	531	96	40	26
18	39	199	413	174	2610	230	800	382	466	92	41	26
19	41	176	367	165	3130	217	827	428	516	90	38	29
20	37	170	413	159	1960	211	706	396	491	85	41	30
21	37	766	841	201	1240	204	688	405	419	85	41	49
22	34	1100	3380	198	913	251	781	396	410	80	41	54
23	32	658	2160	211	724	280	860	359	400	75	38	45
24	30	520	2840	262	658	288	860	373	337	75	37	37
25	45	428	7980	237	563	670	658	558	292	70	37	34
26	51	367	4760	400	506	601	542	585	262	70	35	42
27	92	395	2680	542	461	542	466	476	240	65	35	207
28	67	478	1710	537	424	476	433	396	224	65	35	134
29	62	841	1220	452	---	526	419	337	207	60	34	227
30	48	786	1080	386	---	558	400	304	195	60	37	129
31	48	---	867	337	---	1000	---	269	---	60	39	---
TOTAL	1329	15912	53022	9927	22780	11041	20379	11183	16896	3413	1357	1587
MEAN	42.9	530	1710	320	814	356	679	361	563	110	43.8	52.9
MAX	92	2010	7980	712	3130	1000	968	585	2350	186	60	227
MIN	30	70	367	159	180	204	400	258	195	60	34	26
CFSM	.44	5.46	17.6	3.30	8.39	3.67	7.00	3.72	5.80	1.13	.45	.55
IN.	.51	6.10	20.33	3.81	8.74	4.23	7.82	4.29	6.48	1.31	.52	.61
AC-FT	2640	31560	105200	19690	45180	21900	40420	22180	33510	6770	2690	3150

CAL YR 1980 TOTAL 190670 MEAN 521 MAX 7980 MIN 30 CFSM 5.37 IN 73.12 AC-FT 378200
WTR YR 1981 TOTAL 168826 MEAN 463 MAX 7980 MIN 26 CFSM 4.77 IN 64.74 AC-FT 334900

14201500 BUTTE CREEK AT MONITOR, OR

LOCATION.--Lat 45°06'06", long 122°44'42", in SE¼SE¼ sec.25, T.5 S., R.1 W., Marion County, Hydrologic Unit 17090009, on left bank at downstream side of highway bridge at Monitor and at mile 7.7 (12.4 km).

DRAINAGE AREA.--58.7 mi² (152.0 km²).

PERIOD OF RECORD.--January to December 1936, October 1940 to September 1952, October 1966 to current year. Monthly discharge only for January to December 1936, published is WSP 1318.

REVISED RECORDS.--WSP 2135: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 155 ft (47.2 m) from topographic map. Jan. 20 to Oct. 22, 1936, nonrecording gage at present site at different datum. Oct. 23 to Dec. 19, 1936, nonrecording gage at site 70 ft (21 m) downstream at different datum. Oct. 1, 1940, to Sept. 30, 1952, nonrecording gage at present site at 151.35 ft (46.131 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Diversions for irrigation by pumping above station.

AVERAGE DISCHARGE.--27 years (water years 1941-52, 1967-81), 220 ft³/s (6.230 m³/s), 50.90 in/yr (1,293 mm/yr), 159,400 acre-ft/yr (197 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,310 ft³/s (207 m³/s) Jan. 21, 1972, gage height, 15.26 ft (4.651 m), from floodmark; minimum, 0.15 ft³/s (0.004 m³/s) Aug. 25, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1830	4,310	122	11.89	3.624	Dec. 25	unknown	*5,750	163	a*13.57	4.136
Dec. 22	0730	3,010	85.2	10.26	3.127						

Minimum, 1.2 ft³/s (0.034 m³/s) Sept. 16.

a From floodmark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	13	285	340	150	200	429	117	86	66	15	9.2
2	8.1	35	1580	280	136	180	363	112	80	63	16	10
3	6.9	22	3240	250	126	172	309	106	75	56	16	8.8
4	6.7	18	2010	220	116	291	257	105	76	52	14	7.1
5	6.7	16	1170	195	120	252	250	115	80	49	12	4.6
6	6.7	56	790	180	110	220	232	106	84	48	9.6	5.4
7	6.4	359	553	162	100	204	210	108	100	54	6.7	5.4
8	6.4	543	423	147	92	194	230	105	516	53	6.7	3.1
9	6.7	372	339	139	90	174	315	100	670	45	9.2	2.8
10	6.9	260	277	128	92	160	275	94	462	42	7.9	2.9
11	6.7	168	245	118	92	148	420	90	324	40	4.3	3.3
12	8.1	126	217	109	92	141	526	86	282	38	4.8	2.3
13	12	102	198	100	120	132	426	79	294	34	5.4	1.9
14	15	93	186	94	315	124	354	77	240	31	5.4	2.5
15	12	96	188	89	336	126	321	96	196	27	5.1	1.8
16	10	83	202	86	686	144	342	96	200	26	6.7	1.8
17	9.3	75	208	82	654	130	297	89	184	25	7.1	2.2
18	9.0	69	194	79	770	123	267	108	158	25	4.3	2.8
19	8.7	64	178	75	1160	117	255	130	172	26	4.6	6.7
20	8.4	59	204	72	866	112	225	117	154	23	5.1	7.9
21	8.4	150	408	79	610	108	222	118	138	22	5.8	10
22	8.1	378	2550	87	465	118	217	114	133	21	5.4	19
23	8.1	237	1710	99	375	124	217	105	132	20	7.1	15
24	7.8	186	2440	120	369	126	242	112	114	20	6.7	13
25	9.3	152	3300	109	318	212	194	147	102	18	5.8	11
26	12	133	2300	132	280	237	170	147	93	20	5.1	13
27	16	133	1400	182	255	227	152	132	86	17	5.4	41
28	15	194	900	232	222	198	144	120	80	14	5.1	40
29	12	357	600	237	---	215	133	108	74	14	5.8	44
30	11	375	500	200	---	235	126	100	70	15	6.7	32
31	10	---	410	174	---	369	---	93	---	14	8.3	---
TOTAL	287.1	4924	29205	4596	9117	5513	8120	3332	5455	1018	233.1	330.5
MEAN	9.26	164	942	148	326	178	271	107	182	32.8	7.52	11.0
MAX	16	543	3300	340	1160	369	526	147	670	66	16	44
MIN	6.4	13	178	72	90	108	126	77	70	14	4.3	1.8
CFSM	.16	2.79	16.0	2.52	5.55	3.03	4.62	1.82	3.10	.56	.13	.19
IN.	.18	3.12	18.51	2.91	5.78	3.49	5.15	2.11	3.46	.65	.15	.21
AC-FT	569	9770	57930	9120	18080	10940	16110	6610	10820	2020	462	656

CAL YR 1980 TOTAL 87300.6 MEAN 239 MAX 3410 MIN 2.4 CFSM 4.07 IN 55.32 AC-FT 173200
WTR YR 1981 TOTAL 72130.7 MEAN 198 MAX 3300 MIN 1.8 CFSM 3.37 IN 45.71 AC-FT 143100

NOTE.--No gage-height record Dec. 25 to Jan. 6.

14202500 TUALATIN RIVER NEAR GASTON, OR

LOCATION.--Lat 45°26'11", long 123°10'07", in SE¼SW¼ sec.34, T.1 S., R.4 W., Washington County, Hydrologic Unit 17090010, on right bank 1.5 mi (2.4 km) west of Gaston, and at mile 63.9 (102.8 km).

DRAINAGE AREA.--48.5 mi² (125.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to September 1956, October 1972 to September 1976, October 1978 to current year. October 1976 to September 1978 in reports of Oregon Water Resources Department. Prior to October 1973 published as "at Gaston."

GAGE.--Water-stage recorder. Altitude of gage is 170 ft (52 m), by barometer. Prior to May 20, 1942, water-stage recorder at site 1.5 mi (2.4 km) downstream at datum 164.18 ft (50.042 m) National Geodetic Vertical Datum of 1929. May 20, 1942, to Sept. 30, 1956, nonrecording gage at present site at different datum.

REMARKS.--Water-discharge records good. Slight diurnal fluctuation caused by logponds upstream. Small diversions for irrigation above station. In 1949 city of Hillsboro began diverting about 5 ft³/s (0.14 m³/s) for municipal supply. Some water is diverted from Roaring Creek upstream for Forest Grove municipal supply.

AVERAGE DISCHARGE.--23 years (water years 1941-56, 1973-76, 1979-81), 195 ft³/s (5.522 m³/s), 54.60 in/yr (1,387 mm/yr), 141,300 acre-ft/yr (174 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,170 ft³/s (231 m³/s) Dec. 21, 1955, gage height, 13.18 ft (4.017 m), site and datum then in use; minimum, 0.20 ft³/s (0.006 m³/s) Sept. 22, 23, 1951, Aug. 14, 15, Sept. 25, Oct. 8, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,000 ft³/s (56.6 m³/s) and maximum discharge, 2,810 ft³/s (79.6 m³/s) Dec. 26, gage height, 16.46 ft (5.017 m); minimum, 5.8 ft³/s (0.16 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	19	224	259	144	167	374	92	43	43	27	21
2	9.2	46	894	216	131	173	289	91	43	39	27	22
3	8.3	42	827	190	124	171	240	86	47	37	30	21
4	7.5	38	546	177	118	190	205	91	47	35	31	18
5	8.3	25	405	171	118	163	194	99	43	35	29	18
6	7.3	52	285	171	111	150	190	97	46	38	26	17
7	7.0	294	218	175	104	144	177	91	58	39	24	16
8	7.0	291	183	163	102	133	209	84	190	38	22	14
9	7.5	190	161	148	99	125	294	80	285	33	20	14
10	6.7	114	144	139	99	118	270	74	199	35	19	17
11	6.2	77	133	129	74	112	344	70	144	36	18	17
12	8.3	55	135	124	207	107	374	66	118	36	18	16
13	15	43	139	116	173	100	325	63	116	33	19	16
14	14	40	133	112	257	95	289	60	116	33	20	14
15	10	44	133	107	540	111	257	65	102	31	19	14
16	8.9	38	133	104	1200	111	242	63	92	28	20	14
17	9.2	38	122	104	929	99	222	60	89	29	20	13
18	7.5	68	111	105	975	94	199	94	81	30	19	16
19	6.2	66	100	99	1470	91	179	97	84	31	19	23
20	6.5	58	109	94	953	87	167	81	83	30	23	23
21	6.7	199	245	105	635	84	159	73	79	28	25	38
22	7.5	283	868	107	412	84	146	69	73	27	23	42
23	7.3	157	531	120	281	99	135	64	70	27	21	32
24	7.0	107	684	111	236	102	127	68	65	29	21	28
25	11	91	2140	102	199	131	120	70	59	29	23	25
26	16	77	1970	167	179	146	111	63	53	27	23	28
27	25	89	1090	203	165	131	109	58	51	25	21	58
28	14	139	727	220	165	118	112	53	47	23	21	51
29	11	220	500	203	---	146	102	49	45	25	20	38
30	9.2	274	464	179	---	186	97	51	43	27	23	29
31	8.6	---	342	161	---	372	---	46	---	29	21	---
TOTAL	293.0	3274	14695	4581	10200	4140	6258	2268	2611	985	692	713
MEAN	9.45	109	474	148	364	134	209	73.2	87.0	31.8	22.3	23.8
MAX	25	294	2140	259	1470	372	374	99	285	43	31	58
MIN	6.2	19	100	94	74	84	97	46	43	23	18	13
CFSM	.20	2.25	9.77	3.05	7.51	2.76	4.31	1.51	1.79	.66	.46	.49
IN.	.22	2.51	11.27	3.51	7.82	3.18	4.80	1.74	2.00	.76	.53	.55
AC-FT	581	6490	29150	9090	20230	8210	12410	4500	5180	1950	1370	1410

CAL YR 1980 TOTAL 62936.0 MEAN 172 MAX 2140 MIN 6.2 CFSM 3.55 IN 48.27 AC-FT 124800
WTR YR 1981 TOTAL 50711.0 MEAN 139 MAX 2140 MIN 6.2 CFSM 2.87 IN 38.90 AC-FT 100600

14202500 TUALATIN RIVER NEAR GASTON, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 11, 1981; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.0°C Aug. 11; minimum recorded, 3.5°C Dec. 9, 10, Feb. 3, 4, 6-8, 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
OCT 17...	1330	112	7.3	9.5	37	10	2.9	5.1	.5	36	4.3

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
OCT 17...	11	.1	<.10	.030	.28	<.010	.30	.30	.010	.020	2.8

DATE	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	TURBIDITY (NTU)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
OCT 17...	.1	18	79	74	.40	1	1	7	100	<1	1

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 17...	<10	10	<3	<1	3	5	120	270	2	20	20

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 17...	20	<.1	<.1	<1	3	<1	<1	<1	<1	6	20

14202500 TUALATIN RIVER NEAR GASTON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.5	14.0	11.0	16.0	13.0	19.0	15.0	22.0	17.0	19.5	17.5
2	7.5	6.5	11.5	9.5	15.0	13.0	21.0	15.5	21.5	17.0	19.5	16.5
3	9.5	7.0	11.0	9.0	15.0	13.0	22.5	17.0	18.0	15.0	19.0	15.5
4	10.0	7.5	10.0	7.5	15.5	13.5	21.5	18.0	20.5	15.5	19.0	16.0
5	10.0	8.5	10.0	8.0	15.5	13.5	21.0	18.0	21.5	16.5	18.5	15.5
6	8.5	6.0	9.5	7.5	15.5	12.5	19.5	16.0	23.5	18.0	19.5	16.0
7	8.5	7.0	10.5	8.5	14.5	12.0	17.0	14.0	24.5	19.5	20.5	17.0
8	8.5	7.5	11.5	8.5	12.5	11.5	18.0	13.5	25.5	20.5	20.5	18.5
9	9.0	6.5	13.5	9.5	12.5	11.0	17.5	15.0	25.5	21.5	20.5	17.5
10	8.0	6.5	13.5	9.5	13.5	11.0	17.0	14.5	25.5	21.0	19.0	16.0
11	7.5	6.5	13.0	10.0	13.0	10.5	16.5	14.0	26.0	21.5	19.0	16.5
12	8.5	6.0	14.5	9.5	13.0	10.5	18.0	13.5	25.5	21.5	19.0	16.5
13	9.0	5.5	14.5	12.0	12.5	10.5	18.0	14.5	24.5	20.5	18.5	16.0
14	10.0	6.5	14.0	12.5	12.5	10.0	20.5	15.0	24.0	19.5	18.0	15.5
15	9.5	8.0	13.5	11.0	15.0	10.5	22.0	16.5	24.0	19.5	18.5	16.0
16	10.0	7.5	12.0	9.5	15.5	12.5	22.5	17.5	23.0	19.5	19.0	17.5
17	11.5	8.0	12.0	10.5	14.0	11.5	22.0	17.5	23.5	19.5	19.0	17.5
18	12.5	8.0	11.0	10.5	14.5	12.0	21.0	17.0	23.5	20.0	19.0	17.0
19	11.0	9.5	11.0	9.5	17.5	12.5	20.0	16.5	23.5	19.0	17.0	15.0
20	10.0	8.5	11.0	9.5	15.5	13.0	20.5	17.0	19.0	17.5	16.0	14.5
21	9.5	9.0	11.0	10.0	14.0	12.5	20.5	16.5	20.0	16.5	14.5	13.5
22	11.5	9.5	14.5	10.5	15.5	13.0	21.0	16.5	21.0	17.0	14.0	12.5
23	13.0	10.5	15.0	11.5	16.0	12.5	21.0	18.0	21.5	18.0	13.5	11.5
24	12.0	9.5	14.5	13.0	18.0	12.0	20.5	17.0	21.5	19.0	13.0	11.0
25	10.5	8.0	14.5	12.5	19.5	14.5	22.5	17.0	20.5	17.0	13.5	12.0
26	11.5	8.5	16.0	11.0	19.0	15.0	24.0	18.5	18.5	15.5	13.5	12.5
27	10.0	8.5	16.5	12.0	17.5	13.5	24.5	20.0	18.5	15.0	14.0	12.5
28	11.5	9.0	18.0	12.5	18.5	13.5	24.0	19.5	19.5	15.5	13.5	12.5
29	15.5	11.0	17.0	14.5	20.0	15.0	21.5	17.5	19.5	17.0	13.5	12.0
30	16.0	12.5	17.5	13.5	19.5	16.0	19.0	16.0	18.0	16.5	14.0	11.5
31	---	---	17.5	12.5	---	---	20.5	15.5	18.5	15.0	---	---
MONTH	16.0	5.5	18.0	7.5	20.0	10.0	24.5	13.5	26.0	15.0	20.5	11.0

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 (6.1 km) northwest of Gaston, and at mile 4.9 (7.9 km).

DRAINAGE AREA.--38.7 mi² (100.2 km²).

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 (93.18 m), maximum water-surface elevation, is 63,360 acre-ft (78.1 hm³), of which 56,160 acre-ft (69.2 hm³) is active storage above elevation 239.3 ft (72.94 m), proposed minimum pool. Reservoir is used for irrigation, flood control, and recreation. Figures given herein represent active storage.

COOPERATION.--Capacity table and monthend elevations furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 53,660 acre-ft (66.2 hm³) Apr. 30, 1975, elevation, 303.52 ft (92.513 m); minimum observed since first filling, 808 acre-ft (1.00 hm³) Oct. 31, 1975, elevation, 237.21 ft (72.302 m).

EXTREMES FOR CURRENT YEAR.--Maximum monthend contents, 53,520 acre-ft (66.0 hm³) May 31, elevation, 303.40 ft (92.476 m); minimum monthend, 23,830 acre-ft (29.4 hm³) Nov. 30, elevation, 273.15 ft (83.256 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	281.03	30,750	-
Oct. 31	273.53	24,150	-6,600
Nov. 30	273.15	23,830	-320
Dec. 31	285.65	35,070	+11,240
CAL YR 1980	-	-	+6,990
Jan. 31	285.44	34,870	-200
Feb. 28	296.95	46,450	+11,580
Mar. 31	299.21	48,880	+2,430
Apr. 30	302.99	53,060	+4,180
May 31	303.40	53,520	+460
June 30	302.81	52,860	-660
July 31	298.11	47,690	-5,170
Aug. 31	287.34	36,700	-10,990
Sept.30	279.39	29,260	-7,440
WTR YR 1981	-	-	-1,490

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 (183 m) downstream from Scoggins Dam, 800 ft (244 m) upstream from small left bank tributary, 3.7 mi (6.0 km) northwest of Gaston, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--38.8 mi² (100.5 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 187.48 ft (57.144 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. 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.--6 years, 89.7 ft³/s (2.540 m³/s), 64,990 acre-ft (80.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Dec. 16, 1977, gage height, 13.50 ft (4.115 m); minimum, 1.4 ft³/s (0.040 m³/s) Nov. 16, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 443 ft³/s (12.5 m³/s) Dec. 26, gage height, 8.03 ft (2.448 m); minimum, 17 ft³/s (0.48 m³/s) Jan. 12-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	82	85	409	29	74	47	26	24	44	176	174
2	126	82	87	402	30	74	54	26	24	56	175	174
3	129	82	87	408	31	74	56	26	24	78	175	174
4	129	84	87	407	31	74	57	26	24	78	174	174
5	129	59	129	405	31	74	57	26	24	78	174	174
6	166	47	183	402	31	74	57	44	24	78	175	173
7	209	47	195	205	32	74	57	54	57	78	177	173
8	215	46	202	88	32	74	57	40	150	78	177	173
9	214	63	202	88	32	74	68	35	164	78	176	172
10	175	82	201	87	32	61	84	35	159	78	176	172
11	141	84	200	87	32	50	100	35	96	78	176	133
12	141	84	123	46	32	47	100	35	70	78	176	94
13	99	84	81	17	32	47	119	35	59	78	175	94
14	69	84	81	17	32	47	149	33	55	76	178	94
15	76	84	50	17	33	47	134	33	56	77	179	94
16	76	84	30	17	36	47	106	33	56	76	179	94
17	76	84	30	17	45	47	70	33	56	76	179	93
18	76	82	30	18	131	47	54	67	56	76	179	101
19	76	60	30	17	277	47	54	106	57	76	178	105
20	81	44	30	17	291	47	42	67	57	76	178	104
21	84	57	32	17	324	42	34	52	52	76	178	104
22	84	84	64	17	323	37	40	42	47	76	177	104
23	84	84	115	17	288	36	40	35	48	76	177	104
24	84	73	226	18	230	36	40	35	46	86	177	103
25	83	62	393	18	131	36	40	63	44	100	177	103
26	83	62	417	19	74	40	32	59	44	100	176	103
27	83	62	431	20	74	41	26	43	44	116	176	103
28	83	62	422	21	74	42	26	35	44	142	176	103
29	83	62	418	23	---	42	26	27	44	158	176	123
30	83	75	416	23	---	42	26	25	44	175	175	156
31	82	---	413	26	---	42	---	25	---	176	175	---
TOTAL	3387	2131	5490	3390	2770	1636	1852	1256	1749	2772	5472	3845
MEAN	109	71.0	177	109	98.9	52.8	61.7	40.5	58.3	89.4	177	128
MAX	215	84	431	409	324	74	149	106	164	176	179	174
MIN	68	44	30	17	29	36	26	25	24	44	174	93
AC-FT	6720	4230	10890	6720	5490	3250	3670	2490	3470	5500	10850	7630

CAL YR 1980 TOTAL 39188 MEAN 107 MAX 528 MIN 22 AC-FT 77730
WTR YR 1981 TOTAL 35750 MEAN 97.9 MAX 431 MIN 17 AC-FT 70910

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 (2 m) upstream from highway bridge, 1.0 mi (1.6 km) south of Dilley, 1.2 mi (1.9 km) downstream from Scoggins Creek, and at mile 58.81 (94.63 km).

DRAINAGE AREA.--125 mi² (324 km²).

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 (44.979 m) National Geodetic Vertical Datum of 1929. Prior to June 16, 1950, nonrecording gage at several sites within 200 ft (61 m) of present site at datum 4.00 ft (1.219 m) higher. June 16, 1950, to Aug. 10, 1966, water-stage recorder at present site at datum 4.00 ft (1.219 m) higher.

REMARKS.--Records good. Diurnal fluctuation caused by operation of millpond on Scoggins Creek above station and regulation by Henry Hagg Lake since January 1975. Diversions above station of approximately 3,000 acre-ft (3.70 hm³) 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.--42 years, 398 ft³/s (11.27 m³/s), 288,400 acre-ft/yr (356 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,100 ft³/s (484 m³/s) Dec. 22, 1964, gage height, 19.34 ft (5.895 m), from rating curve extended above 6,000 ft³/s (170 m³/s); minimum, 0.08 ft³/s (0.002 m³/s) Sept. 3, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,190 ft³/s (119 m³/s) Dec. 26, gage height, 18.20 ft (5.547 m); minimum, 45 ft³/s (1.27 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	118	419	904	243	362	470	141	79	97	196	197
2	143	149	684	846	225	340	401	140	77	100	197	196
3	147	143	1390	787	215	328	356	135	80	130	201	195
4	148	148	1190	739	205	369	316	140	85	126	201	193
5	147	117	961	685	205	337	302	148	77	125	200	193
6	162	100	814	650	200	315	291	155	85	131	199	193
7	212	342	660	440	190	300	274	165	102	132	200	193
8	222	352	564	300	180	285	283	149	326	130	198	191
9	225	292	484	280	180	271	378	134	450	123	197	192
10	207	238	435	265	175	248	379	132	393	124	196	194
11	162	199	403	260	175	223	464	127	284	125	195	180
12	164	174	353	210	380	211	536	120	214	130	194	137
13	148	162	290	175	380	202	515	118	203	127	196	134
14	106	156	273	166	580	195	509	113	188	121	197	133
15	107	159	251	161	930	204	472	118	174	119	198	131
16	103	151	212	159	1090	210	420	118	167	114	200	130
17	102	149	192	161	1170	193	361	114	163	115	201	128
18	102	172	174	155	1190	186	303	158	155	118	201	133
19	99	159	158	141	2210	180	278	236	161	121	201	147
20	102	128	157	139	1780	176	256	180	155	119	203	149
21	107	188	290	155	1230	170	224	145	149	117	206	161
22	107	423	927	163	1020	164	217	132	140	115	199	170
23	107	289	1060	179	918	170	204	118	136	115	198	162
24	106	231	1050	165	824	175	197	122	130	123	201	157
25	108	194	2540	153	708	204	188	145	121	139	204	154
26	114	181	3840	231	532	231	176	147	114	137	200	156
27	127	176	2440	292	457	222	163	121	107	147	198	184
28	115	238	1580	335	405	208	168	106	105	166	197	180
29	111	305	1120	335	---	228	157	92	103	176	197	178
30	108	425	1050	303	---	263	149	85	101	193	198	203
31	108	---	968	270	---	402	---	81	---	196	197	---
TOTAL	4093	6258	26929	10204	17997	7572	9407	4135	4824	4051	6166	5044
MEAN	132	209	869	329	643	244	314	133	161	131	199	168
MAX	225	425	3840	904	2210	402	536	236	450	196	206	203
MIN	67	100	157	139	175	164	149	81	77	97	194	128
AC-FT	8120	12410	53410	20240	35700	15020	18660	8200	9570	8040	12230	10000

CAL YR 1980 TOTAL 133268 MEAN 364 MAX 3840 MIN 39 AC-FT 264300
WTR YR 1981 TOTAL 106680 MEAN 292 MAX 3840 MIN 67 AC-FT 211600

14204500 GALES CREEK NEAR FOREST GROVE, OR

LOCATION.--Lat 45°33'20", long 123°11'10", in SE¼ sec.21, T.1 N., R.4 W., Washington County, Hydrologic Unit 17090010, on left bank 50 ft (15 m) downstream from Roderick road bridge, 0.1 mi (0.2 km) below Kelly Creek, 2.5 mi (4.0 km) southeast of town of Gales Creek, 4.5 mi (7.2 km) northwest of Forest Grove, and at mile 8.7 (14.0 km).

DRAINAGE AREA.--66.1 mi² (171.2 km²).

PERIOD OF RECORD.--October 1940 to September 1956, October 1970 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 201.81 ft (61.512 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1941, at site 1.4 mi (2.3 km) downstream at datum 14.33 ft (4.368 m) lower. Sept. 13, 1941, to June 19, 1952, at downstream side of bridge at datum 1.44 ft (0.439 m) higher. June 20, 1952, to Jan. 3, 1956, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for August and September, which are poor. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 225 ft³/s (6.372 m³/s), 46.23 in/yr (1,174 mm/yr), 163,000 acre-ft/yr (201 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,410 ft³/s (182 m³/s) Feb. 17, 1949, gage height, 10.90 ft (3.322 m), from floodmark, site and datum then in use; maximum gage height, 12.95 ft (3.947 m), from floodmark, Jan. 21, 1972; minimum discharge, 1 ft³/s (0.028 m³/s) Aug. 19, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 26	0300	*3,980	113	*10.49	3.197	Feb. 19	0600	2,680	75.9	8.51	2.594

Minimum daily, 6.5 ft³/s (0.18 m³/s) Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	44	377	525	201	255	370	107	56	46	18	9.5
2	9.7	67	1170	445	184	231	313	104	56	41	18	9.0
3	9.2	53	1120	382	173	229	274	101	55	38	20	9.0
4	9.2	41	759	333	163	235	240	107	55	35	20	8.5
5	9.2	29	563	299	163	204	231	108	57	35	19	8.0
6	9.2	98	442	270	148	191	223	100	58	36	17	8.0
7	8.8	423	350	246	141	187	210	96	72	39	16	7.5
8	8.8	348	292	226	134	173	240	92	194	35	15	7.5
9	9.2	237	252	205	130	162	294	88	217	31	13	7.5
10	9.7	152	223	190	123	155	292	83	160	28	12	8.0
11	10	112	201	176	132	148	450	81	131	27	12	8.0
12	13	86	190	165	295	143	508	78	114	27	12	7.5
13	19	70	180	156	323	136	450	77	104	27	12	7.0
14	18	67	165	148	508	131	390	74	96	29	12	7.0
15	15	72	158	141	889	150	343	74	88	27	12	6.5
16	13	62	152	134	1620	141	303	72	88	25	12	6.5
17	13	61	143	139	1240	129	270	74	80	24	11	7.0
18	13	76	135	135	1390	124	244	132	78	24	10	8.0
19	13	70	127	125	2390	119	219	118	79	24	8.8	11
20	13	65	144	123	1470	116	198	93	73	24	12	11
21	14	309	491	141	970	111	185	85	69	23	13	25
22	13	362	1200	154	718	111	173	80	67	23	11	25
23	12	233	885	167	571	127	162	75	64	22	10	20
24	13	169	1120	152	491	126	151	80	59	21	10	15
25	17	143	3020	146	405	160	141	79	55	20	10	20
26	28	122	3130	246	353	159	132	73	52	18	10	35
27	28	150	1750	272	313	146	129	68	50	16	10	90
28	18	190	1070	295	281	139	127	65	48	16	9.5	58
29	15	309	820	270	---	164	119	63	46	17	9.5	45
30	14	418	759	241	---	179	111	63	46	18	10	35
31	15	---	627	219	---	331	---	58	---	19	10	---
TOTAL	420.0	4638	22015	6866	15919	5112	7492	2648	2467	835	394.8	530.0
MEAN	13.5	155	710	221	569	165	250	85.4	82.2	26.9	12.7	17.7
MAX	28	423	3130	525	2390	331	508	132	217	46	20	90
MIN	8.8	29	127	123	123	111	111	58	46	16	8.8	6.5
CFSM	.20	2.35	10.7	3.34	8.61	2.50	3.78	1.29	1.24	.41	.19	.27
IN.	.24	2.61	12.39	3.86	8.96	2.88	4.22	1.49	1.39	.47	.22	.30
AC-FT	833	9200	43670	13620	31580	10140	14860	5250	4890	1660	783	1050

CAL YR 1980 TOTAL 82871.0 MEAN 226 MAX 3130 MIN 5.6 CFSM 3.42 IN 46.64 AC-FT 164400
WTR YR 1981 TOTAL 69336.8 MEAN 190 MAX 3130 MIN 6.5 CFSM 2.87 IN 39.02 AC-FT 137500

NOTE.--No gage-height record Aug. 23 to Sept. 30.

14207000 OSWEGO CANAL NEAR LAKE OSWEGO, OR

LOCATION.--Lat 45°23'20", long 122°43'10", in NW¼NW¼ sec.20, T.2 S., R.1 E., Clackamas County, Hydrologic Unit 17090010, on left bank 0.4 mi (0.6 km) downstream from point of diversion on Tualatin River, 1.0 mi (1.6 km) upstream from Lake Oswego, and 3.5 mi (5.6 km) southwest of 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 (29.413 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 15, 1928, nonrecording gage 800 ft (244 m) upstream at different datum. Nov. 15, 1928, to June 29, 1939, nonrecording gage 900 ft (274 m) downstream at datum about 1.0 ft (0.3 m) higher.

REMARKS.--Records good. Oswego Canal diverts water from Tualatin River in NW¼ sec.20, but diversion dam is in NE¼ sec.33, about 3 mi (5 km) downstream. Water used for recreational facilities and development of power below Lake Oswego and returned to Willamette River at that point.

AVERAGE DISCHARGE.--53 years, 69.0 ft^3/s (2.042 m^3/s), 49,990 acre-ft/yr (61.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,000 ft^3/s (170 m^3/s) Dec. 23, 1933; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	45	90	108	93	128	75	49	94	67	79	72
2	43	48	110	103	38	126	88	47	92	66	80	73
3	38	60	110	98	3.9	120	91	46	89	64	55	72
4	42	69	110	92	3.9	121	88	46	89	61	34	72
5	44	56	110	87	3.9	119	83	46	90	56	34	71
6	44	53	110	94	3.7	109	79	47	94	56	34	71
7	44	68	110	96	3.6	97	77	47	100	57	56	69
8	45	85	110	88	3.7	89	76	47	116	57	77	69
9	48	92	110	90	4.2	83	78	46	126	62	69	69
10	49	69	110	92	4.6	78	82	45	134	83	55	71
11	50	52	110	83	5.9	73	89	44	126	83	68	72
12	50	42	100	75	21	68	96	43	110	84	74	74
13	49	36	85	70	61	65	106	42	94	78	71	70
14	48	33	70	64	105	63	108	41	91	72	71	63
15	49	31	60	58	126	62	106	51	87	70	71	59
16	47	30	55	54	136	66	101	91	89	67	72	55
17	46	29	53	52	145	67	95	97	88	64	69	52
18	44	29	50	50	190	63	88	99	91	60	64	53
19	43	29	47	50	155	59	80	105	97	59	61	58
20	42	29	46	50	93	57	74	112	93	51	61	65
21	42	31	57	50	95	55	69	110	92	34	61	78
22	40	36	92	51	98	54	66	106	91	33	63	87
23	39	45	91	56	110	52	63	102	90	53	63	73
24	39	50	105	60	132	53	60	101	89	72	64	67
25	40	50	117	61	162	59	58	103	88	70	66	63
26	42	45	109	67	171	64	55	104	82	70	66	61
27	47	45	108	83	160	68	54	104	74	73	66	76
28	49	45	114	103	142	65	54	100	72	73	66	84
29	50	45	119	114	---	63	53	98	70	71	66	85
30	47	60	118	109	---	61	51	96	68	72	67	84
31	45	---	114	102	---	65	---	95	---	74	69	---
TOTAL	1393	1437	2900	2410	2270.4	2372	2343	2310	2806	2012	1972	2088
MEAN	44.9	47.9	93.5	77.7	81.1	76.5	78.1	74.5	93.5	64.9	63.6	69.6
MAX	50	92	119	114	190	128	108	112	134	84	80	87
MIN	38	29	46	50	3.6	52	51	41	68	33	34	52
AC-FT	2760	2850	5750	4780	4500	4700	4650	4580	5570	3990	3910	4140

CAL YR 1980	TOTAL	17944.1	MEAN 49.0	MAX 143	MIN 1.2	AC-FT	35590
WTR YR 1981	TOTAL	26313.4	MEAN 72.1	MAX 190	MIN 3.6	AC-FT	52190

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 (90 m) upstream from bridge on State Highway 212, 0.4 mi (0.6 km) west of West Linn city limits, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--706 mi² (1,829 km²).

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 (26.094 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to June 12, 1941, nonrecording gage at datum 1.02 ft (0.311 m) higher.

REMARKS.--Water-discharge records good. October 1951 to September 1970, all records published for this station included the daily flow of Oswego Canal. October 1971 to current year, maximum discharge only includes flow in Oswego Canal. Oswego Canal diverts at point 5.0 mi (8.0 km) above 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 above station for irrigation.

AVERAGE DISCHARGE.--53 years, 1,517 ft³/s (42.96 m³/s), 29.18 in/yr (741 mm/yr), 1,099,000 acre-ft/yr (1.36 km³/yr), adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,300 ft³/s (660 m³/s) Dec. 23, 1933, gage height, 17.72 ft (5.401 m); minimum daily, 0.20 ft³/s (0.006 m³/s) July 30 to Aug. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s (289 m³/s) Dec. 31, gage height, 11.82 ft (3.603 m); minimum, 100 ft³/s (2.83 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	149	190	1480	8370	1710	3590	1360	703	362	300	151	201
2	123	207	2220	7400	1580	2880	1670	657	344	290	176	201
3	104	275	4030	5670	1480	2310	1760	630	322	272	207	198
4	119	410	5130	5960	1360	2280	1680	614	315	255	255	198
5	146	390	4850	5050	1310	2260	1580	613	311	258	258	195
6	161	370	4670	4280	1260	2040	1480	634	333	255	248	190
7	163	595	4420	3550	1180	1800	1420	644	394	262	219	187
8	173	1250	4100	2960	1090	1640	1390	634	726	265	179	187
9	198	1770	3600	2360	1030	1500	1450	609	1110	235	163	184
10	213	1430	3070	1800	991	1370	1560	576	1480	140	166	190
11	222	1030	2500	1500	962	1250	1750	543	1550	153	161	195
12	219	752	1940	1320	970	1160	1960	521	1310	166	144	195
13	207	590	1590	1190	1220	1100	2220	499	1100	179	135	184
14	201	495	1340	1050	1780	1030	2310	474	941	195	133	153
15	195	450	1170	957	2290	1020	2240	418	823	181	135	137
16	176	426	1060	897	2800	1110	2100	378	784	166	146	127
17	163	414	966	857	3240	1140	1910	430	736	156	190	117
18	151	398	887	835	3710	1050	1710	466	680	144	207	115
19	146	386	829	835	4850	965	1500	571	619	140	195	123
20	144	398	801	812	5390	914	1350	731	580	137	179	135
21	140	426	1000	802	5720	882	1220	715	557	151	173	171
22	137	585	2420	830	6170	857	1130	604	525	153	176	300
23	142	1130	3380	909	6430	839	1050	534	495	149	179	344
24	144	1270	3220	1010	6470	840	990	499	466	133	184	307
25	156	1040	5780	1030	6140	967	926	525	434	123	187	275
26	176	840	4710	1110	5630	1090	867	557	402	121	187	265
27	207	741	7800	1390	5010	1170	834	557	374	127	187	355
28	225	768	8320	1810	4360	1120	841	495	347	133	184	410
29	232	979	8620	2060	---	1060	815	438	333	129	184	410
30	210	1210	8960	2070	---	1040	763	406	318	129	184	378
31	192	---	9300	1910	---	1120	---	382	---	135	192	---
TOTAL	5334	21215	114163	72584	86133	43394	43836	17057	19071	5632	5664	6627
MEAN	172	707	3683	2341	3076	1400	1461	550	636	182	183	221
MAX	232	1770	9300	8370	6470	3590	2310	731	1550	300	258	410
MIN	104	190	801	802	962	839	763	378	311	121	133	115
AC-FT	10580	42080	226400	144000	170800	86070	86950	33830	37830	11170	11230	13140
MEAN†	217	755	3774	2420	3156	1476	1539	625	729	247	246	290
CFSM†	.31	1.07	5.35	3.43	4.47	2.09	2.18	.89	1.03	.35	.35	.41
IN.†	.35	1.19	6.16	3.95	4.66	2.41	2.43	1.02	1.15	.40	.40	.46
AC-FT†	13340	44930	232160	148780	175300	90770	91600	38410	43400	15160	15140	17280

CAL YR 1980 TOTAL 571392 MEAN 1561 MAX 10700 MIN 70 AC-FT 1133000 MEAN† 1610 CFSM† 2.28 IN.† 31.05 AC-FT† 1168590
WTR YR 1981 TOTAL 440710 MEAN 1207 MAX 9300 MIN 104 AC-FT 874100 MEAN† 1279 CFSM† 1.81 IN.† 24.61 AC-FT† 926290

† Adjusted for diversion of Oswego Canal.

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 (discontinued).
WATER TEMPERATURES: October 1975 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 237 micromhos Feb. 15, 1977; minimum recorded, 62 micromhos Dec. 16, 1977.
WATER TEMPERATURES: Maximum, 27.5°C Aug. 6, 8, 9, 11, 17, 1977; minimum, 0.0°C several days in January 1977, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 202 micromhos Aug. 2; minimum recorded, 78 micromhos Feb. 23.
WATER TEMPERATURES: Maximum, 25.0°C July 27, Aug. 9; minimum, 4.0°C Feb. 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
10...	1300	222	170	6.5	16.0	8.9	72	120	49	10	13	4.1
NOV												
03...	1600	304	197	6.7	12.0	8.8	56	220	50	11	13	4.3
DEC												
01...	1130	1440	142	7.1	8.0	10.2	840	320	44	2.0	11	3.9
JAN												
06...	1200	5010	90	6.7	8.0	9.9	92	52	29	4.0	7.7	2.3
FEB												
03...	1700	1460	123	7.3	6.0	11.8	K60	48	38	8.0	10	3.2
MAR												
05...	1430	2330	113	6.7	8.5	11.0	140	55	41	10	11	3.2
APR												
09...	1130	1450	112	6.7	10.5	9.9	140	87	38	10	10	3.2
MAY												
06...	1230	640	132	7.3	14.0	8.6	K19	98	43	.00	11	3.8
JUN												
04...	1600	304	144	7.1	17.0	8.6	56	K450	44	2.0	11	3.9
JUL												
08...	1200	260	159	7.0	19.0	8.8	80	34	56	17	15	4.6
AUG												
10...	1230	149	188	7.8	24.0	7.8	K23	59	51	9.0	13	4.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT												
10...	13	2.3	39	18	12	.3	1.8	.210	1.2	.200	1.30	3.1
NOV												
03...	14	2.6	39	21	12	.2	2.3	.360	1.1	1.00	1.20	3.3
DEC												
01...	7.4	1.8	42	5.7	8.7	.2	1.8	.380	1.4	.380	1.30	3.0
JAN												
06...	4.9	1.2	25	5.7	4.7	.1	1.7	.150	1.2	.140	--	--
FEB												
03...	6.6	1.2	30	7.1	6.0	.1	2.2	.160	.80	.170	1.20	3.4
MAR												
05...	6.7	1.1	25	7.2	7.6	.1	1.4	.110	.98	.120	1.00	2.4
APR												
09...	6.9	1.2	28	7.1	6.1	.1	1.3	.190	1.1	.190	1.20	3.4
MAY												
06...	7.7	1.5	46	<5	7.4	.1	1.2	.240	.83	.260	.83	2.0
JUN												
04...	8.9	1.8	42	4.5	7.6	.1	1.7	.160	.77	.130	1.10	2.9
JUL												
08...	11	2.0	39	12	9.5	.1	1.5	.110	1.1	.100	1.30	2.8
AUG												
10...	14	2.5	42	16	11	.1	1.7	.100	1.1	.130	1.10	2.9

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	TURBIDITY (NTU)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT												
10...	.200	.310	3.5	.6	--	20	122	114	.30	12	7.2	68
NOV												
03...	.290	.490	--	--	4.5	22	130	123	3.2	9	7.4	88
DEC												
01...	.230	.280	--	--	10	20	107	92	1.5	20	78	90
JAN												
06...	.070	.130	6.1	.4	--	17	--	66	20	24	325	84
FEB												
03...	.120	.170	--	--	2.8	20	75	82	14	11	43	94
MAR												
05...	.100	.180	--	--	4.1	19	81	77	17	22	138	94
APR												
09...	.210	.290	2.9	--	--	19	75	76	14	17	67	93
MAY												
06...	.310	.400	--	--	4.4	21	96	87	7.3	14	24	91
JUN												
04...	.380	.480	--	--	3.9	22	101	93	4.9	10	8.2	92
JUL												
08...	.140	.240	2.5	--	--	23	95	108	3.7	14	9.8	74
AUG												
10...	.000	.250	--	--	6.7	15	121	109	2.9	12	4.8	57

DATE	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
OCT										
10...	2	2	20	<100	<1	1	<10	10	<3	<1
JAN										
06...	1	2	30	100	<1	<1	<10	<10	<3	2
APR										
09...	1	2	30	100	<1	<1	<10	10	<3	<1
JUL										
08...	3	2	100	<100	<1	<1	<10	20	<3	<1

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT									
10...	6	7	60	530	1	<1	110	160	<.1
JAN									
06...	2	6	140	1700	1	6	20	50	<.1
APR									
09...	4	3	140	1000	<1	27	40	60	<.1
JUL									
08...	4	4	100	500	<1	6	20	80	<.1

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
10...	.1	<1	4	<1	<1	<1	<1	10	30
JAN									
06...	.1	<1	3	<1	<1	<1	<1	20	20
APR									
09...	.1	3	4	<1	<1	1	1	80	60
JUL									
08...	.1	3	2	<1	<1	<1	<1	30	20

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 3,80		MAR 5,81		MAY 6,81		JUN 4,81		JUL 8,81		AUG 10,81	
TIME	1600		1430		1230		1600		1200		1230	
TOTAL CELLS/ML	4100		440		5800		16000		18000		47000	
DIVERSITY: DIVISION	1.5		1.3		0.9		1.5		1.5		1.3	
.CLASS	1.5		1.3		0.9		1.5		1.5		1.3	
..ORDER	1.9		1.7		0.9		2.0		2.0		1.7	
...FAMILY	2.0		1.7		1.1		2.3		2.5		2.1	
....GENUS	2.3		1.7		1.1		2.9		2.9		2.7	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	39	1	260	2	*	0	--	-
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	370	9	26	6	210	4	1400	8	1000	6	2900	6
....MELOSIRA	280	7	--	-	140	2	6600#	41	7100#	39	24000#	52
....STEPHANODISCUS	--	-	--	-	--	-	600	4	--	-	--	-
..FRAGILARIALES												
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	340	2	510	3	--	-
....SYNEDRA	--	-	--	-	--	-	430	3	*	0	*	0
..NAVICULALES												
...NAVICULACEAE												
....NAVICULA	*	0	13	3	--	-	--	-	*	0	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....TETRAEDRON	--	-	--	-	*	0	--	-	--	-	*	0
...DICTYOSPHAERIACEAE												
....DICTYOSPHAERIUM	--	-	210#	47	--	-	86	1	230	1	3300	7
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-	700	1
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	520	3	2100	11	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	39	1	--	-	64	1	430	3	190	1	470	1
....CHODATELLA	--	-	--	-	--	-	--	-	140	1	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-	*	0	--	-
....NEPHROCYTIUM	--	-	--	-	--	-	--	-	190	1	--	-
....OOCYSTIS	--	-	--	-	--	-	86	1	190	1	--	-
....SELENASTRUM	*	0	--	-	51	1	86	1	93	1	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	*	0	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	750	4	930	2
....CRUCIGENIA	52	1	--	-	--	-	--	-	--	-	820	2
....GLOEOACTINIUM	--	-	--	-	--	-	--	-	--	-	930	2
....SCENEDESMUS	1100#	27	--	-	540	9	1900	12	470	3	2800	6
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	1400	3
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	*	0	26	6	39	1	1200	7	370	2	1400	3
...VOLVOCACEAE												
....GONIUM	--	-	--	-	--	-	--	-	--	-	1900	4
....PANDORINA	--	-	--	-	--	-	--	-	1100	6	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	86	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	1700#	42	170#	38	4700#	81	1900	12	3700#	20	4100	9
..NOSTOCALES												
...NOSTOCACEAE												
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-	820	2
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	460	11	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	26	1	--	-	--	-	86	1	--	-	--	-
....TRACHELOMONAS	*	0	--	-	--	-	260	2	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	132		---		---	---	148	147	196	179
2		---	117		---		---	---	143	151	200	171
3		---	---		---		---	---	142	155	200	166
4		---	---		118		---	---	147	157	196	163
5		---	---		121		---	---	154	158	195	160
6		---	---		123		---	---	160	159	194	160
7		---	---		122		---	135	162	159	193	164
8		---	---		123		---	135	157	161	193	167
9		---	---		123		---	138	139	166	190	164
10		---	---		123		111	138	---	169	189	160
11		---	---		124		112	135	---	172	185	157
12		---	---		126		105	134	120	176	181	156
13		---	---		128		105	136	116	178	177	155
14		---	---		129		103	138	118	185	175	158
15		---	---		118		103	142	117	187	174	162
16		---	---		115		107	145	121	185	174	164
17		---	---		103		111	148	131	183	177	164
18		---	---		97		115	142	129	181	179	165
19		---	---		92		117	141	130	181	178	168
20		---	---		92		120	141	135	187	175	172
21		---	---		87		125	142	140	194	175	173
22		---	---		82		---	139	140	194	177	179
23		---	---		80		---	148	137	191	179	186
24		---	---		83		---	140	140	192	183	167
25		---	---		87		---	129	144	195	187	153
26		119	---		90		---	130	143	194	187	164
27		128	---		---		---	133	144	198	182	179
28		133	---		---		---	135	144	196	177	187
29		133	---		---		---	140	146	192	173	163
30		136	---		---		---	147	147	192	173	164
31		---	---		---		---	150	---	193	178	---
MEAN		130	125		108		111	139	139	178	184	166

14207500 TUALATIN RIVER AT WEST LINN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	14.0	13.5	17.5	16.5	19.5	18.0	22.5	20.5	19.5	19.0
2	9.5	9.0	14.0	13.5	17.5	16.5	20.5	18.5	21.5	20.0	19.5	18.5
3	9.0	9.0	14.0	13.0	17.5	17.0	21.5	19.5	20.5	20.0	19.5	18.5
4	9.0	8.5	14.0	13.0	17.0	16.5	22.0	20.0	21.5	20.0	19.5	18.5
5	9.0	9.0	14.0	13.0	17.5	17.0	21.5	21.0	22.0	20.5	19.5	18.5
6	9.5	9.0	13.5	13.5	17.5	17.0	21.0	20.0	22.5	20.5	20.0	18.5
7	10.0	9.0	13.5	13.0	17.5	16.5	20.0	19.5	23.0	21.5	19.5	18.5
8	10.0	9.5	13.0	12.0	16.5	15.5	20.5	18.5	24.0	22.0	19.5	19.0
9	10.0	9.5	13.0	12.0	15.5	15.0	20.0	19.0	25.0	22.5	19.0	18.5
10	9.5	9.0	13.0	12.0	15.5	15.0	20.0	19.0	24.5	22.5	19.5	18.0
11	9.5	9.0	13.5	12.0	15.0	14.5	21.0	19.0	24.0	22.5	19.5	18.5
12	9.5	9.0	14.0	12.5	14.5	14.0	20.5	19.0	24.5	22.5	19.0	18.0
13	9.5	8.5	15.0	13.0	14.0	13.5	20.0	19.0	24.0	22.5	19.0	18.0
14	9.5	8.5	15.0	14.0	14.0	13.5	21.5	19.0	24.5	22.0	19.0	18.0
15	9.5	8.5	15.0	14.0	15.0	13.5	21.5	20.0	23.5	22.5	19.0	17.5
16	10.0	9.0	14.5	14.0	15.5	14.5	22.0	20.0	23.0	22.0	19.5	18.0
17	11.0	9.5	15.0	14.0	15.5	14.5	21.5	20.5	23.5	22.0	19.0	18.0
18	11.5	10.5	15.0	14.5	15.5	15.0	21.0	20.0	23.0	22.0	19.0	18.0
19	11.5	11.0	14.5	14.5	15.5	15.0	22.0	20.0	22.5	21.5	18.5	18.0
20	12.0	11.5	14.5	14.0	16.0	15.0	22.0	20.5	21.5	21.0	18.0	17.5
21	12.0	11.5	14.0	13.5	16.0	15.0	22.0	20.0	22.0	20.5	17.5	17.0
22	12.5	12.0	14.5	13.0	16.5	15.5	22.0	20.0	22.0	20.5	17.0	16.5
23	12.5	12.0	15.0	13.5	17.0	15.5	21.5	20.5	22.0	20.5	16.5	16.0
24	12.5	12.0	14.5	14.0	17.5	16.0	21.0	20.0	21.5	21.0	16.0	15.0
25	12.0	12.0	14.5	14.5	18.0	16.5	23.5	20.0	21.5	21.0	16.0	15.5
26	12.5	12.0	15.5	14.0	18.0	17.0	24.0	21.0	21.5	20.5	16.0	15.5
27	12.5	12.5	16.0	14.5	18.0	17.0	25.0	21.5	21.5	20.0	16.0	15.5
28	13.0	12.5	16.5	15.0	18.5	17.0	23.5	22.0	20.5	20.0	15.5	15.0
29	13.5	12.5	16.5	16.0	19.5	17.5	22.0	21.5	20.0	19.5	15.0	14.5
30	14.0	13.0	17.0	16.5	19.0	18.0	23.0	21.0	20.0	19.0	15.0	14.5
31	---	---	17.5	16.5	---	---	22.5	21.0	20.0	19.0	---	---
MONTH	14.0	8.5	17.5	12.0	19.5	13.5	25.0	18.0	25.0	19.0	20.0	14.5

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 (0.3 km) above Willamette Falls, 0.6 mi (1.0 km) downstream from Tualatin River, and at mile 26.8 (43.1 km).

DRAINAGE AREA.--10,000 mi² (25,900 km²), approximately.

PERIOD OF RECORD.--October 1976 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, 64.79 ft (19.748 m) Dec. 17, 1977; minimum recorded, 52.65 ft (16.048 m) Feb. 8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 63.77 ft (19.437 m) Dec. 27; minimum, 53.40 ft (16.276 m) July 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.17	55.35	57.19	60.09	55.31	56.16	56.31	54.49	54.49	53.79	54.33	55.54
2	55.16	55.45	57.57	59.67	55.04	55.87	56.62	54.40	54.36	53.69	54.21	55.62
3	55.15	55.58	59.42	59.14	54.86	55.60	56.49	54.36	54.19	53.62	54.50	55.70
4	55.14	55.69	60.94	58.43	54.71	55.75	56.30	54.34	54.07	53.61	54.58	55.70
5	55.17	55.64	61.58	57.77	54.65	56.15	56.04	54.35	54.01	53.70	54.33	55.70
6	55.19	55.62	61.55	57.32	54.64	56.00	55.82	54.33	54.03	53.61	54.40	55.68
7	55.25	55.96	60.81	56.93	54.58	55.68	55.76	54.36	54.11	53.41	54.40	55.74
8	55.30	56.85	59.92	56.46	54.46	55.42	55.62	54.41	54.63	53.47	54.31	55.69
9	55.36	57.35	59.20	56.20	54.37	55.25	55.68	54.36	56.56	53.86	54.19	55.57
10	55.40	57.40	58.67	56.02	54.30	55.07	56.12	54.29	57.87	54.90	54.49	55.11
11	55.38	57.24	58.17	55.71	54.27	54.89	56.20	54.26	57.95	54.94	54.41	55.06
12	55.35	56.95	57.83	55.37	54.28	54.77	56.72	54.21	57.02	54.91	54.18	55.05
13	55.37	56.68	57.54	55.18	54.36	54.67	57.18	54.08	56.28	54.89	54.25	55.08
14	55.41	56.49	57.29	55.04	55.03	54.56	57.17	53.96	56.27	54.89	54.44	55.10
15	55.49	56.35	56.96	54.94	56.17	54.50	56.81	53.90	56.31	54.82	54.42	55.11
16	55.51	56.20	56.78	54.85	56.76	54.58	56.51	53.92	56.17	54.80	54.45	55.11
17	55.51	56.21	56.45	54.73	57.80	54.74	56.32	54.10	56.05	54.72	54.42	55.10
18	55.51	56.09	56.19	54.52	58.44	54.83	56.08	54.17	55.91	54.69	54.54	55.11
19	55.48	55.92	56.06	54.35	59.13	54.70	55.89	54.44	55.67	54.70	55.25	55.18
20	55.45	55.72	55.90	54.30	59.78	54.60	55.72	54.86	55.56	54.98	55.45	55.22
21	55.43	55.66	55.91	54.29	59.62	54.60	55.56	55.01	55.57	54.84	55.48	55.24
22	55.41	55.95	56.94	54.28	58.91	54.56	55.45	55.09	55.39	54.72	55.49	55.31
23	55.42	56.65	58.21	54.41	58.06	54.58	55.38	55.01	55.16	54.76	55.50	55.38
24	55.45	56.82	58.94	54.62	57.51	54.70	55.32	54.88	54.95	54.81	55.51	55.41
25	55.49	56.73	60.58	54.66	57.32	54.85	55.28	54.87	54.75	54.70	55.52	55.39
26	55.50	56.60	62.49	54.66	56.98	55.25	55.16	55.29	54.47	54.62	55.51	55.39
27	55.60	56.50	63.53	54.97	56.69	55.66	55.00	55.82	54.33	54.73	55.50	55.50
28	55.53	56.46	63.45	55.53	56.47	55.55	54.88	55.59	54.19	54.67	55.50	55.67
29	55.68	56.57	62.27	55.98	---	55.38	54.81	55.24	54.05	54.54	55.48	55.81
30	55.63	56.85	61.19	56.02	---	55.38	54.64	54.95	53.94	54.38	55.51	55.76
31	55.88	---	60.57	55.68	---	55.63	---	54.67	---	54.39	55.53	---
MEAN	55.41	56.32	59.04	55.87	56.23	55.16	55.89	54.58	55.28	54.42	54.84	55.40

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR

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 (0.8 km) below Willamette Falls, 1.4 mi (2.2 km) upstream from Clackamas River, and at mile 26.2 (42.2 km).

DRAINAGE AREA.--10,000 mi² (25,900 km²), approximately.

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Oregon State Highway Divsion bench mark).

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height recorded, 32.03 ft (9.763 m) Dec. 17, 1977; minimum, 1.86 ft (0.567 m) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 29.51 ft (8.995 m) Dec. 28; minimum, 2.77 ft (0.844 m) Sept. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.62	4.26	5.07	6.27	3.99	5.09	10.20	9.32	9.67	21.15	19.88	20.49
2	6.24	3.78	4.62	6.57	4.19	5.27	14.71	9.65	11.31	19.88	18.98	19.40
3	6.22	3.72	4.98	6.90	4.31	5.45	21.48	14.87	18.51	18.99	17.78	18.46
4	6.46	3.66	4.86	7.12	4.54	5.61	22.44	21.57	22.01	17.73	15.83	16.78
5	6.14	3.38	4.75	7.19	4.63	5.70	23.14	22.41	22.82	15.78	14.30	15.04
6	6.43	3.63	4.92	7.44	4.60	5.79	22.90	21.87	22.57	14.25	13.14	13.61
7	6.39	3.60	4.91	9.26	5.33	7.27	21.78	19.44	20.57	13.23	12.60	12.98
8	6.42	3.78	4.96	10.95	7.75	9.38	19.42	17.50	18.34	12.55	11.52	12.01
9	6.39	3.66	4.83	11.33	9.96	10.45	17.49	15.93	16.63	11.91	11.12	11.53
10	6.69	3.78	4.94	10.87	9.93	10.30	15.89	14.80	15.28	11.44	10.75	11.08
11	6.64	3.78	5.02	10.23	9.37	9.81	14.70	13.85	14.18	11.09	9.56	10.23
12	6.78	3.91	5.08	9.34	8.42	8.87	13.90	13.05	13.41	9.70	8.61	9.22
13	6.56	3.87	5.05	8.96	8.26	8.59	13.09	12.19	12.54	9.88	8.73	9.26
14	6.72	3.75	4.97	8.63	7.72	8.09	12.34	11.30	11.81	9.78	8.60	9.11
15	6.52	4.25	5.14	7.98	6.43	6.98	11.37	10.65	10.92	9.73	8.50	9.01
16	6.05	4.21	4.94	6.96	5.83	6.36	11.24	10.47	10.77	10.04	8.45	9.11
17	5.81	3.97	4.73	7.59	4.98	6.31	10.87	9.64	10.25	10.09	8.50	9.26
18	5.80	4.01	4.76	7.76	5.60	6.49	10.96	9.54	10.07	9.61	7.37	8.35
19	5.79	3.59	4.67	8.10	5.68	6.69	10.83	9.45	9.95	10.19	6.89	8.24
20	6.48	3.78	5.03	8.51	5.84	6.86	10.83	8.99	9.64	10.03	7.75	8.60
21	6.89	4.17	5.33	9.55	5.82	7.35	11.35	8.94	9.85	10.07	7.44	8.53
22	6.77	3.95	5.14	10.50	7.36	8.78	14.47	10.10	12.51	10.36	8.01	9.09
23	7.04	3.94	5.26	10.84	8.82	9.59	16.18	14.36	15.28	9.79	8.49	9.13
24	7.58	4.23	5.70	10.28	8.87	9.42	19.11	15.98	17.02	9.29	8.06	8.64
25	7.63	4.41	5.81	9.23	8.40	8.81	26.06	19.22	22.44	8.98	7.65	8.24
26	7.46	4.34	5.68	9.32	7.90	8.47	28.03	26.30	27.64	8.63	6.62	7.69
27	7.37	4.51	5.60	8.83	7.76	8.27	29.44	28.10	28.90	9.52	8.18	8.91
28	6.99	4.47	5.42	8.53	7.51	7.99	29.51	27.54	28.62	10.08	9.04	9.53
29	6.54	4.19	5.15	9.47	7.69	8.57	27.53	24.78	26.16	10.50	9.60	10.00
30	6.14	3.96	4.88	9.77	8.50	9.06	24.74	22.48	23.36	10.20	9.35	9.84
31	6.13	3.85	4.94	---	---	---	22.53	21.21	21.90	9.82	8.80	9.35
MONTH	7.63	3.38	5.07	11.33	3.99	7.72	29.51	8.94	16.93	21.15	6.62	10.99

14207770 WILLAMETTE RIVER BELOW FALLS, AT OREGON CITY, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	9.31	8.17	8.81	10.46	9.09	9.97	11.02	9.13	10.34	9.39	8.27	8.82
2	9.13	7.71	8.31	9.57	8.49	9.08	11.42	10.60	11.03	9.79	8.24	9.01
3	9.65	7.79	8.59	9.92	8.42	9.08	11.49	10.61	11.01	10.05	8.38	9.34
4	9.80	8.07	8.80	10.74	8.90	9.85	11.19	9.93	10.53	10.98	9.23	10.15
5	10.08	8.43	9.08	11.05	9.83	10.30	10.62	9.38	9.91	11.44	9.85	10.69
6	9.97	8.58	9.19	10.64	9.33	9.93	10.27	8.77	9.40	11.41	9.92	10.53
7	9.12	7.64	8.45	10.15	8.69	9.41	10.26	8.71	9.31	11.06	9.79	10.40
8	8.68	6.93	7.74	9.67	7.99	8.75	10.40	8.74	9.35	10.89	9.54	10.20
9	8.54	6.35	7.48	9.45	7.71	8.41	10.21	8.85	9.52	9.82	7.98	9.00
10	8.72	7.33	7.99	9.34	7.37	8.09	10.65	9.76	10.11	8.39	6.42	7.37
11	8.88	7.50	8.10	9.15	7.15	7.85	10.45	9.72	10.05	7.74	6.90	7.28
12	9.21	7.51	8.14	8.72	6.91	7.52	11.29	10.38	10.86	7.97	7.22	7.61
13	9.19	7.33	8.11	8.36	6.61	7.28	11.88	11.32	11.66	8.35	7.28	7.83
14	9.73	7.93	8.82	7.92	5.89	6.93	12.12	11.10	11.74	8.45	7.16	7.75
15	11.19	9.09	10.28	7.86	5.72	6.61	11.53	10.34	10.99	8.60	7.16	7.88
16	13.82	10.62	12.30	7.95	5.74	6.69	10.95	10.14	10.48	8.57	7.26	7.94
17	16.27	13.72	15.20	8.32	6.10	7.17	10.79	9.74	10.23	8.83	6.94	7.72
18	18.09	16.22	17.07	8.41	6.82	7.60	10.24	9.10	9.58	8.55	6.73	7.75
19	21.19	18.18	19.84	8.91	6.87	7.74	10.05	8.66	9.22	9.52	8.09	8.75
20	21.31	20.94	21.15	8.99	7.09	7.90	9.66	8.26	8.82	9.85	8.22	8.94
21	20.92	19.55	20.28	8.37	6.16	7.23	9.29	7.82	8.42	9.44	8.41	8.86
22	19.50	16.87	18.12	8.32	5.97	6.91	9.32	7.84	8.50	9.52	8.49	8.96
23	16.80	14.87	15.64	8.19	5.91	7.00	9.76	8.55	9.03	9.80	8.62	9.21
24	14.84	13.85	14.30	8.27	6.58	7.29	9.15	7.97	8.57	9.47	8.53	8.92
25	13.81	13.06	13.36	8.58	6.81	7.55	9.24	8.24	8.65	9.85	9.03	9.43
26	13.19	12.50	12.90	8.74	7.24	7.99	8.96	7.76	8.41	10.11	9.14	9.43
27	12.48	11.21	11.81	8.92	8.06	8.37	8.02	7.22	7.61	11.44	10.22	10.84
28	11.33	10.35	10.98	8.51	7.32	7.97	8.57	7.94	8.18	11.98	11.57	11.85
29	---	---	---	8.41	7.36	7.77	9.00	8.15	8.60	12.35	11.95	12.22
30	---	---	---	8.09	7.25	7.68	9.22	8.24	8.79	13.14	12.36	12.92
31	---	---	---	9.34	7.41	8.67	---	---	---	13.49	12.90	13.30
MONTH	21.31	6.35	11.82	11.05	5.72	8.08	12.12	7.22	9.63	13.49	6.42	9.38

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.12	13.38	13.89	10.28	8.68	9.29	9.14	6.79	7.69	7.30	4.25	5.57
2	14.45	13.92	14.25	10.00	8.38	8.99	8.14	5.27	6.53	7.12	4.24	5.42
3	14.44	13.77	14.08	9.65	7.97	8.65	7.58	5.16	6.20	6.74	4.01	5.13
4	14.33	13.74	13.99	9.61	7.86	8.58	7.35	5.23	6.26	6.33	3.75	4.80
5	14.17	13.56	13.85	9.09	7.34	8.17	7.38	5.43	6.27	6.13	3.73	4.57
6	14.67	14.14	14.45	8.72	7.35	7.98	7.31	5.69	6.35	5.46	3.12	4.12
7	14.63	14.09	14.33	9.64	8.29	8.79	7.82	5.61	6.30	5.87	2.77	3.79
8	16.71	14.37	15.88	10.31	9.33	9.63	7.76	5.81	6.70	5.96	3.57	4.52
9	19.23	16.54	17.96	10.31	9.71	9.98	7.19	4.51	5.62	6.26	3.68	4.81
10	20.39	19.27	20.00	10.25	9.73	9.94	6.30	3.99	4.88	6.49	3.65	4.87
11	20.55	19.61	20.27	10.16	7.83	8.95	6.75	4.35	5.36	6.49	3.48	4.84
12	19.55	17.94	18.77	8.56	6.49	7.44	7.24	5.39	6.20	6.31	3.23	4.72
13	17.91	17.26	17.58	7.70	5.92	6.68	7.45	4.67	5.82	6.65	3.53	4.97
14	17.25	16.90	17.14	8.05	6.36	7.33	7.71	4.50	5.86	7.24	3.80	5.38
15	16.88	16.06	16.56	8.64	7.10	7.75	8.12	5.05	6.55	---	4.32	---
16	16.05	15.21	15.74	9.09	7.37	8.43	8.46	5.96	6.95	---	4.21	---
17	15.18	14.35	14.75	9.54	8.01	8.65	8.28	5.60	6.77	7.84	4.63	5.85
18	14.38	13.77	14.08	9.06	6.56	7.70	8.08	4.79	6.39	7.74	4.66	5.82
19	14.13	13.78	13.97	7.94	5.30	6.48	7.50	4.49	5.99	7.20	4.46	5.67
20	14.68	14.10	14.45	7.78	5.30	6.40	7.33	4.32	5.66	6.76	3.82	4.99
21	14.78	14.57	14.66	8.23	6.77	7.43	7.31	3.82	5.23	6.70	3.94	5.15
22	14.63	14.35	14.50	7.72	5.92	6.99	7.13	3.95	5.22	6.71	3.90	4.99
23	14.47	14.15	14.33	7.91	5.76	6.58	7.09	4.22	5.18	6.75	---	---
24	14.21	13.28	13.78	8.11	6.11	6.85	7.25	4.11	5.16	---	---	---
25	13.37	12.49	12.89	8.07	6.24	7.06	7.20	4.05	5.21	---	---	---
26	12.74	11.93	12.34	8.04	5.13	6.27	7.23	4.11	5.44	---	---	---
27	12.19	11.00	11.64	7.83	5.06	6.19	7.46	4.33	5.59	---	---	---
28	11.45	10.27	10.83	8.74	6.64	7.40	7.52	4.34	5.71	---	---	---
29	11.05	9.69	10.35	9.01	6.65	7.57	7.65	4.44	5.74	---	---	---
30	10.82	9.06	9.89	8.94	6.50	7.50	7.50	3.95	5.49	---	---	---
31	---	---	---	9.17	6.78	7.73	7.11	4.03	5.36	---	---	---
MONTH	20.55	9.06	14.71	10.31	5.06	7.85	9.14	3.82	5.93	7.84	2.77	5.00
YEAR	29.51	2.77	9.53									

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 (107 m) upstream from dam on Oak Grove Fork, 0.4 mi (0.6 km) upstream from Anvil Creek, 14 mi (22.5 km) south of Government Camp, and at mile 15.8 (25.4 km).

DRAINAGE AREA.--53.8 mi^2 (139.3 km^2).

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 (81.0 hm^3) at elevation 3,190 ft (972.3 m), normal maximum operating level. Usable capacity increased in 1966 water year to 64,450 acre-ft (79.5 hm^3) between elevations 3,125.0 ft (952.50 m), invert of outlet pipe, and 3,192.0 ft (972.92 m), top of radial gates. Storage of 4,060 acre-ft (5.0 hm^3) below elevation 3,125.0 ft (952.50 m) 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 (84.8 hm^3) Oct. 3, 1967, elevation, 3,192.2 ft (972.98 m); minimum observed, 16,010 acre-ft (19.7 hm^3) Feb. 24, 1957, elevation, 3,144.5 ft (958.44 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 65,370 acre-ft (80.6 hm^3) Sept. 7, 8, elevation, 3,189.75 ft (972.236 m); minimum observed, 43,460 acre-ft (53.6 hm^3) Dec. 21, elevation, 3,172.37 ft (966.938 m).

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	3,186.34	60,790	-
Oct. 31	3,177.89	50,070	-10,720
Nov. 30	3,175.99	47,760	-2,310
Dec. 31	3,178.12	50,350	+2,590
CAL YR 1980	-	-	+16,890
Jan. 31	3,180.31	53,060	+2,710
Feb. 28	3,180.85	53,730	+670
Mar. 31	3,178.39	50,680	-3,050
Apr. 30	3,182.58	55,920	+5,240
May 31	3,185.61	59,830	+3,910
June 30	3,188.45	63,600	+3,770
July 31	3,189.37	64,850	+1,250
Aug. 31	3,189.69	65,290	+440
Sept.30	3,182.03	55,220	-10,070
WTR YR 1981	-	-	-5,570

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 (0.2 km) upstream from Anvil Creek, 0.3 mi (0.5 km) downstream from Timothy Lake, 14 mi (23 km) south of Government Camp, and at mile 15.5 (24.9 km).

DRAINAGE AREA.--54.4 mi² (140.9 km²).

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 3,041.83 ft (927.150 m) National Geodetic Vertical Datum of 1929 (Portland General Electric Co. bench mark).

REMARKS.--Records good. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion above station.

AVERAGE DISCHARGE.--25 years, 129 ft³/s (3.653 m³/s), 32.20 in/yr (818 mm/yr), 93,460 acre-ft/yr (115 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) Dec. 24, 1964, gage height, 3.93 ft (1.198 m), from rating curve extended above 290 ft³/s (8.21 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.7 ft³/s (0.10 m³/s) Sept. 23, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 483 ft³/s (13.7 m³/s) May 19, gage height, 2.87 ft (0.875 m); minimum, 28 ft³/s (0.79 m³/s) May 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	338	34	343	43	348	41	161	37	33	35	37	37
2	338	35	135	41	343	41	50	38	33	35	37	38
3	338	35	45	41	343	41	50	38	34	35	37	38
4	338	35	44	41	348	41	50	37	34	35	37	37
5	338	35	43	41	348	41	50	37	34	35	37	38
6	333	35	40	41	352	41	45	37	34	35	37	38
7	333	35	41	41	357	41	43	38	34	37	37	37
8	333	35	177	41	352	41	43	38	35	37	37	108
9	333	35	287	40	352	40	43	37	37	37	37	333
10	333	35	287	40	357	41	43	37	37	37	35	328
11	333	35	300	40	352	40	43	37	37	37	35	333
12	333	35	305	45	300	183	43	37	37	37	37	338
13	348	45	314	211	110	296	43	37	37	37	37	338
14	367	72	319	291	39	291	40	37	37	35	37	338
15	372	74	319	300	40	296	39	38	37	35	37	348
16	372	72	314	305	45	278	39	38	37	37	37	338
17	372	74	309	309	44	296	39	38	37	37	37	348
18	382	63	314	167	52	296	39	37	37	37	37	348
19	367	50	324	40	53	305	39	52	37	37	37	348
20	300	53	309	40	48	305	39	35	37	35	38	348
21	158	133	187	40	45	305	39	35	35	35	38	343
22	34	269	47	40	44	287	39	34	35	37	38	338
23	34	357	44	40	43	305	38	33	35	37	37	343
24	35	362	50	40	43	305	37	33	35	37	37	343
25	35	362	63	40	43	260	37	34	35	37	37	314
26	35	362	56	40	88	244	37	33	35	35	38	278
27	35	348	50	40	117	260	37	31	35	35	38	269
28	35	338	45	40	41	287	38	30	35	35	38	183
29	35	278	45	40	---	273	37	33	35	37	38	34
30	35	319	44	40	---	287	37	34	35	37	38	35
31	34	---	43	305	---	252	---	34	---	37	37	---
TOTAL	7406	4050	5243	2863	5047	6060	1357	1124	1065	1121	1151	6937
MEAN	239	135	169	92.4	180	195	45.2	36.3	35.5	36.2	37.1	231
MAX	382	362	343	309	357	305	161	52	37	37	38	348
MIN	34	34	40	40	39	40	37	30	33	35	35	34
AC-FT	14690	8030	10400	5680	10010	12020	2690	2230	2110	2220	2280	13760
MEAN†	64.6	96.1	211	136	192	146	133	99.9	98.8	56.4	44.2	62.0
CFSM†	1.19	1.77	3.88	2.50	3.53	2.68	2.44	1.84	1.82	1.04	.81	1.14
IN†	1.37	1.97	4.48	2.89	3.68	3.09	2.73	2.12	2.03	1.20	.94	1.27
AC-FT†	3970	5720	12990	8390	10680	8970	7930	6140	5880	3470	2720	3690

CAL YR 1980 TOTAL 38520 MEAN 105 MAX 382 MIN 33 AC-FT 76400 MEAN† 129 CFSM† 2.37 IN† 32.16 AC-FT† 93290
WTR YR 1981 TOTAL 43424 MEAN 119 MAX 382 MIN 30 AC-FT 86130 MEAN† 111 CFSM† 2.04 IN† 27.77 AC-FT† 80560

† Adjusted for change in contents in Timothy Lake.

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 (0.3 km) upstream from Spring Creek, 0.7 mi (1.1 km) upstream from Kink Creek, 1.0 mi (1.6 km) upstream from Portland General Electric Co. diversion dam, 24 mi (39 km) southeast of Estacada, and at mile 6.1 (9.8 km).

DRAINAGE AREA.--126 mi^2 (326 km^2).

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 (625.544 m) 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 (1.1 km) downstream, below Kink Creek, at different datum.

REMARKS.--Records good. Flow regulated since 1956 by Timothy Lake (see station 14208600). No diversion above station.

AVERAGE DISCHARGE.--72 years, 501 ft^3/s (14.19 m^3/s), 363,000 acre-ft/yr (448 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) Jan. 7, 1923, gage height, 5.45 ft (1.661 m), site and datum then in use, from rating curve extended above 2,300 ft^3/s (65.1 m^3/s) on basis of peak discharge for other stations in Clackamas River basin; minimum, 208 ft^3/s (5.89 m^3/s) Aug. 28-31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft^3/s (58.6 m^3/s) Dec. 25, gage height, 4.25 ft (1.295 m); minimum, 217 ft^3/s (6.15 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	561	262	625	548	605	452	561	390	311	347	267	239
2	554	262	725	511	592	435	379	390	311	337	262	239
3	548	262	901	481	592	424	379	385	306	332	262	239
4	548	257	677	452	599	418	369	379	311	326	262	234
5	554	257	536	435	599	407	374	374	311	326	262	234
6	554	296	464	418	599	396	369	369	311	326	262	234
7	548	385	418	407	599	385	363	369	342	337	262	234
8	554	396	505	396	599	374	374	358	625	321	257	272
9	548	337	631	379	599	369	385	353	671	316	253	554
10	548	306	618	369	599	363	374	347	567	311	253	567
11	548	286	618	363	599	358	385	347	511	311	253	567
12	548	276	618	358	573	470	385	337	493	306	253	567
13	561	281	625	470	412	612	374	337	493	306	253	567
14	580	321	618	599	379	599	374	332	470	301	253	567
15	592	316	625	592	396	605	385	358	446	296	248	573
16	592	316	618	592	753	599	390	353	452	296	248	573
17	625	316	625	592	704	605	401	342	441	291	244	573
18	599	306	618	487	1080	599	407	363	424	291	244	580
19	599	286	618	321	1260	605	418	369	435	291	244	580
20	536	291	625	316	940	605	418	347	412	286	248	580
21	452	401	618	321	767	605	424	347	401	281	239	586
22	281	554	832	316	677	599	446	342	401	281	239	573
23	257	631	718	311	618	605	458	332	390	281	239	580
24	257	625	863	316	605	605	464	347	385	281	239	573
25	257	625	1540	306	554	599	441	358	379	276	239	554
26	272	625	1410	321	548	580	424	342	369	276	239	536
27	262	625	1070	316	586	573	412	326	363	272	239	542
28	257	625	825	311	470	599	407	321	358	272	239	464
29	257	618	725	306	---	605	401	321	353	272	239	230
30	257	625	677	301	---	605	401	316	347	272	239	217
31	257	---	599	523	---	605	---	316	---	267	239	---
TOTAL	14363	11969	22185	12734	17903	16260	12142	10867	12389	9285	7719	13628
MEAN	463	399	716	411	639	525	405	351	413	300	249	454
MAX	625	631	1540	599	1260	612	561	390	671	347	267	586
MIN	257	257	418	301	379	358	363	316	306	267	239	217
AC-FT	28490	23740	44000	25260	35510	32250	24080	21550	24570	18420	15310	27030

CAL YR 1980 TOTAL 163479 MEAN 447 MAX 1540 MIN 234 AC-FT 324300
WTR YR 1981 TOTAL 161444 MEAN 442 MAX 1540 MIN 217 AC-FT 320200

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 (0.2 km) upstream from Three Lynx Creek, 0.25 mi (0.40 km) downstream from powerplant, 17 mi (27 km) southeast of Estacada, and at mile 47.8 (76.9 km).

DRAINAGE AREA.--479 mi² (1,241 km²).

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 (332.747 m) 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 (0.277 m) higher.

REMARKS.--Records excellent. Minor regulation since May 1956 by Timothy Lake (see station 14208600).

AVERAGE DISCHARGE.--64 years, 1,981 ft³/s (56.10 m³/s), 56.16 in/yr (1,426 mm/yr), 1,435,000 acre-ft/yr (1.77 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,200 ft³/s (1,930 m³/s) Dec. 22, 1964, gage height, 21.7 ft (6.61 m), from floodmark, from rating curve extended above 34,100 ft³/s (966 m³/s) on basis of slope-area measurement at gage height 15.06 ft (4.590 m); minimum recorded, 292 ft³/s (8.27 m³/s) Sept. 25, 1980; minimum daily, 427 ft³/s (12.1 m³/s) Oct. 5, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,100 ft³/s (229 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1900	16,300	462	9.95	3.033	Feb. 16	1400	10,900	309	7.89	2.405
Dec. 22	0900	9,160	259	7.13	2.173	Feb. 18	2400a	12,600	357	8.54b	2.603
Dec. 25	2300	*28,100	796	*13.57	4.136						

Minimum, 364 ft³/s (10.3 m³/s) Aug. 7.

a About
b From floodmark

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	867	580	1960	2840	1380	1930	2350	1760	1030	1010	656	605
2	867	694	7880	2540	1340	1810	1940	1650	996	1020	651	605
3	874	635	13400	2270	1320	1740	1830	1530	963	911	651	595
4	861	610	7230	2050	1310	1720	1680	1480	969	905	646	585
5	861	595	4320	1890	1290	1600	1680	1450	982	917	641	580
6	855	899	3120	1710	1270	1520	1700	1420	969	911	635	580
7	855	2940	2450	1590	1250	1460	1610	1380	1130	1000	620	575
8	855	3960	2170	1560	1240	1400	1600	1340	4770	950	620	662
9	849	2600	2080	1520	1240	1340	1830	1310	6010	892	610	861
10	849	1940	1920	1410	1210	1300	1720	1270	3930	867	605	911
11	849	1470	1810	1340	1220	1260	1870	1250	2950	855	600	911
12	867	1200	1730	1280	1310	1390	2040	1210	2510	831	600	924
13	937	1060	1660	1380	1420	1510	1760	1160	2440	831	600	917
14	950	1030	1620	1470	3130	1450	1800	1140	2250	807	595	917
15	930	996	1720	1420	3260	1440	1860	1240	1990	795	610	917
16	911	930	1920	1380	7720	1520	2010	1310	1900	784	625	937
17	905	892	2040	1370	6900	1470	2070	1240	1860	772	620	976
18	917	861	2000	1240	8650	1440	2160	1460	1670	761	620	930
19	905	825	1890	1020	11300	1420	2360	1470	1680	744	615	917
20	813	807	1900	1030	6840	1400	2310	1380	1580	738	615	950
21	710	1520	2900	1110	4820	1380	2280	1330	1480	727	610	982
22	537	3080	8270	1060	3790	1560	2320	1310	1420	721	610	1000
23	523	2200	6620	1060	3220	1530	2620	1190	1360	716	605	924
24	523	1880	7250	1130	3220	1500	2780	1220	1270	705	600	899
25	575	1690	21600	1070	2700	1910	2360	1400	1240	699	600	905
26	585	1600	16500	1210	2460	1910	2110	1400	1180	694	600	963
27	625	1550	8570	1380	2250	1900	1880	1280	1130	784	590	1380
28	585	1670	5870	1300	2040	1800	1780	1200	1100	761	590	1100
29	566	2160	4450	1230	---	1880	1760	1160	1060	505	590	956
30	556	2270	3960	1170	---	1970	1810	1110	1030	646	600	772
31	551	---	3310	1410	---	2280	---	1070	---	662	600	---
TOTAL	23913	45144	154120	45440	89100	49740	59880	41120	54849	24921	19030	25736
MEAN	771	1505	4972	1466	3182	1605	1996	1326	1828	804	614	858
MAX	950	3960	21600	2840	11300	2280	2780	1760	6010	1020	656	1380
MIN	523	580	1620	1020	1210	1260	1600	1070	963	505	590	575
CFSM	1.61	3.14	10.4	3.06	6.64	3.35	4.17	2.77	3.82	1.68	1.28	1.79
IN.	1.86	3.51	11.97	3.53	6.92	3.86	4.65	3.19	4.26	1.94	1.48	2.00
AC-FT	47430	89540	305700	90130	176700	98660	118800	81560	108800	49430	37750	51050

CAL YR 1980 TOTAL 717139 MEAN 1959 MAX 21600 MIN 490 CFSM 4.09 IN 55.69 AC-FT 1422000
WTR YR 1981 TOTAL 632993 MEAN 1734 MAX 21600 MIN 505 CFSM 3.62 IN 49.16 AC-FT 1256000

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 (0.3 km) downstream from River Mill Dam, 1.5 mi (2.4 km) northwest of Estacada, and at mile 23.1 (37.2 km).

DRAINAGE AREA.--671 mi^2 (1,738 km^2).

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 (90.504 m) 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 (0.610 m) higher.

REMARKS.--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 above station for Oregon City and Estacada municipal water supply.

AVERAGE DISCHARGE.--73 years, 2,740 ft^3/s (77.60 m^3/s), 55.45 in/yr (1,408 mm/yr), 1,985,000 acre-ft/yr (2.45 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,900 ft^3/s (2,460 m^3/s) Dec. 22, 1964, gage height, 18.36 ft (5.596 m); minimum, 50 ft^3/s (1.42 m^3/s) Mar. 10, 1961, from rating curve extended below 260 ft^3/s (7.36 m^3/s); minimum daily, 285 ft^3/s (8.07 m^3/s) Oct. 4, 5, 1958, caused by filling of North Fork dam forebay.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft^3/s (425 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 3	1600	22,900	649	9.21	2.807	Feb. 16	1530	15,600	442	7.45	2.271
Dec. 25	2400	*42,600	1,210	*12.69	3.868	Feb. 19	0100	18,500	524	8.19	2.496

Minimum, 605 ft^3/s (17.1 m^3/s) Oct. 22-24, 30, 31, Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	661	2680	4000	1920	2610	3460	2440	1630	1410	822	742
2	952	804	10200	3560	1840	2470	2930	2440	1400	1390	864	776
3	959	834	21100	3030	1890	2350	2790	2220	1450	1390	810	625
4	959	709	11800	2790	1770	2440	2560	2150	1500	1230	913	698
5	945	753	6750	2640	1720	2270	2610	2140	1560	1230	793	709
6	959	1560	4720	2350	1700	2160	2570	2070	1620	1250	793	682
7	939	3640	3490	2180	1620	2100	2320	2160	1840	1430	846	677
8	913	5840	2990	2150	1610	1980	2440	2140	7520	1360	882	635
9	985	4040	2800	2100	1610	1870	2920	2150	9990	1200	822	906
10	992	2840	2590	1950	1620	1840	2790	1890	6560	1200	764	965
11	919	2120	2450	1860	1530	1760	2880	2070	4740	1150	770	959
12	952	1710	2320	1740	1690	1820	3310	1870	4060	1100	748	992
13	985	1250	2240	1710	2110	1980	2920	2120	4120	1070	781	952
14	1010	816	2220	2000	3860	1910	2750	1700	3750	1090	753	959
15	1060	1210	2320	1840	4280	1870	2880	1530	3290	1070	736	952
16	1010	1200	2570	1840	10100	2160	3030	2160	3170	1050	787	952
17	1030	1160	2730	1730	9840	2070	3010	2030	3070	1020	720	932
18	985	1110	2620	1730	11900	2020	3030	2260	2710	999	720	926
19	985	1080	2470	1620	16400	1930	3030	2640	2900	1010	720	992
20	965	1010	2470	1250	10400	3050	3150	2440	2710	972	731	959
21	894	1420	3370	1340	6990	1660	3350	2320	2420	939	742	1050
22	759	4240	10400	1360	5530	1690	3440	2280	2360	959	720	1150
23	605	2800	8990	1410	4530	1720	3880	2160	2270	959	682	999
24	615	2350	9310	1630	4220	1720	4240	2110	1960	965	748	952
25	677	2140	29200	1620	3730	2190	3530	2450	1900	906	736	992
26	687	2160	25500	1790	3400	2860	3090	2560	1820	913	666	1070
27	704	2020	12700	2150	3130	2700	2750	2340	1720	945	704	1770
28	720	2540	8400	2110	2860	2490	2390	2100	1640	1030	687	1330
29	709	3190	6380	1980	---	3350	2540	1820	1530	870	714	1180
30	640	3460	5760	1830	---	2620	2590	1830	1530	822	693	1030
31	677	---	4720	1920	---	3010	---	1710	---	834	720	---
TOTAL	27221	60667	218260	63210	123800	68670	89180	66300	88740	33763	23587	28513
MEAN	878	2022	7041	2039	4421	2215	2973	2139	2958	1089	761	950
MAX	1060	5840	29200	4000	16400	3350	4240	2640	9990	1430	913	1770
MIN	605	661	2220	1250	1530	1660	2320	1530	1400	822	666	625
CFSM	1.31	3.01	10.5	3.04	6.59	3.30	4.43	3.19	4.41	1.62	1.13	1.42
IN.	1.51	3.36	12.10	3.50	6.86	3.81	4.94	3.68	4.92	1.87	1.31	1.58
AC-FT	53990	120300	432900	125400	245600	136200	176900	131500	176000	66970	46780	56560

CAL YR 1980 TOTAL 993257 MEAN 2714 MAX 29200 MIN 605 CFSM 4.05 IN 55.07 AC-FT 1970000
WTR YR 1981 TOTAL 891911 MEAN 2444 MAX 29200 MIN 605 CFSM 3.64 IN 49.45 AC-FT 1769000

14211000 CLACKAMAS RIVER NEAR CLACKAMAS, OR

LOCATION.--Lat 45°23'36", long 122°31'54", in NE¼SW¼ sec.14, T.2 S., R.2 E., Clackamas County, Hydrologic Unit 17090011, on left bank 0.8 mi (1.3 km) upstream from Johnson Creek, 2.1 mi (3.4 km) southeast of Clackamas, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--930 mi² (2,409 km²) at gage, 936 mi² (2,424 km²) at Gladstone Bridge 3.6 mi (5.8 km) downstream, where high-flow discharge measurements are made.

PERIOD OF RECORD.--September 1911 to April 1912 (published as "at Park Place"), October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 50.68 ft (15.447 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Sept. 15, 1911, to Apr. 22, 1912, nonrecording gage at site 3.6 mi (5.8 km) downstream at different datum. Oct. 1, 1962, to Sept. 10, 1969, water-stage recorder at site 300 ft (91 m) downstream at present datum.

REMARKS.--Records excellent. Diurnal fluctuations and some regulation by powerplants and several storage dams upstream, operated by Portland General Electric Co. Small diversions above station for Estacada municipal water supply. All records given herein are for gage site.

AVERAGE DISCHARGE.--19 years, 3,609 ft³/s (102.2 m³/s), 52.70 in/yr (1,339 mm/yr), 2,615,000 acre-ft/yr (3.22 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft³/s (3,400 m³/s) Dec. 22, 1964, gage height, 27.0 ft (8.23 m), from floodmarks; minimum, 336 ft³/s (9.52 m³/s) Sept. 1, 11, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 16,000 ft³/s (453 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	1900	32,900	932	13.15	4.008	Feb. 19	1330	21,600	612	10.38	3.164
Dec. 26	0300	*51,400	1,460	*16.90	5.151	June 9	0500	16,600	470	8.97	2.734
Feb. 16	1830	17,100	484	9.13	2.783						

Minimum, 663 ft³/s (18.8 m³/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1050	755	3850	5650	2400	3370	4430	2990	2080	1850	930	797
2	1000	825	11200	4880	2280	3140	3870	2860	1760	1660	950	924
3	970	957	28300	4150	2270	2980	3670	2590	1820	1710	964	749
4	990	837	18900	3630	2180	3460	3390	2540	1860	1540	1000	766
5	963	825	10300	3350	2090	3180	3350	2490	2040	1500	911	791
6	970	1470	7200	3000	2070	2950	3390	2400	2210	1510	898	778
7	963	4190	5190	2700	1980	2820	3060	2600	2440	1680	918	766
8	937	7130	4140	2660	1930	2630	3120	2700	10100	1710	964	733
9	957	5740	3760	2540	1900	2470	4020	2600	14600	1490	943	892
10	1020	3950	3320	2370	1970	2330	3910	2310	9610	1430	841	1010
11	917	2740	3070	2300	1850	2210	4020	2320	7010	1370	866	1080
12	1000	2060	2850	2090	1980	2210	5090	2390	5850	1350	816	1020
13	1050	1690	2680	2030	2430	2400	4490	2270	5870	1300	873	1020
14	1050	1050	2610	2240	4610	2300	3960	2350	5390	1290	860	1040
15	1070	1320	2660	2180	5320	2260	3870	2020	4590	1270	816	1020
16	1020	1450	2900	2100	10800	2620	4020	2510	4690	1250	879	1040
17	1030	1360	3070	2010	11900	2550	3910	2410	4650	1230	822	1000
18	1040	1260	2980	1990	13400	2430	3870	2740	3960	1160	803	971
19	984	1260	2780	1970	20500	2330	3820	3320	4350	1180	797	1020
20	1020	1160	2740	1540	14000	3530	3850	3110	4000	1150	822	1040
21	937	1350	3760	1620	9410	2080	4190	3060	3460	1100	841	1100
22	837	5020	11100	1660	7380	2090	4210	3060	3230	1120	803	1250
23	684	3490	11100	1670	6100	2090	5110	2900	3180	1100	797	1100
24	674	3200	11100	2050	5940	2120	5470	2770	2690	1120	810	1060
25	745	2470	34100	2030	5260	2490	4650	3470	2480	1070	791	1040
26	766	2520	35300	2120	4650	3320	3870	3690	2310	1050	772	1160
27	843	2370	18000	2670	4270	3390	3400	3270	2240	1040	797	1840
28	795	3340	11900	2760	3830	2960	3090	2840	2070	1170	778	1570
29	801	4330	8900	2700	---	3580	3050	2440	1930	986	755	1310
30	714	5110	8060	2450	---	3460	2960	2410	1870	964	803	1220
31	740	---	6640	2440	---	3400	---	2190	---	930	816	---
TOTAL	28537	75229	284460	79550	154700	85150	117110	83620	124340	40280	26436	31107
MEAN	921	2508	9176	2566	5525	2747	3904	2697	4145	1299	853	1037
MAX	1070	7130	35300	5650	20500	3580	5470	3690	14600	1850	1000	1840
MIN	674	755	2610	1540	1850	2080	2960	2020	1760	930	755	733
CFSM	.99	2.70	9.87	2.76	5.94	2.95	4.20	2.90	4.46	1.40	.92	1.12
IN.	1.14	3.01	11.38	3.18	6.19	3.41	4.68	3.34	4.97	1.61	1.06	1.24
AC-FT	56600	149200	564200	157800	306800	168900	232300	165900	246600	79900	52440	61700

CAL YR 1980 TOTAL 1294449 MEAN 3537 MAX 35900 MIN 674 CFSM 3.80 IN 51.78 AC-FT 2568000
WTR YR 1981 TOTAL 1130519 MEAN 3097 MAX 35300 MIN 674 CFSM 3.33 IN 45.22 AC-FT 2242000

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 (0.5 km) southwest of Sycamore station, 2.5 mi (4.0 km) east of city limits of Portland, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--26.5 mi² (68.6 km²).

PERIOD OF RECORD.--July 1940 to current year.

REVISED RECORDS.--WSP 1318: 1941(M). WDR OR-75-1: 1974.

GAGE.--Water-stage recorder and V-notch weir. Datum of gage is 228.47 ft (69.638 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those below 12 ft³/s (0.34 m³/s), which are fair. Slight diurnal fluctuation at low flow caused by recreational ponds upstream. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--41 years, 54.3 ft³/s (1.538 m³/s), 26.15 in/yr (664 mm/yr), 39,340 acre-ft/yr (48.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,620 ft³/s (74.2 m³/s) Dec. 22, 1964, gage height, 14.68 ft (4.474 m); minimum, 0.08 ft³/s (0.002 m³/s) Aug. 21, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 3	2200	*1,330	37.7	*12.07	3.679	Feb. 19	0600	579	16.4	8.24	2.512
Dec. 22	0845	609	17.2	8.50	2.591	June 8	1100	513	14.5	7.93	2.417
Dec. 25	2145	1,090	30.9	11.27	3.435						

Minimum, 0.78 ft³/s (0.022 m³/s) Sept. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	4.9	56	74	38	50	54	10	11	7.8	1.6	1.1
2	1.1	3.5	540	59	31	42	42	9.3	8.8	6.1	1.7	1.1
3	1.4	31	920	47	27	52	43	10	7.8	4.9	1.6	.98
4	1.5	19	610	37	24	143	36	9.3	14	4.3	1.6	1.1
5	1.7	2.2	239	33	23	92	37	20	15	3.7	1.6	1.1
6	2.3	46	142	28	22	70	32	13	16	4.1	1.4	1.1
7	2.1	101	90	24	20	57	30	17	72	6.4	1.3	.98
8	1.9	147	66	23	18	46	63	10	315	4.7	1.3	.91
9	1.7	124	50	21	17	38	68	9.6	253	3.5	1.2	.91
10	2.0	62	42	19	17	32	51	8.0	151	3.2	1.1	.98
11	2.2	35	35	19	17	29	115	7.2	93	3.0	1.2	.91
12	3.7	23	31	16	22	26	129	10	63	2.6	1.1	.98
13	3.7	18	26	14	40	23	90	13	53	2.2	1.1	.98
14	2.3	15	23	13	150	21	66	46	39	2.2	1.1	.98
15	2.2	14	19	11	106	25	54	31	31	2.1	1.1	.91
16	1.9	11	16	14	211	43	41	30	82	2.0	1.1	.91
17	1.8	12	14	13	171	27	35	18	54	2.0	1.1	.91
18	1.6	14	13	14	287	24	29	44	45	2.0	1.1	.84
19	1.6	10	11	12	473	22	24	54	48	2.0	.98	1.3
20	1.6	9.1	34	11	221	21	21	35	38	2.0	1.1	2.7
21	1.6	23	164	18	128	22	21	35	31	2.0	1.1	33
22	1.7	64	447	18	90	22	21	31	27	1.9	1.1	4.9
23	2.1	46	207	19	69	22	20	24	24	1.9	1.3	1.9
24	2.6	52	505	20	149	21	20	27	19	1.8	1.3	1.5
25	5.9	39	929	19	104	54	16	45	16	1.9	2.1	1.5
26	11	33	550	52	92	36	15	32	14	1.8	1.1	8.8
27	3.2	39	309	63	83	30	17	25	12	1.8	1.1	23
28	2.2	76	166	88	62	27	17	20	10	1.5	1.1	9.6
29	2.0	123	137	81	---	27	14	17	9.3	1.6	.91	10
30	1.9	87	146	59	---	27	12	15	9.3	1.5	.91	3.2
31	1.7	---	97	46	---	51	---	13	---	1.6	.91	---
TOTAL	75.3	1283.7	6634	985	2712	1222	1233	688.4	1581.2	90.1	38.31	119.08
MEAN	2.43	42.8	214	31.8	96.9	39.4	41.1	22.2	52.7	2.91	1.24	3.97
MAX	11	147	929	88	473	143	129	54	315	7.8	2.1	33
MIN	1.1	2.2	11	11	17	21	12	7.2	7.8	1.5	.91	.84
CFSM	.09	1.62	8.08	1.20	3.66	1.49	1.55	.84	1.99	.11	.05	.15
IN.	.11	1.80	9.31	1.38	3.81	1.72	1.73	.97	2.22	.13	.05	.17
AC-FT	149	2550	13160	1950	5380	2420	2450	1370	3140	179	76	236

CAL YR 1980 TOTAL 22790.40 MEAN 62.3 MAX 1450 MIN .70 CFSM 2.35 IN 31.99 AC-FT 45200
WTR YR 1981 TOTAL 16662.09 MEAN 45.6 MAX 929 MIN .84 CFSM 1.72 IN 23.39 AC-FT 33050

14211720 WILLAMETTE RIVER AT PORTLAND, OR
(National stream-quality accounting network station)

LOCATION.--Lat 45°31'07", long 122°40'00", in NW¼NE¼ 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 (20.6 km).

DRAINAGE AREA.--11,100 mi² (28,700 km²), 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 (0.472 m) National Geodetic Vertical Datum of 1929 (levels by National Weather Service).

REMARKS.--Water-discharge records fair above 50,000 ft³/s (1,420 m³/s), poor below. Flow regulated by many resevoirs upstream (see elsewhere in this report). Many diversions for irrigation above station.

AVERAGE DISCHARGE.--9 years, 31,520 ft³/s (893 m³/s), 22,840,000 acre-ft/yr (28.2 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 283,000 ft³/s (8,010 m³/s) Jan. 18, 1974; maximum gage height, 23.84 ft (7.266 m) Jan. 18, 1974; minimum daily discharge, 4,200 ft³/s (119 m³/s) July 10, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of June 7, 1894, and June 1, 1948, reached stages of 33.0 ft (10.06 m) and 30.0 ft (9.14 m), respectively, from information by U.S. Weather Bureau.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198,000 ft³/s (5,610 m³/s) Dec. 28; maximum gage height, 16.57 ft (5.051 m) June 11; minimum daily discharge, 7,000 ft³/s (198 m³/s) July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	14000	36000	95000	26000	33000	37000	18000	17000	13000	10000	10000
2	11000	15000	46000	85000	23000	28000	40000	17000	16000	12000	9000	11000
3	11000	15000	103000	77000	23000	26000	39000	17000	16000	11000	9000	11000
4	12000	15000	131000	66000	22000	30000	38000	17000	15000	12000	9000	11000
5	11000	15000	136000	56000	21000	33000	34000	17000	15000	11000	9000	11000
6	11000	15000	135000	48000	22000	31000	31000	17000	14000	10000	9000	11000
7	11000	20000	118000	42000	21000	28000	31000	18000	16000	9000	8000	9000
8	12000	33000	97000	38000	20000	26000	29000	19000	24000	10000	10000	10000
9	11000	41000	83000	34000	18000	24000	31000	19000	45000	10000	9000	11000
10	11000	40000	70000	32000	19000	22000	36000	17000	58000	9000	8000	12000
11	11000	33000	62000	31000	19000	21000	37000	16000	59000	11000	9000	12000
12	11000	29000	58000	26000	19000	19000	42000	16000	46000	10000	9000	11000
13	12000	28000	53000	24000	19000	19000	47000	15000	37000	9000	8000	11000
14	12000	25000	49000	23000	25000	19000	47000	15000	37000	9000	9000	11000
15	13000	23000	43000	23000	35000	19000	42000	14000	36000	9000	8000	11000
16	13000	21000	42000	22000	46000	18000	39000	14000	35000	9000	9000	12000
17	12000	20000	39000	20000	64000	19000	38000	16000	33000	9000	9000	12000
18	13000	20000	36000	18000	81000	21000	35000	15000	31000	9000	8000	11000
19	13000	18000	33000	18000	96000	20000	32000	17000	27000	9000	8000	12000
20	12000	18000	32000	17000	104000	20000	31000	18000	27000	7000	9000	11000
21	12000	16000	33000	17000	99000	18000	29000	22000	28000	9000	8000	12000
22	11000	24000	49000	17000	84000	18000	27000	22000	26000	9000	9000	13000
23	11000	32000	73000	18000	67000	18000	29000	22000	24000	9000	8000	14000
24	11000	34000	87000	19000	57000	19000	28000	20000	24000	9000	9000	14000
25	12000	30000	135000	20000	52000	20000	28000	21000	21000	9000	10000	13000
26	12000	28000	185000	18000	48000	24000	26000	24000	19000	9000	9000	14000
27	12000	27000	191000	23000	44000	26000	23000	27000	17000	9000	9000	14000
28	12000	27000	188000	27000	39000	26000	23000	27000	16000	9000	9000	15000
29	12000	28000	159000	30000	---	24000	23000	24000	15000	8000	9000	15000
30	12000	33000	134000	31000	---	24000	22000	22000	15000	9000	10000	15000
31	14000	---	119000	27000	---	26000	---	20000	---	9000	9000	---
TOTAL	366000	737000	2755000	1042000	1213000	719000	994000	583000	809000	296000	275000	360000
MEAN	11810	24570	88870	33610	43320	23190	33130	18810	26970	9548	8871	12000
MAX	14000	41000	191000	95000	104000	33000	47000	27000	59000	13000	10000	15000
MIN	11000	14000	32000	17000	18000	18000	22000	14000	14000	7000	8000	9000
AC-FT	726000	1462000	5465000	2067000	2406000	1426000	1972000	1156000	1605000	587100	545500	714100

CAL YR 1980	TOTAL	11610100	MEAN	31720	MAX	205000	MIN	7000	AC-FT	23030000
WTR YR 1981	TOTAL	10149000	MEAN	27810	MAX	191000	MIN	7000	AC-FT	20130000

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1981 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1975 to September 1981 (discontinued).
WATER TEMPERATURES: November 1975 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 120 micromhos Feb. 8, 1977; minimum, 44 micromhos Dec. 3, 1975.
WATER TEMPERATURES: Maximum, 27.5°C July 29, Aug. 7, 8, 1978; minimum, 0.0°C Jan. 3-10, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily recorded, 102 micromhos Aug. 20; minimum, 50 micromhos June 12.
WATER TEMPERATURES: Maximum, 25.0°C Aug. 14-17; minimum, 5.0°C Feb. 8-13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	DIS-CHARGE, IN CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
08...	1500	12000	80	7.6	17.0	8.7	400	K9	28	3.0	8.0	2.0
NOV												
04...	1130	15000	87	6.8	12.0	--	710	K17	25	2.0	6.3	2.2
DEC												
08...	1400	97000	61	7.0	6.0	12.7	K2500	450	20	2.0	5.3	1.7
JAN												
06...	0930	135000	70	6.7	7.0	12.8	K1200	34	21	.00	5.6	1.8
FEB												
13...	1100	19000	97	6.9	5.5	12.8	500	50	33	4.0	8.3	2.9
MAR												
04...	1330	26000	79	--	9.0	11.6	K3000	87	28	--	7.3	2.4
APR												
08...	1000	29000	74	7.0	10.5	11.4	K2300	90	28	7.0	7.4	2.2
MAY												
08...	1000	19000	82	7.6	13.0	10.4	76	59	27	.00	6.7	2.6
JUN												
02...	1230	16000	67	6.9	16.5	8.7	K11	140	22	1.0	5.8	1.8
JUL												
24...	1130	9000	91	6.9	21.0	7.6	K37	K21	28	4.0	6.8	2.6
AUG												
13...	1230	8000	91	6.8	24.0	--	K42	K15	31	6.0	8.0	2.6
SEP												
23...	1200	14000	82	6.9	18.5	9.0	K14	46	27	.00	7.0	2.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT												
08...	5.5	1.0	25	4.6	3.9	.1	.29	.140	.65	.110	--	--
NOV												
04...	5.4	.9	23	2.8	4.4	.1	.20	.060	.67	.200	.84	1.0
DEC												
08...	3.1	.8	18	3.7	3.1	.1	1.2	.100	.86	.110	--	--
JAN												
06...	3.8	.7	24	4.5	2.7	.1	.74	.110	1.1	--	--	--
FEB												
13...	6.3	.9	29	7.8	5.5	.1	1.0	.130	.89	.120	--	--
MAR												
04...	4.9	.7	21	5.9	5.4	.1	.74	.020	.76	.020	.93	1.7
APR												
08...	4.7	.8	21	11	3.6	.1	.52	.080	.92	.070	.95	1.5
MAY												
08...	5.3	.7	31	1.4	3.7	<.1	.45	.130	.62	.180	.85	1.3
JUN												
02...	4.8	.9	21	1.0	2.9	<.1	--	--	--	.100	.52	.80
JUL												
24...	6.6	1.2	24	5.0	5.0	.1	.48	.180	.57	.160	.60	1.1
AUG												
13...	6.6	1.0	25	<1.0	4.6	.1	.23	.120	.30	.160	.69	1.0
SEP												
23...	5.9	.7	27	6.0	5.0	.1	.32	.050	.47	.180	.85	1.2

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	TURBIDITY (FTU)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT												
08...	.070	.080	3.6	.3	--	17	61	59	--	11	356	79
NOV												
04...	.120	.110	--	--	4.2	16	63	53	3.7	9	364	88
DEC												
08...	.050	.100	--	--	3.5	14	57	48	35	49	12800	80
JAN												
06...	.050	.080	2.6	.4	--	16	--	53	10	20	7290	94
FEB												
13...	.080	.120	--	--	3.1	18	67	72	5.8	6	308	91
MAR												
04...	.050	.080	--	--	3.3	16	65	59	7.5	13	913	86
APR												
08...	.050	.080	--	--	--	15	54	60	5.7	10	783	92
MAY												
08...	.080	.090	--	--	3.1	15	66	56	2.9	9	462	94
JUN												
02...	.060	.080	--	--	3.9	15	55	55	3.1	6	259	92
JUL												
24...	.070	.090	2.7	.2	--	21	63	65	4.7	10	243	97
AUG												
13...	.070	.060	--	--	2.8	16	62	--	1.4	9	194	91
SEP												
23...	.050	.060	--	--	3.4	17	59	62	3.0	10	378	70

DATE	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
OCT										
08...	2	2	20	<100	<1	1	<10	10	<3	<1
JAN										
06...	1	1	20	<100	2	<1	<10	10	<3	2
APR										
08...	1	2	10	<100	<1	<1	<10	10	<3	<1
JUL										
24...	2	2	<2	<100	<1	<1	10	10	<3	1

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT									
08...	7	15	70	400	3	4	20	30	<.1
JAN									
06...	3	5	70	1000	2	5	10	40	<.1
APR									
08...	3	4	100	500	<1	5	20	30	<.1
JUL									
24...	3	10	70	450	7	--	<1	40	.1

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
08...	.1	<1	9	<1	<1	<1	<1	40	70
JAN									
06...	.1	<1	3	<1	<1	<1	<1	10	10
APR									
08...	<.1	1	6	<1	<1	<1	<1	30	450
JUL									
24...	<.1	3	2	<1	<1	<1	<1	10	40

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 4,80	MAR 4,81	MAY 8,81	JUN 2,81
TIME	1130	1330	1000	1230
TOTAL CELLS/ML	930	360	1400	2400
DIVERSITY: DIVISION	0.8	0.6	1.5	1.4
.CLASS	0.8	0.6	1.5	1.4
..ORDER	0.9	0.6	2.1	1.9
...FAMILY	1.0	0.6	2.2	2.2
....GENUS	1.7	1.4	2.7	3.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	13	1
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	13	1	--	-	39	3	26	1
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	190#	21	52	14	150	11	570#	24
....MELOSIRA	570#	61	240#	68	--	-	230	10
....STEPHANODISCUS	--	-	13	4	370#	26	280	12
..FRAGILARIALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	220#	15	100	4
....DIATOMA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	26	1
....SYNEDRA	--	-	--	-	26	2	--	-
..NAVICULALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	13	1
...GOMPHONEMACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....PLANKTOSPHAERIA	--	-	--	-	--	-	--	-
....SCHROEDERIA	13	1	--	-	--	-	--	-
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	--	-	--	-	720#	30
...MICRACTINIACEAE								
....MICRACTINIUM	26	3	52	14	--	-	51	2
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	39	3	--	-
....CHODATELLA	--	-	--	-	--	-	13	1
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....NEPHROCYTIUM	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	13	1	--	-	13	1	26	1
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	210	15	51	2
....TETRASTRUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	51	2
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	100	11	--	-	330#	24	190	8
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	26	1
....TRACHELOMONAS	--	-	--	-	13	1	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..DINOKONTAE								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 24,81	AUG 13,81	SEP 23,81
TIME	1130	1230	1200
TOTAL CELLS/ML	9000	7800	1800
DIVERSITY: DIVISION	1.6	1.5	1.0
.CLASS	1.6	1.5	1.0
..ORDER	2.1	1.8	2.7
...FAMILY	2.6	2.0	2.9
....GENUS	3.0	2.5	3.7

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	72	4
....COCCONEIS	--	-	--	-	58	3
....RHOICOSPHENIA	*	0	--	-	140	8
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	70	1	120	2	43	2
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	2000#	22	580	7	320#	18
....MELOSIRA	2200#	24	3000#	39	330#	19
....STEPHANODISCUS	--	-	--	-	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	120	7
....DIATOMA	--	-	--	-	43	2
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	*	0	79	1	100	6
..NAVICULALES						
...CYMBELLACEAE						
....CYMBELLA	110	1	--	-	14	1
...GOMPHONEMACEAE						
....GOMPHONEMA	--	-	--	-	58	3
...NAVICULACEAE						
....NAVICULA	*	0	*	0	86	5
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....PLANKTOSPHAERIA	--	-	60	1	--	-
....SCHROEDERIA	--	-	40	1	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	1100	12	160	2	58	3
...MICRACTINIACEAE						
....MICRACTINIUM	420	5	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	320	4	180	2	--	-
....CHODATELLA	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	160	2	--	-
....NEPHROCYTIUM	--	-	160	2	--	-
....OOCYSTIS	--	-	260	3	--	-
....SELENASTRUM	--	-	--	-	--	-
....TREUBARIA	*	0	--	-	--	-
...SCENEDESMACEAE						
....GLOEOACTINIUM	--	-	--	-	130	7
....SCENEDESMUS	350	4	--	-	--	-
....TETRASTRUM	--	-	79	1	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	110	1	40	1	58	3
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	*	0	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	1600#	18	240	3	120	7
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	530	6	2600#	33	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	14	1
....TRACHELOMONAS	--	-	--	-	14	1
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..DINOKONTAE						
...GYMNODINIACEAE						
....GYMNODINIUM	70	1	--	-	--	-
...PERIDINIACEAE						
....PERIDINIUM	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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 SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L)
FEB 13...	1.7	<.4	1.1	<.4	1.1	<.4	.05	<.02

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	83	70	57	89	76	81	75	65	78	92	94
2	79	83	71	58	88	77	77	76	67	79	92	93
3	79	83	62	60	89	79	72	78	69	81	92	93
4	78	82	59	61	90	80	72	81	71	82	94	93
5	78	83	59	66	90	81	73	80	72	83	94	92
6	78	85	61	68	92	84	73	80	73	85	95	91
7	79	84	64	70	93	85	73	79	75	85	95	90
8	79	81	65	71	94	86	75	79	78	86	95	88
9	79	78	66	74	95	87	74	80	69	85	93	87
10	79	68	66	76	95	88	74	81	63	84	92	87
11	79	64	66	76	95	88	76	80	53	84	92	87
12	79	64	66	76	96	89	72	79	52	85	92	86
13	80	64	66	78	97	90	73	79	54	84	92	86
14	79	66	67	81	96	91	74	79	57	85	93	87
15	79	67	67	83	92	91	73	79	60	86	93	87
16	81	68	69	84	88	92	70	82	59	87	92	---
17	81	70	69	85	73	92	70	85	59	87	93	---
18	80	72	69	85	64	93	70	82	61	88	95	---
19	80	72	73	86	58	93	69	84	62	88	97	---
20	80	73	73	87	58	92	70	81	62	89	99	---
21	80	74	73	89	58	89	71	79	63	90	98	---
22	80	75	73	93	60	90	70	76	65	91	97	---
23	81	75	73	94	64	92	70	71	65	92	96	---
24	81	78	66	95	66	93	69	68	65	92	95	---
25	81	72	57	96	68	93	69	67	66	92	95	---
26	80	69	53	97	71	91	70	66	69	91	94	---
27	80	69	52	99	73	89	70	67	71	90	94	---
28	79	70	53	98	75	89	71	65	72	90	94	---
29	80	69	56	96	---	89	73	62	74	91	93	---
30	82	70	56	92	---	86	74	63	76	91	93	---
31	84	---	57	91	---	83	---	64	---	91	93	---
MEAN	80	74	64	81	81	88	72	76	66	87	94	89

14211720 WILLAMETTE RIVER AT PORTLAND, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	16.0	12.0	11.5	8.5	8.5	9.0	9.0	6.5	6.5	8.0	7.5
2	16.0	16.0	12.0	11.5	8.5	8.0	9.0	8.5	6.5	6.0	8.5	8.0
3	16.0	16.0	12.0	11.5	8.0	7.5	8.5	8.0	6.0	6.0	8.5	8.0
4	16.5	16.0	11.5	11.5	8.0	8.0	8.0	8.0	6.0	6.0	8.5	8.5
5	17.0	16.5	12.0	11.5	8.0	7.0	8.0	7.5	6.0	5.5	8.5	8.5
6	17.0	16.5	12.5	12.0	7.0	6.5	7.5	7.5	5.5	5.5	8.5	8.0
7	16.5	16.5	12.5	12.5	6.5	6.0	7.5	7.5	5.5	5.5	8.5	8.0
8	16.5	16.5	12.5	12.0	6.0	6.0	7.5	7.0	5.5	5.0	8.0	8.0
9	16.5	16.0	12.5	12.0	5.5	5.5	7.5	7.0	5.0	5.0	8.5	8.0
10	16.5	16.0	12.0	11.0	5.5	5.5	7.0	7.0	5.0	5.0	8.5	8.0
11	16.0	16.0	11.0	10.5	5.5	5.5	7.0	7.0	5.0	5.0	9.0	8.5
12	16.0	15.5	10.5	9.5	6.0	5.5	7.0	6.5	5.0	5.0	9.5	8.5
13	15.5	15.0	9.5	9.0	6.0	6.0	7.0	6.5	5.5	5.0	9.5	9.0
14	15.0	14.5	9.0	9.0	6.0	6.0	6.5	6.0	6.0	5.5	10.0	9.5
15	14.5	14.0	9.0	8.5	6.0	5.5	6.0	5.5	7.5	6.0	10.0	9.5
16	14.0	13.5	8.5	8.0	6.0	6.0	5.5	5.5	8.5	7.5	10.0	10.0
17	14.0	13.5	8.5	8.0	6.0	6.0	5.5	5.5	9.0	8.5	10.5	9.5
18	13.5	13.5	9.0	8.5	6.5	6.0	5.5	5.5	9.0	8.5	10.0	10.0
19	14.0	13.5	9.0	8.5	6.5	6.0	5.5	5.5	9.0	8.5	10.0	9.5
20	13.5	13.0	9.0	8.5	6.5	6.0	5.5	5.5	9.0	9.0	9.5	9.5
21	13.0	13.0	9.5	9.0	6.5	6.0	6.0	5.5	9.0	8.5	9.5	9.0
22	12.5	12.5	9.5	9.5	7.5	6.5	6.5	6.0	8.5	8.0	9.0	9.0
23	12.5	12.5	9.5	9.0	8.5	7.5	7.0	6.5	8.0	8.0	9.0	9.0
24	12.5	12.5	9.0	9.0	8.5	8.0	7.5	7.0	8.0	8.0	9.5	9.0
25	12.5	12.5	9.0	8.5	9.0	8.0	7.5	7.5	8.5	8.0	10.0	9.5
26	12.5	12.5	8.5	8.5	10.0	9.0	8.0	7.5	8.5	8.0	10.5	10.0
27	12.5	12.0	8.5	8.5	10.5	10.0	8.0	8.0	8.0	7.5	10.5	10.0
28	12.0	11.5	8.5	8.5	10.5	10.0	7.5	7.0	7.5	7.5	11.0	10.5
29	12.0	11.5	9.0	8.5	10.0	9.0	7.0	7.0	---	---	11.0	10.5
30	11.5	11.5	8.5	8.5	9.0	8.5	7.0	6.5	---	---	10.5	10.0
31	11.5	11.5	---	---	9.0	8.5	6.5	6.5	---	---	10.0	10.0
MONTH	17.0	11.5	12.5	8.0	10.5	5.5	9.0	5.5	9.0	5.0	11.0	7.5

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	9.5	13.5	12.5	16.5	16.0	19.0	18.5	22.0	21.5	20.5	20.0
2	9.5	9.0	14.0	13.5	16.5	16.0	19.0	18.5	22.0	22.0	20.0	19.5
3	9.0	8.5	15.0	14.0	16.5	16.5	20.0	19.0	22.5	22.0	20.0	19.5
4	9.0	8.5	15.0	14.5	17.0	16.5	20.5	19.5	22.5	22.0	19.5	19.0
5	9.5	8.5	14.5	14.5	16.5	16.5	20.5	20.0	22.0	21.5	19.5	19.0
6	9.5	9.0	14.5	13.5	16.5	16.5	20.5	20.5	22.5	21.5	19.5	19.0
7	10.0	9.5	13.5	13.0	16.5	16.0	20.5	20.0	22.5	22.0	20.0	19.0
8	10.0	10.0	13.0	12.5	16.5	15.5	---	20.0	23.0	22.0	20.0	19.5
9	10.0	9.5	12.5	12.5	15.5	13.5	20.5	20.0	23.0	22.5	19.5	19.0
10	9.5	9.0	12.5	12.5	14.0	12.5	20.5	20.0	23.5	22.5	19.5	19.0
11	9.5	9.0	13.0	12.5	13.0	12.5	20.5	20.5	23.5	23.0	19.5	19.0
12	9.0	9.0	14.0	13.0	13.0	12.5	20.5	19.5	24.0	23.0	19.5	19.0
13	9.0	9.0	14.0	13.5	13.0	13.0	19.5	19.0	24.5	23.5	19.5	19.5
14	9.5	9.0	14.5	14.0	13.5	12.5	19.5	19.0	25.0	24.0	19.5	19.0
15	10.0	9.5	15.0	14.5	14.0	13.0	19.5	19.0	25.0	24.5	19.5	19.0
16	10.5	10.0	15.0	14.5	14.0	13.0	20.0	19.5	25.0	24.5	19.5	19.0
17	11.0	10.5	15.0	15.0	14.5	13.5	20.0	19.5	25.0	24.5	19.5	19.0
18	11.5	11.0	15.0	15.0	15.0	14.0	20.5	20.0	24.5	24.5	19.5	19.0
19	12.0	11.0	15.0	14.5	15.0	14.5	21.0	20.0	24.5	23.5	19.0	18.5
20	12.0	11.5	14.5	14.0	14.5	14.0	20.5	20.5	23.5	23.0	18.5	18.0
21	12.0	12.0	14.0	13.5	14.5	14.5	21.0	20.5	23.0	23.0	18.0	18.0
22	12.0	11.5	13.5	13.0	15.0	14.5	21.5	21.0	22.5	22.0	18.0	17.5
23	11.5	11.5	13.5	13.0	15.0	14.5	22.0	21.5	22.5	21.5	17.5	16.5
24	11.5	11.5	13.5	13.5	16.0	15.0	21.5	21.0	22.0	21.5	16.5	16.0
25	12.0	11.5	14.5	13.5	17.0	15.5	22.0	21.0	22.0	21.5	16.0	15.5
26	12.5	11.5	15.0	14.0	17.0	16.5	22.0	21.5	21.5	21.0	15.5	15.0
27	12.5	12.0	15.5	14.5	17.5	17.0	22.5	21.5	21.0	20.5	15.0	15.0
28	12.5	12.0	16.0	15.0	18.0	17.5	22.5	22.0	---	20.0	15.0	14.5
29	13.0	12.0	15.5	15.0	19.0	18.0	22.5	22.0	20.5	20.5	15.0	14.5
30	13.0	12.0	15.5	15.5	18.5	18.5	22.5	22.0	20.5	20.5	15.0	14.5
31	---	---	16.5	15.5	---	---	22.0	22.0	20.5	20.5	---	---
MONTH	13.0	8.5	16.5	12.5	19.0	12.5	22.5	18.5	25.0	20.0	20.5	14.5

14222880 COLUMBIA RIVER AT COLUMBIA CITY, OR

LOCATION.--Lat 45°53'41", long 122°48'23", in NE¼NE¼ sec.28, T.5 N., R.1 W., Columbia County, Hydrologic Unit 17080003, on left bank in Columbia City, at the pumping station at the corner of "E" Street and "The Strand", and at mile 84.0 (135.2 km).

DRAINAGE AREA.--254,000 mi² (657,900 km²), approximately.

PERIOD OF RECORD.--October 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 0.79 ft (0.241 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 19.68 ft (5.998 m) Jan. 19, 1974; minimum, -0.10 ft (-0.030 m) Sept. 9, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 13.78 ft (4.200 m) June 11; minimum, 0.38 ft (0.116 m) Sept. 7.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	4.00	1.71	2.81	4.21	1.25	2.97	5.27	2.96	3.98	10.60	9.59	10.18
2	3.91	1.07	2.35	4.27	1.61	2.96	6.18	3.03	4.66	10.05	9.16	9.60
3	4.07	1.22	2.83	4.43	1.45	2.97	8.22	5.64	6.91	10.06	8.91	9.50
4	4.51	1.46	2.85	4.71	1.76	3.19	9.34	7.82	8.49	9.57	7.95	8.97
5	4.16	.96	2.80	4.82	1.84	3.37	9.48	8.07	8.71	8.83	7.10	8.13
6	4.47	1.34	2.96	5.13	1.84	3.57	9.16	7.51	8.49	8.22	6.42	7.29
7	4.21	1.13	2.82	6.53	2.53	4.74	8.21	6.47	7.52	8.46	6.25	7.30
8	4.20	1.35	2.82	6.80	3.64	5.17	7.74	6.18	6.82	7.95	6.26	6.97
9	3.98	1.08	2.50	6.43	3.82	4.90	7.34	5.78	6.46	7.88	5.70	6.81
10	4.51	1.15	2.72	5.89	3.23	4.41	7.11	5.30	6.10	7.29	5.62	6.46
11	4.47	1.09	2.83	5.67	3.03	4.25	6.68	4.84	5.70	6.81	5.15	5.93
12	4.73	1.49	2.99	5.07	2.63	3.76	6.43	4.68	5.59	6.20	4.15	5.20
13	4.45	1.29	2.88	4.97	2.63	3.90	5.83	4.07	4.99	6.50	4.34	5.22
14	4.42	1.08	2.69	5.00	2.83	3.93	5.56	3.68	4.49	6.37	4.22	5.15
15	4.14	1.28	2.68	3.95	2.22	3.03	5.09	2.78	3.96	6.45	4.31	5.15
16	3.75	1.28	2.46	3.40	1.06	2.36	5.80	3.18	4.36	6.86	4.40	5.39
17	3.42	.88	2.20	4.13	.86	2.61	6.15	3.31	4.51	7.26	4.41	5.76
18	3.46	.88	2.14	4.65	1.53	2.99	6.89	3.75	4.98	6.86	3.42	5.19
19	3.61	.62	2.17	5.28	2.01	3.54	6.91	3.99	5.20	7.39	3.41	5.30
20	3.87	.92	2.54	5.93	2.60	4.05	7.14	3.88	5.18	7.41	4.25	5.67
21	4.45	1.37	2.93	7.06	2.96	4.89	7.71	3.89	5.56	7.34	4.15	5.64
22	4.33	1.14	2.74	7.51	4.13	5.65	8.48	4.46	6.56	7.69	4.63	6.20
23	4.73	1.23	2.96	7.33	4.35	5.55	8.30	5.79	6.89	7.18	5.11	6.10
24	5.47	1.64	3.55	6.49	3.77	4.90	8.88	6.08	7.51	6.39	4.27	5.36
25	5.58	1.92	3.66	6.00	3.25	4.45	10.69	7.69	9.40	5.97	4.00	4.86
26	5.23	1.85	3.48	5.68	2.88	4.17	13.02	10.64	12.09	5.59	2.93	4.37
27	5.02	1.88	3.29	5.24	3.06	4.24	13.55	12.91	13.25	6.16	3.88	5.07
28	4.69	1.66	3.00	4.76	2.66	3.77	13.47	13.06	13.22	6.42	4.50	5.21
29	4.18	1.26	2.70	5.90	2.77	4.53	13.13	12.46	12.85	6.02	4.28	4.94
30	3.81	1.05	2.49	5.58	3.21	4.29	12.45	11.01	11.56	5.61	3.83	4.61
31	3.84	1.09	2.62	---	---	---	11.35	10.49	10.97	5.67	3.80	4.57
MONTH	5.58	.62	2.79	7.51	.86	3.97	13.55	2.78	7.32	10.60	2.93	6.20

14222880 COLUMBIA RIVER AT COLUMBIA CITY, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.66	3.44	4.51	5.57	3.31	4.53	6.16	4.14	5.09	6.67	4.90	5.77
2	5.72	3.32	4.34	5.36	3.12	4.17	6.52	4.49	5.41	7.24	5.17	6.13
3	6.39	3.39	4.85	6.14	3.66	4.79	6.91	4.78	5.80	7.64	5.40	6.55
4	6.72	3.96	5.27	6.95	4.45	5.62	6.81	4.19	5.57	8.47	5.98	7.25
5	7.05	4.41	5.62	6.74	4.22	5.44	6.77	4.11	5.39	8.79	6.50	7.68
6	6.98	4.71	5.74	6.81	4.11	5.32	6.59	3.79	5.04	8.83	6.60	7.51
7	6.29	4.08	5.15	6.69	4.21	5.39	6.62	3.79	5.03	8.40	6.49	7.31
8	5.88	3.34	4.63	6.27	3.63	4.90	7.02	4.07	5.37	8.13	6.21	7.06
9	5.71	2.96	4.40	6.20	3.48	4.77	6.78	4.30	5.32	7.11	4.82	6.00
10	5.83	3.68	4.70	6.34	3.47	4.67	6.42	4.20	5.25	5.46	3.23	4.50
11	6.05	3.89	4.82	6.32	3.41	4.56	6.22	3.91	5.06	5.26	3.48	4.30
12	6.45	4.01	4.96	5.96	3.16	4.35	5.61	3.52	4.58	5.65	3.87	4.58
13	6.37	3.87	4.88	5.65	3.11	4.17	5.15	3.44	4.29	5.82	4.16	4.97
14	6.52	3.79	5.05	5.35	2.51	3.88	5.50	3.52	4.61	6.01	4.22	5.04
15	6.55	4.08	5.08	5.30	2.29	3.70	5.73	3.66	4.70	6.25	4.26	5.27
16	8.05	4.74	6.40	5.10	2.37	3.65	5.87	3.81	4.78	6.33	4.33	5.23
17	8.65	6.76	7.62	5.33	2.80	3.92	6.07	3.77	4.90	6.55	3.83	5.07
18	9.44	7.32	8.60	5.65	3.16	4.41	5.89	3.38	4.55	6.21	3.84	5.09
19	11.44	8.57	10.44	6.25	3.23	4.78	6.04	3.39	4.57	7.03	4.62	5.81
20	11.40	10.60	11.05	6.43	3.79	5.08	5.81	3.16	4.29	7.13	4.55	5.71
21	10.90	9.82	10.42	5.97	3.23	4.58	5.50	2.75	4.04	6.58	4.38	5.44
22	9.97	8.33	9.25	5.80	2.94	4.29	5.67	3.01	4.35	6.51	4.29	5.43
23	8.73	7.25	7.95	5.65	2.85	4.30	6.24	4.02	5.07	6.82	4.82	5.80
24	8.16	6.81	7.32	5.74	3.17	4.39	5.74	3.29	4.51	6.44	4.72	5.65
25	7.42	6.15	6.67	6.07	3.47	4.59	5.55	3.64	4.57	6.86	5.17	6.01
26	7.22	5.96	6.52	5.70	3.39	4.40	5.42	3.68	4.52	6.29	4.69	5.56
27	6.49	4.89	5.73	5.11	3.11	4.00	4.74	2.70	3.79	7.56	5.63	6.27
28	5.99	4.31	5.15	4.74	2.65	3.67	5.62	3.90	4.60	8.52	7.05	7.47
29	---	---	---	4.97	2.94	3.88	6.02	4.33	5.13	9.00	7.79	8.21
30	---	---	---	4.50	2.56	3.65	6.32	4.71	5.56	9.44	8.54	9.02
31	---	---	---	5.62	3.73	4.53	---	---	---	10.10	8.98	9.50
MONTH	11.44	2.96	6.33	6.95	2.29	4.46	7.02	2.70	4.86	10.10	3.23	6.17

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.65	9.60	10.11	7.96	5.50	6.49	6.84	4.22	5.32	5.00	2.11	3.57
2	11.16	9.89	10.51	7.62	5.14	6.22	6.05	2.92	4.42	4.76	1.87	3.31
3	11.32	9.96	10.52	7.33	4.93	6.01	5.38	2.68	4.03	4.35	1.63	2.96
4	11.20	9.86	10.42	7.22	4.87	5.94	5.21	2.71	4.01	4.08	1.42	2.63
5	10.94	9.73	10.31	6.73	4.48	5.59	5.13	2.77	3.90	3.80	1.30	2.36
6	11.06	10.14	10.64	6.21	4.15	5.32	5.13	2.83	3.89	3.18	.87	1.92
7	10.93	10.04	10.53	6.77	4.97	5.76	5.35	2.98	3.79	3.75	.38	1.69
8	11.87	10.35	10.91	7.28	5.81	6.29	5.21	3.13	4.13	3.92	1.13	2.40
9	12.97	11.69	12.14	7.28	6.17	6.62	4.98	2.31	3.40	4.04	1.31	2.60
10	13.62	12.99	13.22	7.28	6.16	6.60	4.37	1.67	2.78	4.24	1.30	2.67
11	13.78	13.42	13.64	7.26	4.92	5.97	4.72	1.99	3.18	4.18	.96	2.58
12	13.66	12.69	13.19	6.17	3.81	4.81	5.04	2.31	3.55	4.11	.61	2.47
13	12.97	12.09	12.52	5.53	3.24	4.17	5.34	2.35	3.75	4.35	1.00	2.76
14	12.48	11.63	12.06	5.66	3.71	4.60	5.52	2.29	3.83	4.67	1.29	3.15
15	12.07	11.07	11.54	6.09	4.15	5.03	5.74	2.74	4.33	5.19	1.82	3.55
16	11.59	10.38	10.96	6.52	4.38	5.60	6.22	3.45	4.69	5.26	1.94	3.66
17	10.79	9.53	10.11	7.09	4.99	5.90	6.11	3.17	4.60	5.41	2.16	3.72
18	10.13	9.04	9.58	6.87	4.12	5.30	5.86	2.84	4.37	5.35	2.15	3.59
19	10.10	9.22	9.63	5.86	2.86	4.25	5.37	2.41	3.99	4.93	2.11	3.44
20	10.49	9.57	10.07	5.29	2.76	4.04	5.07	2.09	3.62	4.71	1.49	2.81
21	10.72	9.91	10.27	5.83	3.77	4.80	4.97	1.57	3.19	4.46	1.36	2.92
22	10.61	9.90	10.24	5.45	3.31	4.53	4.96	1.73	3.16	4.24	1.12	2.59
23	10.45	9.61	10.10	5.44	2.93	4.09	5.15	1.98	3.15	4.33	1.33	2.77
24	10.17	9.12	9.66	5.73	3.26	4.27	5.06	1.85	3.13	4.52	1.48	3.01
25	9.66	8.44	8.99	5.89	3.50	4.46	5.12	1.81	3.15	4.63	1.41	3.06
26	9.23	8.04	8.56	5.89	2.74	3.97	5.05	1.81	3.31	4.69	1.48	3.08
27	8.90	7.35	8.03	5.58	2.63	3.85	5.22	1.98	3.48	4.75	1.47	3.29
28	8.49	6.71	7.43	6.39	3.70	4.82	5.29	2.09	3.67	4.84	1.84	3.44
29	8.26	6.33	7.18	6.85	3.93	5.17	5.40	2.11	3.74	4.94	1.90	3.45
30	8.30	5.90	6.96	6.78	3.74	5.12	5.34	1.87	3.51	4.76	1.76	3.22
31	---	---	---	6.97	4.08	5.33	4.78	1.79	3.35	---	---	---
MONTH	13.78	5.90	10.33	7.96	2.63	5.19	6.84	1.57	3.76	5.41	.38	2.96
YEAR	13.78	.38	5.35									

14245295 COLUMBIA RIVER AT RAINIER, OR

LOCATION.--LAT 46°06'02", long 122°57'47", in SE¼SW¼ sec.8, T.7 N., R.2 W., Columbia County, Hydrologic Unit 17080003, on left bank at Rainier, 1.2 mi (1.9 km) downstream from Nice Creek, 500 ft (152 m) upstream from Interstate bridge, and at mile 66.1 (106.4 km).

DRAINAGE AREA.--256,700 mi² (664,900 km²), approximately.

PERIOD OF RECORD.--November 1971 to May 1981 (discontinued), gage heights only.

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 0.34 ft (0.104 m) below National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 16.52 ft (5.035 m) Jan. 19, 1974; minimum, 0.46 ft (0.140 m) July 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum gage height during period October to May, 11.20 ft (3.414 m) Dec. 27; minimum, 0.56 ft (0.171 m) Oct. 19.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	5.20	1.30	3.14	5.53	1.45	3.60	6.38	2.65	4.21	9.15	7.10	8.08
2	---	---	---	5.61	1.53	3.41	7.35	2.77	4.96	8.88	6.64	7.69
3	---	---	---	5.77	1.42	3.41	8.62	4.71	6.47	9.15	6.51	7.70
4	---	---	---	6.05	1.66	3.57	9.16	6.20	7.44	9.00	5.86	7.48
5	---	---	---	6.19	1.89	3.79	9.33	6.10	7.57	8.84	5.12	7.13
6	---	---	---	6.58	2.07	4.14	8.87	5.49	7.30	8.74	4.62	6.63
7	5.72	1.09	3.32	7.92	3.24	5.22	8.21	4.56	6.53	8.81	4.59	6.65
8	5.80	1.04	3.32	8.03	3.18	5.46	8.01	4.33	6.07	8.61	4.71	6.46
9	5.39	.84	2.95	7.63	2.91	5.07	7.86	4.16	5.86	---	---	---
10	6.09	.94	3.28	6.99	2.65	4.56	7.72	3.87	5.69	---	---	---
11	5.96	1.15	3.43	6.75	2.31	4.39	7.54	3.58	5.42	---	---	---
12	6.14	1.28	3.65	6.09	2.00	3.91	7.00	3.38	5.29	---	---	---
13	6.11	1.61	3.62	5.78	1.89	3.88	6.57	3.19	4.84	---	---	---
14	5.75	1.22	3.34	5.83	1.92	3.89	6.37	2.67	4.48	7.22	3.41	4.99
15	5.36	1.32	3.21	4.72	1.69	3.18	6.20	2.19	4.04	7.42	3.55	5.02
16	5.04	1.11	3.02	4.61	.77	2.77	6.83	2.46	4.38	7.96	3.67	5.36
17	4.62	.98	2.79	5.39	.77	3.00	7.15	2.65	4.49	8.37	3.59	5.76
18	4.73	.76	2.67	5.94	1.17	3.26	7.73	3.05	4.83	8.19	3.00	5.51
19	5.28	.56	2.73	6.60	1.59	3.73	8.00	3.02	5.09	8.78	3.43	5.80
20	5.38	.86	3.03	7.33	2.11	4.23	8.30	3.05	5.26	8.80	3.58	6.06
21	5.92	1.17	3.30	8.59	2.78	5.22	9.10	3.65	5.88	8.67	3.59	6.03
22	5.80	.83	3.13	8.59	3.43	5.66	9.60	3.93	6.85	8.68	3.90	6.41
23	6.37	1.08	3.40	8.51	3.16	5.54	9.00	4.47	6.51	8.14	4.11	6.16
24	7.09	1.28	4.04	7.63	2.83	4.90	9.21	4.29	7.00	7.39	3.65	5.45
25	7.30	1.53	4.20	7.15	2.36	4.55	10.13	5.89	8.48	7.03	3.21	5.01
26	6.83	1.73	4.04	6.78	2.06	4.36	10.83	8.27	9.94	6.98	2.85	4.79
27	6.49	1.42	3.73	6.29	2.32	4.44	11.20	9.79	10.52	6.99	3.27	5.02
28	6.06	1.26	3.43	5.79	2.09	4.02	10.94	9.81	10.34	7.40	4.04	5.29
29	5.52	1.07	3.24	7.09	2.64	5.02	10.86	9.57	10.08	6.81	3.73	4.94
30	5.10	1.00	3.08	6.77	3.01	4.60	10.06	8.44	9.22	6.59	3.12	4.67
31	5.16	1.04	3.23	---	---	---	9.70	7.88	8.65	6.49	2.94	4.54
MONTH	7.30	.56	3.32	8.59	.77	4.23	11.20	2.19	6.57	9.15	2.85	5.95

COLUMBIA RIVER MAIN STEM

14245295 COLUMBIA RIVER AT RAINIER, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.64	2.75	4.61	6.43	3.10	4.79	6.80	3.31	4.99	7.32	3.94	5.49
2	7.06	2.60	4.59	6.53	2.82	4.59	7.32	3.61	5.27	8.07	4.22	5.92
3	7.43	2.58	4.92	7.32	3.35	5.00	7.64	3.74	5.60	8.56	4.39	6.33
4	7.70	3.04	5.23	7.70	3.67	5.52	7.50	3.37	5.39	9.20	5.01	6.93
5	8.05	3.34	5.54	7.62	3.32	5.37	7.86	3.50	5.53	9.73	5.51	7.33
6	7.95	3.69	5.64	7.76	3.42	5.34	7.75	3.11	5.19	9.44	5.22	7.02
7	7.50	3.44	5.27	7.75	3.31	5.49	7.83	3.00	5.19	8.95	4.93	6.71
8	7.15	2.94	4.96	7.33	3.04	5.05	8.10	3.37	5.47	8.59	4.88	6.56
9	7.05	2.70	4.74	7.27	2.96	5.04	7.79	3.50	5.31	7.71	3.96	5.78
10	6.91	2.98	4.68	7.60	3.11	5.05	7.34	3.40	5.25	6.26	2.69	4.60
11	7.10	3.26	4.82	7.33	2.85	4.73	7.22	3.31	5.18	5.84	2.77	4.27
12	7.57	3.60	5.12	7.01	2.86	4.57	6.47	2.98	4.70	---	---	---
13	7.59	3.49	5.19	6.70	2.66	4.40	6.10	2.54	4.25	---	---	---
14	7.80	3.36	5.50	6.42	2.32	4.20	6.15	2.85	4.54	---	---	---
15	7.88	3.38	5.52	6.45	2.18	4.16	6.62	3.09	4.80	---	---	---
16	9.19	3.92	6.59	6.24	2.04	4.01	6.83	3.05	4.77	---	---	---
17	9.07	5.33	7.22	6.28	2.33	4.09	6.91	3.11	4.85	---	---	---
18	9.60	5.81	7.72	6.75	2.59	4.57	6.85	2.77	4.65	---	---	---
19	10.91	6.82	9.09	7.28	3.13	4.96	7.08	2.93	4.76	---	---	---
20	10.11	8.16	9.24	7.45	3.25	5.29	6.95	2.80	4.62	---	---	---
21	9.65	7.66	8.73	7.15	2.87	4.94	6.78	2.33	4.40	---	---	---
22	9.22	6.65	8.01	7.03	2.72	4.68	6.92	2.57	4.69	---	---	---
23	8.79	6.14	7.31	6.88	2.72	4.67	7.14	3.37	5.16	---	---	---
24	8.38	5.81	6.86	6.83	2.76	4.67	6.75	2.79	4.69	---	---	---
25	7.77	5.31	6.33	7.09	3.07	4.90	6.30	2.85	4.56	---	---	---
26	7.44	5.17	6.09	6.73	3.03	4.64	5.98	2.99	4.47	---	---	---
27	6.87	4.31	5.54	5.99	2.55	4.09	5.51	2.22	3.98	---	---	---
28	6.51	3.75	5.11	5.48	2.29	3.87	6.12	3.03	4.53	---	---	---
29	---	---	---	5.89	2.64	4.24	6.95	3.21	4.88	---	---	---
30	---	---	---	5.43	2.23	3.94	6.98	3.68	5.28	---	---	---
31	---	---	---	6.40	3.07	4.64	---	---	---	---	---	---
MONTH	10.91	2.58	6.08	7.76	2.04	4.69	8.10	2.22	4.90	9.73	2.69	6.09

14247295 COLUMBIA RIVER AT WAUNA, OR

LOCATION.--Lat 46°09'40", long 123°24'30", in SE¼ sec.22. T.8 N., R.6 W., Clatsop County, Hydrologic Unit 17080003, on left bank at northeast end of Crown-Zellerbach wood-pulp processing plant at Wauna, and at mile 41.5 (66.8 km).

DRAINAGE AREA.--257,000 mi² (665,600 km²), approximately.

PERIOD OF RECORD.--November 1971 to current year (gage heights only).

GAGE.--Water-stage recorder. Datum of gage is at Columbia River datum, 1.76 ft (0.536 m) below National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by many reservoirs upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 12.10 ft (3.688 m) Dec. 15, 1977; minimum, -0.65 ft (-0.198 m) Aug. 25, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 10.52 ft (3.205 m) Feb. 19; minimum, -0.33 ft (-0.101 m) Sept. 12, 13.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.73	.91	4.07	7.22	1.79	4.24	7.90	3.70	5.44
2	6.11	---	---	6.69	.87	3.65	8.23	2.13	4.96	8.70	3.10	5.60
3	6.59	.15	3.46	6.96	.74	3.63	9.11	3.31	5.76	8.90	2.60	5.94
4	6.62	.39	3.49	7.13	.92	3.70	9.17	3.12	5.95	9.80	2.60	5.67
5	6.67	.19	3.52	7.33	1.00	3.94	9.29	2.97	5.94	9.30	2.40	5.52
6	6.95	.21	3.59	7.88	1.50	4.42	8.80	2.29	5.61	8.90	1.60	5.34
7	6.92	.35	3.55	9.06	1.98	5.32	8.40	1.56	5.03	---	---	---
8	6.93	.31	3.50	8.89	1.45	5.36	8.31	1.35	4.86	---	---	---
9	6.65	.01	3.23	8.59	1.09	4.97	8.18	.97	4.75	---	---	---
10	7.49	.24	3.65	7.84	.68	4.46	9.35	1.07	4.83	---	---	---
11	7.30	.45	3.85	7.69	.51	4.33	7.96	1.10	4.82	---	---	---
12	7.55	.63	4.16	6.97	.40	3.89	7.53	.98	4.70	---	---	---
13	7.60	.62	4.13	6.53	.25	3.72	7.87	.46	4.34	---	---	---
14	6.97	.46	3.85	6.53	.23	3.80	7.88	.70	4.03	8.00	1.80	4.37
15	6.44	.37	3.56	5.57	.35	3.26	6.94	.52	3.75	8.10	1.90	4.90
16	6.13	.25	3.44	5.49	.07	3.10	7.57	.94	3.96	9.30	2.40	5.20
17	5.63	.24	3.21	6.58	.03	3.34	8.02	1.19	4.09	9.50	2.10	5.78
18	5.71	-0.05	3.00	7.10	.38	3.41	8.53	1.00	4.28	10.30	1.00	5.55
19	6.44	-0.20	3.14	7.78	.44	3.69	8.78	.87	4.48	10.50	1.50	5.92
20	6.59	.05	3.26	8.39	.53	4.05	9.35	.87	4.78	10.40	2.40	6.13
21	6.99	.01	3.30	9.97	1.20	5.09	10.11	1.64	5.48	10.20	2.50	6.41
22	7.06	-0.23	3.14	9.44	1.08	5.12	10.44	1.84	6.23	10.50	3.10	6.82
23	7.63	-0.10	3.44	9.36	.69	5.07	9.51	1.70	5.69	10.17	2.82	6.75
24	8.54	.12	4.16	8.47	.32	4.48	9.34	2.70	6.00	9.26	2.60	6.18
25	8.78	.16	4.40	8.03	.27	4.33	9.60	2.80	6.86	8.95	2.39	5.78
26	8.30	.04	4.26	7.58	.17	4.17	9.51	4.21	7.40	9.65	2.64	6.13
27	7.70	-0.02	3.91	7.14	.42	4.35	9.26	4.96	6.92	9.32	3.32	6.14
28	7.20	-0.17	3.64	6.57	.57	4.05	8.41	4.43	6.25	---	2.90	---
29	6.60	-0.17	3.54	8.01	1.89	5.25	8.48	4.38	6.08	7.51	2.18	4.50
30	6.21	-0.05	3.49	7.70	2.06	4.60	8.47	4.45	5.93	7.31	1.41	4.17
31	6.30	.39	3.70	---	---	---	8.23	3.74	5.61	7.17	.94	3.97
MONTH	8.78	-0.23	3.61	9.97	.03	4.22	10.44	.46	5.28	10.50	.94	5.57

14247295 COLUMBIA RIVER AT WAUNA, OR--Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.36	.60	3.97	7.05	1.03	4.29	7.43	1.13	4.37	8.37	1.74	4.63
2	7.70	.18	3.99	7.34	.88	4.21	7.87	1.36	4.56	8.64	1.83	4.95
3	8.11	.69	4.27	8.13	.94	4.57	8.04	1.31	4.68	9.09	1.64	5.24
4	8.42	.78	4.53	8.36	1.11	4.68	8.00	1.20	4.49	9.75	1.82	5.49
5	8.70	.99	4.78	8.37	.91	4.56	8.60	1.42	4.76	9.85	1.85	5.56
6	8.53	.91	4.79	8.53	1.09	4.64	8.38	.75	4.39	9.55	1.73	5.39
7	8.18	.83	4.61	8.59	1.02	4.84	8.53	.70	4.51	9.24	1.62	5.27
8	7.99	.87	4.61	8.10	.98	4.50	8.91	1.09	4.88	8.56	1.43	4.99
9	8.09	1.03	4.49	8.15	.89	4.48	8.53	1.12	4.67	7.66	1.01	4.43
10	7.54	1.08	4.14	8.35	.93	4.42	7.90	1.17	4.68	6.42	.41	3.75
11	7.77	1.49	4.32	8.23	.93	4.32	7.89	1.44	4.79	6.26	.58	3.57
12	8.43	1.69	4.65	8.07	1.03	4.28	7.12	1.12	4.31	6.72	.92	3.60
13	8.54	1.58	4.82	7.57	.94	4.17	6.65	.64	3.76	7.10	1.38	3.90
14	8.72	1.39	4.98	7.26	.77	4.05	7.19	1.02	3.98	7.53	1.60	4.07
15	8.82	1.75	5.12	7.52	.30	4.17	7.34	1.40	4.36	7.53	1.61	4.32
16	9.96	2.73	6.17	7.22	.34	3.85	7.53	1.24	4.22	7.61	1.19	4.19
17	9.56	2.52	6.01	7.14	.43	3.79	7.49	1.42	4.26	7.91	1.18	4.39
18	9.56	3.06	6.22	7.69	.68	4.21	7.48	1.10	4.25	8.01	.99	4.54
19	10.52	4.18	7.32	8.13	1.23	4.59	7.83	1.04	4.25	8.29	1.29	4.74
20	8.97	3.43	6.36	8.31	1.50	4.88	7.63	.81	4.11	8.18	1.22	4.63
21	8.22	3.11	5.80	8.06	1.40	4.70	7.53	.62	4.17	7.93	.96	4.44
22	8.13	2.91	5.53	8.02	1.21	4.49	7.78	.91	4.41	7.67	.90	4.45
23	8.43	2.91	5.56	7.93	1.29	4.52	7.76	1.32	4.68	7.61	1.22	4.65
24	8.41	3.00	5.35	7.71	1.17	4.50	7.42	.92	4.28	7.51	1.19	4.73
25	7.77	2.79	4.97	8.02	1.59	4.78	6.83	.94	4.05	7.22	1.53	4.64
26	7.39	2.65	4.76	7.61	1.49	4.42	6.32	1.09	3.91	6.71	1.26	4.27
27	6.94	2.28	4.51	6.70	1.02	3.77	6.08	.78	3.73	7.00	1.53	4.18
28	6.80	1.82	4.35	6.17	1.05	3.75	6.53	1.11	4.03	7.97	2.12	4.54
29	---	---	---	6.83	1.37	4.28	7.40	1.27	4.20	8.78	2.55	5.01
30	---	---	---	6.17	1.24	3.87	7.79	1.40	4.41	9.28	2.78	5.38
31	---	---	---	7.13	1.11	4.38	---	---	---	9.52	2.71	5.60
MONTH	10.52	.18	5.04	8.59	.30	4.35	8.91	.62	4.34	9.85	.41	4.63

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.72	2.78	5.90	9.26	1.16	4.88	8.57	.84	4.70	7.56	.69	4.22
2	10.16	2.91	6.15	9.00	.84	4.79	8.19	.53	4.43	7.17	.76	3.95
3	10.36	2.98	6.33	8.88	.88	4.86	7.63	.43	4.25	6.71	.87	3.64
4	10.10	2.79	6.29	8.62	.99	4.87	7.14	.66	4.13	6.51	.70	3.51
5	9.79	2.86	6.34	8.09	.95	4.68	6.88	.62	3.87	6.19	.77	3.34
6	9.20	2.93	6.12	7.47	.92	4.47	6.89	1.17	3.75	5.87	.70	3.13
7	8.44	2.93	5.92	7.06	1.27	4.31	6.78	1.57	3.69	6.07	.47	3.25
8	8.51	3.51	6.07	7.19	1.74	4.25	6.71	1.62	3.76	6.33	.59	3.43
9	8.35	3.89	6.01	7.13	2.18	4.25	6.66	1.33	3.62	6.68	.44	3.53
10	8.53	4.48	6.14	7.11	2.33	4.24	6.85	.75	3.57	6.65	.20	3.49
11	8.70	4.85	6.28	7.18	2.05	4.13	7.07	.54	3.62	6.82	-0.13	3.37
12	8.65	4.70	6.17	7.17	1.41	3.99	7.13	.44	3.79	7.10	-0.33	3.36
13	8.52	4.13	5.90	7.21	.92	3.85	7.49	.42	4.02	7.27	-0.33	3.49
14	8.31	3.57	5.66	7.31	.68	3.91	7.83	.31	4.06	7.46	-0.12	3.77
15	8.23	3.27	5.61	7.55	.71	4.13	7.93	.35	4.18	7.83	.23	4.13
16	8.55	3.16	5.72	7.93	.83	4.42	8.15	.55	4.41	8.06	.61	4.32
17	8.51	2.53	5.44	8.34	.95	4.66	8.16	.68	4.55	8.07	.61	4.28
18	8.41	2.44	5.57	8.35	.99	4.58	7.99	.71	4.51	7.87	.58	4.15
19	8.75	2.58	5.67	7.98	.42	4.23	7.68	.71	4.36	7.71	.60	4.06
20	8.70	2.76	5.75	7.45	.22	4.03	7.60	.82	4.15	7.80	.10	4.00
21	8.35	2.90	5.74	7.25	.69	4.19	7.49	.82	3.88	7.15	.58	4.04
22	8.19	2.94	5.75	7.08	.67	4.04	7.47	.75	3.82	6.89	.21	3.58
23	7.68	2.84	5.47	7.10	.65	3.81	7.56	.62	3.83	7.06	.09	3.52
24	7.46	2.59	5.04	7.41	.89	3.79	7.56	.54	3.85	7.03	.05	3.62
25	7.63	2.44	4.80	7.70	1.11	3.84	7.55	.27	3.73	7.33	.08	3.67
26	7.77	2.40	4.57	7.73	.87	3.81	7.53	-0.01	3.68	7.35	.24	3.79
27	8.17	2.28	4.48	8.12	.41	3.82	7.69	-0.02	3.74	7.81	.66	4.30
28	8.52	1.82	4.49	8.19	.62	4.19	7.81	.03	3.92	7.81	.87	4.36
29	8.57	1.52	4.67	8.70	.80	4.51	7.99	.25	4.10	7.71	.64	4.23
30	9.18	1.48	4.93	8.79	.67	4.54	7.93	.22	4.00	7.40	.56	3.97
31	---	---	---	8.76	.77	4.67	7.39	.24	3.97	---	---	---
MONTH	10.36	1.48	5.63	9.26	.22	4.28	8.57	-0.02	4.00	8.07	-0.33	3.78
YEAR	10.52	-0.33	4.54									

14247400 COLUMBIA RIVER AT BRADWOOD, OR

LOCATION.--Lat 46°11'45", long 123°25'50", in SW¼NE¼ sec.9, T.8 N., R.6 W., Clatsop County, Hydrologic Unit 17080003, at Bradwood, and at mile 38.9 (62.6 km).

DRAINAGE AREA.--257,100 mi² (665,900 km²).

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1976 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.5°C Aug. 12, 16, 17, 1977; minimum, 0.0°C on several days in January and February 1979.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C Aug. 10-12; minimum, 4.0°C Feb. 12, 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	17.5	13.0	13.0	9.0	8.5	8.0	7.5	5.5	5.5	6.5	6.5
2	17.5	17.5	13.0	13.0	8.5	8.5	7.5	7.5	5.5	5.0	7.0	6.5
3	18.0	17.5	13.0	12.5	8.5	8.5	7.5	7.5	5.5	5.0	7.0	7.0
4	17.5	17.5	13.0	12.5	8.5	8.0	7.5	7.5	5.5	5.0	7.0	6.5
5	18.0	17.5	13.0	13.0	8.0	7.5	7.5	7.5	5.0	5.0	7.0	6.5
6	18.0	17.5	13.0	13.0	7.5	7.5	7.5	7.5	5.0	5.0	7.0	6.5
7	17.5	17.0	13.0	13.0	7.5	7.0	7.5	7.5	5.0	5.0	7.0	6.5
8	17.5	17.0	13.0	13.0	7.0	6.5	7.5	7.0	5.0	5.0	7.0	7.0
9	17.0	17.0	13.0	12.5	6.5	6.5	7.0	7.0	5.0	5.0	7.0	6.5
10	17.0	16.5	12.5	12.0	6.5	6.0	7.0	6.5	5.0	4.5	7.0	7.0
11	17.0	16.5	12.0	11.5	6.0	6.0	6.5	6.5	4.5	4.5	7.5	7.0
12	16.5	16.5	11.5	11.5	6.0	6.0	6.5	6.0	4.5	4.0	7.5	7.0
13	16.5	16.0	11.5	11.0	6.5	6.0	6.0	6.0	4.5	4.0	8.0	7.5
14	16.0	15.5	11.0	11.0	6.5	6.5	6.0	6.0	4.5	4.5	8.0	7.5
15	15.5	15.5	11.0	10.5	6.5	6.5	6.0	6.0	5.0	4.5	8.0	8.0
16	15.5	15.5	10.5	10.0	6.5	6.5	6.0	5.5	5.5	5.0	8.0	8.0
17	15.5	15.0	10.0	9.5	6.5	6.5	5.5	5.5	6.0	5.5	8.0	8.0
18	15.5	15.0	10.0	10.0	6.5	6.5	5.5	5.5	6.0	6.0	8.0	8.0
19	15.5	15.0	10.0	10.0	6.5	6.5	5.5	5.5	6.5	6.0	8.0	7.5
20	15.0	15.0	10.0	10.0	6.5	6.5	5.5	5.5	6.5	6.5	8.0	7.5
21	15.0	15.0	10.0	10.0	6.5	6.5	5.5	5.5	6.5	6.5	7.5	7.5
22	15.0	14.5	10.0	10.0	6.5	6.0	5.5	5.5	6.5	6.5	8.0	7.5
23	14.5	14.5	10.0	10.0	6.5	6.5	6.0	5.5	6.5	6.5	8.0	8.0
24	14.5	14.0	10.0	10.0	7.0	6.5	6.0	5.5	6.5	6.0	8.0	8.0
25	14.5	14.0	10.0	9.5	7.5	7.0	5.5	5.5	6.0	6.0	8.5	8.0
26	14.5	13.5	9.5	9.5	8.0	7.5	5.5	5.5	6.0	6.0	8.5	8.5
27	13.5	13.0	9.5	9.5	8.5	8.0	5.5	5.5	6.0	6.0	9.0	8.5
28	13.0	13.0	9.5	9.5	8.5	8.5	5.5	5.5	6.5	6.0	9.0	9.0
29	13.5	13.0	9.5	9.0	8.5	8.0	5.5	5.5	---	---	9.0	8.5
30	13.5	13.0	9.0	9.0	8.0	8.0	5.5	5.5	---	---	8.5	8.5
31	13.5	13.0	---	---	8.0	8.0	5.5	5.5	---	---	8.5	8.5
MONTH	18.0	13.0	13.0	9.0	9.0	6.0	8.0	5.5	6.5	4.0	9.0	6.5

COLUMBIA RIVER MAIN STEM

14247400 COLUMBIA RIVER AT BRADWOOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (0.3 km) upstream from Cook Creek, 2.2 mi (3.5 km) northeast of Foss, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--667 mi² (1,728 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 32.60 ft (9.936 m) National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to Nov. 11, 1939, nonrecording gage.

REMARKS.--Water-discharge records good. No regulation. Several small diversions for irrigation and domestic use above station.

AVERAGE DISCHARGE.--42 years, 2,705 ft³/s (76.61 m³/s), 55.07 in/yr (1,399 mm/yr), 1,960,000 acre-ft/yr (2.42 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46,900 ft³/s (1,328 m³/s) Jan. 20, 1972, gage height, 23.11 ft (7.044 m); minimum, 34 ft³/s (0.96 m³/s) Aug. 29-31, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 19,000 ft³/s (538 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 26	0330	*34,300	971	*19.41	5.916	Feb. 19	1200	20,000	566	14.69	4.478

Minimum, 76 ft³/s (2.15 m³/s) Oct. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	244	5200	6470	2080	2430	7140	1270	628	700	253	169
2	107	884	9420	5180	1880	2180	6020	1260	604	657	248	173
3	98	663	12500	4250	1730	2060	4890	1230	587	628	248	177
4	91	851	11000	3540	1620	2160	4250	1370	575	593	253	154
5	91	646	8230	3050	1570	2150	4010	1370	575	564	239	146
6	88	2000	6270	2660	1490	1920	4050	1340	593	541	231	135
7	88	9570	4800	2370	1410	1790	3910	1290	616	558	226	121
8	85	8520	3740	2150	1340	1690	4870	1250	1360	547	209	111
9	82	5630	3060	1950	1290	1580	6360	1170	2470	519	197	107
10	76	4180	2670	1770	1260	1490	6310	1110	2310	502	185	104
11	76	3040	2460	1650	1290	1410	7090	1060	1900	513	173	101
12	88	2220	2340	1550	2030	1340	7670	1010	1620	502	161	98
13	128	1730	2260	1470	2370	1290	7080	944	1490	474	154	91
14	146	1410	2190	1390	3350	1220	5810	904	1320	457	150	88
15	135	1600	2150	1340	6580	1240	4720	897	1200	441	146	88
16	125	1400	2120	1280	13800	1290	3870	884	1140	425	143	85
17	125	1280	2050	1270	13600	1270	3180	838	1120	398	139	82
18	121	1800	1930	1260	12400	1180	2740	891	1090	383	139	82
19	114	2400	1780	1250	19200	1120	2410	971	1220	367	135	114
20	107	3400	1750	1190	17900	1080	2150	1030	1290	362	132	121
21	76	4600	3070	1180	12300	1050	1960	937	1230	352	135	222
22	104	6910	11500	1220	7750	1060	1780	871	1210	347	135	248
23	101	5480	11900	1290	5760	1310	1640	825	1170	342	128	222
24	98	3680	10700	1480	4860	1480	1600	819	1100	337	128	218
25	132	2860	22100	1500	4270	1700	1470	832	999	323	128	209
26	146	2380	29300	1900	3600	1750	1370	832	924	313	121	201
27	205	2050	22900	2640	3120	1720	1330	781	858	299	118	244
28	214	3070	14700	2890	2720	1620	1470	724	793	280	114	430
29	201	4200	9870	2750	---	1800	1450	688	749	271	114	663
30	205	5540	9670	2520	---	2480	1340	676	718	266	121	496
31	185	---	8270	2280	---	6060	---	651	---	266	125	---
TOTAL	3749	94238	241900	68690	152570	53920	113940	30725	33459	13527	5128	5500
MEAN	121	3141	7803	2216	5449	1739	3798	991	1115	436	165	183
MAX	214	9570	29300	6470	19200	6060	7670	1370	2470	700	253	663
MIN	76	244	1750	1180	1260	1050	1330	651	575	266	114	82
CFSM	.18	4.71	11.7	3.32	8.17	2.61	5.69	1.49	1.67	.65	.25	.27
IN.	.21	5.26	13.49	3.83	8.51	3.01	6.35	1.71	1.87	.75	.29	.31
AC-FT	7440	186900	479800	136200	302600	107000	226000	60940	66370	26830	10170	10910

CAL YR 1980 TOTAL 955930 MEAN 2612 MAX 29300 MIN 76 CFSM 3.92 IN 53.31 AC-FT 1896000
WTR YR 1981 TOTAL 817346 MEAN 2239 MAX 29300 MIN 76 CFSM 3.36 IN 45.59 AC-FT 1621000

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 current year.
WATER TEMPERATURES: December 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 105 micromhos Sept. 12-14, 1980; minimum recorded, 41 micromhos Feb. 18, 1980.
WATER TEMPERATURES: Maximum, 24.5°C Aug. 12, 1977; minimum, 0.0°C Jan. 8-10, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 105 micromhos Sept. 12-14; minimum recorded, 41 micromhos Feb. 18.
WATER TEMPERATURES: Maximum recorded, 22.5°C Aug. 12; minimum, 4.0°C Feb. 7, 8, 10, 11.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
15...	1230	135	92	8.6	12.0	11.0	39	20	26	.00	7.5	1.7
NOV												
05...	1030	622	79	7.4	11.5	10.0	120	32	21	3.0	6.0	1.4
DEC												
02...	1330	11200	55	7.0	8.0	12.4	150	42	14	3.0	4.0	.9
JAN												
09...	1400	1980	--	6.9	7.0	12.3	K15	K8	15	6.0	4.4	1.0
FEB												
04...	1400	1570	61	6.5	5.0	10.0	K14	K10	19	3.0	5.8	1.1
MAR												
13...	1700	1280	58	7.4	8.5	12.0	K11	K7	18	--	4.9	1.3
APR												
10...	1900	6290	52	6.5	8.0	11.5	34	21	14	4.0	3.8	1.1
MAY												
01...	1030	1260	60	7.1	12.0	10.7	K7	77	18	.00	5.1	1.3
JUN												
05...	1600	561	69	7.6	14.5	10.3	20	K2700	19	4.0	5.3	1.3
26...	1300	926	61	7.0	15.5	10.2	K14	100	19	.00	5.4	1.3
AUG												
12...	1430	169	82	8.0	23.0	8.7	K10	420	23	3.0	6.5	1.7
21...	1330	136	80	7.7	19.0	9.1	K5	520	25	4.0	6.7	1.9
SEP												
24...	1400	285	89	7.6	13.0	10.1	K9	K2	26	.00	7.3	1.9

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT												
15...	6.6	.9	29	4.5	7.2	.1	.18	.020	.41	.020	.74	.91
NOV												
05...	6.0	1.0	18	2.3	6.3	<.1	.41	.030	.55	.150	.56	.98
DEC												
02...	3.8	.6	11	1.4	4.3	.1	.87	.120	.40	.080	.47	1.4
JAN												
09...	4.7	.6	9.0	5.9	4.1	.1	.87	.060	.03	.040	.71	--
FEB												
04...	4.8	.6	16	3.9	4.0	.1	.66	.100	.61	.030	.68	1.2
MAR												
13...	5.4	.6	11	5.6	5.6	.1	.47	.060	.39	.060	.39	.85
APR												
10...	4.6	.7	10	3.3	3.8	.1	.90	.040	.62	.030	.72	--
MAY												
01...	4.7	.7	23	1.0	4.0	.1	.34	.070	.40	.120	.66	1.0
JUN												
05...	5.2	.8	15	1.0	4.3	.1	.22	.150	.26	.120	.24	.55
26...	5.3	.8	29	1.0	4.0	<.1	.35	.060	.98	.100	.50	.83
AUG												
12...	6.7	1.0	20	<1.0	10	.1	<.10	<.010	.28	.160	1.00	1.2
21...	6.7	.9	21	<5.0	6.2	.1	.13	.090	.57	.090	.77	.94
SEP												
24...	7.1	.5	27	5.0	7.8	.1	.37	<.070	.52	.080	.47	.85

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	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...	.020	.030	15	.2	--	15	68	62	.20	4	1.5	66
NOV												
05...	.040	.060	--	--	5.0	14	64	50	2.5	5	8.4	89
DEC												
02...	.030	.080	--	--	--	12	51	38	19	97	2930	62
JAN												
09...	.040	.070	1.8	.2	--	15	--	45	2.2	6	32	79
FEB												
04...	.020	.030	--	--	1.3	15	42	48	2.3	2	8.5	86
MAR												
13...	.020	.030	--	--	1.1	15	53	47	4.2	3	10	60
APR												
10...	.020	.060	2.4	--	--	14	40	42	7.2	26	442	70
MAY												
01...	.040	.030	--	--	2.1	14	52	46	2.8	4	14	73
JUN												
05...	.030	.050	--	--	2.3	14	49	42	1.5	2	3.0	76
26...	.010	.070	3.2	.2	--	14	49	51	1.8	2	5.0	73
AUG												
12...	.020	.030	--	--	3.3	14	55	--	3.6	2	.91	83
21...	.020	.030	1.9	--	--	15	56	--	2.3	4	1.5	82
SEP												
24...	.010	.010	--	--	4.8	16	64	64	2.4	5	3.8	79

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
OCT										
15...	1	1	20	100	<1	1	<10	10	<3	<1
JAN										
09...	1	1	10	<100	1	<1	10	20	<3	<1
APR										
10...	1	1	9	<100	1	<1	<10	10	<3	<1
JUN										
26...	<1	2	<2	<100	<1	<1	10	20	<3	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT									
15...	4	5	210	370	1	1	4	10	<.1
JAN									
09...	2	4	100	440	<1	5	4	10	<.1
APR									
10...	2	<1	70	1200	<1	4	5	30	<.1
JUN									
26...	2	4	150	310	1	14	3	10	<.1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT									
15...	.1	<1	9	<1	<1	<1	<1	7	30
JAN									
09...	.1	<1	3	<1	<1	1	<1	20	20
APR									
10...	.1	<1	4	<1	<1	2	<1	8	100
JUN									
26...	<.1	<1	4	<1	<1	<1	1	9	30

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 5,80		MAR 13,81		MAY 1,81		JUN 5,81	
TIME	1030		1700		1030		1600	
TOTAL CELLS/ML	460		51		210		320	
DIVERSITY: DIVISION	0.8		0.0		1.5		0.9	
.CLASS	0.8		0.0		1.5		0.9	
..ORDER	1.0		1.5		2.8		2.5	
...FAMILY	1.0		1.5		2.9		3.0	
....GENUS	1.2		1.5		2.9		3.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	13#	25	13	6	13	4
....COCCONEIS	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	13	6	13	4
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	26	6	--	-	13	6	26	8
....MELOSIRA	52	11	26#	50	--	-	52#	16
..FRAGILARIALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	26	13	--	-
....SYNEDRA	13	3	--	-	--	-	39	12
..NAVICULALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	13	6	52#	16
...GOMPHONEMACEAE								
....GOMPHONEMA	13	3	--	-	13	6	26	8
...NAVICULACEAE								
....NAVICULA	--	-	13#	25	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	13	4
....SELENASTRUM	--	-	--	-	--	-	13	4
...SCENEDESMACEAE								
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	51#	25	52#	16
....TETRASTRUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	13	6	26	8
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	51#	25	--	-
..NOSTOCALES								
...HAMMATOIDEACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	360#	78	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUN 26,81	AUG 12,81	AUG 21,81	SEP 24,81
TIME	1300	1430	1330	1400
TOTAL CELLS/ML	3500	41000	13000	20000
DIVERSITY: DIVISION	0.2	1.3	1.5	0.7
.CLASS	0.2	1.3	1.5	0.7
..ORDER	0.2	2.1	2.2	1.6
...FAMILY	0.3	2.4	2.6	1.9
....GENUS	0.3	2.7	2.8	2.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	970	5
....RHOICOSPHENIA	*	0	--	-	--	-	680	3
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	--	-	230	1	92	1	--	-
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	16000#	41	970	8	11000#	59
....MELOSIRA	--	-	--	-	550	4	--	-
..FRAGILARIALES								
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	3600	9	550	4	--	-
....FRAGILARIA	--	-	3400	8	92	1	190	1
....SYNEDRA	--	-	900	2	92	1	--	-
..NAVICULALES								
...CYMBELLACEAE								
....CYMBELLA	26	1	--	-	--	-	580	3
...GOMPHONEMACEAE								
....GOMPHONEMA	--	-	--	-	92	1	--	-
...NAVICULACEAE								
....NAVICULA	77	2	--	-	92	1	1500	7
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	900	2	740	6	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	140	1	--	-
....MICRACTINIUM	--	-	1800	4	880	7	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	450	1	510	4	1500	7
....KIRCHNERIELLA	--	-	230	1	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	1600	8
...SCENEDESMACEAE								
....GLOEOACTINIUM	--	-	900	2	280	2	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	900	2	--	-	1200	6
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	230	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	900	2	1400	11	--	-
..NOSTOCALES								
...HAMMATOIDEACEAE								
....RAPHIDIOPSIS	--	-	680	2	--	-	--	-
...NOSTOCACEAE								
....ANABAENA	--	-	9000#	22	6100#	47	--	-
....ANABAENOPSIS	3300#	97	--	-	--	-	--	-
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	280	2	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	89	58	55	60	---	51	59	67	63	---	87
2	97	81	55	56	60	---	52	59	68	64	---	90
3	98	78	53	55	61	---	52	59	68	64	---	92
4	99	75	53	56	61	---	52	59	68	65	---	96
5	99	78	54	57	59	---	52	59	68	64	---	95
6	98	73	55	57	58	---	53	59	66	64	---	98
7	97	59	56	58	57	---	53	59	66	62	---	98
8	100	61	57	59	58	---	52	59	62	63	---	98
9	98	62	58	60	58	---	51	60	56	62	---	98
10	97	62	58	61	59	---	51	60	58	63	---	102
11	96	63	60	62	58	---	50	61	58	62	---	101
12	95	62	60	62	56	---	50	61	57	62	---	104
13	92	63	60	63	53	---	52	62	58	---	82	104
14	92	63	60	62	51	60	53	62	58	---	82	103
15	92	64	59	63	47	60	52	62	59	---	81	103
16	93	64	59	63	44	60	52	62	60	---	81	104
17	92	64	59	63	44	60	54	64	60	---	83	103
18	89	64	58	63	44	61	55	64	60	---	82	103
19	92	65	58	64	---	61	56	64	60	---	83	99
20	91	65	58	64	---	61	57	64	60	---	84	97
21	92	61	56	64	---	62	57	64	61	---	84	94
22	92	57	50	64	---	62	57	63	61	---	83	88
23	89	60	50	64	---	60	58	64	61	---	85	89
24	89	60	50	63	---	59	58	64	62	---	85	89
25	88	60	46	63	---	58	59	64	63	---	85	91
26	87	61	---	61	---	58	59	64	64	---	85	91
27	87	60	53	60	---	58	59	65	65	---	86	88
28	88	58	50	60	---	59	58	65	64	---	86	81
29	89	58	51	59	---	58	59	66	64	---	87	76
30	91	59	52	59	---	56	59	66	64	---	86	76
31	92	---	54	60	---	54	---	67	---	---	88	---
MEAN	93	65	55	61	55	59	54	62	62	63	84	95

14301000 NEHALEM RIVER NEAR FOSS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.5	13.0	12.0	16.0	14.5	17.0	15.0	---	---	18.0	16.5
2	7.5	7.0	12.0	11.0	15.5	14.5	18.5	15.5	---	---	18.5	17.0
3	8.0	7.5	12.0	10.5	15.0	14.5	19.5	16.5	---	---	18.5	17.0
4	8.5	7.0	10.5	9.5	14.5	14.0	19.5	18.0	---	---	18.5	17.5
5	8.5	8.0	10.0	9.5	14.5	14.0	19.0	18.0	---	---	18.5	17.0
6	8.0	7.5	9.5	9.0	15.5	13.5	18.0	16.0	---	---	19.0	17.0
7	8.0	7.5	10.0	9.0	14.0	13.0	16.0	15.0	---	---	19.5	17.5
8	8.0	7.5	10.0	9.0	13.0	11.5	16.5	14.5	---	---	19.0	18.5
9	8.0	7.0	11.5	9.5	12.5	11.0	16.5	15.0	---	---	19.0	18.0
10	7.5	7.0	11.0	10.5	13.0	12.0	16.0	14.5	---	---	19.5	18.0
11	7.5	7.0	12.0	10.5	13.0	11.5	16.0	14.5	---	---	19.5	18.0
12	7.5	6.5	13.0	10.5	13.0	11.5	16.5	14.5	22.5	---	19.0	17.5
13	8.0	6.5	14.0	12.5	13.0	11.5	---	15.5	22.0	21.0	19.0	17.0
14	9.0	7.0	13.5	12.5	13.0	12.0	---	---	21.5	20.5	19.0	17.0
15	9.0	8.0	12.5	12.0	13.5	11.5	---	---	20.5	20.0	18.5	17.0
16	9.5	8.0	12.5	11.5	13.0	12.5	---	---	21.5	19.5	18.5	17.5
17	10.0	8.5	12.0	12.0	13.5	12.0	---	---	22.0	20.5	19.0	17.5
18	11.0	9.0	12.0	11.5	13.0	12.5	---	---	21.5	20.5	18.0	17.0
19	10.5	10.0	12.0	11.0	13.0	12.5	---	---	21.0	19.5	17.5	16.5
20	10.5	10.0	11.5	11.5	13.0	12.5	---	---	19.5	18.5	16.5	15.0
21	10.5	9.5	11.5	11.0	12.5	12.0	---	---	19.0	18.0	15.0	14.0
22	11.0	10.0	13.0	11.0	13.0	12.0	---	---	20.0	17.5	14.0	13.0
23	11.0	10.5	12.5	12.0	13.5	12.0	---	---	20.0	19.0	14.0	13.0
24	11.0	10.0	12.5	12.5	15.0	12.5	---	---	20.0	19.0	14.0	13.0
25	11.0	9.5	13.0	12.0	16.0	14.0	---	---	19.5	18.5	14.0	13.0
26	11.0	10.0	14.5	12.0	16.0	15.0	---	---	19.0	17.5	13.5	13.0
27	10.5	9.5	15.0	13.0	16.0	14.5	---	---	18.5	17.0	14.0	13.0
28	11.0	9.5	16.0	14.0	17.0	14.5	---	---	19.0	17.5	13.0	12.5
29	13.0	11.0	15.5	14.5	18.0	15.0	---	---	18.5	18.0	13.0	12.5
30	13.5	12.5	15.0	14.0	17.0	15.5	---	---	18.0	17.5	13.0	12.0
31	---	---	16.5	13.5	---	---	---	---	17.5	16.5	---	---
MONTH	13.5	6.5	16.5	9.0	18.0	11.0	19.5	14.5	22.5	16.5	19.5	12.0

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 (0.3 km) upstream from Negro Jack Creek, 8.0 mi (12.9 km) east of Tillamook, and at mile 11.4 (18.3 km).

DRAINAGE AREA.--161 mi² (417 km²), at cableway, 2.0 mi (3.2 km) 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. Datum of gage is 71.89 ft (21.912 m) National Geodetic Vertical Datum of 1929. Dec. 18, 1914, to Nov. 4, 1916, nonrecording gage at site 2.8 mi (4.5 km) downstream at different datum. July 30, 1931, to Sept. 30, 1938, nonrecording gage at site 2.82 mi (4.54 km) downstream at datum 28.83 ft (8.787 m) lower. Oct. 1, 1938, to Oct. 17, 1968, water-stage recorder at site 2.1 mi (3.4 km) downstream at datum 29.76 ft (9.071 m) lower.

REMARKS.--Records good. No regulation. Small diversions for domestic use above station.

AVERAGE DISCHARGE.--51 years (water years 1915, 1932-81), 1,200 ft³/s (33.98 m³/s), 101.22 in/yr (2,571 mm/yr), 869,400 acre-ft/yr (1.07 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) Jan. 20, 1972, gage height, 16.91 ft (5.154 m); maximum gage height, 20.26 ft (6.175 m) Dec. 22, 1964 (site and datum then in use); minimum discharge, 32 ft³/s (0.91 m³/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 (6.34 m), from floodmark, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft³/s (340 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 26	0330	*25,100	711	*15.60	4.755	Feb. 18	2400	14,100	399	13.02	3.968
Feb. 16	0900	15,100	428	13.29	4.051						

Minimum daily, 60 ft³/s (1.70 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	150	2250	2300	552	865	3050	654	317	433	150	113
2	65	600	6640	1820	507	791	2140	662	308	398	146	102
3	64	700	6860	1530	473	782	1770	646	313	374	146	90
4	64	680	4040	1300	451	813	1510	759	333	342	153	89
5	64	450	2740	1130	445	725	1480	841	338	338	147	86
6	64	750	2050	1000	415	658	1440	813	352	326	138	84
7	64	4300	1600	894	389	646	1350	773	376	342	131	81
8	63	4850	1340	800	376	581	2050	716	1600	310	126	78
9	62	2910	1120	729	371	567	2700	638	2570	297	118	78
10	60	1890	1070	650	364	538	2260	615	1830	289	114	79
11	64	1350	1060	604	430	514	2630	578	1390	286	109	79
12	80	1040	1090	563	1730	486	2580	534	1150	272	108	77
13	170	823	1080	524	1630	464	2220	503	1040	261	108	76
14	120	777	978	493	2680	436	1850	473	884	249	107	75
15	95	777	953	464	5420	500	1690	500	777	238	105	72
16	86	687	879	439	12300	524	1650	473	738	228	105	70
17	79	716	804	442	8110	477	1460	448	683	219	102	71
18	76	1040	729	430	8070	445	1280	514	683	214	98	72
19	74	973	666	407	12000	433	1110	545	889	210	98	90
20	72	846	773	389	6200	421	1020	500	918	207	102	89
21	71	2930	1900	398	3580	412	963	464	870	199	99	151
22	69	3340	8000	409	2470	424	928	442	908	194	102	187
23	68	1960	5170	424	1940	600	889	424	870	189	96	136
24	70	1420	5360	430	1620	646	879	439	786	180	95	111
25	90	1170	18000	418	1390	832	804	436	703	179	94	108
26	120	978	16500	678	1210	837	738	412	634	171	90	112
27	220	1210	8130	846	1080	746	691	384	578	160	90	192
28	170	1540	4700	818	963	674	795	359	527	159	85	395
29	140	2190	3340	755	---	884	746	359	483	159	89	430
30	120	2480	3770	658	---	1300	695	350	458	160	98	278
31	110	---	3020	607	---	3460	---	331	---	156	91	---
TOTAL	2799	45527	116612	23349	77166	22481	45368	16585	24306	7739	3440	3751
MEAN	90.3	1518	3762	753	2756	725	1512	535	810	250	111	125
MAX	220	4850	18000	2300	12300	3460	3050	841	2570	433	153	430
MIN	60	150	666	389	364	412	691	331	308	156	85	70
CFSM	.56	9.43	23.4	4.68	17.1	4.50	9.39	3.32	5.03	1.55	.69	.78
IN.	.65	10.52	26.94	5.39	17.83	5.19	10.48	3.83	5.62	1.79	.79	.87
AC-FT	5550	90300	231300	46310	153100	44590	89990	32900	48210	15350	6820	7440

CAL YR 1980 TOTAL 390133 MEAN 1066 MAX 18000 MIN 60 CFSM 6.62 IN 90.14 AC-FT 773800
WTR YR 1981 TOTAL 389123 MEAN 1066 MAX 18000 MIN 60 CFSM 6.62 IN 89.91 AC-FT 771800

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 (0.5 km) upstream from Walker Creek, and 5.0 mi (8.0 km) southwest of Fairdale.

DRAINAGE AREA.--2.85 mi^2 (7.38 km^2).

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 resevoir is 3,840 acre-ft (4.73 hm^3) between elevations 1,810.0 ft (551.69 m) and 1,865.5 ft (568.60 m). 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 (4.80 hm^3) Mar. 12 1972, Feb. 19, Mar. 28, 1974, elevation, 1,865.8 ft (568.70 m); no contents most of time during winter months.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,770 acre-ft (4.65 hm^3) Feb. 23 to Aug. 7, elevation, 1,865.0 ft (568.45 m); reservoir empty Dec. 11-14.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	1,854.6	2,470	-
Oct. 31	1,852.0	2,210	-260
Nov. 30	1,827.0	470	-1,740
Dec. 31	1,845.9	1,650	+1,180
CAL YR 1980	-	-	-90
Jan. 31	1,853.3	2,340	690
Feb. 28	1,865.0	3,770	1,430
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	1,865.0	3,770	0
July 31	1,865.0	3,770	0
Aug. 31	1,860.8	3,190	-580
Sept.30	1,859.4	3,020	-170
WTR YR 1981	-	-	+550

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 (30 m) upstream from former Meadow Lake, 0.4 mi (0.6 km) downstream from Walker Creek, 5.3 mi (8.5 km) southwest of Fairdale, and at mile 49.3 (79.3 km).

DRAINAGE AREA.--6.18 mi^2 (16.01 km^2).

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,778.99 ft (542.236 m) National Geodetic Vertical Datum of 1929 (levels by city of McMinnville).

REMARKS.--Records good. Flow regulated since March 1969 by McGuire Lake about 1 mi (1.6 km) above station (see station 14302800); during winter months lake is empty except when inflow exceeds capacity of outlet tunnel.

AVERAGE DISCHARGE.--21 years (water years 1961-81), 31.6 ft^3/s (0.895 m^3/s), 69.44 in/yr (1,764 mm/yr), 22,890 acre-ft/yr (28.2 hm^3/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft^3/s (24.8 m^3/s) Dec. 22, 1964, gage height, 10.43 ft (3.179 m); minimum, 0.76 ft^3/s (0.022 m^3/s) Aug. 9, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft^3/s (6.20 m^3/s) Dec. 25, gage height, 4.35 ft (1.326 m); minimum, 1.6 ft^3/s (0.045 m^3/s) Oct. 14; minimum daily, 2.0 ft^3/s (0.057 m^3/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	12	89	26	14	24	72	13	7.8	9.3	3.0	2.4
2	7.0	15	146	22	12	22	56	12	7.7	8.7	3.0	2.3
3	7.1	22	146	19	12	25	46	12	7.6	8.2	3.2	2.3
4	7.4	35	117	17	11	28	37	14	7.9	7.8	3.3	2.3
5	7.4	34	98	16	9.9	23	36	15	8.7	7.5	3.3	2.3
6	7.4	44	83	14	9.1	21	33	14	9.0	7.2	3.1	2.2
7	7.4	65	75	13	8.6	21	29	13	18	8.2	3.0	2.2
8	7.5	56	66	13	8.2	21	43	12	52	7.3	2.6	2.2
9	7.4	50	50	12	8.9	19	51	11	49	6.6	2.5	2.2
10	7.2	44	32	12	8.1	18	49	11	37	6.6	2.4	2.3
11	7.5	41	21	10	9.7	16	63	10	29	6.5	2.4	2.2
12	7.8	46	21	8.5	15	16	64	9.7	26	6.2	2.4	2.2
13	8.3	51	20	8.1	24	14	56	9.3	29	6.0	2.4	2.2
14	6.8	51	22	7.8	44	14	48	9.0	24	5.9	2.3	2.2
15	6.0	50	16	7.6	65	21	44	18	20	5.7	2.3	2.1
16	5.8	49	11	7.5	100	20	41	16	21	5.4	2.3	2.0
17	5.8	49	9.7	8.0	72	16	36	15	20	5.2	2.3	2.1
18	5.8	50	8.8	7.9	97	14	31	25	19	4.9	2.3	2.3
19	5.8	48	8.4	7.4	112	13	28	23	20	4.8	2.4	2.6
20	5.8	47	11	7.8	68	13	26	19	19	4.8	2.6	2.6
21	5.8	65	62	8.7	44	13	24	17	18	4.6	2.6	5.3
22	5.8	65	133	10	31	16	22	15	17	4.4	2.5	4.1
23	5.8	62	94	10	29	21	21	14	16	4.0	2.2	3.4
24	5.9	67	109	8.6	36	20	19	16	14	4.0	2.2	3.1
25	6.5	80	189	7.9	34	26	17	15	13	4.0	2.2	4.8
26	8.5	78	148	21	30	24	15	13	12	3.9	2.2	12
27	7.5	82	102	21	28	21	16	11	11	3.7	2.2	16
28	6.5	81	65	21	25	19	16	10	11	3.5	2.2	13
29	6.1	96	48	19	---	31	14	9.5	10	3.4	2.2	9.1
30	6.1	92	40	16	---	41	13	9.3	9.9	3.7	2.3	6.5
31	6.4	---	31	15	---	79	---	8.4	---	4.3	2.2	---
TOTAL	209.1	1627	2071.9	402.8	965.5	690	1066	419.2	563.6	176.3	78.1	122.5
MEAN	6.75	54.2	66.8	13.0	34.5	22.3	35.5	13.5	18.8	5.69	2.52	4.08
MAX	8.5	96	189	26	112	79	72	25	52	9.3	3.3	16
MIN	5.8	12	8.4	7.4	8.1	13	13	8.4	7.6	3.4	2.2	2.0
AC-FT	415	3230	4110	799	1920	1370	2110	831	1120	350	155	243
MEAN†	2.52	25.0	86.0	24.2	60.3	22.3	35.5	13.5	18.8	5.68	1.94	4.90
CFSM†	.408	4.05	13.9	3.92	9.76	3.61	5.74	2.18	3.04	.919	.314	.793
IN.†	.47	4.52	16.05	4.52	10.17	4.16	6.40	2.52	3.40	1.06	.36	.88
AC-FT†	155	1490	5290	1489	3350	1370	2110	831	1120	350	119	292

CAL YR 1980 TOTAL 10042.4 MEAN 27.4 MAX 227 MIN 1.9 AC-FT 19920 MEAN† 28.6 CFSM† 4.63 IN.† 62.93 AC-FT† 20744
WTR YR 1981 TOTAL 8392.0 MEAN 23.0 MAX 189 MIN 2.0 AC-FT 16650 MEAN† 24.8 CFSM† 4.01 IN.† 54.50 AC-FT† 17963

† Adjusted for storage and diversion by McGuire Lake.

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 (46 m) upstream from Sailing Creek, 1.2 mi (1.9 km) southwest of Beaver, and at mile 13.5 (21.7 km).

DRAINAGE AREA.--180 mi² (466 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 43 ft (13 m), from river profile map.

REMARKS.--Water-discharge records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--17 years, 1,079 ft³/s (30.56 m³/s), 81.40 in/yr (2,068 mm/yr), 781,700 acre-ft/yr (964 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,400 ft³/s (833 m³/s) Jan. 11, 1972, gage height, 22.0 ft (6.71 m), from floodmark; minimum, 32 ft³/s (0.91 m³/s) Sept. 14, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 20, 1962, reached a stage of 23.4 ft (7.13 m), discharge, 32,500 ft³/s (920 m³/s) caused by failure of Meadow Lake Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 8,000 ft³/s (227 m³/s) and maximum discharge, 13,100 ft³/s (371 m³/s) Dec. 26, gage height, 14.39 ft (4.386 m); minimum, 73 ft³/s (2.07 m³/s) Sept. 14-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	197	1570	2230	515	1020	2760	643	452	547	176	112
2	85	471	4820	1870	483	992	2180	636	441	515	176	112
3	82	397	5430	1610	452	861	1900	636	429	489	176	100
4	82	368	3890	1370	435	800	1600	672	446	465	176	94
5	80	320	2970	1190	435	760	1560	732	452	441	168	89
6	80	867	2370	1050	400	740	1450	709	483	429	156	89
7	80	2860	1910	922	377	700	1360	702	534	458	153	83
8	80	2810	1590	817	360	680	2020	672	1640	411	146	83
9	78	2100	1370	739	354	672	2560	650	2090	383	142	83
10	76	1520	1210	679	338	650	2270	615	1690	365	136	83
11	78	1170	1090	629	388	615	2800	594	1370	360	130	83
12	97	922	1000	587	594	574	2780	560	1220	343	128	78
13	213	777	930	547	717	547	2460	540	1210	327	125	78
14	154	748	867	515	1360	521	2100	534	1050	312	122	73
15	120	704	814	483	2290	601	1830	679	945	286	120	73
16	102	603	756	458	5150	615	1590	679	952	276	120	73
17	97	574	696	446	4620	540	1370	629	891	267	118	73
18	92	688	641	417	5830	515	1210	770	854	257	118	73
19	89	625	595	383	6870	495	1090	794	1110	248	118	94
20	87	581	656	365	4800	477	999	732	1160	239	118	109
21	89	1170	1190	371	3310	465	945	694	1090	230	115	156
22	85	1510	4210	371	2390	477	906	650	1040	226	109	306
23	82	1220	3640	435	2070	636	854	622	976	217	103	253
24	85	1020	4250	477	1780	594	861	658	891	213	100	168
25	109	938	10400	423	1480	739	786	643	817	208	100	139
26	154	837	10000	709	1300	702	732	594	747	204	97	139
27	221	1040	6520	732	1130	658	739	554	694	196	94	213
28	148	1180	4530	687	960	622	763	527	650	188	94	377
29	123	1600	3640	643	---	802	709	508	608	188	91	354
30	112	1650	3260	587	---	1200	650	502	580	188	103	267
31	109	---	2680	547	---	2710	---	471	---	180	103	---
TOTAL	3261	31467	89495	23289	51188	22980	45834	19601	27512	9656	3931	4107
MEAN	105	1049	2887	751	1828	741	1528	632	917	311	127	137
MAX	221	2860	10400	2230	6870	2710	2800	794	2090	547	176	377
MIN	76	197	595	365	338	465	650	471	429	180	91	73
CFSM	.58	5.83	16.0	4.17	10.2	4.12	8.49	3.51	5.09	1.73	.71	.76
IN.	.67	6.50	18.50	4.81	10.58	4.75	9.47	4.05	5.69	2.00	.81	.85
AC-FT	6470	62410	177500	46190	101500	45580	90910	38880	54570	19150	7800	8150

CAL YR 1980 TOTAL 348720 MEAN 953 MAX 10400 MIN 76 CFSM 5.29 IN 72.07 AC-FT 691700
WTR YR 1981 TOTAL 332321 MEAN 910 MAX 10400 MIN 73 CFSM 5.06 IN 68.68 AC-FT 659200

14303600 NESTUCCA RIVER NEAR BEAVER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1964 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C July 1-3, 1967, Aug. 9, 10, 1981; minimum, 0.5°C Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C Aug. 9, 10; minimum recorded, 4.0°C Feb. 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	14.0			---		---	---	7.0	6.5	8.0	6.5
2	17.0	14.0			9.5		---	---	6.5	5.0	8.0	6.5
3	16.5	14.0			---		---	---	6.0	5.0	8.5	8.0
4	16.0	13.5			---		---	---	6.0	5.5	8.0	7.0
5	16.0	13.5			---		---	---	7.0	6.0	7.0	5.5
6	16.0	14.0			---		---	---	6.5	5.0	7.0	5.5
7	16.0	14.0			---		---	---	5.5	4.5	8.0	7.0
8	16.5	14.5			---		---	---	5.5	4.0	8.0	6.5
9	14.5	11.5			---		9.0	8.0	6.5	5.5	8.0	6.0
10	13.0	11.5			---		8.5	7.0	6.0	5.0	8.5	7.5
11	12.5	11.0			---		8.0	7.0	7.0	5.5	9.5	8.0
12	12.5	11.5			---		7.5	6.5	8.5	7.0	9.0	7.5
13	12.5	11.0			---		7.0	6.0	9.0	8.5	9.0	7.5
14	12.0	10.5			---		7.0	6.5	9.5	8.5	10.0	7.5
15	12.0	10.5			---		7.0	6.5	9.0	8.5	9.0	8.5
16	11.5	9.5			---		7.0	6.5	9.5	9.0	9.5	8.0
17	11.0	8.5			---		8.0	7.0	9.0	8.5	9.0	6.5
18	10.5	8.0			---		9.5	8.0	9.5	9.0	7.5	6.5
19	11.5	9.0			---		9.5	9.0	9.5	8.0	8.0	6.5
20	11.5	10.5			---		9.5	8.5	8.5	8.0	8.0	6.5
21	11.5	10.0			---		10.0	9.5	8.5	7.5	8.5	7.0
22	10.0	8.5			---		10.0	10.0	9.0	7.5	10.0	8.0
23	10.0	7.5			---		10.0	9.5	9.0	8.0	9.5	8.5
24	10.0	8.5			---		9.5	8.5	8.5	8.0	9.5	7.5
25	10.5	9.0			---		8.5	7.0	8.0	7.0	10.5	9.0
26	9.5	9.0			---		8.5	7.5	7.5	6.5	10.0	9.0
27	10.5	9.5			---		8.0	7.5	8.5	7.0	11.0	9.0
28	10.5	8.5			---		8.0	8.0	8.0	6.5	10.0	9.0
29	10.0	8.0			---		8.0	7.5	---	---	9.5	8.5
30	---	---			---		7.5	6.5	---	---	8.5	7.5
31	---	---			---		7.5	6.5	---	---	8.5	7.5
MONTH	17.0	7.5			9.5		10.0	6.0	9.5	4.0	11.0	5.5

14303600 NESTUCCA RIVER NEAR BEAVER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	7.0	12.5	11.0	13.5	12.0	16.0	12.0	17.0	15.0	18.0	16.0
2	8.0	7.0	12.0	9.5	14.5	11.5	17.0	12.5	16.0	15.0	19.0	15.5
3	9.0	7.5	11.0	9.5	13.0	12.0	18.0	13.5	16.5	14.0	18.5	15.0
4	10.0	7.5	9.5	8.0	12.5	11.5	17.0	14.5	18.0	15.0	18.0	15.0
5	10.0	8.5	10.0	8.5	12.5	11.5	17.0	14.0	19.5	15.0	18.5	14.5
6	9.0	7.5	9.0	8.0	13.5	11.5	15.0	12.5	20.5	16.0	19.0	14.5
7	8.5	7.0	10.0	8.5	12.5	11.0	15.0	11.5	21.5	17.0	19.0	15.5
8	8.5	7.5	10.0	8.5	11.0	10.5	15.5	11.0	22.5	17.5	18.5	16.5
9	8.5	7.0	13.0	9.5	12.0	10.0	14.5	12.5	24.0	18.5	17.5	16.0
10	8.5	7.0	12.0	10.0	12.0	10.5	14.5	12.0	24.0	19.5	19.0	16.0
11	7.5	7.0	13.5	10.0	11.5	9.5	15.5	12.5	22.5	19.0	19.5	16.0
12	8.5	6.5	13.5	9.5	11.5	10.0	17.0	13.0	20.5	18.5	18.5	15.0
13	9.5	6.0	14.5	11.0	12.0	10.0	16.5	13.5	20.5	17.5	18.0	15.0
14	10.5	7.0	13.0	11.0	13.0	10.0	18.0	13.0	20.0	17.5	18.0	14.0
15	9.5	8.0	11.0	10.0	13.0	10.0	18.5	14.5	18.5	17.5	17.5	14.5
16	10.5	8.5	11.0	9.0	12.5	11.5	17.5	15.0	20.0	16.5	18.0	15.5
17	11.0	8.0	10.5	10.0	12.0	10.5	16.0	15.0	21.0	17.5	18.5	15.5
18	12.0	9.0	11.0	10.5	11.5	11.0	17.0	15.0	19.0	17.0	17.0	14.5
19	11.0	9.5	11.0	9.5	12.5	11.0	18.0	15.5	17.0	16.0	16.5	14.0
20	10.0	9.0	11.0	9.5	12.0	11.0	16.5	15.5	17.0	15.5	14.5	13.5
21	10.0	9.0	11.5	10.0	11.5	10.5	18.5	15.0	18.5	15.5	14.0	13.0
22	12.0	9.5	13.0	10.0	11.5	10.5	17.5	15.5	19.5	14.5	13.0	11.5
23	11.5	10.0	12.5	11.0	13.5	10.5	17.0	15.5	18.0	16.0	13.0	10.5
24	11.5	9.0	12.0	11.5	14.5	10.5	19.0	15.5	19.0	16.0	13.0	11.0
25	10.5	8.5	13.0	11.0	15.0	12.0	20.0	16.0	18.5	15.5	13.0	11.0
26	11.0	9.0	14.0	10.5	14.0	12.5	21.5	16.5	18.0	14.5	12.0	11.5
27	9.5	8.5	14.5	11.0	14.5	12.0	21.5	17.5	18.5	14.5	12.5	12.0
28	11.0	9.0	16.0	11.5	15.0	11.0	19.0	17.0	18.5	14.0	13.0	12.0
29	14.5	10.5	14.5	12.5	16.5	12.0	17.5	15.5	17.0	15.5	13.0	11.5
30	14.5	12.0	15.0	12.0	15.0	13.0	18.0	14.5	17.0	15.5	13.5	11.0
31	---	---	15.5	11.5	---	---	19.0	14.5	17.0	14.5	---	---
MONTH	14.5	6.0	16.0	8.0	16.5	9.5	21.5	11.0	24.0	14.0	19.5	10.5

14304850 BIG ROCK CREEK NEAR VALSETZ, OR

LOCATION.--Lat 44°46'41", long 123°41'34", in NE¼NW¼ sec.20, T.9 S., R.8 W., Polk County, Hydrologic Unit 17100204, on left bank about 0.2 mi (0.3 km) downstream from roadbridge and 4.7 mi (7.6 km) southwest of Valsetz.

DRAINAGE AREA.--6.90 mi² (17.9 km²).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1979 to current year.

INSTRUMENTATION.--Temperature recorder since Feb. 27, 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 20.0°C Aug. 9, 10, 1981; minimum, 0.0°C Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C Aug. 9, 10; minimum, 3.0°C Feb. 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14304850 BIG ROCK CREEK NEAR VALSETZ, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (2.9 km) downstream from Baker Creek, 1.5 mi (2.4 km) east of Siletz, and at mile 42.6 (68.5 km).

DRAINAGE AREA.--202 mi² (523 km²).

WATER-DISCHARGE RECORDS

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 (31.187 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1905, to Sept 30, 1938, nonrecording gage at various sites within 2.5 mi (4.0 km) downstream at different datums.

REMARKS.--Records excellent. Slight regulation from logponds. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--62 years (water years 1906-11, 1926-81), 1,559 ft³/s (44.15 m³/s), 104.81 in/yr (2,662 mm/yr), 1,129,000 acre-ft/yr (1.39 km³/yr).

EXTREMES FOR PERIOD OF RECORD (1905-12, 1924-38).--Maximum discharge, 34,600 ft³/s (980 m³/s) Nov. 22, 1909, gage height, 24.6 ft (7.50 m), site and datum then in use; minimum observed, 51 ft³/s (1.44 m³/s) Dec. 6, 7, 1929.

EXTREMES FOR PERIOD OF RECORD (1938-81).--Maximum discharge, 32,200 ft³/s (912 m³/s) Jan. 28, 1965, gage height, 27.32 ft (8.327 m), present site and datum; minimum, 48 ft³/s (1.36 m³/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 (9.63 m), at site 2.5 mi (4.0 km) downstream at different datum, from floodmark, discharge, 40,800 ft³/s (1,160 m³/s), from rating curve extended above 17,000 ft³/s (481 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 14,000 ft³/s (396 m³/s) and maximum discharge, 26,500 ft³/s (750 m³/s) Dec. 25, gage height, 22.95 ft (6.995 m); minimum, 71 ft³/s (2.01 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	225	2510	2820	804	1070	4520	633	528	602	192	126
2	82	423	7600	2290	752	981	3220	628	509	557	186	128
3	82	372	8900	1930	708	949	2660	617	490	528	186	113
4	80	432	6320	1650	670	1140	2150	681	463	495	189	107
5	78	348	4510	1440	713	994	1970	804	490	472	186	103
6	77	827	3430	1280	659	930	1790	863	523	449	181	101
7	77	4380	2590	1170	623	887	1590	863	523	467	170	97
8	75	3650	2050	1070	597	851	2020	822	2620	458	164	93
9	73	2530	1690	975	572	792	2950	804	4480	410	157	93
10	71	1790	1440	887	562	747	2590	747	3700	393	152	95
11	80	1290	1280	827	597	713	3310	702	2460	385	140	95
12	159	987	1190	769	730	670	3620	665	1870	364	137	91
13	203	804	1090	724	912	643	3010	628	1780	352	140	89
14	142	747	1030	686	1870	617	2450	597	1560	340	140	88
15	115	692	981	649	2150	659	2070	747	1350	329	135	84
16	105	607	937	623	7190	741	1810	741	1290	313	135	82
17	99	562	869	602	6160	665	1570	686	1190	302	133	82
18	95	659	798	592	7260	633	1390	893	1070	295	126	86
19	91	643	736	557	9680	612	1240	1010	1350	284	126	120
20	91	597	810	537	6220	587	1100	949	1510	277	137	117
21	89	1500	1810	537	4010	567	1040	881	1430	271	140	133
22	86	2590	9110	562	2890	612	994	810	1320	264	128	154
23	84	1790	6230	638	2280	713	949	747	1200	254	124	133
24	84	1380	8210	670	2030	752	949	769	1060	244	122	115
25	130	1200	21900	670	1680	1130	881	792	949	237	126	113
26	167	1030	17600	912	1470	1230	816	741	863	231	120	152
27	288	1130	9570	1080	1320	1150	764	686	792	221	115	397
28	203	1380	5840	1030	1180	1030	781	649	730	212	113	360
29	167	2500	4190	1010	---	1150	719	617	675	203	109	295
30	149	2910	4340	937	---	1610	665	597	633	197	124	234
31	140	---	3520	869	---	4130	---	552	---	194	124	---
TOTAL	3548	39975	143081	30993	66289	29955	55588	22921	39408	10600	4457	4076
MEAN	114	1333	4616	1000	2367	966	1853	739	1314	342	144	136
MAX	288	4380	21900	2820	9680	4130	4520	1010	4480	602	192	397
MIN	71	225	736	537	562	567	665	552	463	194	109	82
CFSM	.56	6.60	22.9	4.95	11.7	4.78	9.17	3.66	6.51	1.69	.71	.67
IN.	.65	7.36	26.35	5.71	12.21	5.52	10.24	4.22	7.26	1.95	.82	.75
AC-FT	7040	79290	283800	61470	131500	59420	110300	45460	78170	21030	8840	8080

CAL YR 1980 TOTAL 481798 MEAN 1316 MAX 21900 MIN 71 CFSM 6.52 IN 88.73 AC-FT 955600
WTR YR 1981 TOTAL 450891 MEAN 1235 MAX 21900 MIN 71 CFSM 6.11 IN 83.03 AC-FT 894300

14305500 SILETZ RIVER AT SILETZ, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 10, 1981; minimum, 0.0°C Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 10; minimum, 4.0°C Feb. 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	14.5	10.5	9.5	7.5	7.5	9.5	8.5	6.0	5.0	8.0	7.0
2	17.5	14.5	11.5	10.5	9.0	7.5	8.5	7.5	5.5	5.0	8.5	7.0
3	16.5	15.0	11.5	11.5	9.0	8.5	8.5	8.0	5.0	4.5	8.5	8.0
4	16.5	14.5	12.0	11.5	8.5	7.5	8.5	8.0	5.0	4.5	8.0	7.5
5	16.0	14.0	12.0	12.0	7.5	7.5	8.0	7.5	6.5	5.0	7.5	6.0
6	16.0	14.5	12.0	11.5	7.0	6.5	8.0	7.5	6.0	5.0	7.0	6.0
7	16.5	14.5	12.0	11.5	6.5	6.0	8.0	7.5	5.0	4.5	8.0	7.0
8	16.5	15.0	11.5	10.5	6.0	5.5	7.5	7.5	5.0	4.0	8.5	7.0
9	15.0	13.0	10.5	10.0	5.5	5.5	8.0	7.5	5.5	4.5	8.5	7.0
10	14.0	12.0	10.0	8.5	6.5	5.5	7.5	6.5	5.5	5.5	9.5	8.5
11	12.5	11.5	8.5	7.5	6.5	6.0	6.5	6.0	6.0	5.5	10.0	8.5
12	12.5	11.5	7.5	7.0	6.5	6.5	6.5	6.0	8.0	6.0	9.5	8.0
13	12.5	11.5	7.0	6.5	6.5	6.0	6.0	5.5	8.5	8.0	9.0	8.0
14	12.0	11.0	7.5	6.5	8.0	6.5	6.0	5.5	9.0	8.5	9.5	8.0
15	12.0	10.5	8.0	7.5	8.0	7.5	6.0	5.5	8.5	8.0	9.0	8.5
16	12.0	10.5	8.0	7.5	7.5	7.0	6.0	6.0	9.0	8.5	9.5	8.0
17	11.0	10.0	8.5	7.5	7.0	7.0	6.5	6.0	9.0	8.5	9.0	7.5
18	11.0	9.5	9.5	8.5	7.0	6.5	8.5	7.0	9.5	8.5	8.0	7.0
19	11.5	9.5	10.0	9.5	7.0	6.5	8.5	8.5	9.5	8.0	8.0	7.0
20	11.5	10.5	10.0	9.5	8.5	7.0	8.5	8.0	8.5	7.5	8.5	7.0
21	11.5	10.0	10.0	9.5	9.5	8.5	9.5	8.5	8.5	7.5	8.0	7.5
22	10.5	9.5	9.5	7.5	9.5	9.0	9.5	9.5	9.0	7.5	9.5	8.0
23	10.0	8.5	8.5	8.0	9.0	8.5	9.5	9.0	9.0	8.0	9.0	8.5
24	9.5	9.0	8.5	7.5	10.0	8.5	9.0	7.5	8.5	8.0	9.0	8.0
25	10.0	9.5	8.5	7.5	10.5	10.0	7.5	7.0	8.0	7.0	10.0	9.0
26	10.0	9.0	8.5	8.0	10.5	10.0	7.5	7.0	7.5	6.5	10.0	9.0
27	10.5	10.0	9.5	8.5	10.0	9.5	7.5	7.0	8.5	7.0	10.0	9.0
28	10.5	9.5	9.5	9.0	9.5	8.5	7.0	6.5	8.5	7.0	9.5	9.0
29	9.5	8.5	9.0	8.0	9.5	8.5	6.5	6.5	---	---	9.0	8.5
30	9.5	8.5	8.0	7.5	10.5	9.5	6.5	6.0	---	---	8.5	7.5
31	9.5	9.0	---	---	10.5	9.5	6.5	6.0	---	---	8.0	7.5
MONTH	17.5	8.5	12.0	6.5	10.5	5.5	9.5	5.5	9.5	4.0	10.0	6.0

SILETZ RIVER BASIN

14305500 SILETZ RIVER AT SILETZ, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	7.0	14.0	12.0	14.5	13.0	16.0	13.5	18.5	17.0		
2	8.0	7.0	12.0	10.5	14.0	12.0	18.0	14.5	17.5	16.5		
3	8.5	7.5	11.0	9.5	13.5	13.0	18.5	15.5	18.0	16.5		
4	10.0	7.5	9.5	8.5	13.5	13.0	18.0	16.5	19.5	16.5		
5	9.5	9.0	9.5	8.5	13.0	12.5	18.0	16.5	20.0	17.0		
6	8.5	7.5	9.0	8.0	13.5	12.0	16.5	14.5	21.5	18.0		
7	8.0	7.0	10.0	8.5	13.0	11.5	15.0	13.5	22.5	19.0		
8	8.0	7.5	9.5	9.0	11.5	10.5	16.0	13.0	23.5	20.0		
9	8.5	7.0	12.5	9.0	11.0	10.0	15.5	14.5	25.0	20.5		
10	8.0	7.0	12.5	10.5	12.5	10.5	15.0	14.0	25.5	21.5		
11	7.5	7.0	13.0	11.0	11.5	10.0	15.5	12.5	23.5	21.5		
12	8.5	7.0	13.0	10.5	11.5	10.5	17.0	14.0	22.0	20.0		
13	9.5	6.5	14.0	12.0	12.0	10.5	17.5	15.0	20.5	18.5		
14	10.0	7.5	13.0	12.0	12.5	10.0	18.5	14.5	20.0	18.5		
15	10.0	8.5	11.5	10.5	13.0	11.0	18.5	16.0	18.5	18.0		
16	10.5	8.5	11.0	10.0	13.0	12.0	18.0	16.5	20.0	17.0		
17	10.5	8.5	11.0	10.5	13.0	11.0	17.5	16.5	22.0	18.5		
18	11.5	9.5	11.5	10.5	12.5	11.5	18.5	16.5	20.5	18.5		
19	11.5	10.0	11.0	10.5	12.0	11.5	19.5	17.0	18.5	17.5		
20	10.0	9.5	10.5	10.0	12.0	11.5	19.0	17.0	17.5	17.0		
21	9.5	9.5	11.0	10.0	12.5	11.0	20.0	16.5	19.5	16.0		
22	11.0	9.5	13.0	10.5	12.5	12.0	19.5	16.5	20.5	16.5		
23	11.0	10.0	13.0	12.5	13.0	11.0	19.5	16.5	18.5	17.5		
24	11.0	9.5	12.5	12.0	14.5	12.0	19.0	17.0	---	17.0		
25	10.0	9.0	12.5	11.5	15.5	13.5	20.0	17.0	---	---		
26	11.0	9.0	13.5	11.0	15.0	13.5	22.0	18.0	---	---		
27	9.5	9.0	14.5	12.0	14.5	13.0	22.5	19.0	---	---		
28	11.5	9.0	15.5	13.0	15.5	12.5	22.0	19.0	---	---		
29	14.5	11.5	15.0	13.5	16.5	13.0	20.5	18.5	---	---		
30	14.5	13.5	15.0	13.0	16.0	14.5	20.0	16.5	---	---		
31	---	---	15.0	13.0	---	---	20.5	16.5	---	---		
MONTH	14.5	6.5	15.5	8.0	16.5	10.0	22.5	12.5	25.5	16.0		

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 (60 m) below Thornton Creek and 1.1 mi (1.8 km) west of Chitwood.

DRAINAGE AREA.--71.0 mi² (183.9 km²).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 28.43 ft (8.665 m) National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--9 years, 241 ft³/s (6.83 m³/s), 46.10 in/yr (1,171 mm/yr), 174,600 acre-ft/yr (215 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,150 ft³/s (174 m³/s) Nov. 16, 1973, gage height, 14.43 ft (4.398 m); minimum, 2.8 ft³/s (0.079 m³/s) Sept. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum discharge, 3,930 ft³/s (111 m³/s) Dec. 26, gage height, 11.32 ft (3.450 m); minimum, 5.9 ft³/s (0.17 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	19	400	513	209	254	949	113	124	122	31	16
2	9.2	26	1120	429	189	234	732	116	119	114	30	15
3	8.5	32	1540	365	174	230	574	112	114	106	29	14
4	7.9	27	1500	318	163	258	453	118	115	99	29	12
5	7.8	25	1310	284	165	238	396	162	116	95	27	11
6	7.6	51	1080	257	148	230	345	200	122	90	26	11
7	7.9	180	753	232	139	222	319	181	144	94	25	9.8
8	8.2	164	544	210	133	204	384	164	406	87	23	9.2
9	7.5	119	412	190	131	192	594	153	649	80	23	9.4
10	7.3	99	331	175	125	182	578	141	518	74	21	9.9
11	8.4	71	282	161	126	171	776	134	381	72	19	10
12	10	56	246	150	123	164	990	126	312	68	19	9.8
13	18	47	214	140	136	153	831	121	323	66	19	9.2
14	22	45	189	132	195	145	652	117	304	63	19	8.4
15	18	44	171	125	219	156	511	143	277	60	19	7.7
16	13	41	161	121	426	162	407	140	277	58	19	7.2
17	11	38	149	117	634	144	340	140	256	57	18	7.9
18	10	36	137	111	932	141	299	207	240	56	17	8.7
19	9.4	35	128	106	1490	136	266	248	264	54	17	13
20	9.4	34	130	102	1190	132	237	231	277	51	18	14
21	9.4	56	183	101	855	129	218	209	268	49	18	14
22	9.4	145	841	111	654	134	197	186	255	46	16	13
23	9.6	106	892	123	526	156	181	171	235	44	15	12
24	9.8	94	1310	122	454	167	172	176	211	42	16	11
25	12	88	3400	120	381	206	156	191	191	41	15	12
26	15	81	3290	164	340	234	146	175	174	39	14	21
27	34	87	1720	234	305	229	141	165	161	38	13	47
28	23	131	1120	240	277	215	135	156	149	35	13	30
29	16	277	837	264	---	224	125	147	137	34	13	22
30	14	432	740	260	---	272	118	141	129	33	16	19
31	13	---	619	237	---	632	---	130	---	31	17	---
TOTAL	376.3	2686	25749	6214	10839	6346	12222	4914	7248	1998	614	414.2
MEAN	12.1	89.5	831	200	387	205	407	159	242	64.5	19.8	13.8
MAX	34	432	3400	513	1490	632	990	248	649	122	31	47
MIN	7.3	19	128	101	123	129	118	112	114	31	13	7.2
CFSM	.17	1.26	11.7	2.82	5.45	2.89	5.73	2.24	3.41	.91	.28	.19
IN.	.20	1.41	13.49	3.26	5.68	3.32	6.40	2.57	3.80	1.05	.32	.22
AC-FT	746	5330	51070	12330	21500	12590	24240	9750	14380	3960	1220	822

CAL YR 1980	TOTAL	88270.0	MEAN	241	MAX	3400	MIN	7.3	CFSM	3.39	IN	46.25	AC-FT	175100
WTR YR 1981	TOTAL	79620.5	MEAN	218	MAX	3400	MIN	7.2	CFSM	3.07	IN	41.72	AC-FT	157900

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 (0.3 km) upstream from bridge on Lobster Valley Road, 0.7 mi (1.1 km) upstream from confluence with South Fork, and at mile 49.4 (79.5 km).

DRAINAGE AREA.--63.0 mi² (163 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 272.31 ft (83.000 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Some diversions by pumping above station.

AVERAGE DISCHARGE.--24 years, 276 ft³/s (7.816 m³/s), 59.49 in/yr (1,511 mm/yr), 200,000 acre-ft/yr (247 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,100 ft³/s (399 m³/s) Dec. 22, 1964, gage height, 14.57 ft (4.441 m), from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of slope-area measurement at gage height 11.80 ft (3.597 m); minimum, 8.3 ft³/s (0.24 m³/s) June 8, Sept. 19, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1500	3,980	113	7.60	2.316	Dec. 25	2000	*8,290	235	*11.49	3.502

Minimum, 11 ft³/s (0.31 m³/s) Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	295	447	161	229	620	107	86	71	33	25
2	17	48	2120	387	147	210	466	105	82	69	34	25
3	17	26	2230	335	136	206	395	103	78	66	34	25
4	17	23	1370	299	131	233	335	103	78	62	34	25
5	17	21	882	268	139	203	315	131	78	61	32	24
6	17	68	680	247	126	191	287	126	80	61	30	24
7	17	379	484	226	119	182	261	114	114	73	30	23
8	17	306	367	210	114	167	307	107	315	64	30	23
9	16	245	299	191	112	158	416	103	374	59	29	23
10	16	165	261	179	107	150	391	96	268	57	27	24
11	17	111	245	167	119	142	674	94	206	55	25	23
12	21	82	233	155	114	136	674	88	179	52	27	23
13	39	64	215	147	236	129	533	86	203	51	28	22
14	39	66	206	139	513	124	438	86	185	49	27	22
15	25	62	206	131	399	142	374	96	164	48	28	21
16	22	53	197	126	1070	139	319	92	158	46	28	21
17	20	46	176	124	816	124	279	94	142	46	27	22
18	19	42	156	116	919	121	250	173	131	45	25	23
19	19	39	144	112	1300	119	226	173	136	43	27	29
20	18	36	144	107	942	114	203	142	131	43	29	28
21	17	224	261	112	668	119	191	126	121	42	28	31
22	17	351	1010	131	523	131	179	112	114	41	28	34
23	16	195	709	129	438	150	167	105	107	41	25	33
24	16	148	1510	129	399	158	158	112	98	41	27	28
25	16	130	5140	119	340	206	147	147	92	41	25	25
26	24	113	3380	170	307	200	139	134	88	37	25	38
27	30	115	1810	213	276	182	134	121	84	36	25	101
28	19	148	1120	247	250	167	126	109	80	33	25	84
29	15	282	792	240	---	191	119	101	77	33	25	55
30	15	371	647	210	---	250	114	96	73	33	27	38
31	13	---	528	182	---	563	---	88	---	33	27	---
TOTAL	606	3980	27817	5995	10921	5536	9237	3470	4122	1532	871	942
MEAN	19.5	133	897	193	390	179	308	112	137	49.4	28.1	31.4
MAX	39	379	5140	447	1300	563	674	173	374	73	34	101
MIN	13	21	144	107	107	114	114	86	73	33	25	21
CFSM	.31	2.11	14.2	3.06	6.19	2.84	4.89	1.78	2.18	.78	.45	.50
IN.	.36	2.35	16.45	3.54	6.45	3.27	5.45	2.05	2.43	.90	.51	.56
AC-FT	1200	7890	55180	11890	21660	10980	18320	6880	8180	3040	1730	1870

CAL YR 1980	TOTAL 97752	MEAN 267	MAX 5140	MIN 13	CFSM 4.24	IN 57.71	AC-FT 193900		
WTR YR 1981	TOTAL 75029	MEAN 206	MAX 5140	MIN 13	CFSM 3.27	IN 44.30	AC-FT 148800		

14306400 FIVE RIVERS NEAR FISHER, OR

LOCATION.--Lat 44°20'15", long 123°49'35", W½ 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 (152 m) downstream from Lobster Creek, 3.2 mi (5.1 km) north of Fisher, and at mile 3.3 (5.3 km).

DRAINAGE AREA.--114 mi^2 (295 km^2).

PERIOD OF RECORD.--August 1958 to September 1963, October 1967 to current year.

REVISED RECORDS.--WSP 1718: 1959.

GAGE.--Water-stage recorder. Altitude of gage is 130 ft (39.6 m) from topographic map.

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

AVERAGE DISCHARGE.--19 years, 545 ft^3/s (15.43 m^3/s), 64.92 in/yr (1,649 mm/yr), 394,900 acre-ft/yr (487 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft^3/s (487 m^3/s) Jan. 21, 1972, gage height, 21.08 ft (6.425 m); minimum, 16 ft^3/s (0.45 m^3/s) Oct. 1, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 22.3 ft (6.80 m), from floodmarks, discharge, 19,000 ft^3/s (538 m^3/s) from rating curve extended above 10,000 ft^3/s (283 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (113 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	8,530	242	14.83	4.520	Dec. 25	2330	*16,300	462	*20.48	6.242

Minimum, 21 ft^3/s (0.59 m^3/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	63	600	907	382	501	1410	217	149	134	57	40
2	26	125	4630	767	349	463	1000	217	145	127	59	40
3	26	75	5230	670	327	452	836	211	137	121	62	37
4	25	59	3470	592	308	458	690	209	137	116	60	37
5	25	53	2110	530	335	411	630	256	139	110	57	37
6	25	193	1670	483	308	387	561	238	143	108	55	36
7	24	1200	1270	447	286	374	509	215	188	114	53	34
8	24	1220	994	417	275	349	549	205	527	107	52	33
9	22	702	793	387	268	330	680	199	707	103	51	33
10	22	447	660	359	256	308	647	184	495	99	48	34
11	24	300	570	337	258	288	1180	176	380	98	45	34
12	32	224	507	317	245	277	1270	168	330	94	45	33
13	69	180	450	300	469	268	988	160	359	89	46	33
14	57	176	405	284	1030	256	805	160	327	88	46	33
15	41	157	375	272	801	291	683	176	291	85	45	32
16	34	138	348	258	1730	296	599	172	286	83	45	32
17	30	127	323	258	1880	268	530	186	258	83	44	32
18	29	117	300	243	1700	258	480	272	238	81	42	33
19	28	110	280	232	2410	256	436	254	238	79	44	46
20	27	103	290	223	1970	245	403	221	225	78	46	44
21	27	450	522	249	1430	254	377	203	211	76	46	48
22	26	894	2260	300	1120	270	352	184	201	74	44	51
23	26	486	1620	332	969	300	332	174	193	73	42	53
24	29	373	3140	347	891	312	322	201	178	71	42	45
25	38	333	10700	330	756	425	296	249	170	69	41	40
26	59	288	8180	486	680	419	281	234	160	66	41	55
27	81	280	4130	580	611	372	270	209	154	65	40	184
28	51	308	2440	608	549	337	258	188	147	62	39	182
29	41	594	1680	558	---	390	240	174	141	62	39	118
30	36	702	1330	483	---	530	227	168	136	62	41	74
31	33	---	1080	425	---	1180	---	154	---	59	41	---
TOTAL	1065	10477	62357	12981	22593	11525	17841	6234	7390	2736	1458	1563
MEAN	34.4	349	2012	419	807	372	595	201	246	88.3	47.0	52.1
MAX	81	1220	10700	907	2410	1180	1410	272	707	134	62	184
MIN	22	53	280	223	245	245	227	154	136	59	39	32
CFSM	.30	3.06	17.6	3.68	7.08	3.26	5.22	1.76	2.16	.78	.41	.46
IN.	.35	3.42	20.35	4.24	7.37	3.76	5.82	2.03	2.41	.89	.48	.51
AC-FT	2110	20780	123700	25750	44810	22860	35390	12370	14660	5430	2890	3100

CAL YR 1980 TOTAL 192051 MEAN 525 MAX 10700 MIN 22 CFSM 4.61 IN 62.67 AC-FT 380900
WTR YR 1981 TOTAL 158220 MEAN 433 MAX 10700 MIN 22 CFSM 3.80 IN 51.63 AC-FT 313800

14306500 ALSEA RIVER NEAR TIDEWATER, OR

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 (1.4 km) downstream from Grass Creek, 2.5 mi (4.0 km) upstream from Scott Creek, 3.8 mi (6.1 km) southeast of Tidewater, and at mile 21.0 (33.8 km).

DRAINAGE AREA.--334 mi² (865 km²).

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 48.16 ft (14.679 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good. No regulation. Diversion for irrigation above station.

AVERAGE DISCHARGE.--42 years, 1,508 ft³/s (42.71 m³/s), 61.31 in/yr (1,557 mm/yr), 1,093,000 acre-ft/yr (1.35 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,800 ft³/s (1,180 m³/s) Dec. 22, 1964, gage height, 27.44 ft (8.364 m); minimum, 45 ft³/s (1.27 m³/s) Sept. 26, 27, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood on or about Feb. 3, 1890, reached a stage of 29.5 ft (8.99 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 13,000 ft³/s (368 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1900	17,400	493	17.06	5.200	Dec. 26	0130	*32,500	920	*23.92	7.291

Minimum, 72 ft³/s (2.04 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	133	1590	2500	1000	1370	3720	690	504	401	169	115
2	86	305	9110	2130	919	1270	2670	690	496	380	171	112
3	82	236	12200	1850	860	1230	2210	667	472	359	176	107
4	79	180	8990	1620	816	1310	1850	667	472	343	178	103
5	78	156	5780	1460	870	1200	1700	754	472	327	171	100
6	76	293	4670	1340	820	1130	1600	791	488	320	160	99
7	76	2180	3480	1230	768	1080	1500	703	545	349	154	95
8	75	2510	2630	1150	735	1030	1700	667	1370	346	147	91
9	75	1570	2090	1070	717	965	2000	654	1920	311	143	89
10	73	1100	1750	997	694	924	1900	611	1360	302	137	92
11	72	744	1550	940	699	884	3150	589	1060	293	128	92
12	83	558	1410	884	690	850	3700	567	904	281	124	91
13	151	445	1270	840	986	820	2860	545	970	272	126	89
14	192	419	1160	801	2530	787	2340	528	945	261	128	88
15	149	408	1100	768	2130	830	1990	575	840	255	128	86
16	120	356	1040	735	4130	889	1730	589	806	247	128	83
17	102	323	965	726	4740	806	1540	584	749	244	126	82
18	95	299	894	690	4370	780	1400	820	690	241	122	85
19	92	281	835	659	6450	750	1290	899	703	233	119	110
20	91	266	840	641	5360	710	1190	772	685	230	124	120
21	89	620	1200	676	3850	750	1120	703	646	222	129	124
22	88	2250	5510	782	3000	800	1060	646	606	215	124	131
23	85	1200	4430	850	2530	900	1010	606	589	212	119	147
24	88	914	6500	874	2360	909	976	654	541	210	117	128
25	112	796	21900	825	2010	1120	904	768	512	205	119	112
26	141	708	20600	1110	1810	1160	865	772	488	200	113	128
27	236	672	10500	1360	1640	1060	830	694	464	190	110	408
28	178	806	6780	1520	1490	965	806	641	441	180	108	433
29	133	1310	4760	1440	---	1050	758	593	422	173	107	339
30	115	1870	3760	1260	---	1370	726	571	408	173	110	212
31	107	---	3000	1110	---	2770	---	533	---	171	115	---
TOTAL	3310	23908	152294	34838	58974	32469	51095	20543	21568	8146	4130	4091
MEAN	107	797	4913	1124	2106	1047	1703	663	719	263	133	136
MAX	236	2510	21900	2500	6450	2770	3720	899	1920	401	178	433
MIN	72	133	835	641	690	710	726	528	408	171	107	82
CFSM	.32	2.39	14.7	3.37	6.31	3.14	5.10	1.99	2.15	.79	.40	.41
IN.	.37	2.66	16.96	3.88	6.57	3.62	5.69	2.29	2.40	.91	.46	.46
AC-FT	6570	47420	302100	69100	117000	64400	101300	40750	42780	16160	8190	8110

CAL YR 1980 TOTAL 515280 MEAN 1408 MAX 21900 MIN 72 CFSM 4.22 IN 57.39 AC-FT 1022000
WTR YR 1981 TOTAL 415366 MEAN 1138 MAX 21900 MIN 72 CFSM 3.41 IN 46.26 AC-FT 823900

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1979 to September 1981.
WATER TEMPERATURES: October 1979 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 81 micromhos Aug. 18, 1980; minimum recorded, 48 micromhos Mar. 2, 1980.
WATER TEMPERATURES: Maximum, 25.0°C Aug. 10, 1981; minimum, 5.0°C Feb. 4, 8, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 79 micromhos Oct. 17; minimum recorded, 50 micromhos Apr. 10.
WATER TEMPERATURES: Maximum, 25.0°C Aug. 10; minimum, 5.0°C Feb. 4, 8.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV 06...	1130	241	75	7.6	12.5	9.4	37	120	21	.00	5.5	1.8
JAN 07...	1230	1270	56	7.0	8.0	11.8	K23	K10	16	.00	3.8	1.5
MAR 11...	1700	889	61	7.4	10.5	11.3	K10	20	20	--	5.7	1.3
APR 29...	1500	758	61	7.6	15.5	10.5	K5	K96	17	.00	4.3	1.5
JUN 24...	1630	541	61	7.8	17.0	9.6	K10	K160	26	1.0	7.5	1.7
AUG 19...	1700	121	70	7.1	20.0	8.6	24	K2900	21	1.0	5.3	1.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
NOV 06...	5.5	1.1	21	2.6	5.3	< .1	.20	.080	.82	.170	.91	1.1
JAN 07...	4.4	.6	21	2.4	3.9	.1	.61	.050	.93	--	--	--
MAR 11...	4.8	.7	16	1.2	4.9	.1	.46	.010	.56	.000	.86	1.4
APR 29...	4.8	.7	20	1.1	3.7	.1	.40	.070	.34	.150	4.40	4.8
JUN 24...	5.2	.5	25	< 1.0	3.5	< .1	.27	.090	1.0	.100	.54	.81
AUG 19...	5.5	1.0	20	2.0	4.3	.1	.10	.090	.49	.100	.44	.58

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	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												
06...	.030	.060	--	--	7.3	13	60	--	1.9	2	1.3	86
JAN												
07...	.080	.060	1.4	.2	--	14	--	46	1.5	6	20	70
MAR												
11...	.010	.030	--	--	1.2	13	49	43	3.0	4	9.6	91
APR												
29...	.030	.040	1.4	.2	--	14	49	44	1.4	4	8.2	62
JUN												
24...	.010	.030	2.8	.2	--	14	44	49	1.0	20	29	69
AUG												
19...	.030	.030	2.1	.1	2.1	14	50	47	1.0	0	.00	100

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
JAN										
07...	< 1	1	20	<100	--	< 1	<10	10	< 3	< 1
APR										
29...	< 1	1	20	<100	< 1	< 1	10	20	< 3	1
JUN										
24...	< 1	1	< 2	<100	< 1	< 1	<10	20	< 3	2
AUG										
19...	2	1	20	100	< 1	< 1	<10	10	< 3	1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
JAN									
07...	2	5	40	340	1	7	9	10	< .1
APR									
29...	3	7	60	180	3	7	5	10	<.1
JUN									
24...	2	5	70	170	1	17	9	10	<.1
AUG									
19...	4	5	68	570	3	2	5	20	<.1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
JAN									
07...	.1	2	4	<1	<1	<1	<1	20	30
APR									
29...	.1	<1	2	<1	<1	<1	<1	7	40
JUN									
24...	<.1	1	4	<1	<1	<1	<1	20	10
AUG									
19...	<.1	3	1	<1	<1	<1	<1	< 3	40

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO AUGUST 1981

DATE	NOV 6,80	MAR 11,81	APR 29,81	JUN 24,81	AUG 19,81
TIME	1130	1700	1500	1630	1700
TOTAL CELLS/ML	52	39	77	90	610
DIVERSITY: DIVISION	1.0	0.9	0.7	0.0	0.4
.CLASS	1.0	0.9	0.7	0.0	0.4
..ORDER	1.5	0.9	1.8	1.4	1.1
...FAMILY	1.5	1.6	2.3	1.8	2.1
....GENUS	1.5	1.6	2.3	1.8	2.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	13#	17	--	-	120#	19
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	--	-	13	14	--	-
..FRAGILARIALES										
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	13#	17	26#	29	--	-
..NAVICULALES										
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	100#	17
....CYMBELLA	--	-	13#	33	26#	33	39#	43	130#	21
...GOMPHONEMACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	120#	19
...NAVICULACEAE										
....NAVICULA	--	-	13#	33	13#	17	13	14	100#	17
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	13#	25	--	-	--	-	--	-	43	7
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13#	25	13#	33	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	26#	50	--	-	13#	17	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---					---	---	62	---		---	71
2	---					---	---	61	---		---	71
3	---					---	---	61	---		---	70
4	---					---	---	61	---		---	70
5	---					---	---	60	60		---	71
6	---					---	---	60	58		---	72
7	---					---	---	60	58		---	71
8	---					---	---	61	54		---	72
9	---					---	---	61	55		---	72
10	---					---	52	62	57		---	71
11	---					---	---	63	58		---	72
12	---					59	---	63	58		---	73
13	---					58	---	63	58		---	72
14	---					58	---	63	59		---	72
15	---					57	---	63	62		---	71
16	---					57	---	62	---		---	72
17	78					57	---	62	---		---	73
18	76					57	---	61	---		---	71
19	74					57	---	61	---		---	71
20	74					57	---	62	---		73	71
21	74					57	---	62	---		73	72
22	74					56	---	62	---		73	73
23	73					56	---	63	---		73	72
24	72					56	---	---	---		75	71
25	72					55	---	---	---		73	73
26	71					55	---	---	---		73	73
27	68					56	---	---	---		72	67
28	---					56	---	---	---		71	67
29	---					55	---	---	---		71	67
30	---					54	61	---	---		71	66
31	---					54	---	---	---		71	---
MEAN	73					56	57	62	58		72	71

14306500 ALSEA RIVER NEAR TIDEWATER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	7.5	15.5	13.5	16.0	14.5	18.0	15.5	20.0	19.0	19.5	18.0
2	9.0	8.0	13.5	12.5	15.0	13.5	19.5	16.0	19.0	18.0	19.5	18.0
3	9.0	8.0	12.5	11.0	15.0	14.0	20.5	18.0	18.5	17.5	19.5	18.0
4	10.0	8.5	11.0	10.0	15.5	14.5	20.5	18.5	19.5	17.5	19.5	17.5
5	10.0	9.5	10.5	10.0	15.0	14.5	20.0	19.0	20.5	18.5	19.5	17.5
6	9.5	8.5	10.0	9.0	15.5	14.0	19.5	17.0	21.5	19.5	20.0	17.5
7	8.5	8.0	11.0	9.5	15.0	13.0	17.0	15.5	22.5	20.5	20.0	18.0
8	9.0	8.0	11.0	10.0	13.0	12.0	17.5	15.0	23.5	21.5	20.5	18.5
9	9.0	---	13.0	10.5	12.5	11.5	17.5	16.0	24.0	22.0	19.0	18.5
10	8.5	8.0	13.5	11.0	13.5	12.0	17.0	15.5	25.0	23.0	20.0	17.5
11	8.5	---	14.0	12.0	13.5	12.0	17.0	15.0	24.5	23.0	20.5	18.5
12	9.0	---	14.5	12.0	14.0	12.0	18.0	15.5	23.5	22.0	20.5	18.5
13	9.0	7.5	15.0	13.0	13.5	12.0	19.0	16.5	22.5	21.5	20.0	18.5
14	10.0	8.5	14.5	13.5	14.0	11.5	20.0	17.0	22.0	20.5	20.0	18.0
15	10.0	9.0	13.5	12.5	15.5	12.5	20.5	18.0	22.0	20.5	19.5	17.5
16	11.0	9.0	12.5	11.5	15.0	14.0	20.5	18.5	21.5	20.0	20.0	18.0
17	11.5	10.0	12.0	11.5	15.0	13.0	20.0	18.5	22.0	20.5	20.0	18.0
18	12.5	10.5	12.5	11.5	14.5	13.5	19.5	17.5	21.5	20.5	18.5	17.5
19	12.0	10.5	12.0	11.0	14.0	13.0	20.0	18.0	20.5	18.5	18.5	17.0
20	10.5	10.0	11.0	10.5	14.5	13.0	20.5	18.5	19.0	18.0	17.5	16.0
21	10.5	10.0	12.0	10.5	15.5	13.5	20.5	18.5	19.5	17.5	16.0	15.5
22	12.0	10.5	13.5	11.5	15.0	14.5	20.5	18.5	20.5	18.5	16.0	15.0
23	12.5	12.0	14.0	13.0	15.5	14.0	20.0	18.5	20.0	19.0	15.5	14.5
24	12.5	11.0	14.0	14.0	17.5	14.0	20.5	18.5	20.0	18.5	14.5	13.5
25	11.5	10.5	15.0	13.5	19.0	16.0	21.0	18.5	19.0	18.0	14.5	13.0
26	11.5	10.0	15.0	12.5	18.0	16.5	22.5	20.0	19.0	17.0	14.0	13.0
27	10.5	9.5	15.5	13.5	17.0	15.0	23.0	21.0	19.5	17.0	13.5	13.0
28	12.5	9.5	17.0	14.0	17.5	15.0	22.5	21.0	19.5	17.5	14.0	13.0
29	15.5	12.5	16.5	15.5	19.0	16.0	21.5	20.0	18.0	17.5	13.5	13.0
30	16.5	14.5	16.5	14.5	18.5	17.0	20.0	18.0	19.0	17.0	14.0	12.5
31	---	---	17.0	14.5	---	---	20.5	18.5	19.0	17.0	---	---
MONTH	16.5	7.5	17.0	9.0	19.0	11.5	23.0	15.0	25.0	17.0	20.5	12.5

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 (1.6 km) downstream from Frying Pan Creek, 2.5 mi (4.0 km) east of Roosevelt Beach.

DRAINAGE AREA.--11.9 mi^2 (30.8 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 141 ft (43.0 m), by barometer.

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

AVERAGE DISCHARGE.--9 years, 89.6 ft^3/s (2.537 m^3/s), 102.25 in/yr (2,597 mm/yr), 64,920 acre-ft/yr (80.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft^3/s (60.9 m^3/s) Nov. 30, 1975, gage height, 6.90 ft (2.103 m); minimum, 3.8 ft^3/s (0.11 m^3/s) Oct. 15, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s (22.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 2	1400	940	26.6	5.97	1.820	Dec. 25	1900	*1,540	43.6	*6.49	1.978

Minimum, 5.3 ft^3/s (0.15 m^3/s) Oct. 9-11, Sept. 13-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	21	119	176	59	95	332	37	34	38	12	10
2	6.2	17	674	148	54	86	252	37	33	35	12	7.8
3	5.8	18	681	132	51	93	207	37	32	34	13	7.2
4	5.8	16	524	117	50	88	168	36	32	32	12	7.2
5	5.8	19	372	104	65	75	156	45	35	30	11	6.5
6	5.8	85	286	95	53	69	136	38	34	29	11	6.5
7	5.8	338	214	84	49	72	122	35	59	29	11	5.9
8	5.8	175	170	77	47	64	143	38	89	27	10	5.9
9	5.3	138	138	69	46	60	139	36	88	25	9.8	6.2
10	5.3	96	115	63	43	58	132	33	77	25	9.1	6.2
11	6.2	75	96	58	46	53	156	32	68	24	9.1	5.9
12	13	60	84	54	43	51	146	30	64	22	9.1	5.6
13	17	51	75	50	93	49	137	30	77	22	9.1	5.6
14	12	53	66	47	125	46	127	31	61	21	9.1	5.4
15	8.9	43	60	45	127	55	119	39	56	20	9.1	5.4
16	8.1	39	56	42	328	51	107	33	65	19	9.1	5.4
17	7.4	36	51	42	296	46	96	43	55	19	8.7	5.6
18	7.4	34	48	39	429	45	88	63	55	18	8.4	7.2
19	7.0	31	45	37	434	43	80	49	80	17	9.1	8.7
20	7.0	30	49	35	328	41	72	45	71	17	9.1	7.5
21	7.0	161	94	41	242	45	68	43	65	16	8.7	8.7
22	6.2	149	203	47	190	43	63	40	64	16	8.1	8.7
23	6.2	107	152	53	176	51	63	43	59	16	7.8	8.7
24	8.9	85	480	54	158	55	59	54	55	15	9.8	6.8
25	16	78	1010	48	137	100	53	54	52	15	8.7	6.5
26	23	69	839	80	127	86	50	47	49	14	8.1	17
27	19	87	614	77	115	77	48	43	46	13	7.5	30
28	14	81	425	80	104	72	45	42	43	13	7.2	16
29	12	127	324	74	---	101	43	40	42	13	7.5	12
30	10	125	262	69	---	125	40	38	40	13	8.4	9.8
31	9.9	---	210	64	---	328	---	35	---	12	7.5	---
TOTAL	284.8	2444	8536	2201	4015	2323	3447	1246	1680	659	290.1	255.9
MEAN	9.19	81.5	275	71.0	143	74.9	115	40.2	56.0	21.3	9.36	8.53
MAX	23	338	1010	176	434	328	332	63	89	38	13	30
MIN	5.3	16	45	35	43	41	40	30	32	12	7.2	5.4
CFSM	.77	6.85	23.1	5.97	12.0	6.29	9.66	3.38	4.71	1.79	.79	.72
IN.	.89	7.64	26.68	6.88	12.55	7.26	10.77	3.89	5.25	2.06	.91	.80
AC-FT	565	4850	16930	4370	7960	4610	6840	2470	3330	1310	575	508

CAL YR 1980	TOTAL	28678.7	MEAN	78.4	MAX	1010	MIN	5.3	CFSM	6.59	IN	89.64	AC-FT	56880
WTR YR 1981	TOTAL	27381.8	MEAN	75.0	MAX	1010	MIN	5.3	CFSM	6.30	IN	85.59	AC-FT	54310

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 (0.3 km) upstream from Indian Creek, 1.5 mi (2.4 km) southwest of Deadwood, and at mile 2.6 (4.2 km).

DRAINAGE AREA.--174 mi² (451 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.86 ft (54.517 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. Flow slightly regulated by natural storage in Triangle Lake. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--14 years, 707 ft³/s (20.02 m³/s), 55.18 in/yr (1,402 mm/yr), 512,200 acre-ft/yr (632 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,400 ft³/s (578 m³/s) Dec. 25, 1980, gage height, 15.86 ft (4.834 m); minimum, 12 ft³/s (0.34 m³/s) Aug. 14, 15, 17, 18, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,200 ft³/s (119 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	9,520	270	9.92	3.024	Dec. 25	2400	*20,400	578	*15.86	4.834

Minimum, 26 ft³/s (0.74 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	69	656	1310	481	663	1680	294	203	151	59	39
2	32	121	5570	1100	433	598	1250	291	193	142	57	39
3	31	93	6620	957	398	580	1040	283	182	136	60	37
4	30	79	5100	830	375	605	860	283	179	130	60	35
5	30	73	3440	743	418	561	772	339	176	121	59	35
6	29	203	2630	663	398	520	689	348	182	119	56	34
7	29	764	1860	605	379	497	617	314	211	127	54	33
8	29	875	1360	561	361	459	663	294	520	119	52	32
9	28	630	1040	514	348	433	815	283	764	113	49	31
10	27	444	837	475	335	408	800	264	611	111	46	32
11	28	318	702	449	339	389	1770	250	470	105	43	32
12	35	246	605	408	327	375	2000	238	408	100	42	31
13	54	193	537	389	730	357	1600	226	486	98	42	30
14	62	179	481	370	1630	344	1260	218	481	93	42	29
15	52	160	438	352	1310	370	1040	234	413	91	42	29
16	46	145	413	339	2900	389	875	230	370	87	40	28
17	43	130	389	335	3050	370	757	238	335	85	40	27
18	40	119	366	318	3180	352	669	327	302	85	39	29
19	39	111	344	306	3700	344	598	331	302	83	39	40
20	38	103	352	298	2930	331	543	302	287	81	42	40
21	38	310	492	314	2170	344	503	283	268	77	42	57
22	37	882	1990	366	1660	418	470	261	250	75	42	79
23	35	514	1810	394	1350	503	444	242	238	75	40	69
24	37	413	4130	389	1200	537	423	275	222	75	42	59
25	69	352	12700	370	1020	716	394	357	203	73	42	54
26	93	302	11600	465	919	743	379	361	189	71	39	64
27	100	283	6110	611	822	643	357	314	179	67	39	193
28	73	310	3720	743	730	555	344	279	172	64	37	151
29	62	549	2620	730	---	580	322	254	163	62	37	121
30	56	689	1990	637	---	689	306	234	157	62	40	96
31	52	---	1590	543	---	1270	---	214	---	60	42	---
TOTAL	1388	9659	82492	16884	33893	15943	24240	8661	9116	2938	1405	1605
MEAN	44.8	322	2661	545	1210	514	808	279	304	94.8	45.3	53.5
MAX	100	882	12700	1310	3700	1270	2000	361	764	151	60	193
MIN	27	69	344	298	327	331	306	214	157	60	37	27
CFSM	.26	1.85	15.3	3.13	6.95	2.95	4.64	1.60	1.75	.55	.26	.31
IN.	.30	2.07	17.64	3.61	7.25	3.41	5.18	1.85	1.95	.63	.30	.34
AC-FT	2750	19160	163600	33490	67230	31620	48080	17180	18080	5830	2790	3180

CAL YR 1980 TOTAL 246365 MEAN 673 MAX 12700 MIN 27 CFSM 3.87 IN 52.67 AC-FT 488700
WTR YR 1981 TOTAL 208224 MEAN 570 MAX 12700 MIN 27 CFSM 3.28 IN 44.52 AC-FT 413000

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 (76 m) above Shoemaker Creek, 2.5 mi (4.0 km) northwest of Mapleton, and at mile 23.7 (38.1 km).

DRAINAGE AREA.--588 mi² (1,523 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 41 ft (12.5 m), from topographic map.

REMARKS.--Records good. No regulation or diversions above station.

AVERAGE DISCHARGE.--14 years, 2,097 ft³/s (59.39 m³/s), 48.43 in/yr (1,230 mm/yr), 1,519,000 acre-ft/yr (1.87 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,400 ft³/s (1,400 m³/s) Jan. 21, 1972, gage height, 28.45 ft (8.672 m); minimum, 45 ft³/s (1.27 m³/s) Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1964 reached a stage of about 28 ft (8.5 m), from information by local residents (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15,000 ft³/s (425 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1830	29,200	827	21.13	6.440	Dec. 25	2400	*41,400	1,170	*25.73	7.843

Minimum, 67 ft³/s (1.90 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	205	1970	3340	1750	2060	4660	956	620	482	198	138
2	95	353	15700	2870	1580	1900	3600	949	598	463	198	135
3	88	340	22100	2520	1460	1830	2970	922	570	448	198	130
4	86	288	18600	2250	1370	1910	2500	928	554	429	198	124
5	79	258	12300	2030	1470	1860	2250	1040	544	406	198	122
6	79	492	8750	1870	1440	1800	2030	1130	560	397	195	119
7	79	2200	5930	1740	1370	1720	1860	1020	598	411	192	114
8	77	2360	4190	1640	1300	1600	1880	949	1310	411	189	109
9	71	1890	3170	1550	1260	1500	2260	915	2330	392	179	107
10	67	1460	2570	1450	1210	1420	2200	856	1920	370	167	104
11	67	1090	2200	1370	1200	1350	3850	817	1460	357	158	104
12	86	830	1920	1300	1160	1290	5540	779	1220	353	149	102
13	138	648	1730	1240	2030	1250	4590	748	1370	324	146	97
14	185	570	1560	1190	4530	1200	3500	724	1490	320	146	97
15	167	528	1430	1140	3760	1250	2850	761	1370	308	146	95
16	146	468	1330	1100	7240	1330	2450	767	1200	296	146	92
17	135	429	1250	1090	8390	1290	2150	767	1080	292	146	90
18	127	397	1180	1050	8040	1250	1930	1000	963	288	144	102
19	122	375	1120	1010	10100	1220	1780	1040	942	280	141	124
20	130	353	1120	976	7980	1180	1640	976	888	272	144	133
21	114	587	1330	1030	5860	1190	1550	908	823	265	146	155
22	107	2930	5130	1180	4480	1410	1460	817	761	258	146	218
23	99	1810	5250	1470	3670	1610	1390	773	736	250	138	202
24	102	1390	9950	1470	3310	1700	1340	869	677	247	141	179
25	182	1130	33000	1340	2880	2180	1260	1050	625	247	144	161
26	280	963	28400	1540	2640	2500	1210	1130	587	243	135	173
27	340	875	15400	1980	2430	2210	1150	1010	560	236	130	498
28	272	935	9220	2540	2240	1880	1100	875	539	222	130	513
29	222	1410	6410	2600	---	1870	1050	779	513	215	124	420
30	205	1960	5040	2360	---	2150	1000	718	487	212	127	336
31	189	---	4040	2010	---	3470	---	660	---	205	135	---
TOTAL	4235	29524	233290	52246	96150	52380	69000	27633	27895	9899	4874	5093
MEAN	137	984	7525	1685	3434	1690	2300	891	930	319	157	170
MAX	340	2930	33000	3340	10100	3470	5540	1130	2330	482	198	513
MIN	67	205	1120	976	1160	1180	1000	660	487	205	124	90
CFSM	.23	1.67	12.8	2.87	5.84	2.87	3.91	1.52	1.58	.54	.27	.29
IN.	.27	1.87	14.76	3.31	6.08	3.31	4.37	1.75	1.76	.63	.31	.32
AC-FT	8400	58560	462700	103600	190700	103900	136900	54810	55330	19630	9670	10100

CAL YR 1980 TOTAL 721906 MEAN 1972 MAX 33000 MIN 67 CFSM 3.35 IN 45.67 AC-FT 1432000
WTR YR 1981 TOTAL 612219 MEAN 1677 MAX 33000 MIN 67 CFSM 2.85 IN 38.73 AC-FT 1214000

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to current year.
WATER TEMPERATURES: November 1967 to September 1975. October 1977 to September 1981 (discontinued).

INSTRUMENTATION.--Graphic temperature recorder since June 1967. Dual conductivity-temperature servo-programmer with digital recorder since June 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 68 micromhos Nov. 30, 1980; minimum recorded, 28 micromhos Dec. 25, 1980.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 10, 12, 1979; minimum, 0.0°C on several days in 1972, 1978, 1979.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded, 68 micromhos Nov. 30; minimum recorded, 28 micromhos Dec. 25.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 10; minimum, 5.0°C Jan. 14-17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
NOV												
17...	1200	458	61	7.6	7.5	12.2	22	K17	14	3.0	3.7	1.2
JAN												
13...	1110	1250	41	6.5	5.5	12.5	--	K1	11	.00	2.6	1.0
MAR												
23...	1130	1630	43	7.0	10.0	11.3	K16	K14	11	.00	2.8	1.0
MAY												
19...	1230	639	45	7.3	13.0	10.8	K23	K1	12	1.0	3.0	1.1
JUL												
13...	1220	327	49	7.2	20.5	9.2	K10	K2	17	.00	4.8	1.2
SEP												
22...	1130	229	51	7.1	16.0	10.1	173	152	13	.00	3.3	1.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
NOV												
17...	4.0	.9	11	<1.0	5.0	<.1	.46	.040	.40	.040	.39	.88
JAN												
13...	3.9	.6	19	<1.0	3.8	<.1	.44	.070	.25	--	.33	.74
MAR												
23...	4.1	1.3	13	1.0	4.0	.1	.23	.030	.59	--	.63	.89
MAY												
19...	3.8	.7	11	<1.0	3.3	<.1	.22	.080	.24	.090	3.40	3.6
JUL												
13...	4.4	.9	17	2.0	4.0	.1	.18	--	--	.160	.40	.61
SEP												
22...	4.4	1.1	17	<5.0	4.4	.1	<.10	.100	.28	.080	.46	.49

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	TUR-BID-ITY (FTU)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV												
17...	.020	.030	--	--	3.3	12	41	36	1.5	2	2.5	77
JAN												
13...	.010	.030	1.5	.1	--	12	35	38	1.6	3	10	78
MAR												
23...	.020	.020	3.4	.6	3.4	11	48	34	3.6	6	26	71
MAY												
19...	.010	.020	--	--	3.1	11	45	31	1.5	3	5.2	76
JUL												
13...	.010	<.010	2.1	.1	--	12	35	41	2.5	3	2.6	58
SEP												
22...	.010	.030	6.7	.3	--	10	40	40	1.0	8	4.9	62

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	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)
JAN							
13...	1	20	2	<10	<3	5	80
MAR							
23...	1	20	2	<10	<3	6	100
JUL							
13...	1	20	<1	10	<3	8	140
SEP							
22...	<1	25	<1	10	<3	3	120

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	MERCURY DIS-SOLVED (UG/L AS HG)
JAN							
13...	2	3	<1	<1	10	<1	<.1
MAR							
23...	6	5	1	<1	9	<1	.2
JUL							
13...	8	6	11	<1	33	<1	.2
SEP							
22...	1	3	1	<1	13	<1	.2

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 17,80	MAR 23,81	MAY 19,81	JUL 13,81	SEP 22,81
TIME	1200	1620	1230	1220	0930
TOTAL CELLS/ML	26	170	410	270	520
DIVERSITY: DIVISION	0.0	0.8	1.1	1.5	0.2
.CLASS	0.0	0.8	1.1	1.5	0.2
..ORDER	0.0	2.2	2.5	2.0	1.7
...FAMILY	0.0	2.7	2.6	2.0	2.3
....GENUS	0.0	2.7	2.7	2.0	2.9

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)										
.BACILLARIOPHYCEAE										
..ACHNANTHALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	52#	31	130#	31	51#	19	72	14
....COCCONEIS	--	-	--	-	--	-	--	-	43	8
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	57	11
..BACILLARIALES										
...NITZSCHIACEAE										
....NITZSCHIA	--	-	13	8	--	-	13	5	14	3
..EUPODISCALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	14	3	--	-	43	8
....MELOSIRA	--	-	--	-	--	-	--	-	29	6
..FRAGILARIALES										
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	84#	21	--	-	--	-
....SYNEDRA	--	-	13	8	--	-	26	10	--	-
..NAVICULALES										
...CYMBELLACEAE										
....CYMBELLA	--	-	39#	23	14	3	--	-	160#	31
...GOMPHONEMACEAE										
....GOMPHONEIS	--	-	--	-	14	3	--	-	--	-
....GOMPHONEMA	--	-	13	8	42	10	--	-	14	3
...NAVICULACEAE										
....NAVICULA	--	-	13	8	--	-	--	-	72	14
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHLOROCOCCACEAE										
....SCHROEDERIA	26#	100	--	-	--	-	--	-	--	-
...DICTYOSPHAERIACEAE										
....DICTYOSPHAERIUM	--	-	--	-	14	3	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	28	7	130#	48	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	13	8	70#	17	51#	19	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	14	3
....TRACHELOMONAS	--	-	13	8	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	57	65	35	---	39	31	44	50	49	47	---
2	60	57	49	36	---	40	31	44	51	50	47	---
3	61	58	38	37	---	40	32	43	51	51	47	---
4	61	59	38	37	---	40	34	44	51	50	47	---
5	62	60	39	38	---	41	36	43	52	49	48	---
6	63	58	42	38	---	41	37	43	52	49	49	65
7	62	58	43	40	---	40	38	45	52	48	48	64
8	61	65	45	39	---	41	38	45	51	49	---	62
9	62	63	51	40	---	42	39	45	51	50	---	61
10	61	63	51	40	---	42	39	45	53	50	---	61
11	62	64	51	40	37	42	34	45	53	50	---	60
12	61	64	49	40	37	42	30	46	52	50	---	60
13	59	63	48	40	36	41	31	46	51	50	---	59
14	58	63	48	41	35	42	31	46	51	51	---	56
15	60	63	48	40	36	42	32	47	51	51	---	53
16	60	62	48	40	33	42	34	46	52	52	---	50
17	61	61	48	40	33	43	36	46	52	52	---	51
18	62	62	48	40	32	43	37	46	52	52	---	50
19	63	62	48	40	32	43	38	46	51	52	---	50
20	62	62	48	40	33	42	39	46	51	52	---	49
21	62	61	48	40	32	42	40	47	51	51	---	48
22	62	61	45	---	33	43	41	48	51	51	---	48
23	61	65	47	---	33	43	41	49	51	52	---	48
24	61	66	46	---	34	44	41	50	52	52	---	48
25	58	66	33	---	36	43	41	50	53	52	---	49
26	57	66	31	---	37	44	41	51	53	54	---	48
27	57	65	33	---	38	45	41	51	53	54	---	47
28	58	65	43	---	38	47	41	51	54	53	---	49
29	58	66	46	---	---	46	43	50	53	53	---	50
30	59	66	43	---	---	46	43	50	48	53	---	51
31	58	---	38	---	---	43	---	50	---	50	---	---
MEAN	60	62	45	39	35	42	37	47	52	51	48	53

14307620 SIUSLAW RIVER NEAR MAPLETON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	16.0	12.5	11.5	8.5	8.0	10.0	9.5	8.0	7.5	9.5	8.5
2	19.5	15.5	13.0	12.0	10.5	8.5	9.5	9.0	7.5	7.0	9.5	8.5
3	19.0	15.5	13.5	12.5	10.5	9.5	9.0	8.5	7.0	7.0	9.5	9.0
4	19.0	15.0	14.0	13.0	9.5	9.0	8.5	8.0	7.0	7.0	9.5	8.5
5	19.5	15.0	14.0	13.0	9.0	8.5	8.0	7.5	7.5	7.0	9.0	7.5
6	19.0	15.0	14.0	13.5	8.5	8.0	7.5	7.0	8.0	7.5	8.0	7.0
7	19.0	15.0	13.5	12.5	8.0	7.0	8.0	7.5	7.5	7.5	9.0	8.0
8	18.5	15.0	12.5	12.0	7.0	6.5	7.5	7.5	7.5	7.0	9.5	8.0
9	16.5	13.5	12.0	11.0	6.5	6.0	8.0	7.5	7.5	7.0	10.0	8.0
10	14.5	12.5	11.0	9.5	6.5	6.0	8.0	7.0	7.5	7.0	10.5	9.0
11	12.5	12.0	10.0	9.0	6.5	6.0	7.0	6.5	7.5	7.0	11.0	9.5
12	13.5	12.0	9.5	8.0	6.0	5.5	6.5	5.5	9.0	7.5	11.0	9.5
13	14.0	12.5	8.5	7.0	6.5	5.5	5.5	5.5	9.5	8.5	10.5	9.5
14	13.5	12.0	8.5	7.0	7.0	6.5	5.5	5.0	9.5	9.0	10.5	9.0
15	13.5	12.0	8.5	7.5	7.0	6.5	5.5	5.0	10.0	9.0	10.0	9.5
16	13.5	11.5	8.0	7.0	6.5	6.0	5.5	5.0	10.5	10.0	10.5	9.0
17	13.0	11.0	9.0	7.5	7.0	6.5	6.0	5.0	10.0	9.5	10.5	8.5
18	13.5	11.0	9.5	9.0	6.5	6.0	7.0	6.0	10.5	9.5	9.0	8.5
19	14.0	11.0	10.5	9.5	7.5	6.5	8.0	7.0	10.5	9.0	9.0	8.0
20	13.0	12.0	10.0	9.0	8.0	7.5	7.5	7.5	9.0	8.5	10.0	8.5
21	14.0	11.5	10.5	9.5	9.5	8.0	8.5	7.5	9.0	8.5	9.5	9.0
22	12.0	9.5	10.5	9.5	9.5	9.5	9.0	8.5	9.5	8.5	10.5	9.0
23	11.0	8.5	9.5	9.0	9.5	9.0	9.0	9.0	9.0	9.0	10.0	9.5
24	10.0	9.0	9.0	8.5	9.5	8.5	9.0	8.5	9.5	9.0	10.0	9.0
25	11.0	10.0	9.5	8.5	10.5	9.5	8.5	8.0	9.0	8.0	10.5	9.5
26	11.0	10.0	9.5	8.5	10.0	10.0	8.0	8.0	8.5	8.0	10.5	9.5
27	12.5	10.5	10.0	9.0	10.0	10.0	8.0	8.0	9.0	8.0	11.0	9.5
28	12.0	10.0	10.0	9.5	10.0	9.5	8.5	8.0	9.5	8.0	10.5	9.5
29	11.5	10.0	10.0	9.5	9.5	9.0	8.5	8.0	---	---	10.5	9.5
30	11.0	10.5	9.5	8.5	10.0	9.5	8.0	8.0	---	---	9.5	9.0
31	11.5	11.0	---	---	10.5	10.0	8.0	8.0	---	---	9.0	8.5
MONTH	20.0	8.5	14.0	7.0	10.5	5.5	10.0	5.0	10.5	7.0	11.0	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	16.0	14.0	17.5	15.5	21.5	16.5	22.5	20.0	21.5	20.0
2	9.0	8.5	14.5	13.0	18.0	14.0	23.5	17.5	21.5	19.5	21.5	19.0
3	10.0	8.5	13.0	11.5	17.0	15.5	24.5	19.5	21.0	19.0	21.5	19.0
4	11.0	8.5	12.5	10.5	17.5	15.5	24.0	20.0	22.5	19.0	22.0	19.0
5	11.0	10.0	11.5	10.5	17.0	15.5	22.5	20.0	23.5	19.5	22.5	18.5
6	10.5	9.0	11.5	9.5	18.0	15.0	21.5	17.5	24.5	20.5	22.5	19.0
7	10.0	8.5	13.0	10.5	17.0	14.5	19.5	16.0	25.5	21.5	23.0	19.5
8	9.5	9.0	12.0	11.0	14.5	13.5	20.5	16.0	26.0	22.5	22.5	19.5
9	10.5	8.5	14.5	11.0	13.5	12.5	19.5	17.5	26.5	23.0	20.5	19.0
10	9.5	8.5	15.5	11.5	15.0	12.5	18.0	16.0	27.0	24.0	22.0	18.0
11	9.0	8.5	15.5	12.5	15.5	13.0	20.0	16.0	26.0	24.0	23.0	19.0
12	9.5	8.5	16.5	12.0	15.5	13.5	20.0	16.5	25.0	23.0	22.5	19.0
13	10.0	8.5	17.5	13.5	15.0	13.0	22.0	18.0	23.5	22.5	23.0	19.0
14	11.5	9.0	15.5	14.0	15.5	12.5	23.0	18.5	22.5	21.0	22.5	18.5
15	10.5	10.0	15.0	12.5	17.0	13.0	23.5	19.5	21.5	20.0	21.5	18.0
16	11.5	9.5	14.0	12.0	16.0	15.0	23.0	20.0	23.0	20.5	19.5	18.5
17	12.5	10.5	13.0	12.5	17.0	13.5	22.5	20.0	24.0	21.5	21.0	17.5
18	13.5	11.0	13.5	12.5	16.0	15.0	22.5	19.0	22.5	20.5	19.0	17.5
19	12.5	11.0	13.5	12.0	15.5	14.5	22.5	19.5	20.5	19.5	19.5	17.0
20	11.5	10.5	13.0	11.5	16.5	14.5	23.5	20.0	19.5	19.0	18.0	16.0
21	11.5	10.5	14.0	12.0	19.0	14.5	23.0	20.0	21.0	18.0	16.5	15.5
22	13.5	11.0	16.0	12.5	17.0	16.0	22.5	20.0	22.0	19.5	16.5	15.0
23	13.0	12.5	16.0	14.0	18.5	15.0	22.0	19.5	21.5	19.0	16.5	14.0
24	13.0	11.5	15.0	14.5	21.0	15.5	21.0	18.5	20.5	18.5	15.5	13.5
25	12.0	10.5	16.0	14.0	22.0	17.0	23.5	19.0	20.5	19.0	15.5	13.5
26	12.0	10.5	17.0	13.5	19.5	17.0	25.5	20.5	20.5	18.5	15.0	14.0
27	11.0	10.0	17.5	14.0	20.0	15.5	26.5	22.0	21.0	18.5	15.0	13.5
28	15.0	10.5	19.5	15.0	21.0	16.0	25.0	21.0	21.5	19.0	15.0	13.5
29	17.5	13.5	17.5	16.5	22.5	17.0	23.0	20.5	20.0	19.0	15.5	13.5
30	18.0	15.0	18.0	15.5	21.0	18.5	23.0	18.5	20.0	18.5	15.5	12.5
31	---	---	19.5	14.5	---	---	23.5	19.5	21.0	18.0	---	---
MONTH	18.0	8.0	19.5	9.5	22.5	12.5	26.5	16.0	27.0	18.0	23.0	12.5

14307645 NORTH FORK SIUSLAW RIVER NEAR MINERVA, OR

LOCATION.--Lat 44°02'50", long 124°00'10", in NW¼SW¼ sec.34, T.17 S., R.11 W., Lane County, Hydrologic Unit 17100206, on left bank 10 ft (3 m) downstream from county road bridge, 0.3 mi (0.5 km) upstream from Condon Creek, 2.7 mi (4.3 km) southwest of Minerva, and at mile 13.09 (21.06 km).

DRAINAGE AREA.--41.2 mi² (106.7 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 40 ft (12 m), from topographic map.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--14 years, 282 ft³/s (7.986 m³/s), 92.95 in/yr (2,361 mm/yr), 204,300 acre-ft/yr (252 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,400 ft³/s (153 m³/s) Dec. 25, 1980, gage height, 24.36 ft (7.425 m); minimum, 11 ft³/s (0.31 m³/s) Sept. 9-11, 17, 18, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1800	3,170	89.8	22.34	6.809	Dec. 25	2130	*5,400	153	*24.36	7.425

Minimum, 14 ft³/s (0.40 m³/s) Oct. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	39	310	537	162	262	934	112	92	85	33	23
2	16	56	1940	442	150	238	653	113	89	81	33	22
3	15	47	2700	376	142	247	545	109	86	75	33	21
4	15	42	1680	325	136	260	425	111	86	71	33	20
5	15	38	1020	289	186	228	382	138	85	68	29	20
6	15	179	773	259	172	211	326	130	92	65	27	19
7	15	873	601	235	156	205	290	117	108	68	26	19
8	15	463	480	215	148	187	356	115	259	63	26	19
9	15	332	381	196	140	175	458	118	274	59	25	18
10	14	234	315	182	135	166	381	108	214	58	22	20
11	15	170	271	169	144	157	586	103	171	55	21	20
12	21	132	237	158	135	151	568	99	155	53	21	19
13	34	111	209	148	338	146	455	95	191	52	20	19
14	29	110	185	142	641	139	374	92	169	51	19	18
15	23	96	167	136	458	152	329	104	148	49	19	18
16	20	87	155	129	1170	151	288	99	146	47	19	18
17	19	81	144	127	1160	139	254	105	129	46	19	18
18	18	75	136	121	1480	133	230	163	124	44	20	33
19	18	71	128	116	1510	134	208	139	204	43	22	50
20	17	67	138	114	1010	129	190	123	190	44	22	38
21	17	232	196	128	723	135	189	114	158	43	22	41
22	17	437	881	145	560	156	173	106	141	43	22	44
23	17	263	645	164	494	188	164	103	128	43	21	47
24	17	213	1380	158	480	191	167	162	116	42	22	47
25	47	195	3880	151	401	309	148	179	106	40	22	38
26	82	169	3270	211	359	260	142	155	102	38	21	53
27	74	200	2290	239	323	212	134	133	99	35	20	147
28	45	236	1390	246	288	185	130	120	95	33	20	86
29	35	375	926	225	---	218	123	110	91	33	20	59
30	30	352	825	200	---	290	117	103	87	33	25	47
31	28	---	662	179	---	898	---	95	---	33	23	---
TOTAL	774	5975	28315	6462	13201	6652	9719	3673	4135	1593	727	1061
MEAN	25.0	199	913	208	471	215	324	118	138	51.4	23.5	35.4
MAX	82	873	3880	537	1510	898	934	179	274	85	33	147
MIN	14	38	128	114	135	129	117	92	85	33	19	18
CFSM	.61	4.83	22.2	5.05	11.4	5.22	7.86	2.86	3.35	1.25	.57	.86
IN.	.70	5.39	25.57	5.83	11.92	6.01	8.78	3.32	3.73	1.44	.66	.96
AC-FT	1540	11850	56160	12820	26180	13190	19280	7290	8200	3160	1440	2100

CAL YR 1980	TOTAL 87033	MEAN 238	MAX 3880	MIN 11	CFSM 5.78	IN 78.58	AC-FT 172600		
WTR YR 1981	TOTAL 82287	MEAN 225	MAX 3880	MIN 14	CFSM 5.46	IN 74.30	AC-FT 163200		

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 (0.8 km) upstream from Chapman Creek, 0.8 mi (1.3 km) downstream from Beaver Creek, 6.5 mi (10.5 km) northeast of Tiller, and at mile 3.0 (4.8 km). Records include flow of Chapman Creek.

DRAINAGE AREA.--152 mi² (394 km²), at cableway 0.6 mi (1.0 km) downstream where all discharge measurements are made.

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1935: 1956-57(M).

GAGE.--Water-stage recorder. Datum of gage is 1,240.25 ft (378.028 m) National Geodetic Vertical Datum of 1929 (levels by Douglas County Water Resources Survey).

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

AVERAGE DISCHARGE.--26 years, 309 ft³/s (8.751 m³/s), 27.61 in/yr (701 mm/yr), 223,900 acre-ft/yr (276 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft³/s (598 m³/s) Dec. 22, 1964, gage height, 18.0 ft (5.49 m), from floodmark, from rating curve extended above 5,100 ft³/s (144 m³/s) and basin runoff comparison; minimum, 11 ft³/s (0.31 m³/s) Jan. 6, 1977, Nov. 13, 1978, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft³/s (70.8 m³/s) and maximum discharge, 3,500 ft³/s (99.1 m³/s) Dec. 2, gage height, 7.30 ft (2.225 m); minimum, 17 ft³/s (0.48 m³/s) Sept. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	188	186	171	257	514	188	184	68	28	20
2	19	26	1670	165	153	234	494	171	167	65	28	19
3	19	25	1330	145	139	219	456	157	153	61	28	19
4	19	23	1000	130	132	321	402	149	137	58	27	19
5	18	23	602	117	132	297	402	143	128	56	27	19
6	18	25	460	107	132	268	384	145	128	71	27	19
7	18	216	341	97	123	249	344	137	125	80	26	19
8	18	137	263	91	115	229	306	128	268	64	25	18
9	18	107	219	84	110	209	331	123	274	56	25	18
10	18	88	197	79	102	193	315	117	216	54	24	18
11	18	67	195	73	100	182	288	108	184	52	23	18
12	23	52	188	68	105	171	271	104	179	49	23	18
13	34	44	177	64	136	186	257	99	252	48	23	18
14	52	42	161	62	678	175	247	94	288	45	22	18
15	38	49	171	59	522	179	263	113	252	44	22	17
16	29	42	207	58	808	291	260	143	221	42	21	17
17	26	38	200	61	911	297	257	163	200	41	21	17
18	24	36	179	57	798	266	252	391	177	39	21	17
19	23	35	163	54	850	241	257	683	167	38	21	18
20	22	34	155	52	839	231	244	585	153	38	21	19
21	22	41	167	53	673	214	236	453	136	37	21	18
22	21	260	193	62	555	226	224	360	125	36	21	18
23	21	193	204	94	468	216	226	300	117	36	20	18
24	21	207	219	91	483	200	231	334	108	35	20	18
25	26	143	594	83	456	291	214	598	100	35	20	18
26	31	115	506	90	384	405	226	502	93	34	20	20
27	52	94	453	171	331	388	226	398	87	32	20	39
28	33	86	391	325	291	347	211	325	81	30	20	42
29	27	149	312	364	---	391	204	271	76	30	20	30
30	25	268	257	257	---	456	200	236	72	29	20	25
31	24	---	219	202	---	471	---	207	---	29	20	---
TOTAL	776	2689	11581	3601	10697	8300	8742	7925	4848	1432	705	611
MEAN	25.0	89.6	374	116	382	268	291	256	162	46.2	22.7	20.4
MAX	52	268	1670	364	911	471	514	683	288	80	28	42
MIN	18	23	155	52	100	171	200	94	72	29	20	17
CFSM	.16	.59	2.46	.76	2.51	1.76	1.91	1.68	1.07	.30	.15	.13
IN.	.19	.66	2.83	.88	2.62	2.03	2.14	1.94	1.19	.35	.17	.15
AC-FT	1540	5330	22970	7140	21220	16460	17340	15720	9620	2840	1400	1210

CAL YR 1980	TOTAL 90940	MEAN 248	MAX 3800	MIN 18	CFSM 1.63	IN 22.26	AC-FT 180400			
WTR YR 1981	TOTAL 61907	MEAN 170	MAX 1670	MIN 17	CFSM 1.12	IN 15.15	AC-FT 122800			

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, on right bank 0.3 mi (0.5 km) upstream from bridge on State Highway 227 at Tiller, 0.3 mi (0.5 km) upstream from Elk Creek, and at mile 187.31 (301.38 km).

DRAINAGE AREA.--449 mi² (1,163 km²).

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. Datum of gage is 991.8 ft (302.30 m) National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Oct. 1, 1939, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--43 years, 1,025 ft³/s (29.03 m³/s), 31.00 in/yr (787 mm/yr), 742,600 acre-ft/yr (916 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,200 ft³/s (1,700 m³/s) Dec. 22, 1964, gage height, 25.72 ft (7.839 m); minimum observed, 20 ft³/s (0.57 m³/s) Sept. 3, 4, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 7,000 ft³/s (198 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1830	*11,900	337	*11.40	3.47	Feb. 16	1830	7,520	213	9.00	2.74

Minimum, 39 ft³/s (1.10 m³/s) Oct. 11, Sept. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	69	1000	886	567	886	1830	548	577	224	88	50
2	46	89	9000	763	505	797	1680	505	529	214	86	50
3	46	88	6000	675	473	735	1470	464	482	205	84	50
4	43	74	4050	597	451	1030	1290	438	443	194	84	50
5	41	67	2430	533	456	980	1250	417	413	185	82	48
6	41	84	1870	487	478	886	1190	425	417	202	80	48
7	40	1080	1360	451	451	809	1050	396	400	233	78	47
8	40	633	1030	421	421	740	929	372	1010	208	74	46
9	40	482	856	392	400	675	987	360	1290	182	73	43
10	40	400	797	364	376	617	955	341	929	171	69	43
11	40	384	820	341	368	582	880	322	751	163	66	43
12	53	315	826	322	384	543	1020	307	675	158	64	43
13	117	249	791	304	438	572	1110	297	814	153	62	41
14	224	217	707	290	2430	538	993	286	898	145	62	41
15	155	252	718	279	1850	515	993	333	803	143	62	41
16	104	220	905	272	3890	712	936	456	707	138	61	40
17	80	194	862	269	4190	751	892	451	638	133	59	39
18	71	174	763	259	3390	685	856	1090	567	126	58	39
19	66	158	675	246	3750	633	844	2030	548	124	56	41
20	62	148	653	233	3510	622	797	1720	496	119	58	43
21	59	180	659	233	2660	577	746	1260	443	117	56	43
22	58	1400	809	236	2070	612	696	999	400	112	58	43
23	56	1050	874	279	1660	607	680	844	376	108	56	41
24	54	1130	955	293	1650	567	685	967	345	106	54	43
25	64	880	4870	279	1570	740	638	1890	322	104	53	43
26	86	650	3320	322	1350	1190	659	1620	300	104	53	44
27	180	500	2500	592	1150	1170	638	1240	279	100	53	115
28	121	410	2170	809	1010	1040	597	999	265	95	53	185
29	88	392	1610	1130	---	1100	577	844	249	91	51	115
30	74	1400	1280	838	---	1410	572	729	236	89	51	86
31	69	---	1050	669	---	1560	---	643	---	89	51	---
TOTAL	2304	13369	56210	14064	41898	24881	28440	23593	16602	4535	1995	1644
MEAN	74.3	446	1813	454	1496	803	948	761	553	146	64.4	54.8
MAX	224	1400	9000	1130	4190	1560	1830	2030	1290	233	88	185
MIN	40	67	653	233	368	515	572	286	236	89	51	39
CFSM	.17	.99	4.04	1.01	3.33	1.79	2.11	1.70	1.23	.33	.14	.12
IN.	.19	1.11	4.66	1.17	3.47	2.06	2.36	1.95	1.38	.38	.17	.14
AC-FT	4570	26520	111500	27900	83100	49350	56410	46800	32930	9000	3960	3260

CAL YR 1980 TOTAL 317132 MEAN 866 MAX 13200 MIN 40 CFSM 1.93 IN 26.27 AC-FT 629000
WTR YR 1981 TOTAL 229535 MEAN 629 MAX 9000 MIN 39 CFSM 1.40 IN 19.02 AC-FT 455300

NOTE.--No gage-height record Nov. 21 to Dec. 3.

14308500 ELK CREEK NEAR DREW, OR

LOCATION.--Lat 42°53'25", long 122°55'00", in SW¼ sec.11, T.31 S., R.2 W., Douglas County, Hydrologic Unit 17100302, on right bank 100 ft (30 m) downstream from Dixon Creek, 0.1 mi (0.2 km) upstream from Drew Creek, 1.3 mi (2.1 km) northwest of Drew, 3.3 mi (5.3 km) southeast of Tiller, and at mile 4.1 (6.6 km).

DRAINAGE AREA.--54.4 mi^2 (140.9 km^2).

PERIOD OF RECORD.--September 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,279.25 ft (389.915 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 82.9 ft^3/s (2.348 m^3/s), 60,060 acre-ft/yr (74.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,880 ft^3/s (251 m^3/s) Dec. 22, 1964, gage height, 10.61 ft (3.234 m), from rating curve extended above 2,900 ft^3/s (82.1 m^3/s) on basis of slope-area measurement at gage height 10.34 ft (3.152 m); maximum gage height, 10.80 ft (3.292 m) Jan. 15, 1974; no flow at times in September 1974, Aug. 16-22, 1977, and Aug. 17-24, Sept. 16-19, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 11.8 ft (3.60 m), from floodmarks, probably for flood in January or November 1953, discharge, about 11,000 ft^3/s (312 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum discharge, 3,590 ft^3/s (102 m^3/s) Dec. 2, gage height, 7.87 ft (2.399 m); no flow Aug. 17-24, Sept. 16-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	3.1	23	39	48	55	123	21	21	6.8	1.1	.55
2	.48	5.1	1580	34	41	48	119	20	19	6.3	1.3	.48
3	.48	4.3	738	30	37	43	119	19	18	5.9	1.3	.36
4	.37	3.7	502	27	33	88	106	18	16	5.0	1.5	.48
5	.42	3.1	224	25	33	74	95	18	15	5.5	1.2	.55
6	.32	3.1	148	23	34	64	84	18	15	6.8	1.2	.48
7	.37	38	106	21	31	58	71	17	15	7.5	1.1	.48
8	.48	31	78	20	28	54	61	16	23	6.8	.86	.30
9	.71	23	61	19	26	49	64	16	22	5.5	.48	.21
10	.95	17	54	18	24	43	57	15	18	5.0	.30	.13
11	.82	12	53	17	23	40	53	14	16	5.0	.25	.13
12	1.9	9.4	49	16	23	38	53	14	16	4.6	.21	.09
13	4.0	7.4	43	15	29	41	50	14	18	3.9	.13	.09
14	9.4	7.4	37	15	250	38	47	13	22	3.6	.09	.06
15	6.0	11	35	14	141	41	42	16	18	3.2	.06	.06
16	4.0	9.4	43	14	188	70	39	23	17	3.2	.03	.00
17	3.1	7.4	43	15	185	70	36	23	15	2.7	.00	.00
18	2.4	6.5	38	14	130	61	33	48	14	2.4	.00	.00
19	2.1	5.6	34	13	123	52	31	101	14	2.2	.00	.00
20	1.9	5.1	31	13	139	47	31	86	13	2.2	.00	.17
21	1.9	5.6	36	13	110	42	29	62	12	2.0	.00	.48
22	1.9	41	50	13	91	40	27	47	11	1.8	.00	.77
23	1.6	31	48	15	76	36	25	39	10	1.5	.00	.77
24	1.9	43	48	19	121	33	23	43	9.4	1.8	.00	.77
25	2.7	29	240	19	119	60	23	65	9.0	1.7	.55	.77
26	4.7	21	171	20	93	82	28	48	8.6	1.8	.55	.77
27	4.7	16	114	48	76	84	30	39	9.0	1.5	.42	5.0
28	3.3	14	84	117	65	70	28	33	8.2	1.3	.55	7.1
29	2.7	13	65	130	---	74	25	28	7.8	.97	.42	3.9
30	2.7	24	53	81	---	101	23	25	7.1	.97	.25	2.7
31	2.4	---	44	60	---	110	---	23	---	1.2	.48	---
TOTAL	71.25	450.2	4873	937	2317	1806	1575	982	437.1	110.64	14.33	27.65
MEAN	2.30	15.0	157	30.2	82.8	58.3	52.5	31.7	14.6	3.57	.46	.92
MAX	9.4	43	1580	130	250	110	123	101	23	7.5	1.5	7.1
MIN	.32	3.1	23	13	23	33	23	13	7.1	.97	.00	.00
AC-FT	141	893	9670	1860	4600	3580	3120	1950	867	219	28	55

CAL YR 1980 TOTAL 29122.83 MEAN 79.6 MAX 2240 MIN .32 AC-FT 57770
WTR YR 1981 TOTAL 13601.17 MEAN 37.3 MAX 1580 MIN .00 AC-FT 26980

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 (0.5 km) upstream from Days Creek, 0.4 mi (0.6 km) southeast of community of Days Creek, and at mile 170.2 (273.9 km).

DRAINAGE AREA.--641 mi² (1,660 km²).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 738.55 ft (225.110 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--6 years, 964 ft³/s (27.30 m³/s), 20.42 in/yr (519 mm/yr), 698,400 acre-ft/yr (861 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,500 ft³/s (807 m³/s) Nov. 24, 1977, gage height, 18.32 ft (5.584 m); minimum, 31 ft³/s (0.88 m³/s) Sept. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 12,000 ft³/s (340 m³/s) and maximum discharge, 14,200 ft³/s (402 m³/s) Dec. 2, gage height, 13.02 ft (3.968 m); minimum, 35 ft³/s (0.99 m³/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	101	948	1010	700	1080	2250	580	581	234	97	51
2	53	114	7280	853	608	948	2120	560	521	227	95	51
3	53	130	7370	742	550	860	1860	520	475	213	97	50
4	51	112	5490	653	521	1260	1640	460	427	204	93	49
5	49	101	3070	581	516	1280	1530	440	395	194	92	49
6	47	97	2340	531	545	1140	1470	450	395	202	89	49
7	47	941	1740	489	516	1020	1310	430	367	227	86	48
8	47	1310	1310	453	480	927	1150	400	724	227	82	43
9	47	991	1060	423	453	826	1190	400	1350	196	80	42
10	47	787	934	391	427	742	1170	380	955	185	75	40
11	48	498	941	367	407	682	1060	350	736	175	71	39
12	57	349	948	349	419	647	1150	330	630	172	66	41
13	103	277	900	329	440	768	1200	320	755	164	66	42
14	237	239	793	316	2590	706	1170	310	887	161	62	39
15	237	257	761	304	2310	653	1050	350	806	156	62	37
16	161	249	969	297	3830	880	980	480	688	152	60	37
17	123	222	962	294	5260	1010	940	600	625	147	59	37
18	106	200	846	291	3730	907	900	1300	550	144	58	37
19	98	187	742	274	4220	820	880	2300	526	135	54	39
20	92	175	706	260	4230	787	860	2000	484	134	55	41
21	87	172	700	257	3120	712	800	1450	427	127	57	43
22	86	1410	867	260	2450	724	750	1140	395	124	58	43
23	84	1130	977	291	1970	724	720	941	367	120	58	42
24	80	1210	948	329	1940	664	720	984	352	117	56	42
25	85	840	5150	322	1910	806	700	1820	325	117	53	42
26	105	614	3980	316	1640	1450	680	1780	301	117	52	42
27	175	484	2750	576	1410	1440	680	1370	285	112	51	77
28	190	415	2470	887	1240	1300	640	1090	274	106	51	215
29	132	399	1850	1490	---	1300	620	907	260	99	53	161
30	110	1100	1470	1130	---	1730	600	755	249	98	51	117
31	101	---	1210	860	---	1870	---	664	---	97	51	---
TOTAL	2991	15111	62482	15925	48432	30663	32790	25861	16112	4883	2090	1685
MEAN	96.5	504	2016	514	1730	989	1093	834	537	158	67.4	56.2
MAX	237	1410	7370	1490	5260	1870	2250	2300	1350	234	97	215
MIN	47	97	700	257	407	647	600	310	249	97	51	37
CFSM	.15	.79	3.15	.80	2.70	1.54	1.71	1.30	.84	.25	.11	.09
IN.	.17	.88	3.63	.92	2.81	1.78	1.90	1.50	.94	.28	.12	.10
AC-FT	5930	29970	123900	31590	96060	60820	65040	51300	31960	9690	4150	3340

CAL YR 1980 TOTAL 378749 MEAN 1035 MAX 16000 MIN 45 CFSM 1.62 IN 21.98 AC-FT 751200
WTR YR 1981 TOTAL 259025 MEAN 710 MAX 7370 MIN 37 CFSM 1.11 IN 15.03 AC-FT 513800

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 30.0°C July 25, 1978; minimum, 0.0°C on many days during 1972, 1976-79.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C Aug. 8, 9; minimum, 1.5°C Dec. 13-15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS NONCAR-BONATE (MG/L AS CACO3)	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)
OCT 02...	1145	53	141	8.0	18.0	54	2.0	15	4.1	7.7	.9
JAN 28...	1615	806	86	7.3	6.5	32	4.0	9.2	2.1	4.9	.6
MAY 19...	1400	2230	71	7.1	12.0	27	--	7.7	1.9	--	--
JUL 01...	1200	235	92	7.3	20.0	35	.00	9.9	2.4	5.0	.7
SEP 09...	1200	43	154	7.7	21.0	56	8.0	16	3.9	9.5	1.0

DATE	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	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)
OCT 02...	52	11	11	<.1	<.10	.030	14	--	95	13.5
JAN 28...	30	1.7	2.8	.1	<.10	.030	16	--	55	109
MAY 19...	--	--	1.9	--	.14	--	--	63	--	379
JUL 01...	35	<1.0	3.5	<.1	.64	<.010	13	--	59	37.4
SEP 09...	48	<5.0	13	.1	<.10	.020	14	--	91	10.6

14308600 SOUTH UMPQUA RIVER AT DAYS CREEK, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	15.5	10.0	9.0	6.0	5.5	7.5	6.5	5.0	4.0	7.0	5.0
2	19.0	15.5	11.0	9.0	7.5	5.5	6.5	5.5	5.0	3.5	7.5	5.5
3	19.0	16.0	12.0	10.0	8.0	7.5	6.5	5.5	4.5	3.0	6.5	6.0
4	18.5	15.5	12.0	9.5	7.5	6.5	7.0	5.5	4.0	3.0	6.5	6.0
5	19.0	16.0	12.5	10.0	6.5	6.0	7.0	6.5	5.0	3.5	6.5	5.5
6	19.0	16.0	12.5	11.5	6.0	5.0	6.5	5.5	5.5	4.5	6.0	5.0
7	18.5	16.0	12.5	11.5	5.0	3.5	5.5	4.5	6.0	4.5	6.0	5.5
8	18.0	14.5	11.5	10.5	3.5	2.5	5.0	4.5	4.5	3.0	7.5	5.5
9	15.5	13.0	10.5	9.5	3.0	2.5	6.0	5.0	4.0	2.5	8.0	6.0
10	15.5	13.5	9.5	8.5	3.5	2.5	6.5	5.5	4.5	2.5	7.0	6.0
11	15.0	13.5	8.5	7.5	3.5	2.5	6.0	5.0	6.0	4.0	9.0	6.5
12	15.0	13.5	7.5	6.5	3.0	2.0	5.0	3.5	6.5	4.5	10.0	7.0
13	15.0	13.0	6.5	5.0	2.5	1.5	4.0	3.0	7.0	6.0	8.0	7.5
14	13.5	12.0	5.5	4.5	2.5	1.5	4.5	3.0	7.0	6.5	9.5	7.5
15	12.0	11.0	6.0	4.5	3.0	1.5	4.0	3.0	7.0	6.5	8.5	8.0
16	13.0	10.0	5.5	4.5	4.0	2.5	4.0	3.5	7.5	7.0	8.5	7.0
17	13.0	10.0	6.5	5.0	4.5	3.5	6.0	4.0	7.5	7.0	8.0	6.5
18	12.5	9.5	6.5	5.0	5.0	4.0	6.5	5.5	7.5	7.0	7.0	5.5
19	12.5	9.5	7.0	5.5	5.5	4.5	7.5	6.0	8.0	7.5	7.5	5.5
20	12.5	10.0	7.0	5.5	6.0	5.5	7.0	6.0	7.5	6.0	8.5	7.0
21	12.5	11.5	7.0	5.5	7.5	6.0	7.5	6.5	6.5	5.5	8.5	7.5
22	12.0	10.0	7.5	6.0	7.5	7.0	8.0	7.5	7.0	6.0	10.0	7.5
23	12.0	10.0	8.0	7.5	7.0	6.5	8.0	7.0	7.5	6.5	9.0	8.0
24	12.0	10.5	7.5	6.5	6.5	6.5	8.0	7.0	7.0	6.5	8.0	7.0
25	11.0	10.5	7.0	6.0	8.5	6.5	7.0	6.0	6.5	5.5	8.5	7.5
26	11.0	9.5	7.0	5.5	8.5	8.5	7.0	6.0	6.5	5.5	8.5	7.5
27	11.5	9.0	7.0	5.5	8.5	8.0	6.5	5.5	6.5	5.5	9.0	7.5
28	11.0	8.5	8.0	6.5	8.0	6.5	6.0	5.5	6.5	5.0	9.5	7.5
29	11.0	7.5	7.5	7.0	6.5	6.0	5.5	5.0	---	---	8.5	8.0
30	10.5	8.5	7.0	6.0	7.5	6.5	5.5	5.0	---	---	8.0	6.5
31	9.5	8.5	---	---	8.0	7.5	6.0	4.5	---	---	7.5	6.5
MONTH	19.0	7.5	12.5	4.5	8.5	1.5	8.0	3.0	8.0	2.5	10.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	6.0	17.0	14.5	17.0	14.5	---	---	25.5	20.5	22.5	20.0
2	7.0	6.0	15.5	13.0	18.5	15.0	---	---	24.0	20.5	22.0	19.0
3	7.5	6.5	13.5	11.5	19.0	16.0	---	---	24.0	19.5	22.0	18.5
4	8.5	6.5	14.0	10.5	21.0	16.5	---	---	25.0	20.5	21.5	19.0
5	8.0	7.0	12.5	10.5	19.5	18.0	---	---	26.0	20.5	21.5	18.0
6	8.0	6.5	13.5	9.5	19.0	17.0	21.5	---	27.5	21.5	22.5	18.5
7	8.5	6.5	13.5	10.5	17.5	16.5	22.5	18.0	28.5	23.0	23.0	19.0
8	7.0	6.5	12.5	11.0	16.5	13.5	23.0	17.5	29.5	23.5	23.0	19.5
9	8.5	6.5	12.5	11.5	13.5	12.5	22.5	18.0	29.5	24.5	22.5	20.0
10	8.0	7.0	15.0	10.5	15.5	12.5	23.0	18.0	29.0	24.0	22.0	19.5
11	8.0	7.0	15.5	12.5	16.0	13.5	23.5	17.5	28.5	24.5	22.5	19.5
12	7.5	6.5	17.0	12.5	15.5	13.5	22.5	18.0	28.0	24.0	22.5	20.0
13	9.5	7.0	16.0	13.5	14.0	12.5	24.0	18.0	27.5	23.5	22.5	20.0
14	11.0	8.0	15.5	13.5	14.5	11.5	24.5	18.0	27.5	23.5	23.0	20.0
15	10.5	9.5	14.5	12.5	16.5	12.5	26.0	19.5	27.0	23.0	23.0	20.0
16	11.5	9.0	14.5	11.5	16.0	14.5	26.5	20.5	27.0	22.5	23.0	20.5
17	12.5	10.0	13.0	12.0	17.0	13.5	26.5	21.0	27.0	23.0	22.5	20.5
18	13.0	10.5	12.0	11.0	16.0	14.0	27.0	21.0	27.0	23.5	22.0	20.0
19	11.5	10.0	11.0	9.0	19.0	15.0	27.0	21.0	26.0	22.5	21.5	20.0
20	11.5	9.0	10.0	9.0	---	---	26.0	21.5	24.5	21.0	20.0	18.5
21	11.5	10.5	11.0	9.5	---	---	26.5	20.5	24.5	20.5	18.5	16.5
22	13.5	10.0	12.0	10.0	---	---	26.5	20.0	24.5	20.5	18.0	16.5
23	15.0	12.0	14.5	11.5	---	---	25.0	20.5	24.5	21.0	17.0	15.5
24	13.5	11.5	15.0	13.5	---	---	23.0	20.5	23.5	21.0	16.5	14.5
25	11.5	10.0	14.5	13.5	---	---	25.0	19.5	23.5	20.0	17.0	14.5
26	10.0	9.0	13.5	12.0	---	---	27.0	20.5	23.0	20.0	16.5	15.5
27	11.0	8.5	15.5	12.5	---	---	28.5	22.0	23.0	19.5	17.0	15.5
28	14.0	10.0	17.0	13.5	---	---	28.0	23.0	22.5	19.0	16.0	14.0
29	16.5	12.5	16.5	14.5	---	---	25.5	21.5	22.0	19.5	17.0	14.0
30	17.5	14.5	16.5	15.0	---	---	25.0	20.5	21.5	19.5	17.0	12.5
31	---	---	17.0	14.0	---	---	25.5	20.0	23.0	19.0	---	---
MONTH	17.5	6.0	17.0	9.0	21.0	11.5	28.5	17.5	29.5	19.0	23.0	12.5

14309000 COW CREEK NEAR AZALEA, OR

LOCATION.--Lat 42°49'30", long 123°10'40", in N½ sec.4, T.32 S., R.4 W., Douglas County, Hydrologic Unit 17100302, on right bank 0.8 mi (1.3 km) upstream from Whitehorse Creek, 4.5 mi (7.2 km) northeast of Azalea, and at mile 58.2 (93.6 km).

DRAINAGE AREA.--78.0 mi^2 (202.0 km^2).

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 (516.429 m) 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.--Records good above 10 ft^3/s (0.28 m^3/s), fair below. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--51 years (water years 1930-31, 1933-81), 109 ft^3/s (3.087 m^3/s), 18.98 in/yr (482 mm/yr), 78,970 acre-ft/yr (97.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s (300 m^3/s) Jan. 15, 1974, gage height, 16.40 ft (4.999 m), from high-water mark in well; minimum, 1.1 ft^3/s (0.031 m^3/s) Aug. 12, 1981, but may have been less during period of no gage-height record Sept. 4-30, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,300 ft^3/s (36.8 m^3/s) and maximum discharge, 4,100 ft^3/s (116 m^3/s) Dec. 2, gage height, 11.17 ft (3.405 m); minimum, 1.1 ft^3/s (0.031 m^3/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	22	32	67	64	82	137	40	31	17	3.5	7.4
2	6.4	35	1740	62	59	75	127	40	30	16	3.8	7.9
3	6.4	25	668	57	55	72	119	40	29	14	4.4	7.9
4	6.4	21	563	52	51	117	108	39	26	13	4.1	7.4
5	6.4	21	240	49	51	104	98	39	26	13	3.8	7.9
6	6.4	22	171	46	53	91	94	38	27	12	4.1	8.4
7	6.4	110	125	44	48	85	86	37	27	13	3.8	7.4
8	6.9	61	98	42	45	80	81	36	43	11	3.5	6.9
9	8.4	42	82	39	44	74	84	35	47	8.4	2.6	6.4
10	8.9	35	74	37	43	71	77	33	35	8.4	2.0	6.4
11	8.4	26	69	35	41	67	74	31	30	7.9	2.0	7.9
12	20	22	64	33	40	67	84	30	30	8.4	1.9	8.4
13	27	20	60	32	50	150	85	30	34	7.9	3.0	7.9
14	54	22	59	31	269	105	80	29	39	6.9	5.3	7.4
15	32	30	53	30	159	97	74	35	32	6.4	5.3	7.4
16	22	24	60	30	214	124	68	40	29	5.6	5.0	7.4
17	19	21	59	31	232	113	64	35	28	5.3	5.0	7.4
18	17	20	54	30	163	101	60	47	26	4.1	4.7	8.4
19	16	19	51	27	177	91	57	98	27	3.5	4.7	11
20	15	18	51	26	199	102	56	81	26	3.5	5.6	13
21	15	21	57	27	163	89	55	64	25	3.5	6.0	13
22	15	66	71	34	139	85	52	54	23	3.0	6.4	13
23	15	46	63	37	121	76	49	50	23	3.2	6.4	14
24	14	53	72	44	132	72	47	52	23	3.5	6.0	14
25	17	39	320	40	125	97	47	57	21	3.5	6.4	14
26	20	32	205	40	113	110	59	49	21	3.8	6.4	16
27	25	28	144	63	99	99	55	43	21	3.5	7.4	35
28	20	26	114	85	90	91	49	39	20	3.0	7.4	28
29	17	26	95	107	---	104	46	36	18	3.5	7.4	15
30	17	34	82	89	---	119	43	35	17	3.2	6.9	12
31	16	---	74	73	---	125	---	34	---	3.5	7.4	---
TOTAL	490.0	987	5670	1439	3039	2935	2215	1346	834	222.5	152.2	334.2
MEAN	15.8	32.9	183	46.4	109	94.7	73.8	43.4	27.8	7.18	4.91	11.1
MAX	54	110	1740	107	269	150	137	98	47	17	7.4	35
MIN	6.0	18	32	26	40	67	43	29	17	3.0	1.9	6.4
CFSM	.20	.42	2.35	.60	1.40	1.21	.95	.56	.36	.09	.06	.14
IN.	.23	.47	2.70	.69	1.45	1.40	1.06	.64	.40	.11	.07	.16
AC-FT	972	1960	11250	2850	6030	5820	4390	2670	1650	441	302	663

CAL YR 1980	TOTAL	39985.8	MEAN	109	MAX	2120	MIN	3.8	CFSM	1.40	IN	19.07	AC-FT	79310
WTR YR 1981	TOTAL	19663.9	MEAN	53.9	MAX	1740	MIN	1.9	CFSM	.69	IN	9.38	AC-FT	39000

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 (2.6 km) downstream from Bear Creek, 11 mi (18 km) northwest of Glendale, and at mile 0.8 (1.3 km).

DRAINAGE AREA.--86.9 mi² (225.1 km²).

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 (310.433 m) National Geodetic Vertical Datum of 1929. Prior to June 8, 1964, at site 0.6 mi (1.0 km) upstream at different datum.

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

AVERAGE DISCHARGE.--26 years, 266 ft³/s (7.533 m³/s), 41.57 in/yr (1,056 mm/yr), 192,700 acre-ft/yr (238 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Dec. 22, 1964, gage height, 18.59 ft (5.666 m), from floodmark, from rating curve extended above 2,600 ft³/s (73.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.7 ft³/s (0.11 m³/s) Aug. 17, 19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1530	*7,340	208	*12.24	3.731	Dec. 25	0700	2,780	78.7	7.87	2.399

Minimum, 6.1 ft³/s (0.17 m³/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	35	199	213	231	190	509	67	47	22	10	7.7
2	7.3	50	4160	180	190	166	447	64	45	22	10	7.4
3	7.3	28	3410	157	164	153	375	63	43	20	10	7.4
4	7.0	22	2150	136	145	178	298	63	40	19	11	7.7
5	6.7	19	940	123	138	180	246	61	38	19	10	7.4
6	6.7	24	710	112	132	166	213	63	39	19	9.9	7.4
7	6.7	345	499	105	117	157	188	56	39	20	9.6	7.2
8	6.7	358	364	98	108	142	169	55	51	19	9.3	7.0
9	6.7	270	280	90	103	130	164	58	47	18	8.7	6.8
10	6.7	186	234	84	95	119	147	54	41	18	8.2	6.5
11	7.0	102	210	79	90	112	188	51	37	18	7.9	6.5
12	9.3	68	201	73	82	106	426	50	37	17	7.7	6.8
13	20	52	183	69	164	105	398	47	53	16	7.4	6.8
14	84	45	162	67	834	95	316	46	64	15	7.7	6.8
15	39	43	157	65	527	100	256	52	50	15	7.7	6.5
16	22	37	198	64	657	136	210	73	45	14	7.4	6.3
17	18	34	195	63	705	130	180	63	43	14	7.4	6.3
18	16	30	169	59	499	123	162	82	39	14	7.4	6.5
19	14	28	145	56	575	119	145	103	38	13	7.4	7.7
20	13	27	130	54	690	157	126	96	34	13	7.2	8.7
21	13	58	157	67	556	149	115	85	32	13	7.4	8.2
22	12	321	253	134	435	171	106	75	31	12	7.4	7.9
23	12	158	204	193	348	173	100	69	31	12	7.7	7.9
24	12	136	541	171	324	157	95	71	29	12	7.4	7.7
25	12	108	1990	149	266	379	92	81	28	12	7.4	7.7
26	13	86	900	153	243	464	100	72	26	12	7.2	8.7
27	14	70	638	277	231	468	88	65	26	11	7.4	103
28	14	62	504	430	213	371	79	60	25	11	7.4	64
29	13	86	394	477	---	375	75	55	23	10	7.2	31
30	12	186	313	394	---	495	71	53	22	10	7.2	20
31	12	---	253	298	---	491	---	50	---	10	7.7	---
TOTAL	450.1	3074	20843	4690	8862	6457	6084	2003	1143	470	253.3	407.5
MEAN	14.5	102	672	151	317	208	203	64.6	38.1	15.2	8.17	13.6
MAX	84	358	4160	477	834	495	509	103	64	22	11	103
MIN	6.7	19	130	54	82	95	71	46	22	10	7.2	6.3
CFSM	.17	1.17	7.73	1.74	3.65	2.39	2.34	.74	.44	.18	.09	.16
IN.	.19	1.32	8.92	2.01	3.79	2.76	2.60	.86	.49	.20	.11	.17
AC-FT	893	6100	41340	9300	17580	12810	12070	3970	2270	932	502	808

CAL YR 1980 TOTAL 85592.0 MEAN 234 MAX 4160 MIN 6.7 CFSM 2.69 IN 36.64 AC-FT 169800
WTR YR 1981 TOTAL 54736.9 MEAN 150 MAX 4160 MIN 6.3 CFSM 1.73 IN 23.43 AC-FT 108600

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 (0.6 km) upstream from Council Creek, 3.8 mi (6.1 km) southwest of Riddle, and at mile 6.7 (10.8 km).

DRAINAGE AREA.--456 mi² (1,181 km²).

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 (208.056 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 867 ft³/s (24.55 m³/s), 628,100 acre-ft/yr (774 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,400 ft³/s (1,090 m³/s) Jan. 15, 1974, gage height, 28.17 ft (8.586 m); minimum, 7.4 ft³/s (0.21 m³/s) Aug. 17-19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reached a stage of about 28.5 ft (8.69 m), present site and datum, from slope-area measurement, discharge, 41,100 ft³/s (1,160 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 10,000 ft³/s (283 m³/s) and maximum discharge, 18,400 ft³/s (521 m³/s) Dec. 2, gage height, 17.20 ft (5.243 m); minimum, 14 ft³/s (0.40 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	78	416	632	782	671	1300	235	156	67	23	19
2	25	159	9240	550	645	600	1200	223	150	65	23	20
3	25	107	10900	485	570	543	1060	219	144	64	23	19
4	24	88	8590	426	497	613	896	215	135	60	24	19
5	23	76	3390	387	455	725	760	208	127	57	24	19
6	23	76	2270	356	437	677	677	208	127	57	23	19
7	23	519	1630	336	398	638	613	197	130	59	22	19
8	23	927	1160	317	371	570	570	186	147	60	21	18
9	22	612	912	299	351	517	536	190	166	57	19	17
10	23	485	739	281	331	473	491	186	159	54	19	16
11	25	298	645	263	313	437	485	176	138	52	17	16
12	32	209	588	251	290	420	760	169	130	51	16	16
13	51	162	536	239	346	437	797	159	135	51	16	16
14	193	137	467	227	1850	467	691	147	166	47	15	16
15	186	131	426	223	1740	443	600	153	147	44	15	16
16	110	123	449	219	1600	632	523	190	133	42	16	15
17	80	118	467	219	2410	671	467	193	124	40	18	15
18	68	105	426	215	1700	632	426	208	119	39	18	15
19	59	98	382	200	1540	588	398	276	114	36	18	17
20	56	93	361	190	2000	684	366	346	109	36	17	19
21	55	98	366	204	1730	691	341	313	102	35	17	21
22	53	638	504	281	1390	684	327	268	95	33	17	21
23	53	492	479	510	1140	645	308	243	93	31	18	20
24	53	370	570	431	1060	594	294	247	90	31	18	21
25	56	322	4550	392	973	768	281	268	86	30	18	20
26	59	264	2900	392	896	1080	308	259	84	30	17	22
27	59	217	1800	550	812	1180	299	235	82	28	18	114
28	63	186	1350	1000	739	1050	276	215	78	26	18	179
29	59	186	1080	1250	---	1010	259	193	76	24	18	95
30	56	327	880	1230	---	1220	247	182	72	23	19	76
31	55	---	739	987	---	1200	---	169	---	23	19	---
TOTAL	1719	7701	59212	13542	27366	21560	16556	6676	3614	1352	584	935
MEAN	55.5	257	1910	437	977	695	552	215	120	43.6	18.8	31.2
MAX	193	927	10900	1250	2410	1220	1300	346	166	67	24	179
MIN	22	76	361	190	290	420	247	147	72	23	15	15
AC-FT	3410	15270	117400	26860	54280	42760	32840	13240	7170	2680	1160	1850

CAL YR 1980 TOTAL 292264 MEAN 799 MAX 11200 MIN 22 AC-FT 579700
WTR YR 1981 TOTAL 160817 MEAN 441 MAX 10900 MIN 15 AC-FT 319000

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 (91 m) downstream from Bilger Creek, 1.5 mi (2.4 km) northeast of town of Myrtle Creek, and at mile 2.2 (3.5 km).

DRAINAGE AREA.--54.2 mi² (140.4 km²).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 1738: 1957. WRD OR-79: 1978.

GAGE.--Water-stage recorder. Datum of gage is 642.81 ft (195.928 m) National Geodetic Vertical Datum of 1929 (levels by City Engineer of Myrtle Creek). Oct. 1, 1955, to Aug. 31, 1977, at site 340 ft (104 m) downstream on right bank. Oct. 1, 1955, to Sept. 30, 1975, at datum 1.63 ft (0.497 m) lower and Oct. 1, 1975, to Aug. 31, 1977, at datum 1.33 ft (0.405 m) lower.

REMARKS.--Records good. No regulation. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, 71.9 ft³/s (2.036 m³/s), 52,090 acre-ft/yr (64.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,260 ft³/s (92.3 m³/s) Jan. 20, 1964, gage height, 10.51 ft (3.203 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s); maximum gage height, 11.58 ft (3.530 m) Dec. 26, 1955 (backwater from debris); no flow at times in July 1973 and August 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,100 ft³/s (31.2 m³/s and maximum discharge, 1,470 ft³/s (41.6 m³/s) Dec. 3, gage height, 6.53 ft (1.990 m); minimum, 0.42 ft³/s (0.012 m³/s) Aug. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	8.2	37	61	83	77	157	23	23	7.8	2.7	1.2
2	3.0	11	461	52	69	68	150	22	21	7.8	2.5	1.2
3	3.0	7.8	827	45	59	63	134	21	19	6.5	2.5	1.2
4	2.3	6.9	670	40	50	122	110	21	18	5.8	2.5	1.2
5	2.0	6.5	324	37	55	120	97	21	17	5.8	2.5	1.2
6	2.2	9.8	257	34	52	108	85	21	18	6.1	2.1	1.3
7	2.2	34	189	31	48	93	75	19	18	8.8	1.9	1.3
8	2.0	40	132	30	44	78	68	18	24	7.4	1.6	1.3
9	2.0	31	95	28	42	71	67	19	23	5.8	1.1	1.3
10	2.5	26	77	26	39	63	57	18	20	5.4	.97	1.2
11	3.2	17	65	24	37	56	52	17	17	5.4	.87	1.6
12	8.7	12	55	24	35	54	54	16	17	5.1	.65	1.5
13	9.8	9.8	47	22	37	78	50	16	18	5.1	.53	1.6
14	11	9.2	40	21	56	74	47	16	21	3.9	.65	1.2
15	7.4	8.7	37	21	52	75	43	21	18	3.6	.59	1.2
16	5.8	7.8	35	21	122	112	40	24	16	3.1	.53	1.2
17	5.2	7.4	32	21	184	128	37	23	16	2.7	.79	.87
18	4.9	6.9	30	19	143	116	36	31	15	2.7	.97	1.6
19	4.9	6.9	29	18	148	98	35	61	14	3.6	.87	3.1
20	4.6	6.5	35	18	160	90	32	63	13	3.6	1.2	4.5
21	4.6	7.4	34	18	141	77	32	47	11	3.9	1.2	3.9
22	4.3	26	33	21	118	77	30	37	10	3.1	.87	3.9
23	4.6	23	31	21	98	68	28	32	11	3.3	.97	3.6
24	4.6	26	36	24	132	64	28	36	9.7	4.5	.79	3.6
25	5.5	21	184	24	141	98	27	55	9.2	4.5	1.1	3.3
26	6.5	17	167	29	126	116	32	51	9.2	3.3	1.1	3.9
27	12	14	145	36	106	104	31	43	9.7	1.6	1.1	17
28	7.4	14	126	50	88	90	29	37	7.8	1.5	1.1	22
29	6.2	15	104	143	---	108	26	31	7.8	1.5	1.1	16
30	5.8	26	86	138	---	122	25	29	7.4	1.5	1.1	12
31	5.8	---	72	106	---	130	---	26	---	2.3	1.1	---
TOTAL	156.5	462.8	4492	1203	2465	2798	1714	915	458.8	137.0	39.55	119.97
MEAN	5.05	15.4	145	38.8	88.0	90.3	57.1	29.5	15.3	4.42	1.28	4.00
MAX	12	40	827	143	184	130	157	63	24	8.8	2.7	22
MIN	2.0	6.5	29	18	35	54	25	16	7.4	1.5	.53	.87
AC-FT	310	918	8910	2390	4890	5550	3400	1810	910	272	78	238

CAL YR 1980 TOTAL 20992.10 MEAN 57.4 MAX 1000 MIN 1.3 AC-FT 41640
WTR YR 1981 TOTAL 14961.62 MEAN 41.0 MAX 827 MIN .53 AC-FT 29680

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 (2.7 km) northwest of Brockway and at mile 2.85 (4.59 km).

DRAINAGE AREA.--158 mi^2 (409 km^2).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2135: Drainage area (former site).

GAGE.--Water-stage recorder. Altitude of gage is 540 ft (165 m), from topographic map. Prior to Oct. 5, 1967, water-stage recorder at site 2.3 mi (3.7 km) downstream at different datum.

REMARKS.--Records good. Some regulation by Ben Irving Reservoir 17 mi (27 km) upstream on Berry Creek, capacity, 11,200 acre-ft (13.8 hm^3) since January 1980. Many diversions by pumping for irrigation above 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 ft^3/s (7.986 m^3/s), 204,300 acre-ft/yr (252 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft^3/s (991 m^3/s) Dec. 26, 1955, gage height, 24.93 ft (7.599 m), site and datum then in use, from rating curve extended above 7,200 ft^3/s (204 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 25.28 ft (7.705 m) 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.--Peak discharge above base of 3,000 ft^3/s (85.0 m^3/s) and maximum discharge, 7,710 ft^3/s (218 m^3/s) Dec. 3, gage height, 13.02 ft (3.968 m); minimum, 0.14 ft^3/s (0.004 m^3/s) July 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	3.7	52	183	241	133	432	43	29	3.2	2.0	3.4
2	23	3.4	1580	156	202	119	349	40	26	3.0	2.2	3.4
3	22	7.1	3420	138	174	107	288	40	23	3.0	1.6	3.4
4	25	7.8	2530	119	152	140	236	38	21	2.4	1.6	4.7
5	26	5.8	1200	107	161	142	200	36	19	1.1	.83	4.7
6	45	7.1	1090	97	170	127	174	36	19	2.0	.35	5.0
7	67	20	693	89	143	117	150	34	19	2.4	1.1	4.2
8	69	63	421	82	130	102	135	32	24	3.2	7.8	3.0
9	89	54	285	76	119	93	140	32	28	2.8	8.1	3.0
10	104	51	224	70	108	84	130	32	22	2.4	8.1	3.7
11	101	33	187	65	102	79	156	29	19	.94	8.1	4.2
12	92	23	161	60	93	76	274	28	17	2.6	6.8	4.5
13	26	18	140	57	114	123	267	26	19	1.5	7.4	4.2
14	68	15	119	54	371	93	224	25	23	.63	8.5	3.9
15	76	13	104	52	310	105	183	25	21	2.0	9.3	4.2
16	18	12	97	50	783	140	156	29	18	7.4	10	3.7
17	9.3	11	93	49	808	133	133	30	16	6.8	10	3.4
18	6.4	10	83	46	588	127	117	36	14	6.8	10	4.2
19	5.0	9.3	76	44	683	130	104	48	14	6.4	9.7	6.4
20	4.5	8.5	82	41	739	193	92	65	13	6.4	5.8	6.1
21	3.4	8.5	79	43	564	170	86	54	10	6.1	4.5	6.1
22	3.7	16	78	63	418	176	78	46	9.3	3.9	3.7	6.1
23	3.0	33	75	89	319	154	69	40	8.9	3.4	3.7	6.4
24	3.0	30	249	77	283	145	65	40	7.8	3.9	3.7	4.7
25	3.0	29	1690	74	234	210	62	63	6.8	3.0	3.7	3.7
26	3.9	26	860	83	210	243	69	61	11	3.4	3.7	3.7
27	5.0	22	601	113	174	256	63	52	14	2.6	3.7	18
28	6.1	20	421	222	154	228	56	46	6.1	2.0	3.4	20
29	5.8	18	313	597	---	316	51	37	4.7	2.2	3.2	14
30	4.5	26	254	461	---	556	47	33	4.2	1.6	3.4	11
31	3.9	---	214	310	---	483	---	31	---	1.6	3.7	---
TOTAL	944.5	604.2	17471	3767	8547	5300	4586	1207	486.8	100.67	159.68	177.0
MEAN	30.5	20.1	564	122	305	171	153	38.9	16.2	3.25	5.15	5.90
MAX	104	63	3420	597	808	556	432	65	29	7.4	10	20
MIN	3.0	3.4	52	41	93	76	47	25	4.2	.63	.35	3.0
AC-FT	1870	1200	34650	7470	16950	10510	9100	2390	966	200	317	351

CAL YR 1980 TOTAL 79406.20 MEAN 217 MAX 4500 MIN 3.0 AC-FT 157500
WTR YR 1981 TOTAL 43350.85 MEAN 119 MAX 3420 MIN .35 AC-FT 85990

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 (3 m) upstream from Winston Bridge on State Highway 99, 2.5 mi (4.0 km) northeast of Brockway, 4.2 mi (6.8 km) downstream from Lookingglass Creek, and at mile 132.8 (213.7 km).

DRAINAGE AREA.--1,670 mi² (4,325 km²).

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. WRD Oreg. 1972: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 462.52 ft (140.976 m) National Geodetic Vertical Datum of 1929 (State Highway Department bench mark). Prior to June 24, 1949, nonrecording gage at several sites within 400 ft (122 m) of present site at various datums. June 24, 1949, to Oct. 1, 1970, at datum 461.84 ft (140.769 m) National Geodetic Vertical Datum of 1929 (State Highway Department bench mark).

REMARKS.--Records good. No regulation. Many small diversions for irrigation above station.

AVERAGE DISCHARGE.--47 years (water years 1907-11, 1924-26, 1943-81), 2,843 ft³/s (80.51 m³/s), 23.12 in/yr (587 mm/yr), 2,060,000 acre-ft/yr (2.54 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 125,000 ft³/s (3,540 m³/s) Dec. 23, 1964, gage height, 34.28 ft (10.449 m); minimum, 16 ft³/s (0.45 m³/s) Aug. 23, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 21, 1927, reached a stage of about 31.2 ft (9.51 m), present site and datum, discharge (revised), 89,500 ft³/s (2,530 m³/s). Discharge for flood of February 1890, which reached a stage 1.9 ft (0.60 m) 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 discharge above base of 20,000 ft³/s (566 m³/s) and maximum discharge, 35,800 ft³/s (1,010 m³/s) Dec. 2, gage height, 18.11 ft (5.520 m); minimum, 56 ft³/s (1.02 m³/s) Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	185	1640	2300	2330	2410	4710	1110	1030	333	88	56
2	102	222	12700	2000	1980	2150	4560	1050	930	321	92	53
3	99	301	27200	1770	1740	1960	4060	975	840	309	95	52
4	97	272	22000	1590	1590	2280	3550	923	776	290	92	53
5	97	232	10300	1410	1510	2750	3080	881	712	272	90	52
6	106	216	7010	1280	1550	2510	2870	853	690	258	87	54
7	124	262	5100	1200	1460	2330	2600	853	695	283	82	56
8	135	2450	3620	1120	1340	2130	2400	800	718	313	82	55
9	135	2000	2840	1060	1260	1920	2200	782	1630	301	84	48
10	155	1570	2380	975	1190	1760	2000	764	1520	258	80	44
11	167	1150	2150	916	1120	1640	2200	718	1200	235	70	44
12	177	800	2050	860	1080	1540	2200	679	1030	222	65	44
13	155	610	1920	813	1080	1790	2800	646	990	216	62	44
14	139	499	1750	770	3450	1810	2490	610	1180	191	60	44
15	566	444	1590	741	5400	1690	2260	610	1230	172	60	46
16	431	457	1640	723	4940	2030	2140	718	1070	170	60	43
17	290	435	1790	718	10800	2470	1960	895	945	165	60	38
18	219	390	1660	701	6830	2360	1830	952	853	160	61	37
19	191	350	1510	673	6920	2190	1740	2380	782	155	57	44
20	177	329	1450	636	7780	2330	1680	3010	752	150	59	49
21	170	317	1400	625	6400	2290	1590	2380	673	141	52	56
22	157	1070	1550	690	5210	2200	1500	1900	605	135	54	59
23	153	2020	1750	960	4210	2110	1390	1600	561	126	52	65
24	153	1710	1830	1060	3940	1970	1350	1500	535	124	52	64
25	155	1500	10100	1020	3900	2120	1320	2020	494	122	52	60
26	162	1170	9950	982	3480	3190	1320	2630	453	124	51	64
27	188	923	5980	1180	3050	3530	1370	2120	444	122	52	120
28	262	776	5150	2050	2680	3250	1290	1740	414	110	48	301
29	276	712	3970	3850	---	3110	1200	1490	385	97	52	418
30	213	1070	3190	3720	---	4040	1150	1280	359	87	54	279
31	191	---	2670	2910	---	4180	---	1150	---	87	55	---
TOTAL	5748	24442	159840	41303	98200	74040	66810	40019	24496	6049	2060	2442
MEAN	185	815	5156	1332	3507	2388	2227	1291	817	195	66.5	81.4
MAX	566	2450	27200	3850	10800	4180	4710	3010	1630	333	95	418
MIN	97	185	1400	625	1080	1540	1150	610	359	87	48	37
CFSM	.11	.49	3.09	.80	2.10	1.43	1.33	.77	.49	.12	.04	.05
IN.	.13	.54	3.56	.92	2.19	1.65	1.49	.89	.55	.13	.05	.05
AC-FT	11400	48480	317000	81920	194800	146900	132500	79380	48590	12000	4090	4840

CAL YR 1980 TOTAL 857778 MEAN 2344 MAX 34800 MIN 90 CFSM 1.40 IN 19.11 AC-FT 1701000
WTR YR 1981 TOTAL 545449 MEAN 1494 MAX 27200 MIN 37 CFSM .90 IN 12.15 AC-FT 1082000

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 (6.0 km) west of Roseburg, and at mile 117.7 (189.4 km).

DRAINAGE AREA.--1,798 mi² (4,657 km²).

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 micromhos Sept. 18, 1971; minimum, 41 micromhos Mar. 2, 3, 1972.
pH: Maximum, 10.0 units Sept. 8, 9, 1971; minimum, 5.0 units Sept. 29, 1971.
DISSOLVED OXYGEN: Maximum, 16.0 mg/l July 30, 1977; 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 recorded, 253 micromhos Sept. 18; minimum, 66 micromhos Dec. 3.
pH: Maximum recorded, 9.6 units Sept. 6-8, 12-16; minimum recorded, 6.8 units Sept. 28.
DISSOLVED OXYGEN: Maximum recorded, 14.3 mg/l Sept. 8; minimum recorded, 2.1 mg/l Sept. 19.
WATER TEMPERATURES: Maximum recorded, 27.5°C July 4; minimum, 3.5°C Dec. 14-16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT										
14...	1400	133	165	8.1	15.0	10.9	210	230	55	12
NOV										
18...	1000	441	146	7.6	8.5	11.4	K1000	70	55	13
DEC										
09...	1420	7700	105	7.7	5.0	12.4	370	190	40	8.5
JAN										
14...	0905	813	129	7.3	7.0	11.9	K7	20	52	12
FEB										
03...	1430	1800	122	7.6	6.0	12.2	600	500	49	11
MAR										
24...	1015	1970	123	7.6	11.0	11.3	K110	24	74	20
APR										
20...	1515	1700	110	7.8	14.5	10.6	450	150	51	13
MAY										
20...	0950	3090	109	7.7	13.5	10.5	350	150	48	12
JUN										
23...	0945	400	120	8.0	22.0	9.8	44	74	57	15
JUL										
14...	1400	185	133	8.4	24.0	10.2	K13	K340	76	18
AUG										
25...	1200	52	200	8.2	23.0	10.6	77	K2200	68	15
SEP										
23...	0930	65	230	8.1	18.0	13.6	160	65	89	20

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (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									
14...	6.1	11	<.10	--	.320	.97	1.1	.360	90
NOV									
18...	5.4	8.0	<.10	--	.110	.46	.53	.130	85
DEC									
09...	4.5	4.4	.35	--	.020	.44	.80	.060	73
JAN									
14...	5.4	6.3	.25	--	.050	.38	.64	.020	86
FEB									
03...	5.2	4.3	.15	.070	.150	.53	.66	.390	76
MAR									
24...	5.9	3.9	<.10	--	.090	.35	.39	.040	92
APR									
20...	4.5	4.0	<.10	--	.080	.41	.48	.060	82
MAY									
20...	4.3	3.8	<.10	.080	.100	.76	.80	.050	80
JUN									
23...	4.8	4.9	<.10	--	.120	.72	.74	.090	73
JUL									
14...	7.6	9.0	<.10	--	.210	.91	1.0	.160	81
AUG									
25...	7.3	18	.58	--	.660	1.70	2.3	.600	115
SEP									
23...	9.4	20	.58	--	.160	.96	1.8	.530	121

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PER-THANE TOTAL (UG/L)	NAPH-THA-LENES, POLY-CHLOR. 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)	ENDRIN, TOTAL (UG/L)
OCT										
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
JAN										
14...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
FEB										
03...	--	--	--	--	--	--	--	--	--	--
APR										
20...	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	ENDO-SULFAN, TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	PCB, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	MIREX, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
OCT										
14...	.00	0	.00	.00	.00	.00	.00	.01	.00	.00
JAN										
14...	.00	0	.00	.00	.00	.00	--	--	.00	--
FEB										
03...	--	--	--	--	--	--	.02	.00	--	.07
APR										
20...	.00	0	.00	.00	.00	.00	.00	.00	.00	.00

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	212	133	109	114	114	104	116	133	125		---
2	191	211	127	112	117	115	102	115	139	128		203
3	194	209	76	115	119	115	103	113	146	132		206
4	198	207	83	116	123	121	105	112	149	136		208
5	201	206	96	119	126	118	107	112	149	138		212
6	203	205	101	122	129	116	109	112	151	134		216
7	---	200	104	123	128	116	108	113	151	132		219
8	---	199	110	125	128	117	110	115	152	130		222
9	---	149	112	127	129	117	112	116	151	130		223
10	---	126	114	129	130	119	113	117	133	131		225
11	---	125	116	130	132	121	113	119	119	---		229
12	---	124	118	131	134	122	115	121	119	---		233
13	---	126	116	133	134	128	111	123	123	---		234
14	---	131	115	134	134	128	107	124	127	---		236
15	173	136	116	136	98	127	107	120	127	---		241
16	200	141	117	137	102	131	110	116	125	---		244
17	213	146	115	139	91	127	110	114	124	---		247
18	213	151	111	140	93	121	109	114	125	---		248
19	213	154	111	141	95	122	111	106	128	---		249
20	210	155	113	142	93	125	110	107	131	---		245
21	208	159	117	142	94	124	111	103	131	---		241
22	206	163	120	145	99	127	111	106	128	---		241
23	206	152	119	147	103	125	113	111	125	---		---
24	206	116	116	144	108	124	115	121	124	---		---
25	205	113	109	139	108	127	114	136	130	---		---
26	205	115	83	136	109	125	114	124	128	---		---
27	207	118	90	138	111	114	114	113	126	---		---
28	208	123	95	136	113	110	114	118	125	---		---
29	207	128	97	122	---	111	115	125	125	---		---
30	208	133	102	111	---	110	118	127	125	---		---
31	211	---	105	111	---	105	---	128	---	---		---
MEAN	203	154	108	130	114	120	111	117	132	132		230

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	6.9	8.3	7.9	7.9	7.6	7.3	7.2	7.6	7.5	7.6	7.4
2	8.6	6.9	8.6	7.8	7.6	7.1	7.3	7.2	7.6	7.6	7.6	7.5
3	8.6	6.9	8.7	7.8	7.3	7.1	7.3	7.3	7.7	7.6	7.7	7.6
4	8.6	6.9	8.7	7.8	7.3	7.1	7.3	7.3	7.7	7.6	7.7	7.6
5	8.7	6.9	8.8	7.8	7.2	7.1	7.4	7.3	7.8	7.7	7.6	7.6
6	8.8	6.9	8.3	7.7	7.2	7.2	7.4	7.3	7.9	7.7	7.6	7.5
7	---	---	7.9	7.6	7.3	7.2	7.4	7.3	7.8	7.7	7.7	7.6
8	---	---	7.7	7.5	7.4	7.3	7.4	7.3	7.8	7.7	7.7	7.6
9	---	---	7.6	7.4	7.7	7.4	7.4	7.3	7.8	7.7	7.9	7.6
10	---	---	7.5	7.4	7.6	7.6	7.4	7.3	7.9	7.7	7.9	7.6
11	---	---	7.6	7.5	7.6	7.6	7.4	7.3	7.9	7.7	7.9	7.7
12	---	---	7.7	7.5	7.7	7.6	7.4	7.3	7.9	7.7	7.9	7.6
13	---	---	7.8	7.6	7.7	7.6	7.4	7.3	7.9	7.8	7.7	7.6
14	---	---	7.8	7.6	7.6	7.5	7.4	7.3	8.1	7.7	7.7	7.6
15	8.6	7.9	7.8	7.5	7.6	7.5	7.4	7.3	7.7	7.3	7.7	7.6
16	8.8	8.1	7.9	7.5	7.6	7.5	7.4	7.3	7.4	7.2	7.7	7.6
17	8.9	8.0	8.0	7.6	7.6	7.6	7.6	7.4	7.4	7.1	7.7	7.6
18	8.8	8.0	8.0	7.6	7.6	7.5	7.7	7.5	7.3	7.2	7.6	7.6
19	8.7	7.9	8.0	7.6	7.6	7.5	7.7	7.5	7.3	7.2	7.7	7.6
20	8.7	7.9	8.2	7.6	7.6	7.5	7.6	7.5	7.2	7.2	7.6	7.6
21	8.7	7.8	8.0	7.6	7.6	7.5	7.7	7.4	7.2	7.1	7.6	7.6
22	8.8	7.8	7.9	7.6	7.7	7.6	7.6	7.6	7.2	7.2	7.7	7.6
23	8.8	7.8	7.9	7.5	7.6	7.5	7.8	7.6	7.3	7.2	7.7	7.6
24	8.2	7.8	7.5	7.4	7.5	7.1	7.8	7.6	7.4	7.3	7.7	7.6
25	8.5	7.8	7.6	7.4	7.2	6.9	7.8	7.6	7.3	7.3	7.7	7.6
26	8.3	7.8	7.7	7.5	7.2	7.1	7.8	7.6	7.4	7.3	7.6	7.5
27	8.5	7.8	7.7	7.6	7.2	7.1	7.8	7.7	7.4	7.3	7.5	7.4
28	8.6	7.8	7.8	7.6	7.2	7.2	7.8	7.6	7.4	7.4	7.5	7.4
29	8.8	7.9	7.8	7.6	7.2	7.2	7.6	7.3	---	---	7.5	7.5
30	8.6	7.8	7.9	7.7	7.3	7.2	7.4	7.3	---	---	7.5	7.4
31	8.5	7.8	---	---	7.3	7.2	7.5	7.4	---	---	7.4	7.4
MONTH	8.9	6.9	8.8	7.4	7.9	6.9	7.8	7.2	8.1	7.1	7.9	7.4

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.4	7.4	8.2	7.8	8.2	7.8	8.7	7.5			---	---
2	7.4	7.3	8.2	7.8	8.3	7.8	8.7	7.5			9.4	7.4
3	7.4	7.3	8.2	7.8	8.4	7.9	8.6	7.5			9.5	7.5
4	7.5	7.4	8.2	7.9	8.5	7.9	8.5	7.5			9.4	7.5
5	7.5	7.4	8.2	8.0	8.5	7.9	8.3	7.4			9.5	7.5
6	7.5	7.4	8.3	8.0	8.6	7.8	7.9	7.4			9.6	7.6
7	7.6	7.4	8.3	8.0	8.5	7.8	8.1	7.4			9.6	7.7
8	7.5	7.5	8.3	7.9	8.1	7.8	8.2	7.5			9.6	7.7
9	7.6	7.5	8.3	7.9	8.3	7.8	8.2	7.5			9.3	7.6
10	7.6	7.5	8.4	8.0	8.3	7.8	8.0	7.4			9.4	7.6
11	7.6	7.5	8.5	8.0	8.1	7.7	---	---			9.5	7.6
12	7.6	7.5	8.6	7.9	8.0	7.7	---	---			9.6	7.7
13	7.6	7.5	8.7	7.9	8.3	7.8	---	---			9.6	7.7
14	7.6	7.4	8.6	7.9	8.3	7.8	---	---			9.6	7.7
15	7.6	7.4	8.7	7.8	8.4	7.9	---	---			9.6	7.7
16	7.7	7.4	8.7	7.8	8.3	7.8	---	---			9.6	7.7
17	7.7	7.5	8.3	7.9	8.6	7.8	---	---			9.4	7.7
18	7.7	7.5	8.2	7.9	8.4	7.8	---	---			9.3	7.6
19	7.6	7.5	8.0	7.8	8.7	7.8	---	---			9.4	7.5
20	7.8	7.5	7.8	7.5	8.8	7.8	---	---			9.0	7.5
21	7.7	7.5	7.8	7.6	9.0	7.8	---	---			9.2	7.4
22	7.8	7.5	7.9	7.7	8.8	7.7	---	---			9.2	7.5
23	7.8	7.5	8.0	7.7	8.9	7.7	---	---			---	---
24	7.9	7.6	8.0	7.7	9.0	7.6	---	---			---	---
25	7.8	7.6	8.0	7.8	8.9	7.6	---	---			---	---
26	7.8	7.5	8.0	7.8	8.5	7.6	---	---			---	---
27	8.0	7.7	7.9	7.6	8.8	7.5	---	---			7.4	7.0
28	8.1	7.7	8.0	7.7	8.9	7.6	---	---			7.3	6.8
29	8.1	7.7	8.0	7.7	8.9	7.6	---	---			7.7	7.1
30	8.1	7.7	8.1	7.7	8.6	7.5	---	---			7.8	7.0
31	---	---	8.2	7.8	---	---	---	---			---	---
MONTH	8.1	7.3	8.7	7.5	9.0	7.5	8.7	7.4			9.6	6.8

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.0	4.9	7.8	10.6	9.3	9.7	11.8	11.3	11.5	10.7	10.5	10.6
2	11.0	4.8	7.9	10.9	9.1	9.8	11.4	10.7	11.0	10.8	10.5	10.6
3	11.0	4.6	7.8	11.0	9.3	9.9	11.2	10.8	11.0	11.0	10.7	10.8
4	11.1	4.4	7.8	10.9	9.1	9.8	11.2	10.5	10.8	11.0	10.8	10.9
5	11.3	4.1	7.7	11.0	9.0	9.8	10.9	10.7	10.9	10.8	10.6	10.7
6	11.6	4.4	7.6	10.2	8.7	9.2	11.2	10.9	11.2	10.7	10.5	10.6
7	---	---	---	9.7	8.4	8.9	11.5	11.2	11.4	10.9	10.6	10.7
8	---	---	---	9.4	8.0	8.9	11.8	11.5	11.7	10.8	10.5	10.6
9	---	---	---	10.0	9.4	9.8	12.4	11.8	12.1	11.0	10.6	10.7
10	---	---	---	10.5	10.0	10.3	12.5	12.3	12.4	11.1	10.8	10.9
11	---	---	---	10.8	10.4	10.6	12.5	12.3	12.4	11.0	10.6	10.8
12	---	---	---	11.4	10.8	11.0	12.4	12.3	12.3	10.9	10.5	10.6
13	---	---	---	11.7	10.9	11.2	12.5	12.3	12.4	11.7	10.5	10.8
14	---	---	---	11.7	11.0	11.2	12.7	12.5	12.6	12.0	11.6	11.7
15	10.7	8.6	9.5	12.0	11.1	11.4	12.8	12.6	12.7	11.9	11.5	11.7
16	10.7	9.3	9.8	12.0	11.2	11.5	12.8	12.6	12.7	12.0	11.6	11.7
17	10.9	9.2	9.9	12.5	11.2	11.9	12.6	12.3	12.5	12.3	11.7	11.9
18	11.0	9.1	9.8	12.2	11.1	11.6	12.3	12.1	12.2	12.1	11.5	11.8
19	11.1	9.0	9.9	12.3	11.2	11.6	12.1	11.8	12.0	11.9	11.3	11.5
20	10.9	8.9	9.7	12.5	11.1	11.6	12.0	11.8	11.8	11.5	11.2	11.3
21	10.8	8.7	9.6	12.9	10.9	11.3	11.8	11.5	11.7	11.8	11.2	11.4
22	11.0	8.7	9.7	11.5	10.7	11.0	11.5	11.2	11.4	11.2	10.8	11.1
23	11.0	8.7	9.8	11.4	11.0	11.2	11.4	11.3	11.4	11.5	10.9	11.1
24	9.9	8.9	9.3	11.4	11.2	11.3	11.3	10.7	11.1	11.6	11.0	11.3
25	10.5	8.7	9.4	11.5	11.1	11.3	10.8	10.3	10.6	12.1	11.3	11.6
26	10.6	9.0	9.6	11.7	11.2	11.4	10.7	10.5	10.6	11.9	11.4	11.5
27	11.0	9.2	9.9	12.1	11.3	11.6	10.7	10.7	10.7	11.4	11.1	11.3
28	11.0	9.2	10.0	12.0	11.3	11.6	10.8	10.7	10.8	11.3	11.2	11.3
29	11.1	9.6	10.2	11.4	11.0	11.2	11.1	10.8	10.9	11.5	11.3	11.4
30	10.9	9.5	10.0	11.8	11.1	11.4	11.2	11.0	11.1	11.8	11.5	11.7
31	10.9	9.2	9.9	---	---	---	11.0	10.7	10.9	12.1	11.8	11.9
MONTH	11.6	4.1	9.2	12.9	8.0	10.8	12.8	10.3	11.6	12.3	10.5	11.2

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.4	12.0	12.2	11.4	11.0	11.2	10.8	10.6	10.7	9.2	7.9	8.5
2	12.4	12.2	12.3	11.3	10.8	11.0	10.7	10.4	10.6	10.0	8.0	9.0
3	12.4	12.1	12.2	11.2	10.6	10.9	10.5	10.3	10.4	10.3	8.8	9.5
4	12.6	12.3	12.4	11.1	10.8	10.9	10.9	10.3	10.5	10.4	9.0	9.7
5	12.4	12.1	12.3	11.3	10.9	11.1	10.8	10.5	10.7	10.6	9.1	9.8
6	12.3	12.0	12.1	11.3	10.9	11.1	11.1	10.7	10.9	11.0	9.7	10.3
7	12.2	11.9	12.0	11.9	10.8	11.3	11.4	10.7	11.1	11.0	9.5	10.1
8	12.2	11.8	12.0	12.0	11.4	11.7	11.4	10.7	11.0	10.7	9.3	9.8
9	12.3	11.8	12.0	11.8	11.2	11.5	11.4	10.8	11.1	10.7	9.1	9.8
10	12.3	11.9	12.1	11.5	11.0	11.3	11.3	10.7	11.0	11.0	9.5	10.2
11	12.4	11.8	12.1	11.7	11.1	11.4	11.2	10.7	10.9	11.0	9.2	10.0
12	12.3	11.6	11.9	11.7	10.9	11.3	11.3	10.8	11.0	10.9	9.0	9.8
13	11.7	11.1	11.4	11.1	10.8	10.9	11.2	10.8	11.0	11.0	8.9	9.8
14	11.7	10.9	11.2	11.1	10.7	10.9	11.0	10.2	10.7	10.7	8.7	9.5
15	11.4	11.2	11.3	10.8	10.6	10.7	10.5	9.9	10.2	10.7	8.8	9.5
16	11.2	10.8	11.0	11.0	10.6	10.8	10.4	9.7	10.0	10.7	8.7	9.2
17	11.3	10.9	11.1	11.4	10.8	11.0	10.1	9.3	9.7	9.9	8.6	9.2
18	11.3	11.1	11.2	11.4	11.0	11.2	10.7	9.0	9.9	9.8	8.6	9.1
19	11.1	10.9	11.0	11.7	11.1	11.4	10.2	9.6	9.9	9.9	8.9	9.2
20	11.4	11.0	11.2	11.3	10.8	11.1	10.6	9.8	10.2	10.5	9.9	10.2
21	11.7	11.3	11.5	11.1	10.8	11.0	10.2	9.5	9.9	10.8	10.4	10.6
22	11.6	11.4	11.6	11.3	10.7	11.0	10.4	9.4	9.9	11.0	10.2	10.6
23	11.5	11.2	11.3	11.1	10.6	10.8	9.9	9.0	9.4	10.7	9.8	10.3
24	11.3	11.0	11.1	11.3	10.5	10.7	9.7	8.8	9.3	10.3	9.4	9.8
25	11.3	11.0	11.2	10.5	10.2	10.3	9.8	9.0	9.4	9.6	9.1	9.3
26	11.4	11.1	11.3	10.4	10.1	10.3	10.3	9.3	9.8	9.7	9.0	9.4
27	11.4	11.0	11.2	10.6	10.2	10.4	10.6	9.7	10.2	10.1	9.4	9.7
28	11.4	11.0	11.1	10.9	10.3	10.5	10.4	9.4	10.0	10.1	9.1	9.6
29	---	---	---	10.5	10.3	10.4	10.0	8.6	9.4	9.6	8.7	9.1
30	---	---	---	10.6	10.4	10.6	9.4	8.1	8.8	10.1	8.6	9.3
31	---	---	---	10.8	10.6	10.7	---	---	---	10.4	9.0	9.7
MONTH	12.6	10.8	11.6	12.0	10.1	11.0	11.4	8.1	10.3	11.0	7.9	9.7

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.3	8.8	9.4	9.8	6.5	8.2				---	---	---
2	10.2	8.6	9.4	9.2	6.1	7.4				12.4	4.1	8.1
3	10.3	8.6	9.4	8.4	5.2	6.5				13.1	4.4	8.6
4	10.3	8.3	9.2	8.9	4.5	6.5				12.3	4.4	8.3
5	9.7	7.9	8.7	8.2	4.8	6.3				13.1	4.4	8.7
6	10.1	8.0	8.7	7.3	4.7	5.9				13.3	4.4	8.7
7	9.8	8.0	8.7	8.2	4.7	6.4				13.0	4.4	8.6
8	9.2	8.1	8.6	8.1	5.7	6.8				14.3	4.1	9.0
9	9.6	8.3	9.0	7.5	5.5	6.4				11.7	4.1	7.7
10	10.3	9.1	9.7	6.9	5.0	6.0				12.3	4.1	7.8
11	10.4	9.3	9.8	---	---	---				13.2	3.8	8.3
12	10.4	9.3	9.8	---	---	---				13.5	3.9	8.4
13	11.2	9.3	9.8	---	---	---				13.5	4.1	8.5
14	11.2	9.5	10.2	---	---	---				13.3	4.1	8.3
15	11.0	9.1	10.0	---	---	---				12.7	3.6	8.0
16	10.7	8.7	9.3	---	---	---				12.7	3.6	7.9
17	11.3	9.0	10.0	---	---	---				11.2	3.3	6.8
18	10.8	8.8	9.5	---	---	---				10.7	3.1	6.4
19	11.1	8.6	9.6	---	---	---				13.1	2.1	7.1
20	11.1	8.6	9.8	---	---	---				10.4	3.3	6.8
21	11.5	8.4	9.7	---	---	---				11.6	3.5	7.4
22	10.9	8.1	9.3	---	---	---				11.5	3.9	7.5
23	11.2	8.1	9.4	---	---	---				---	---	---
24	11.3	7.0	9.0	---	---	---				---	---	---
25	11.0	7.0	9.0	---	---	---				---	---	---
26	9.7	7.3	8.5	---	---	---				---	---	---
27	10.6	7.5	9.0	---	---	---				7.6	5.8	6.6
28	11.0	7.8	9.2	---	---	---				8.3	5.5	6.7
29	11.1	7.6	9.1	---	---	---				9.1	6.8	7.9
30	9.6	7.1	8.3	---	---	---				9.7	7.4	8.3
31	---	---	---	---	---	---				---	---	---
MONTH	11.5	7.0	9.3	9.8	4.5	6.6				14.3	2.1	7.9

14312260 SOUTH UMPQUA RIVER NEAR ROSEBURG, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.0	19.0	12.5	11.5	8.0	7.0	9.0	9.0	7.0	6.5	8.5	7.5
2	22.0	19.0	13.0	11.5	8.5	7.0	9.0	8.5	6.5	6.0	9.0	8.0
3	22.0	19.5	13.5	12.0	9.0	8.5	8.5	8.0	6.5	6.0	9.0	8.5
4	22.0	19.0	13.5	12.5	9.5	8.5	8.0	7.5	6.0	5.5	8.5	8.5
5	22.5	20.0	14.0	12.5	8.5	8.0	8.0	7.5	7.0	6.0	8.5	7.5
6	22.5	20.0	14.0	13.5	8.0	7.0	7.5	7.5	7.0	6.5	8.0	7.0
7	---	---	14.5	14.0	7.0	6.0	7.5	7.0	8.0	6.5	8.5	7.5
8	---	---	14.0	13.0	6.0	5.0	7.5	7.0	7.0	6.5	9.0	7.5
9	---	---	13.0	11.5	5.0	5.0	7.0	7.0	6.5	6.0	10.0	8.0
10	---	---	11.5	10.5	5.0	5.0	7.0	7.0	7.0	6.0	9.5	9.0
11	---	---	10.5	10.0	5.0	4.5	7.5	7.0	8.0	6.5	11.0	9.5
12	---	---	10.0	9.0	4.5	4.5	7.5	7.0	8.5	7.5	11.0	9.0
13	---	---	9.0	8.0	4.5	4.0	7.0	6.5	9.0	8.5	10.0	10.0
14	---	---	9.0	8.0	4.0	3.5	7.0	6.5	9.5	9.0	11.0	10.0
15	14.0	13.0	8.5	7.5	4.0	3.5	6.5	6.0	9.0	8.5	11.0	10.0
16	14.0	13.0	8.0	7.5	4.0	3.5	6.0	6.0	10.0	9.0	10.5	9.5
17	14.5	12.5	8.5	7.5	5.0	4.0	6.5	6.0	9.5	8.5	10.5	9.0
18	14.0	12.0	8.5	8.0	5.5	4.5	7.5	6.5	9.5	8.5	10.0	9.0
19	14.0	12.0	8.5	8.0	6.0	5.5	8.0	7.5	10.0	9.0	9.5	8.5
20	13.5	12.5	9.0	8.0	6.5	6.0	8.0	7.5	9.0	8.0	10.0	9.0
21	14.5	13.0	9.0	8.0	8.0	6.5	9.0	7.5	8.0	7.5	11.0	9.5
22	13.0	11.0	9.0	8.5	8.5	7.5	9.0	8.5	9.0	7.5	11.0	10.0
23	13.0	11.5	9.0	8.0	8.0	7.5	9.0	9.0	9.0	8.0	11.5	10.5
24	12.0	11.5	8.5	7.5	8.5	7.5	9.0	8.5	9.0	8.0	11.0	10.5
25	12.5	11.5	8.5	8.0	9.5	8.5	9.0	8.0	8.5	8.0	11.0	10.5
26	12.0	11.5	8.5	8.0	10.0	9.5	8.0	7.5	8.0	7.5	10.5	10.0
27	12.5	11.5	8.5	7.5	10.0	9.5	8.5	8.0	9.0	7.5	11.0	9.5
28	12.5	11.5	9.0	8.5	9.5	9.0	8.0	8.0	9.0	7.5	11.5	9.5
29	13.0	11.0	9.0	8.5	9.0	8.0	8.0	7.0	---	---	10.5	10.0
30	12.0	11.0	8.5	8.0	8.5	8.0	7.0	6.5	---	---	10.5	9.5
31	12.0	11.5	---	---	9.0	8.5	7.0	6.5	---	---	9.5	8.5
MONTH	22.5	11.0	14.5	7.5	10.0	3.5	9.0	6.0	10.0	5.5	11.5	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.0	19.0	18.0	20.0	18.0	23.5	20.5			---	---
2	9.0	8.0	18.5	17.5	21.0	18.0	25.0	20.5			23.0	21.0
3	9.5	8.5	17.5	16.5	21.5	19.5	27.0	22.0			23.5	21.0
4	10.5	8.5	16.5	15.5	23.0	20.5	27.5	23.5			23.0	21.0
5	10.5	9.5	16.0	14.5	23.5	21.5	27.0	24.5			23.5	21.0
6	10.0	8.5	15.0	14.0	23.0	21.0	25.0	23.0			23.5	21.0
7	10.5	8.5	15.5	14.5	22.0	20.0	24.0	21.5			24.5	22.0
8	10.0	9.5	15.5	15.0	20.5	18.5	24.5	20.5			24.0	21.5
9	10.0	9.5	16.0	15.0	20.0	18.5	24.0	21.0			23.5	21.5
10	10.5	9.0	16.5	15.0	19.0	17.5	24.0	21.0			23.0	21.0
11	10.5	10.0	17.0	15.5	19.0	16.5	---	---			23.5	21.0
12	10.5	9.5	18.0	16.0	19.0	16.5	---	---			24.0	22.0
13	11.0	9.0	18.5	16.5	19.0	17.0	---	---			24.0	22.0
14	13.0	10.0	18.5	17.0	19.5	16.0	---	---			24.0	22.0
15	12.5	12.0	18.0	16.0	20.0	17.0	---	---			24.0	22.0
16	13.5	12.5	18.0	15.5	19.5	18.0	---	---			24.0	22.5
17	14.0	12.5	17.0	17.0	19.5	17.5	---	---			23.5	22.5
18	15.0	13.0	17.0	16.0	19.5	19.0	---	---			23.0	22.0
19	14.5	13.5	16.0	14.5	20.5	19.0	---	---			23.5	21.5
20	14.5	13.0	14.5	13.0	21.5	20.0	---	---			22.0	21.0
21	14.0	13.5	14.0	12.5	22.5	20.5	---	---			20.5	19.5
22	16.0	13.5	14.5	13.0	22.5	21.5	---	---			20.0	18.5
23	17.0	15.0	16.5	14.5	23.0	21.0	---	---			---	---
24	16.5	15.5	17.5	16.0	23.5	21.0	---	---			---	---
25	15.5	14.0	18.5	16.5	25.0	21.5	---	---			---	---
26	14.0	13.0	18.0	16.5	22.5	21.0	---	---			---	---
27	13.5	12.0	17.5	15.5	22.5	20.0	---	---			18.0	17.0
28	15.5	12.5	18.5	16.0	23.0	20.0	---	---			18.0	16.5
29	18.0	14.5	20.0	18.0	24.5	20.0	---	---			18.0	16.5
30	19.5	17.0	20.5	18.0	23.5	21.5	---	---			18.0	16.0
31	---	---	20.5	17.5	---	---	---	---			---	---
MONTH	19.5	8.0	20.5	12.5	25.0	16.0	27.5	20.5			24.5	16.0

14312500 LAKE CREEK NEAR DIAMOND LAKE, OR

LOCATION.--Lat 43°11'10", long 122°09'55", in NW¼SW¼ sec.30, T.27 S., R.6 E., Douglas County, Hydrologic Unit 17100301, Umpqua National Forest, on right bank 260 ft (79 m) downstream from outlet of Diamond Lake, 1.6 mi (2.6 km) northwest of town of Diamond Lake, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--54.9 mi² (142.2 km²).

PERIOD OF RECORD.--May 1922 to September 1925 (no winter records), October 1926 to September 1929, April, July, August 1930, October 1930 to September 1953, October 1971 to October 1977, February 1978 to current year. Prior to October 1971 published as "at Diamond Lake, near Fort Klamath."

GAGE.--Water-stage recorder. Altitude of gage is 5,180 ft (1,580 m), from river-profile map. Prior to May 26, 1931, nonrecording gage at site 300 ft (91 m) downstream at different datum. May 26, 1931, to Oct. 6, 1933, nonrecording gage at present site and datum.

REMARKS.--Records good. Flow regulated by gates and fish racks at lake outlet. No diversion above station.

AVERAGE DISCHARGE.--35 years (water years 1927-29, 1931-53, 1972-77, 1979-81), 55.7 ft³/s (1.577 m³/s), 40,350 acre-ft/yr (49.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 336 ft³/s (9.52 m³/s) Jan. 1, 1943, gage height, 2.8 ft (0.85 m), from rating curve extended above 120 ft³/s (3.40 m³/s); no flow Aug. 25-27, 1931, Sept. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 116 ft³/s (3.29 m³/s) Dec. 3, gage height, 1.78 ft (0.543 m); minimum recorded, 4.6 ft³/s (0.13 m³/s) May 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	35	52	72	48	59	53	44	6.0	21	13	6.6
2	25	34	66	69	46	56	52	41	6.3	21	13	6.6
3	25	34	85	67	45	56	50	41	6.8	20	12	6.0
4	24	30	93	64	44	55	49	39	7.5	20	12	6.0
5	24	33	92	62	45	53	46	41	7.8	21	11	6.0
6	23	52	88	60	44	53	45	40	9.1	23	12	6.0
7	23	66	86	58	42	49	42	39	17	23	12	6.3
8	23	75	80	56	41	48	44	39	39	23	11	6.4
9	24	70	76	53	40	46	42	39	42	21	12	6.4
10	23	69	72	52	40	44	42	37	39	19	12	6.4
11	24	76	69	50	41	44	48	36	37	18	11	6.4
12	28	78	66	49	40	44	46	36	36	17	11	6.4
13	32	70	63	48	44	42	48	34	39	17	12	6.4
14	33	66	62	46	53	45	45	31	36	17	11	6.4
15	31	66	60	45	52	46	45	35	35	17	11	6.4
16	31	83	58	46	64	49	44	35	33	16	11	6.4
17	31	88	56	52	63	49	42	35	32	17	10	6.4
18	31	76	55	49	66	48	41	36	33	15	11	6.4
19	31	73	55	48	72	48	42	37	31	15	9.8	6.4
20	30	62	56	50	72	48	42	36	32	14	9.5	6.6
21	30	67	58	58	70	48	44	35	31	15	8.4	6.8
22	31	75	60	52	69	48	44	34	30	16	8.4	6.8
23	29	75	58	44	66	46	44	34	28	15	8.4	6.8
24	30	76	64	44	66	48	42	35	28	14	8.1	7.0
25	31	70	83	45	67	49	44	37	26	14	7.8	8.0
26	32	66	86	49	67	49	44	36	25	14	7.8	9.0
27	34	63	86	52	64	46	45	34	24	14	7.5	15
28	34	62	86	50	60	46	44	33	23	14	7.5	14
29	29	49	78	52	---	49	45	32	23	14	7.8	12
30	31	50	78	50	---	52	44	19	22	13	6.8	10
31	33	---	75	50	---	55	---	5.7	---	13	6.8	---
TOTAL	886	1889	2202	1642	1531	1518	1348	1085.7	784.5	531	312.6	222.3
MEAN	28.6	63.0	71.0	53.0	54.7	49.0	44.9	35.0	26.2	17.1	10.1	7.41
MAX	34	88	93	72	72	59	53	44	42	23	13	15
MIN	23	30	52	44	40	42	41	5.7	6.0	13	6.8	6.0
AC-FT	1760	3750	4370	3260	3040	3010	2670	2150	1560	1050	620	441

CAL YR 1980 TOTAL 16241.7 MEAN 44.4 MAX 121 MIN 3.6 AC-FT 32220
WTR YR 1981 TOTAL 13952.1 MEAN 38.2 MAX 93 MIN 5.7 AC-FT 27670

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 (1.3 km) downstream from Lake Creek, 13.0 mi (20.9 km) east of town of Toketee Falls, and at mile 93.01 (149.7 km).

DRAINAGE AREA.--170 mi^2 (440 km^2).

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 (15.4 hm^3) between elevations 4,097.0 ft (1,248.77 m) and 4,148.5 ft (1,264.46 m). Dead storage below 4,097.0 ft (1,248.77 m), 1,040 acre-ft (1.28 hm^3). 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 (17.3 hm^3) Dec. 24, 1964, elevation, 4,149.5 ft (1,264.77 m); minimum observed, 11 acre-ft (13,600 m^3) Mar. 5, 1955, elevation, 4,055.4 ft (1,236.09 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 13,270 acre-ft (16.4 hm^3) Sept. 3, elevation, 4,147.8 ft (1,264.25 m); minimum observed, 4,360 acre-ft (5.38 hm^3) Dec. 1, elevation, 4,120.4 ft (1,255.90 m).

MONTHEND ELEVATION AND CONTENTS AT 0900, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept.30	4,145.5	12,320	-
Oct. 31	4,131.7	7,510	-4,810
Nov. 30	4,120.8	4,450	-3,060
Dec. 31	4,135.9	8,850	+4,400
CAL YR 1980	-	-	+4,830
Jan. 31	4,124.4	5,390	-3,460
Feb. 28	4,135.1	8,580	+3,190
Mar. 31	4,124.0	5,280	-3,300
Apr. 30	4,137.4	9,350	+4,070
May 31	4,145.2	12,200	+2,850
June 30	4,144.6	11,960	-240
July 31	4,147.0	12,930	+970
Aug. 31	4,147.6	13,180	+250
Sept.30	4,145.8	12,440	-740
WTR YR 1981	-	-	+120

14313501 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 (0.6 km) downstream from Lemolo Lake, 13 mi (21 km) east of town of Toketee Falls, and at mile 92.6 (148.9 km).

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. 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. Altitude of gage is 4,025 ft (1,227 m), from river-profile map. Prior to July 15, 1954, at site 1 mi (2 km) upstream at datum about 65 ft (19.8 m) higher. July 15, 1954, to Sept. 25, 1955, at site 400 ft (122 m) upstream at datum 14.11 ft (4.301 m) higher.

REMARKS.--Records good. Flow regulated since 1954 by Lemolo Lake (see station 14313000); also slightly regulated by Diamond Lake. All records given herein include flow in Lemolo No. 1 power canal which, beginning July 1955, diverts 0.4 mi (0.6 km) above station for power generation with return flow 4.3 mi (6.9 km) downstream.

COOPERATION.--Records of daily power plant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--53 years, 420 ft³/s (11.89 m³/s), 33.55 in/yr (852 mm/yr), 304,300 acre-ft/yr (375 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 4,600 ft³/s (130 m³/s) Dec. 25, 1964, from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow, gage height, 9.20 ft (2.804 m), from floodmark; minimum, 6.4 ft³/s (0.18 m³/s) July 17, 1954.

Combined flow, maximum discharge, 4,680 ft³/s (133 m³/s) Dec. 25, 1964, from river rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 9.7 ft³/s (0.27 m³/s) May 13, 1955.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 304 ft³/s (8.61 m³/s) Oct. 9, gage height, 5.83 ft (1.777 m); minimum, 22 ft³/s (0.62 m³/s) Oct. 28, 29.

Combined flow, maximum daily discharge, 555 ft³/s (15.7 m³/s) Nov. 9; minimum daily, 113 ft³/s (3.20 m³/s) May 24, 31, June 14, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	481	353	498	349	518	351	323	354	201	280	263
2	379	467	138	502	338	520	281	319	403	294	280	220
3	403	328	122	514	334	528	353	115	415	333	281	293
4	391	424	331	517	332	458	370	295	333	334	279	284
5	334	351	386	429	333	514	334	339	314	335	280	260
6	342	282	498	529	329	520	355	342	311	309	281	260
7	255	224	522	500	311	531	351	351	114	293	282	258
8	255	508	482	466	313	531	352	351	387	293	280	262
9	282	555	355	462	310	534	336	387	459	293	280	300
10	304	516	339	369	322	517	334	408	427	293	281	278
11	336	399	373	378	313	435	324	386	391	294	269	280
12	441	368	378	382	317	435	324	345	387	293	254	280
13	464	343	374	381	315	380	325	310	389	295	256	280
14	309	368	373	389	329	377	252	318	113	276	248	280
15	341	439	371	392	221	381	256	291	427	252	245	281
16	339	437	367	379	121	380	252	302	428	254	246	280
17	275	436	374	387	151	379	252	298	383	254	248	280
18	347	337	371	385	178	363	118	287	409	256	237	281
19	346	337	334	403	134	349	117	297	406	255	270	259
20	344	340	336	384	195	359	235	301	425	251	268	282
21	309	336	285	379	380	347	257	333	113	251	266	284
22	519	328	335	369	449	359	258	336	424	252	266	276
23	444	340	261	384	455	355	254	115	429	253	266	276
24	442	332	125	382	474	350	254	113	353	273	265	278
25	369	365	140	383	483	351	248	115	338	279	266	278
26	311	369	134	376	479	313	249	354	330	280	265	278
27	445	374	135	383	502	377	243	345	347	280	262	279
28	523	367	134	385	513	370	305	352	345	280	262	280
29	515	338	226	386	---	484	309	350	203	281	263	290
30	523	410	461	356	---	480	321	354	201	279	263	282
31	539	---	379	351	---	347	---	113	---	280	262	---
TOTAL	11789	11499	9792	12780	9280	13142	8570	9245	10358	8646	8251	8262
MEAN	380	383	316	412	331	424	286	298	345	279	266	275
MAX	539	555	522	529	513	534	370	408	459	335	282	300
MIN	255	224	122	351	121	313	117	113	113	201	237	220
AC-FT	23380	22810	19420	25350	18410	26070	17000	18340	20550	17150	16370	16390
MEAN†	302	332	387	356	389	370	354	345	341	295	270	263
CFSM†	1.78	1.95	2.28	2.09	2.29	2.18	2.08	2.03	2.01	1.74	1.59	1.55
IN.†	2.05	2.18	2.63	2.41	2.38	2.51	2.32	2.34	2.24	2.00	1.83	1.73
AC-FT†	18570	19750	23820	21890	21600	22770	21070	21190	20310	18120	16620	15650

CAL YR 1980 TOTAL 131326 MEAN 359 MAX 557 MIN 113 AC-FT 260500 MEAN† 366 CFSM† 2.15 IN.† 29.27 AC-FT† 265300
WTR YR 1981 TOTAL 121614 MEAN 333 MAX 555 MIN 113 AC-FT 241200 MEAN† 333 CFSM† 1.96 IN.† 26.62 AC-FT† 241300

† Adjusted for change in contents in Lemolo Lake.

14314501 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 (274 m) downstream from Clearwater No. 1 diversion dam, 0.4 mi (0.6 km) upstream from Trap Creek, 8.7 mi (14.0 km) east of town of Toketee Falls, and at mile 7.8 (12.6 km).

DRAINAGE AREA.--41.6 mi^2 (107.7 km^2).

PERIOD OF RECORD.--October 1927 to December 1945, March 1946 to current year. 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 (1,177.394 m) National Geodetic Vertical Datum of 1929 (levels by Pacific Power & Light Co.). Prior to Dec. 1, 1953, at two sites about 0.4 mi (0.6 km) downstream at different datums.

REMARKS.--Records good. All records given herein include flow in Clearwater No. 1 power canal, completed in June 1953, which diverts 900 ft (274 m) above station for generation of power and returns water to Clearwater River 2.5 mi (4.0 km) below station.

COOPERATION.--Records of daily power plant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--53 years, 171 ft^3/s (4.843 m^3/s), 55.82 in/yr (1,418 mm/yr), 123,900 acre-ft/yr (153 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 848 ft^3/s (24.0 m^3/s) Dec. 23, 1964, gage height, 7.19 ft (2.192 m); maximum gage height, 7.87 ft (2.399 m) Dec. 23, 1964, long jam; minimum discharge, 0.08 ft^3/s (0.002 m^3/s) Sept. 21, 1977, result of beavers plugging release gate at diversion dam 900 ft (274 m) upstream.

Combined flow, maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Dec. 23, 1964; minimum daily, 91 ft^3/s (2.58 m^3/s) Nov. 4-6, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 181 ft^3/s (5.13 m^3/s) May 24, gage height, 4.36 ft (1.329 m); minimum, 3.8 ft^3/s (0.11 m^3/s) Feb. 24.

Combined flow, maximum discharge, 273 ft^3/s (7.73 m^3/s) May 18; minimum daily, 95 ft^3/s (2.69 m^3/s) May. 29, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	137	151	174	138	160	155	172	153	149	134	133
2	133	133	179	158	144	165	157	169	158	144	134	132
3	137	137	200	168	145	162	156	162	155	141	130	133
4	136	134	192	150	145	164	155	166	148	144	136	133
5	140	134	165	162	148	162	152	156	153	145	136	131
6	132	146	166	164	135	160	154	162	153	144	137	133
7	133	171	141	151	142	159	155	158	160	146	140	147
8	138	166	145	158	149	153	150	156	196	146	136	108
9	135	153	137	160	136	158	154	151	180	144	136	133
10	136	135	175	144	146	164	155	154	156	143	149	133
11	136	133	134	159	143	155	154	154	160	143	114	133
12	137	133	156	148	152	157	155	151	157	141	134	127
13	139	147	138	149	141	151	160	153	163	138	131	128
14	135	137	149	162	173	155	145	152	161	148	131	131
15	143	136	130	159	156	158	154	161	154	139	133	133
16	148	136	155	125	174	158	153	155	159	133	132	126
17	131	136	139	155	188	146	158	183	150	140	132	130
18	138	136	155	144	184	155	159	270	152	138	134	130
19	137	134	151	155	206	160	162	160	156	139	130	125
20	135	133	147	127	182	150	162	158	150	138	140	133
21	135	141	149	170	171	158	166	157	148	138	133	133
22	132	152	160	147	179	152	158	155	151	139	133	127
23	136	160	171	147	188	159	170	160	150	139	126	128
24	135	141	155	149	178	152	169	173	148	137	136	137
25	136	143	231	139	179	151	176	167	146	137	136	126
26	140	143	217	149	156	164	159	160	146	138	125	125
27	139	133	213	179	163	155	163	158	145	136	136	143
28	143	137	199	132	160	148	160	150	147	137	136	154
29	133	157	176	138	---	165	176	95	144	138	130	154
30	135	140	180	152	---	154	168	151	146	145	126	113
31	132	---	172	148	---	155	---	158	---	129	130	---
TOTAL	4231	4254	5128	4722	4501	4865	4770	4987	4645	4356	4126	3952
MEAN	136	142	165	152	161	157	159	161	155	141	133	132
MAX	148	171	231	179	206	165	176	270	196	149	149	154
MIN	131	133	130	125	135	146	145	95	144	129	114	108
CFSM	3.27	3.41	3.97	3.65	3.87	3.77	3.82	3.87	3.73	3.39	3.20	3.17
IN.	3.78	3.80	4.59	4.22	4.02	4.35	4.27	4.46	4.15	3.90	3.69	3.53
AC-FT	8390	8440	10170	9370	8930	9650	9460	9890	9210	8640	8180	7840

CAL YR 1980 TOTAL 58166 MEAN 159 MAX 340 MIN 126 CFSM 3.82 IN 52.01 AC-FT 115400
WTR YR 1981 TOTAL 54537 MEAN 149 MAX 270 MIN 95 CFSM 3.58 IN 48.77 AC-FT 108200

14316001 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 (0.3 km) upstream from Camas Creek, 0.7 mi (1.1 km) east of Big Camas ranger station, 3.2 mi (5.1 km) south of town of Toketee Falls, and at mile 4.7 (7.6 km).

DRAINAGE AREA.--68.8 mi² (178.2 km²).

PERIOD OF RECORD.--October 1947 to current year. 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 (871.277 m) 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 (305 m) upstream at datum 13.72 ft (4.182 m) higher. Aug. 11 to Nov. 3, 1951, nonrecording gage at site 200 ft (61 m) downstream at different datum. Nov. 4, 1951, to Sept. 30, 1956, water-stage recorder at present site at datum 1.92 ft (0.585 m) higher.

REMARKS.--Records good. All records given herein include flow in Fish Creek power canal (diversion began June 18, 1952), which diverts water 2 mi (3 km) above station for power generation at Fish Creek powerplant; diversion discharged to North Umpqua River 600 ft (183 m) downstream from Toketee powerplant.

COOPERATION.--Records of daily powerplant generation furnished by Pacific Power and Light Co.

AVERAGE DISCHARGE.--34 years, 233 ft³/s (6.599 m³/s), 45.99 in/yr (1,168 mm/yr), 168,800 acre-ft/yr (208 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 12,100 ft³/s (343 m³/s) Dec. 22, 1964, gage height, 13.9 ft (4.24 m), from floodmark; minimum, 2.3 ft³/s (0.06 m³/s) Sept. 25, 1957.

Combined flow, maximum discharge, 12,100 ft³/s (343 m³/s) Dec. 22, 1964; minimum daily, 19 ft³/s (0.54 m³/s) July 30, 1979, result of powerplant manipulation.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 1,360 ft³/s (38.5 m³/s) Dec. 25, gage height, 6.51 ft (1.984 m); minimum, 5.8 ft³/s (0.16 m³/s) Oct. 14.

Combined flow, peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1830	1,470	41.6	-	-	Feb. 16	1500	1,350	38.2	-	-
Dec. 25	0630	*1,500	42.5	-	-						

Minimum daily, 29 ft³/s (0.82 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	40	170	331	113	245	245	268	181	100	54	45
2	36	45	1000	296	115	231	242	230	177	96	55	44
3	37	39	1020	266	109	219	225	210	144	97	55	44
4	38	40	725	240	108	233	213	196	151	91	51	43
5	37	40	525	209	105	204	219	191	145	95	52	43
6	38	95	403	200	100	196	208	176	150	102	54	42
7	38	409	312	184	98	190	202	160	181	110	53	41
8	37	380	266	165	95	181	196	159	470	92	52	37
9	36	243	227	160	96	176	199	154	381	85	47	40
10	37	178	202	154	94	167	186	151	316	85	47	39
11	36	124	179	142	92	163	187	144	273	81	46	38
12	56	103	173	134	102	163	195	133	265	81	49	38
13	67	86	156	127	155	161	196	135	275	75	47	38
14	59	78	154	122	364	155	205	135	270	75	47	37
15	52	76	165	123	294	158	225	155	237	96	45	38
16	41	72	212	116	843	171	249	152	221	64	48	36
17	39	69	228	117	738	158	264	173	203	57	49	36
18	45	61	227	112	779	153	287	304	188	64	47	38
19	43	58	216	95	779	169	312	353	185	64	47	37
20	39	56	230	103	624	139	298	316	168	65	48	37
21	36	123	310	102	524	154	292	285	157	60	45	29
22	38	304	433	115	470	191	289	254	150	75	47	39
23	38	297	360	120	424	181	327	240	140	62	45	39
24	39	205	562	114	402	177	333	300	137	64	46	38
25	52	171	1250	117	349	229	299	431	128	59	45	38
26	50	151	847	132	322	244	278	346	122	58	44	47
27	51	125	766	165	288	227	255	301	118	58	43	112
28	43	137	609	149	268	224	254	263	114	57	42	70
29	43	216	505	145	---	259	278	236	108	58	45	55
30	43	211	436	130	---	243	297	213	101	56	48	47
31	42	---	378	116	---	247	---	193	---	56	45	---
TOTAL	1326	4232	13246	4801	8850	6008	7455	6957	5856	2338	1488	1305
MEAN	42.8	141	427	155	316	194	249	224	195	75.4	48.0	43.5
MAX	67	409	1250	331	843	259	333	431	470	110	55	112
MIN	36	39	154	95	92	139	186	133	101	56	42	29
CFSM	.62	2.05	6.21	2.25	4.59	2.82	3.62	3.26	2.83	1.10	.70	.63
IN.	.72	2.29	7.16	2.60	4.79	3.25	4.03	3.76	3.17	1.26	.80	.71
AC-FT	2630	8390	26270	9520	17550	11920	14790	13800	11620	4640	2950	2590

CAL YR 1980 TOTAL 78608 MEAN 215 MAX 2360 MIN 36 CFSM 3.13 IN 42.50 AC-FT 155900
WTR YR 1981 TOTAL 63862 MEAN 175 MAX 1250 MIN 29 CFSM 2.54 IN 34.53 AC-FT 126700

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 (1.0 km) upstream from Copeland Creek, 4.7 mi (7.6 km) west of town of Toketee Falls, and at mile 67.2 (108.1 km).

DRAINAGE AREA.--475 mi² (1,230 km²).

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. Altitude of gage is 1,580 ft (482 m), from river-profile map. Prior to Aug. 1, 1976, on right bank at same datum.

REMARKS.--Records excellent. Considerable fluctuation caused by powerplants upstream; flow slightly regualted by Diamond Lake and by Lemolo Lake (see station 14313000). No diversion above station.

AVERAGE DISCHARGE.--32 years, 1,494 ft³/s (42.31 m³/s), 1,082,000 acre-ft/yr (1.33 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft³/s (1,150 m³/s) Dec. 22, 1964, gage height, 19.1 ft (5.82 m), from floodmark, from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of slope-area measurement of peak flow; minimum, 370 ft³/s (10.5 m³/s) Sept. 30, 1981; minimum daily, 565 ft³/s (16.0 m³/s) Sept. 13, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,470 ft³/s (155 m³/s) Feb. 16, gage height, 9.42 ft (2.871 m); minimum, 370 ft³/s (10.5 m³/s) Sept. 30; minimum daily, 613 ft³/s (17.4 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	904	1060	1760	935	1410	1490	1270	1020	857	658	653
2	771	810	3040	1480	923	1570	1380	1210	1180	793	737	695
3	776	816	3180	1450	923	1450	1390	1100	1140	911	732	653
4	771	732	2450	1440	935	1390	1380	1060	1040	892	737	638
5	732	695	1960	1310	941	1490	1290	1190	1080	880	689	658
6	618	833	1800	1380	917	1380	1360	1080	998	898	737	653
7	700	1510	1500	1290	845	1320	1330	1120	851	898	705	643
8	653	1680	1380	1150	845	1370	1290	1050	1720	874	727	643
9	613	1490	1240	1210	874	1360	1260	1050	1800	857	732	653
10	618	1200	1170	1060	857	1290	1200	1100	1500	857	705	648
11	700	966	1130	1030	839	1190	1240	1090	1310	851	700	638
12	765	1040	1160	1060	929	1200	1270	1050	1340	816	648	638
13	973	754	1100	1010	1020	1100	1280	948	1300	845	679	674
14	941	880	1140	992	1500	1130	1220	960	1170	804	700	643
15	711	954	1090	1030	1420	1160	1260	992	1240	804	663	663
16	732	904	1220	998	3140	1200	1300	1040	1390	782	658	658
17	711	880	1270	979	3290	1120	1270	1060	1240	721	653	648
18	623	804	1250	966	3160	1140	1200	1380	1140	743	658	653
19	727	765	1170	966	3360	1140	1330	1590	1270	771	669	653
20	721	759	1180	966	2850	1110	1280	1380	1120	754	695	653
21	684	851	1240	954	2470	1060	1320	1440	960	705	689	638
22	880	1210	1590	973	2210	1170	1310	1350	1100	727	643	663
23	822	1190	1390	979	2080	1170	1340	966	1050	737	674	658
24	833	1120	1570	960	1980	1170	1350	1120	1130	748	663	658
25	793	1040	4010	960	1830	1220	1350	1490	985	737	669	643
26	759	941	3130	979	1650	1310	1320	1580	973	759	658	648
27	743	979	2710	1050	1640	1450	1240	1450	954	737	669	874
28	929	966	2010	1130	1630	1420	1260	1360	966	748	658	716
29	917	1160	1950	1100	---	1450	1270	1310	765	737	674	711
30	917	1050	1880	1020	---	1420	1320	1230	721	754	674	695
31	892	---	1570	973	---	1350	---	966	---	743	653	---
TOTAL	23790	29883	53540	34605	45993	39710	39100	36982	34453	24740	21206	19962
MEAN	767	996	1727	1116	1643	1281	1303	1193	1148	798	684	665
MAX	973	1680	4010	1760	3360	1570	1490	1590	1800	911	737	874
MIN	613	695	1060	954	839	1060	1200	948	721	705	643	638
AC-FT	47190	59270	106200	68640	91230	78760	77550	73350	68340	49070	42060	39590

CAL YR 1980 TOTAL 450254 MEAN 1230 MAX 8260 MIN 613 AC-FT 893100
WTR YR 1981 TOTAL 403964 MEAN 1107 MAX 4010 MIN 613 AC-FT 801300

14316700 STEAMBOAT CREEK NEAR GLIDE, OR

LOCATION.--Lat 43°21'00", long 122°43'40", in N½ sec.32, T.25½ S., R.1 E., Douglas County, Hydrologic Unit 17100301, in Umpqua National Forest, on right bank in Canton Creek Forest Service Park, 200 ft (61 m) downstream from Canton Creek, 19 mi (31 km) northeast of Glide, and at mile 0.5 (0.8 km).

DRAINAGE AREA.--227 mi² (588 km²).

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 (343.982 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Public Roads). Oct. 7, 1955, to June 13, 1956, nonrecording gage at site 100 ft (30 m) upstream at same datum.

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

AVERAGE DISCHARGE.--25 years, 724 ft³/s (20.50 m³/s), 43.31 in/yr (1,100 mm/yr), 524,500 acre-ft/yr (647 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,440 m³/s) Dec. 22, 1964, gage height, 25.6 ft (7.80 m), from floodmark, from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of slope-area measurement at 17.96 ft (5.474 m); minimum, 30 ft³/s (0.85 m³/s) Sept. 15-17, 1973.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft³/s (227 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1900	*11,000	312	*10.80	3.292	Feb. 16	1530	9,740	276	10.16	3.097
Dec. 25	0700	10,400	295	10.51	3.203						

Minimum, 34 ft³/s (0.96 m³/s) Oct. 7-11, Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	69	665	684	381	558	1690	385	327	166	77	46
2	39	129	7630	578	334	497	1390	338	295	160	77	47
3	37	86	6290	502	306	457	1150	306	266	153	77	46
4	36	68	4000	439	285	530	1030	288	246	147	75	44
5	36	61	1880	389	292	488	1010	275	235	143	74	44
6	35	444	1310	349	285	466	945	272	235	149	72	43
7	34	2000	921	320	269	444	793	252	243	175	69	42
8	34	1720	705	295	255	410	695	240	787	149	67	40
9	34	1320	587	272	243	381	933	243	1170	137	64	39
10	34	842	553	252	232	349	933	235	810	133	61	37
11	34	457	544	240	232	330	879	223	597	127	58	39
12	52	292	578	226	237	313	1600	213	520	127	58	37
13	129	214	597	215	299	323	1540	205	721	123	64	37
14	161	205	544	205	1150	302	1310	200	867	119	58	36
15	104	349	695	197	1200	320	1280	288	689	116	56	36
16	73	244	1060	192	4930	627	1070	435	558	114	55	34
17	61	187	921	190	3340	727	945	475	466	110	55	34
18	55	156	732	182	3470	607	879	1180	405	106	53	34
19	52	136	602	173	3850	520	862	1560	397	105	52	39
20	49	122	653	166	3030	479	727	1220	365	101	53	40
21	48	148	873	166	1950	439	653	879	320	99	52	39
22	46	1010	1250	166	1460	592	597	679	288	95	52	40
23	45	871	1100	168	1150	648	592	553	269	94	52	42
24	45	854	1930	185	1040	573	602	597	246	92	50	40
25	54	584	8200	182	945	1350	516	1250	229	90	49	39
26	72	422	3450	338	827	1590	516	1100	213	88	47	53
27	133	326	2310	653	716	1150	479	787	200	87	47	401
28	81	311	1920	716	632	915	444	617	190	84	47	235
29	63	512	1550	776	---	994	427	506	180	82	47	133
30	57	895	1040	582	---	1330	414	427	173	80	46	97
31	54	---	833	452	---	1600	---	369	---	79	46	---
TOTAL	1826	15034	55723	10450	33340	20309	26901	16597	12507	3630	1810	1913
MEAN	58.9	501	1798	337	1191	655	897	535	417	117	58.4	63.8
MAX	161	2000	8200	776	4930	1600	1690	1560	1170	175	77	401
MIN	34	61	544	166	232	302	414	200	173	79	46	34
CFSM	.26	2.21	7.92	1.49	5.25	2.89	3.95	2.36	1.84	.52	.26	.28
IN.	.30	2.46	9.13	1.71	5.46	3.33	4.41	2.72	2.05	.59	.30	.31
AC-FT	3620	29820	110500	20730	66130	40280	53360	32920	24810	7200	3590	3790

CAL YR 1980 TOTAL 235985 MEAN 645 MAX 13200 MIN 34 CFSM 2.84 IN 38.67 AC-FT 468100
WTR YR 1981 TOTAL 200040 MEAN 548 MAX 8200 MIN 34 CFSM 2.41 IN 32.78 AC-FT 396800

14318000 LITTLE RIVER AT PEEL, OR

LOCATION.--Lat 43°15'10", long 12°01'30", in NW¼ sec.2, T.27 S., R.3 W., Douglas County, Hydrologic Unit 17100301, on left bank 0.6 mi (1.0 km) southeast of Peel, 0.9 mi (1.5 km) downstream from Cavitt Creek, and at mile 6.3 (10.1 km).

DRAINAGE AREA.--177 mi^2 (458 km^2).

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 828.33 ft (252.475 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Small diversions for rural domestic use and irrigation above station.

AVERAGE DISCHARGE.--27 years, 463 ft^3/s (13.11 m^3/s), 35.52 in/yr (902 mm/yr), 335,400 acre-ft/yr (414 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,100 ft^3/s (598 m^3/s) Dec. 11, 1956, gage height, 19.63 ft (5.983 m), from rating curve extended above 5,900 ft^3/s (167 m^3/s) on basis of slope-area measurement at gage height 16.55 ft (5.044 m); minimum, 14 ft^3/s (0.40 m^3/s) Sept. 2, 9, 10, 28, 29, 1967, Sept. 25-27, 1974, Aug. 18, 19, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 22, 23, 1953, reached a stage of 20.6 ft (6.28 m), from floodmark, discharge, 22,700 ft^3/s (643 m^3/s), from rating curve extended above 5,900 ft^3/s (167 m^3/s) on basis of slope-area measurement at gage height 16.55 ft (5.044 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 6,000 ft^3/s (170 m^3/s) and maximum discharge, 7,110 ft^3/s (201 m^3/s) Dec. 2, gage height, 11.19 ft (3.411 m); minimum, 15 ft^3/s (0.42 m^3/s) Sept. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	41	334	356	303	323	931	202	230	89	35	22
2	20	63	3580	306	264	289	842	189	210	85	35	21
3	19	44	3450	267	239	267	736	178	189	80	37	21
4	18	37	2480	233	219	422	663	181	171	75	34	20
5	17	33	1310	210	239	398	637	176	161	74	33	20
6	17	58	925	194	260	363	589	202	161	77	33	20
7	17	519	642	178	236	341	497	194	163	105	31	19
8	17	489	480	168	216	320	434	178	360	85	30	17
9	17	442	398	156	199	293	542	178	497	72	28	17
10	17	331	386	145	181	267	551	166	363	68	26	17
11	17	202	410	138	178	251	502	154	286	65	24	17
12	29	140	390	129	183	236	658	145	267	63	24	17
13	69	109	352	121	213	260	694	138	299	60	25	17
14	96	96	306	117	919	245	598	134	356	58	25	16
15	62	117	323	113	668	254	565	208	310	55	25	16
16	44	98	418	111	1570	502	506	371	270	55	24	15
17	35	84	398	111	1700	515	459	360	242	52	23	15
18	31	72	538	103	1150	430	422	769	213	51	23	16
19	28	66	289	100	1350	367	394	1150	208	49	23	18
20	26	60	334	94	1280	331	356	907	186	48	24	20
21	25	62	375	94	931	296	331	642	163	46	24	19
22	24	338	442	98	715	345	299	489	152	45	23	19
23	23	310	418	111	565	331	276	394	142	44	23	19
24	23	406	484	156	565	306	270	434	131	44	21	19
25	30	267	1910	142	528	613	251	819	121	44	21	18
26	39	205	1240	216	467	758	289	668	113	42	20	23
27	82	166	1050	356	410	668	293	515	109	40	21	171
28	49	163	950	426	363	551	267	414	101	37	21	113
29	38	222	694	603	---	608	242	345	98	35	21	80
30	33	406	533	459	---	752	222	299	92	37	21	55
31	30	---	450	360	---	836	---	260	---	37	21	---
TOTAL	1012	5646	26069	6371	16091	12738	14316	11459	6364	1817	799	897
MEAN	32.6	188	841	206	575	411	477	370	212	58.6	25.8	29.9
MAX	96	519	3580	603	1700	836	931	1150	497	105	37	171
MIN	17	33	289	94	178	236	222	134	92	35	20	15
CFSM	.18	1.06	4.75	1.16	3.25	2.32	2.70	2.09	1.20	.33	.15	.17
IN.	.21	1.19	5.48	1.34	3.38	2.68	3.01	2.41	1.34	.38	.17	.19
AC-FT	2010	11200	51710	12640	31920	25270	28400	22730	12620	3600	1580	1780

CAL YR 1980 TOTAL 134889 MEAN 369 MAX 6000 MIN 17 CFSM 2.09 IN 28.35 AC-FT 267600
WTR YR 1981 TOTAL 103579 MEAN 284 MAX 3580 MIN 15 CFSM 1.61 IN 21.77 AC-FT 205400

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 (122 m) downstream from county bridge, 3.0 mi (4.8 km) west of Winchester, and at mile 1.8 (2.9 km).

DRAINAGE AREA.--1,344 mi² (3,481 km²).

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. WRD Oreg. 1972: 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 372.97 ft (113.681 m) 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 (7.7 km) upstream at different datums. Aug. 27, 1954, to Aug. 12, 1965, water-stage recorder on right bank at same datum.

REMARKS.--Water-discharge records excellent. Diurnal fluctuation caused by upstream powerplants; slight regulation by Lemolo Lake (see station 14313000) and Diamond Lake. Several small diversions for irrigation above station.

AVERAGE DISCHARGE.--38 years, 3,697 ft³/s (104.7 m³/s), 37.36 in/yr (949 mm/yr), 2,678,000 acre-ft/yr (3.30 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s (4,250 m³/s) Dec. 22, 1964, gage height, 34.2 ft (10.42 m), from floodmark; minimum, 383 ft³/s (10.8 m³/s) Sept. 25, 1960; minimum daily, 578 ft³/s (16.4 m³/s) Sept. 14, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 29, 1950, reach a stage of 23.2 ft (7.07 m), from floodmark, at site 4.8 mi (7.7 km) upstream at different datum, discharge, 88,000 ft³/s (2,490 m³/s). Flood of Nov. 23, 1953, reach a stage of 28.4 ft (8.66 m), from floodmarks, present site and datum, discharge, 95,300 ft³/s (2,640 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20,000 ft³/s (566 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	2300	*34,400	974	*14.09	4.295	Feb. 16	2330	25,900	733	11.71	3.569
Dec. 25	1400	26,200	742	11.80	3.597						

Minimum, 624 ft³/s (17.7 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	764	1110	3240	3960	2640	3540	7040	2430	2110	1210	901	715
2	847	1290	16700	3570	2360	3150	6350	2260	2120	1330	824	722
3	862	1170	26400	3170	2160	3100	5510	2150	2100	1240	878	735
4	862	1080	20200	2920	2070	3660	5000	1990	2010	1340	886	728
5	854	941	10200	2730	2140	3460	4620	1990	1840	1300	886	688
6	794	950	7650	2470	2240	3290	4440	2100	1890	1290	832	722
7	688	4160	5790	2470	2100	3120	4080	1950	1770	1380	870	682
8	742	6180	4270	2260	1950	2950	3640	1950	2070	1380	824	682
9	735	5070	3640	2110	1850	2820	4140	1880	5220	1280	839	675
10	669	4330	3170	2040	1850	2720	4480	1850	4160	1220	832	675
11	675	2620	3080	1890	1760	2520	4160	1870	3240	1210	801	682
12	809	2050	3080	1830	1790	2380	5390	1790	2790	1190	786	669
13	1030	1780	3000	1770	1910	2550	6150	1710	3000	1140	728	669
14	1530	1400	2810	1680	4720	2310	5300	1610	3520	1170	772	682
15	1390	1690	2750	1710	6050	2360	4890	1720	3120	1090	786	675
16	1010	1750	3430	1690	9260	3390	4540	2410	2940	1090	750	675
17	950	1550	3660	1650	16700	3900	4160	2520	2790	1060	735	695
18	886	1440	3290	1590	10800	3460	3790	3500	2430	991	722	682
19	764	1290	2970	1570	13300	3150	3610	6330	2260	991	728	688
20	870	1200	2860	1520	12800	2950	3460	6070	2330	1020	735	695
21	862	1170	3030	1330	9150	2730	3250	4620	2050	983	786	735
22	809	2530	4210	1560	7220	2870	3070	3870	1780	941	764	715
23	1020	3150	4390	1610	5980	3200	2940	3180	1950	925	708	722
24	974	3570	4310	1700	5830	3020	2940	2810	1780	958	735	722
25	1000	2890	19600	1730	5240	4060	2840	4660	1800	958	715	715
26	991	2330	14600	1800	4770	6440	2860	5360	1630	950	722	735
27	1120	1970	9710	2840	4060	5410	2780	4500	1570	950	722	1190
28	1110	1890	8600	3610	3870	4620	2580	3590	1530	925	722	1910
29	1210	1910	6490	4850	---	4600	2500	3130	1500	909	715	1230
30	1170	3660	5510	3940	---	5720	2470	2870	1270	893	728	1050
31	1120	---	4540	3100	---	5980	---	2460	---	917	735	---
TOTAL	29117	68121	217180	72870	146570	109430	122980	91130	70570	34231	24167	23560
MEAN	939	2271	7006	2351	5235	3530	4099	2940	2352	1104	780	785
MAX	1530	6180	26400	4850	16700	6440	7040	6330	5220	1380	901	1910
MIN	669	941	2750	1520	1760	2310	2470	1610	1270	893	708	669
CFSM	.70	1.69	5.21	1.75	3.90	2.63	3.05	2.19	1.75	.82	.58	.58
IN.	.81	1.89	6.01	2.02	4.06	3.03	3.40	2.52	1.95	.95	.67	.65
AC-FT	57750	135100	430800	144500	290700	217100	243900	180800	140000	67900	47940	46730

CAL YR 1980	TOTAL	1201113	MEAN	3282	MAX	43700	MIN	669	CFSM	2.44	IN 33.25	AC-FT	2382000
WTR YR 1981	TOTAL	1009926	MEAN	2767	MAX	26400	MIN	669	CFSM	2.06	IN 27.95	AC-FT	2003000

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.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C Aug. 9, 10; minimum, 2.5°C Dec. 14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	9.0	8.5	7.0	6.0	8.5	7.5	6.0	5.5	7.5	6.0
2	16.5	15.0	10.0	9.0	8.0	6.0	7.5	6.5	5.5	5.0	7.5	6.5
3	16.5	15.0	11.0	9.5	8.5	8.0	6.5	6.0	5.0	4.5	7.5	7.0
4	16.5	14.5	11.0	10.0	8.5	7.0	6.5	6.0	5.0	4.5	7.5	7.0
5	16.5	15.0	11.5	10.5	7.0	6.0	7.0	6.5	5.5	5.0	7.5	6.5
6	16.5	15.0	11.0	11.0	6.0	5.5	6.5	6.0	6.0	5.5	7.0	6.0
7	17.0	15.0	11.0	11.0	5.5	4.5	6.0	5.5	6.5	6.0	7.0	6.5
8	16.0	14.5	11.0	10.0	4.5	3.5	5.5	5.5	6.0	4.5	7.5	6.5
9	15.0	13.5	10.0	9.5	3.5	3.0	6.0	5.5	4.5	4.0	8.0	7.0
10	14.5	13.0	9.5	8.5	4.0	3.5	6.5	6.0	5.0	4.5	8.0	7.5
11	13.5	12.5	8.5	7.5	4.0	3.5	6.5	6.0	6.0	5.0	8.5	7.5
12	13.0	12.0	7.5	6.5	4.0	3.5	6.0	5.0	7.5	6.0	9.5	8.5
13	12.5	12.0	6.5	5.5	3.5	3.0	5.0	5.0	7.5	7.0	9.5	8.5
14	12.0	11.5	6.0	5.5	3.0	2.5	5.0	4.5	8.0	7.5	10.0	8.5
15	11.5	10.5	5.5	5.0	3.5	3.0	5.0	5.0	8.0	7.5	9.5	9.0
16	11.5	10.5	5.5	5.5	4.5	3.5	5.5	5.0	9.0	8.0	9.0	8.5
17	11.0	10.5	6.5	5.5	5.0	4.5	6.0	5.0	8.5	8.0	8.5	7.5
18	11.0	10.0	6.5	6.0	5.0	5.0	7.0	6.0	8.5	8.0	8.0	7.0
19	11.0	10.0	6.0	6.0	5.5	5.0	7.5	7.0	9.0	8.0	8.5	7.0
20	11.0	9.5	6.5	6.0	6.0	5.5	7.0	6.5	8.0	7.0	9.0	8.0
21	11.5	10.5	7.0	6.5	7.5	6.0	7.5	6.5	7.0	6.5	9.0	8.5
22	10.5	9.5	6.5	6.5	8.0	7.5	8.5	7.5	8.0	6.5	9.5	8.5
23	10.0	9.0	7.5	6.5	7.5	7.0	8.5	8.0	8.0	7.0	9.5	9.0
24	9.5	9.0	7.5	7.0	7.5	7.0	8.0	7.5	8.0	7.5	9.0	8.5
25	9.0	8.5	7.0	7.0	9.5	7.5	7.5	7.0	7.5	7.0	9.5	8.5
26	9.0	8.5	7.0	6.0	9.5	9.0	7.5	6.5	7.0	6.5	9.5	8.5
27	10.0	9.0	6.5	6.0	9.5	9.0	7.0	6.5	7.5	6.0	10.0	8.5
28	10.0	9.0	7.0	6.5	9.0	7.5	6.5	6.5	7.5	6.5	10.0	8.0
29	9.5	8.5	7.5	7.0	7.5	7.0	7.0	6.5	---	---	9.5	8.5
30	8.5	8.0	7.5	7.0	8.0	7.0	6.5	6.0	---	---	8.5	7.5
31	8.5	8.0	---	---	8.5	8.0	6.5	6.0	---	---	8.0	7.0
MONTH	17.0	8.0	11.5	5.0	9.5	2.5	8.5	4.5	9.0	4.0	10.0	6.0

14319500 NORTH UMPQUA RIVER AT WINCHESTER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	7.0	16.0	14.5	17.0	15.5	20.5	18.0	23.0	21.0	20.0	19.0
2	8.0	7.0	15.0	13.5	17.5	16.0	22.5	19.0	22.0	20.5	19.5	18.0
3	9.0	7.5	14.0	12.0	18.0	16.5	24.0	20.5	21.5	20.0	20.0	17.5
4	9.5	7.5	13.5	12.0	19.0	17.5	24.0	21.5	22.0	20.0	19.5	18.0
5	9.0	7.5	12.5	11.5	19.0	18.0	23.5	21.5	23.0	20.0	20.0	17.5
6	9.0	7.0	12.0	11.0	18.5	17.0	21.5	19.0	24.0	21.0	20.0	17.5
7	9.0	7.0	12.5	11.5	17.5	16.0	19.5	18.0	25.0	22.5	21.0	18.0
8	8.0	7.0	12.5	12.0	16.0	14.5	20.0	17.5	26.0	23.5	21.0	18.5
9	8.5	7.0	12.5	12.0	14.5	13.0	20.0	17.5	26.5	24.0	20.5	19.0
10	9.0	7.5	13.5	11.5	15.0	12.5	20.0	17.5	26.5	24.0	20.0	18.0
11	8.5	7.5	15.5	13.0	15.0	13.5	20.5	17.5	26.0	24.0	20.5	18.0
12	8.5	7.5	16.0	13.5	15.0	14.0	20.5	18.5	25.5	23.5	21.0	18.5
13	9.5	7.5	16.5	14.5	15.0	13.5	21.0	18.0	25.0	23.0	21.0	18.5
14	11.0	8.0	15.5	14.5	14.5	12.0	21.5	19.0	25.0	22.5	21.0	18.5
15	10.5	9.5	14.5	13.5	16.0	13.0	22.5	20.0	24.5	22.5	21.0	18.5
16	11.5	9.5	13.5	12.5	16.0	15.0	23.5	20.5	24.5	21.5	21.0	19.0
17	12.5	10.0	13.0	12.0	16.0	14.0	23.0	21.0	25.0	22.0	20.5	19.0
18	13.0	10.5	12.5	12.0	16.0	15.0	23.0	21.0	24.5	22.0	19.5	18.0
19	11.5	10.5	12.0	10.5	16.5	15.0	23.5	21.0	22.5	21.0	19.5	18.0
20	11.5	10.0	11.0	10.0	17.5	16.0	24.0	21.5	22.5	20.5	18.5	17.0
21	11.5	10.5	11.5	10.0	19.0	17.0	23.0	21.0	22.0	20.0	17.0	15.5
22	13.5	10.5	12.5	10.5	19.0	18.0	22.5	20.5	22.5	20.0	16.5	14.5
23	14.5	12.5	14.5	12.0	19.0	17.0	21.5	20.0	22.5	20.5	16.0	14.0
24	13.5	11.5	15.0	14.0	19.5	17.0	20.0	19.5	22.0	20.0	15.5	14.0
25	11.5	10.5	15.5	14.0	20.5	18.5	21.5	19.0	21.5	19.0	15.0	13.5
26	11.0	10.0	15.0	13.0	19.5	17.5	23.0	19.5	21.5	19.5	14.0	13.5
27	11.0	10.0	15.5	12.5	19.5	16.5	25.0	22.0	21.0	19.0	14.0	13.0
28	13.0	10.5	16.5	13.5	20.5	17.5	25.0	22.5	21.0	19.0	13.0	12.5
29	15.5	13.0	16.5	15.0	21.5	18.5	24.0	21.5	20.5	18.5	14.5	13.0
30	16.0	15.0	16.5	15.0	20.5	19.5	23.0	21.0	20.0	19.0	14.5	13.0
31	---	---	16.5	15.0	---	---	23.5	20.5	20.5	18.5	---	---
MONTH	16.0	7.0	16.5	10.0	21.5	12.0	25.0	17.5	26.5	18.5	21.0	12.5

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 (0.5 km) upstream from county road bridge, 0.9 mi (1.4 km) northeast of Nonpareil, and at mile 26.7 (43.0 km).

DRAINAGE AREA.--88.6 mi² (229.5 km²).

PERIOD OF RECORD.--July 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage is 699.22 ft (213.122 m) National Geodetic Vertical Datum of 1929 (Douglas County Survey bench mark).

REMARKS.--Records excellent. No regulation. Only minor diversions by pumping for irrigation above station.

AVERAGE DISCHARGE.--5 years, 170 ft³/s (4.814 m³/s), 26.06 in/yr (662 mm/yr), 123,200 acre-ft/yr (152 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,040 ft³/s (114 m³/s) Dec. 3, 1980, gage height, 8.56 ft (2.609 m); minimum, 5.3 ft³/s (0.15 m³/s) Aug. 17-19, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,700 ft³/s (76.5 m³/s) and maximum discharge, 4,040 ft³/s (114 m³/s) Dec. 3, gage height, 8.56 ft (2.609 m); minimum, 5.7 ft³/s (0.16 m³/s) Sept. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	27	245	203	182	203	546	102	135	51	10	10
2	12	54	1590	175	155	180	475	96	120	44	11	12
3	12	35	2170	157	135	166	417	92	106	41	12	12
4	11	27	1760	137	122	261	355	94	96	37	12	10
5	11	23	895	124	133	238	324	92	88	35	11	9.2
6	11	69	657	114	137	214	295	110	98	34	9.2	9.2
7	11	327	446	102	126	203	264	98	92	41	8.4	7.5
8	11	243	327	94	114	191	243	90	161	37	8.4	7.1
9	12	284	256	88	108	173	358	94	186	32	7.5	6.2
10	12	233	221	84	100	157	349	88	170	32	7.1	6.2
11	12	148	198	77	98	148	361	82	143	29	7.1	6.6
12	24	106	184	73	92	139	565	77	139	29	8.4	6.6
13	29	82	168	68	100	133	557	73	193	28	10	6.6
14	44	96	152	64	253	131	446	69	221	27	11	6.2
15	34	135	157	61	235	139	374	116	191	25	11	6.2
16	25	104	182	59	572	339	315	173	168	23	11	5.7
17	20	84	170	57	651	333	270	157	146	21	10	5.7
18	17	69	150	54	674	272	238	240	128	23	10	5.7
19	15	61	133	52	869	231	214	371	124	21	10	8.4
20	15	54	141	49	879	203	193	346	112	20	14	12
21	14	52	150	49	603	186	180	267	98	19	13	11
22	14	88	196	56	449	216	164	214	90	17	11	12
23	14	108	210	66	352	205	148	180	84	17	11	13
24	14	152	267	122	400	189	148	221	75	17	10	11
25	24	124	985	110	368	346	137	697	69	18	10	10
26	31	100	674	139	315	449	141	505	62	15	9.2	17
27	44	84	557	210	267	397	137	346	62	13	8.4	207
28	27	96	449	333	231	321	128	261	57	11	8.4	82
29	21	173	352	400	---	374	120	212	52	11	8.4	49
30	18	275	284	284	---	509	112	182	49	10	7.5	32
31	18	---	238	221	---	512	---	155	---	10	9.2	---
TOTAL	589	3513	14544	3882	8720	7758	8574	5900	3515	788	305.2	603.1
MEAN	19.0	117	469	125	311	250	286	190	117	25.4	9.85	20.1
MAX	44	327	2170	400	879	512	565	697	221	51	14	207
MIN	11	23	133	49	92	131	112	69	49	10	7.1	5.7
CFSM	.21	1.32	5.29	1.41	3.51	2.82	3.23	2.14	1.32	.29	.11	.23
IN.	.25	1.47	6.11	1.63	3.66	3.26	3.60	2.48	1.48	.33	.13	.25
AC-FT	1170	6970	28850	7700	17300	15390	17010	11700	6970	1560	605	1200

CAL YR 1980 TOTAL 70968.6 MEAN 194 MAX 2460 MIN 9.3 CFSM 2.19 IN 29.80 AC-FT 140800
WTR YR 1981 TOTAL 58691.3 MEAN 161 MAX 2170 MIN 5.7 CFSM 1.82 IN 24.64 AC-FT 116400

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 (5.6 km) south of Elkton, 8.3 mi (13.4 km) upstream from Elk Creek, and at mile 56.9 (91.6 km).

DRAINAGE AREA.--3,683 mi² (9,539 km²).

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 (27.560 m) National Geodetic Vertical Datum of 1929. Prior to June 29, 1972, at site 2,400 ft (732 m) downstream at same datum. See WSP 1931 or 2135 for history of changes prior to June 29, 1972.

REMARKS.--Water-discharge records good. Regulation by powerplants on North Umpqua River ordinarily does not affect discharge at this station. Diversions for irrigation above station.

AVERAGE DISCHARGE.--76 years, 7,436 ft³/s (210.6 m³/s), 27.42 in/yr (696 mm/yr), 5,387,000 acre-ft/yr (6.64 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 265,000 ft³/s (7,500 m³/s) Dec. 23, 1964, gage height, 51.95 ft (15.834 m), from floodmarks, minimum observed, 640 ft³/s (18.1 m³/s) July 18, 1926.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least December 1861, that of Dec. 2, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 52,000 ft³/s (1,470 m³/s) and maximum discharge, 86,000 ft³/s (2,436 m³/s) Dec. 4, gage height, 25.90 ft (7.894 m); minimum, 866 ft³/s (24.5 m³/s) Sept. 14-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	966	1350	5190	7660	6830	7250	12800	3750	3560	1680	1030	928
2	958	1350	11500	6900	5780	6410	13100	3530	3180	1600	1030	912
3	971	1440	70600	5960	5040	5990	11700	3360	3140	1670	1010	903
4	1020	1500	72400	5410	4550	6170	10400	3220	2950	1590	1000	916
5	1010	1400	32100	4940	4290	7480	9280	2990	2770	1650	1040	918
6	1010	1300	21100	4530	4490	7220	8570	3050	2530	1600	1030	894
7	998	1350	15800	4170	4400	6590	7960	3060	2600	1570	994	904
8	950	6010	11500	3990	4070	6110	7090	3010	2610	1640	1010	880
9	907	8340	8980	3660	3780	5680	6630	2920	4030	1690	984	884
10	975	6880	7330	3480	3550	5310	7450	2830	6520	1610	969	884
11	933	5380	6320	3270	3470	4980	7350	2760	5250	1520	969	884
12	952	3650	5930	3070	3280	4590	8620	2710	4310	1470	949	884
13	1030	2910	5730	2940	3340	4830	10700	2580	3970	1440	927	877
14	1200	2440	5390	2820	4420	5060	9970	2460	4420	1380	908	869
15	1610	1970	4970	2630	12600	4840	8640	2370	4880	1400	905	866
16	1780	2170	4860	2600	11900	5670	7920	2600	4390	1300	921	876
17	1590	2210	5690	2600	30500	7970	7070	3450	4070	1280	919	866
18	1370	2020	5660	2400	21400	7700	6440	3800	3730	1260	901	885
19	1230	1860	5120	2400	22900	6870	5920	6220	3330	1210	894	901
20	1130	1690	4740	2400	24600	6490	5720	9950	3170	1180	894	895
21	1090	1590	4790	2400	20000	6320	5270	8030	3090	1210	894	892
22	1110	1580	5320	2600	15500	6070	5050	6330	2770	1170	926	897
23	1070	3540	6500	2800	12600	6210	4680	5270	2410	1170	918	902
24	1140	5190	6780	3200	11300	6120	4480	4360	2530	1100	883	895
25	1200	5220	22800	3000	11100	6110	4400	4840	2310	1140	888	916
26	1190	4240	35300	3200	10100	10300	4280	8580	2290	1130	887	937
27	1230	3460	20600	3800	9070	11000	4350	7930	2080	1130	898	1070
28	1290	2930	17300	5900	8000	9910	4160	6410	2020	1100	894	1640
29	1370	2770	13400	9620	---	9030	3890	5340	1970	1090	886	2210
30	1490	3140	10900	10700	---	10900	3650	4630	1910	1040	902	1740
31	1430	---	9270	8620	---	11900	---	4150	---	1040	898	---
TOTAL	36200	90880	463870	133670	282860	217080	217540	136490	98790	42060	29158	29925
MEAN	1168	3029	14960	4312	10100	7003	7251	4403	3293	1357	941	998
MAX	1780	8340	72400	10700	30500	11900	13100	9950	6520	1690	1040	2210
MIN	907	1300	4740	2400	3280	4590	3650	2370	1910	1040	883	866
CFSM	.32	.82	4.06	1.17	2.74	1.90	1.97	1.20	.89	.37	.26	.27
IN.	.37	.92	4.69	1.35	2.86	2.19	2.20	1.38	1.00	.42	.29	.30
AC-FT	71800	180300	920100	265100	561100	430600	431500	270700	195900	83430	57830	59360

CAL YR 1980	TOTAL	2377033	MEAN	6495	MAX	92100	MIN	907	CFSM	1.76	IN 24.01	AC-FT	4715000
WTR YR 1981	TOTAL	1778523	MEAN	4873	MAX	72400	MIN	866	CFSM	1.32	IN 17.96	AC-FT	3528000

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued
(National stream quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: April 1971 to current year.

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, 28.0°C Aug. 10, 11; minimum, 4.0°C Dec. 13-17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT												
14...	1030	1060	90	7.4	15.0	9.7	K16	22	27	.00	6.2	2.7
NOV												
19...	1445	1840	86	7.6	8.0	12.2	K11	K12	28	2.0	7.2	2.5
DEC												
15...	1000	4690	88	7.9	4.0	13.2	K18	K13	30	.00	7.3	2.9
JAN												
15...	1500	2500	88	7.2	6.5	12.2	< 1	< 1	33	.00	9.0	2.6
FEB												
03...	1030	4870	95	7.5	6.0	12.4	K200	26	37	7.0	9.2	3.3
MAR												
25...	1130	5920	97	7.5	11.0	11.2	110	K19	34	.00	8.1	3.3
APR												
20...	1200	5950	80	7.4	14.0	10.4	K11	K1	32	1.0	8.3	2.7
MAY												
21...	1700	8010	80	7.4	13.5	10.5	67	26	28	3.0	6.9	2.6
JUN												
24...	1500	2550	102	7.9	22.0	9.6	K1	144	37	.00	9.0	3.6
JUL												
15...	1600	1400	84	8.1	24.5	9.3	K6	K1	29	.00	7.3	2.5
AUG												
26...	1430	857	76	8.0	22.5	9.0	--	380	25	.00	5.5	2.7
SEP												
24...	1700	813	78	8.1	18.5	9.9	K18	K6	25	.00	5.6	2.6

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT												
14...	5.8	2.8	33	< 1.0	6.1	.1	< .10	.050	.42	.060	.37	.37
NOV												
19...	4.1	.9	26	5.4	3.5	.1	< .10	.020	.28	.020	.28	.28
DEC												
15...	4.0	.8	37	3.8	3.8	.1	.23	.040	.34	.020	1.30	1.5
JAN												
15...	5.0	.7	41	4.4	3.8	.1	.16	.060	.57	.030	.67	.83
FEB												
03...	4.8	.7	32	2.5	3.6	.1	.14	.030	.36	.040	1.00	1.1
MAR												
25...	4.9	.6	36	< 1.0	4.0	.1	< .10	--	.42	.050	.36	.37
APR												
20...	4.0	.7	31	< 1.0	2.4	.1	< .10	.040	.40	.060	.41	.45
MAY												
21...	3.6	.6	25	< 1.0	2.3	< .1	< .10	.060	.26	.100	.25	.26
JUN												
24...	5.0	1.1	41	< 1.0	2.4	< .1	< .10	.050	.67	.070	.61	.68
JUL												
15...	5.5	.7	34	< 1.0	3.3	< .1	< .10	.060	.66	.190	.60	.66
AUG												
26...	5.7	1.1	37	< 1.0	3.5	.1	.12	.150	.48	.130	.60	.73
SEP												
24...	5.9	1.2	31	< 5.0	4.0	.1	< .10	< .060	.36	< .060	.42	.43

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	TURBIDITY (NTU)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT												
14...	.070	.000	1.4	.1	--	19	63	64	.25	1	2.9	81
NOV												
19...	.050	.060	--	--	1.5	18	59	57	1.7	4	20	82
DEC												
15...	.040	.040	--	--	3.3	17	63	63	5.6	5	63	88
JAN												
15...	.020	.010	2.0	--	--	18	65	69	1.2	4	27	80
FEB												
03...	.020	.080	--	--	4.2	17	65	61	12	5	66	97
MAR												
25...	.020	.040	--	--	3.7	17	75	61	6.9	9	144	88
APR												
20...	.030	.040	2.2	.2	--	16	--	54	2.9	4	64	92
MAY												
21...	.020	.040	--	--	3.6	16	67	48	5.7	8	173	95
JUN												
24...	.070	.090	5.0	.3	--	21	74	68	1.6	4	28	53
JUL												
15...	.020	.040	--	--	--	15	57	--	.80	3	11	50
AUG												
26...	.010	.020	--	--	2.4	19	57	61	1.4	16	37	61
SEP												
24...	.030	.040	--	--	2.1	20	59	63	.90	3	6.6	76

DATE	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM DISSOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)
OCT										
14...	2	2	20	<100	<1	<1	<10	10	<1	1
JAN										
15...	1	2	10	<100	<1	1	<10	<10	<3	<1
APR										
20...	2	1	20	<100	3	--	<10	20	<3	2
JUN										
24...	6	--	90	<100	<1	1	10	<10	<3	2

DATE	COPPER, DISSOLVED (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)
OCT									
14...	4	--	30	120	3	2	3	10	<.1
JAN									
15...	2	7	30	190	<1	5	3	10	<.1
APR									
20...	3	13	80	310	2	4	8	10	<.1
JUN									
24...	3	5	60	170	4	17	2	20	<.1

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, DISSOLVED (UG/L AS NI)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT									
14...	<.1	<1	2	<1	<1	<1	1	10	10
JAN									
15...	.1	3	--	<1	<1	<1	<1	30	60
APR									
20...	.1	1	2	<1	<1	1	<1	30	30
JUN									
24...	--	<1	6	<1	<1	<1	<1	8	10

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 19,80	MAR 25,81	MAY 21,81	JUN 24,81	AUG 26,81	SEP 24,81
TIME	1445	1150	1700	1500	1430	1700
TOTAL CELLS/ML	170	100	1700	610	530	110
DIVERSITY: DIVISION	0.0	0.0	1.1	0.6	0.4	1.0
.CLASS	0.0	0.0	1.1	0.6	0.4	1.0
..ORDER	1.5	1.0	1.7	1.0	0.4	1.5
...FAMILY	1.5	1.4	1.8	1.0	0.4	1.5
....GENUS	1.5	1.4	2.0	1.3	0.7	1.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)												
.BACILLARIOPHYCEAE												
..ACHNANTHALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	14	1	--	-	--	-	--	-
....COCCONEIS	13	8	--	-	14	1	--	-	--	-	29#	25
....RHOICOSPHENIA	--	-	--	-	42	2	--	-	41	8	--	-
..BACILLARIALES												
...NITZSCHIACEAE												
....NITZSCHIA	13	8	39#	38	70	4	39	6	--	-	--	-
..EPITHEMIALES												
...EPITHEMIACEAE												
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	29#	25
..EUPODISCALES												
...COSCINODISCACEAE												
....CYCLOTELLA	39#	23	--	-	14	1	450#	74	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	26	4	--	-	--	-
..FRAGILARIALES												
...FRAGILARIACEAE												
....DIATOMA	--	-	--	-	130	7	--	-	--	-	--	-
....FRAGILARIA	100#	62	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	14	1	--	-	--	-	--	-
..NAVICULALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	13	13	--	-	--	-	--	-	--	-
...GOMPHONEMACEAE												
....GOMPHONEIS	--	-	--	-	14	1	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	28	2	13	2	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	51#	50	110	7	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...DICTYOSPHAERIACEAE												
....DICTYOSPHAERIUM	--	-	--	-	56	3	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	14	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	14	1	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	470#	87	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	27	5	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	57#	50
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	14	1	77	13	--	-	--	-
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	1100#	68	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

14321000 UMPQUA RIVER NEAR ELKTON, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.5	18.0	17.0	19.0	18.0	22.5	20.5	24.5	23.0	21.5	21.0
2	9.0	8.0	18.0	17.0	20.0	18.0	24.0	21.0	23.0	22.5	21.5	20.5
3	9.5	8.5	17.0	15.5	20.5	18.5	25.5	22.5	23.0	22.0	21.5	20.5
4	10.0	8.5	16.0	15.0	21.0	19.0	25.5	23.5	23.0	22.0	21.5	20.5
5	10.5	9.5	15.5	14.5	20.5	20.0	25.0	23.5	23.5	22.0	21.5	20.5
6	10.0	9.5	15.0	14.0	21.0	20.0	24.0	22.0	25.0	23.0	22.0	20.5
7	10.0	9.5	15.0	14.0	20.5	19.5	22.5	21.0	25.5	24.0	22.5	21.0
8	10.0	9.5	14.5	14.0	19.5	18.5	22.5	20.5	27.0	25.0	22.0	21.0
9	10.0	9.5	15.0	14.0	19.0	18.0	22.5	21.0	27.5	26.0	22.5	21.5
10	10.0	9.5	16.0	14.0	18.0	16.5	22.0	20.0	28.0	26.5	22.0	21.0
11	10.0	9.5	16.5	15.0	17.5	16.0	21.5	19.5	28.0	26.5	22.0	21.0
12	10.0	9.5	17.5	15.5	17.5	16.5	22.0	20.0	27.0	25.5	22.5	21.5
13	10.5	9.0	18.0	16.5	17.5	16.5	23.0	20.5	25.5	24.5	22.5	21.5
14	11.5	9.5	17.5	17.0	18.0	16.0	23.5	21.0	25.5	24.5	22.5	21.5
15	12.0	11.0	17.0	16.5	18.5	16.5	24.5	22.0	25.0	24.0	22.5	21.5
16	12.5	12.0	17.0	15.5	18.5	17.5	24.0	22.5	25.0	23.5	22.5	21.5
17	13.5	12.0	16.5	16.0	19.0	16.5	24.0	22.5	25.0	24.0	22.5	21.5
18	14.5	13.0	16.0	15.0	18.5	18.0	23.5	22.0	25.0	24.0	21.5	21.0
19	14.0	13.0	15.0	14.0	18.5	17.5	24.0	22.5	24.0	22.5	21.5	20.5
20	14.0	13.0	14.0	13.0	20.0	18.5	25.0	23.0	23.5	22.5	21.0	20.0
21	13.5	13.0	13.5	12.5	21.0	18.5	25.0	23.5	23.5	22.0	20.0	19.5
22	15.0	13.0	13.5	12.5	21.0	20.0	24.5	23.0	23.5	22.5	19.5	18.5
23	15.0	14.5	15.0	13.5	21.5	19.5	23.5	22.0	23.5	22.5	18.5	17.5
24	16.0	14.5	15.5	14.5	22.5	20.5	22.0	21.0	23.0	22.5	18.5	17.0
25	15.5	14.5	17.0	15.5	23.0	21.5	22.5	21.0	22.5	21.5	17.5	16.5
26	14.5	13.5	17.0	16.0	22.5	21.0	24.5	22.0	22.5	21.0	17.5	16.5
27	13.5	12.5	17.0	16.0	21.5	20.0	25.5	23.5	22.0	21.0	17.0	16.5
28	15.0	12.5	17.5	16.0	22.5	20.0	25.5	24.0	22.0	21.0	16.5	16.0
29	16.5	14.5	18.0	17.5	23.5	21.0	25.0	23.5	21.5	20.5	16.5	15.5
30	18.0	15.5	19.0	17.5	23.0	22.0	24.0	23.0	21.0	20.5	16.0	15.0
31	---	---	19.5	17.0	---	---	24.5	23.0	21.5	20.0	---	---
MONTH	18.0	8.0	19.5	12.5	23.5	16.0	25.5	19.5	28.0	20.0	22.5	15.0

14324500 WEST FORK MILLICOMA RIVER NEAR ALLEGANY, OR

LOCATION.--Lat 43°28'35", long 124°03'20", in SW¼NW¼ sec.19, T.24 S., R.11 W., Coos County, Hydrologic Unit 17100304, on left bank at highway bridge, 40 ft (12 m) upstream from Daggett Creek, 3.8 mi (6.1 km) north of Allegany, and at mile 6.82 (10.97 km).

DRAINAGE AREA.--46.9 mi² (121.5 km²), at cableway 300 ft (91 m) downstream.

PERIOD OF RECORD.--September 1954 to September 1981 (discontinued).

REVISED RECORDS.--WSP 1718: 1955-59. WRD Oreg. 1973: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 76.95 ft (23.454 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. No regulation. Only minor diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 249 ft³/s (7.052 m³/s), 72.10 in/yr (1,831 mm/yr), 180,400 acre-ft/yr (222 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s (229 m³/s) Nov. 24, 1960, gage height, 15.86 ft (4.834 m); minimum, 1.8 ft³/s (0.051 m³/s) Sept. 5, 9, 1965, Sept. 8-10, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in January or November 1953 reached a stage of about 17.9 ft (5.46 m), from information by local resident. Flood in December 1981 reached a stage of 15.45 ft (4.71 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1530	*7,870	223	*14.35	4.374	Dec. 25	0600	4,580	130	10.84	3.304

Minimum, 6.1 ft³/s (0.17 m³/s) Oct. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	15	442	195	165	181	785	54	70	46	12	9.6
2	8.1	25	4800	168	140	159	507	54	64	44	13	8.8
3	7.7	27	3830	149	120	159	372	54	57	40	14	9.6
4	7.4	21	1980	127	106	303	281	56	52	37	14	8.4
5	7.4	18	1090	112	149	252	245	62	49	34	12	7.7
6	7.1	159	907	99	163	204	212	66	51	33	12	7.7
7	7.1	683	597	91	143	183	188	56	54	33	12	7.7
8	7.4	330	391	83	125	165	185	54	258	32	12	7.4
9	7.1	380	278	78	110	146	310	68	414	30	11	7.1
10	7.1	255	214	72	101	135	265	62	292	29	11	6.7
11	7.1	146	176	68	85	122	512	56	190	28	10	6.7
12	10	97	151	62	87	110	683	51	165	26	9.6	6.7
13	31	72	130	59	265	117	468	46	406	25	9.6	6.7
14	35	64	112	56	744	115	313	48	446	24	9.6	6.4
15	22	61	99	52	398	140	245	76	258	23	10	7.1
16	15	48	89	49	775	214	219	110	202	22	10	6.7
17	12	44	82	48	708	209	181	103	170	22	10	6.7
18	9.6	39	76	46	843	174	161	188	140	21	10	9.2
19	8.1	35	70	44	1150	159	143	188	138	21	10	15
20	7.7	33	66	42	833	149	125	143	132	19	10	17
21	7.1	49	91	49	498	153	115	115	120	18	10	13
22	6.7	233	854	83	337	261	103	97	108	17	9.6	11
23	6.4	165	494	174	265	278	95	83	99	17	9.2	9.2
24	6.7	157	1670	258	306	271	95	120	87	17	9.2	8.8
25	8.4	130	3290	214	261	601	83	258	78	17	9.2	8.1
26	15	101	1420	265	258	442	80	233	70	17	9.2	21
27	31	85	1200	320	252	295	76	168	64	16	9.2	161
28	27	91	713	351	212	225	68	132	57	14	8.8	110
29	19	387	438	406	---	236	64	106	52	14	8.4	83
30	15	592	313	275	---	344	59	93	49	13	9.2	45
31	13	---	236	204	---	644	---	80	---	13	8.8	---
TOTAL	387.3	4542	26299	4299	9599	7146	7238	3080	4392	762	322.6	639.0
MEAN	12.5	151	848	139	343	231	241	99.4	146	24.6	10.4	21.3
MAX	35	683	4800	406	1150	644	785	258	446	46	14	161
MIN	6.4	15	66	42	85	110	59	46	49	13	8.4	6.4
CFSM	.27	3.22	18.1	2.96	7.31	4.93	5.14	2.12	3.11	.53	.22	.45
IN.	.31	3.60	20.86	3.41	7.61	5.67	5.74	2.44	3.48	.60	.26	.51
AC-FT	768	9010	52160	8530	19040	14170	14360	6110	8710	1510	640	1270

CAL YR 1980 TOTAL 77512.5 MEAN 212 MAX 4800 MIN 5.8 CFSM 4.52 IN 61.48 AC-FT 153700
WTR YR 1981 TOTAL 68705.9 MEAN 188 MAX 4800 MIN 6.4 CFSM 4.01 IN 54.49 AC-FT 136300

14324580 PONY CREEK AT COOS BAY, OR

LOCATION.--Lat 43°22'50", long 124°14'24", in SE¼SE¼ sec.21, T.25 S., R.13 W., Coos County, Hydrologic Unit 17100304, at Ocean Boulevard in town of Coos Bay, 250 ft (76 m) below Lower Pony Creek Dam, and at mile 2.2 (3.5 km).

DRAINAGE AREA.--3.90 mi^2 (10.1 km^2).

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

GAGE.--Water-stage recorder. Datum of gage is 12.23 ft (3.728 m) National Geodetic Vertical Datum of 1929 (Coos Bay-North Bend Water Board bench mark).

REMARKS.--Records good. Flow regulated by Upper and Lower Pony Creek Reservoirs (see stations 14324550 and 14324560) and diversion above station from Lower Pony Creek Reservoir to municipal water supply of Coos Bay-North Bend (station 14323570). Approximately 4.6 ft^3/s (0.13 m^3/s) is diverted to the Coos Bay-North Bend water treatment plant, maximum capacity, 10.8 ft^3/s (0.31 m^3/s).

AVERAGE DISCHARGE.--6 years, 8.78 ft^3/s (0.249 m^3/s), 30.57 in/yr (776 mm/yr), 6,360 acre-ft/yr (7.84 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89 ft^3/s (2.52 m^3/s) Feb. 7, 1978, gage height, 4.79 ft (1.460 m); minimum, 0.01 ft^3/s (0.001 m^3/s) Feb. 11-20, Apr. 27, 29, May 12, 13, June 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73 ft^3/s (2.07 m^3/s) Dec. 5, gage height, 4.47 ft (1.362 m); minimum, 0.02 ft^3/s (0.001 m^3/s) on many days during October to January, April to September.

MONTHLY DISCHARGE OF PONY CREEK, PONY CREEK DIVERSION AND MONTHLY CHANGE IN CONTENTS OF RESERVOIRS NEAR COOS BAY, OR, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

Runoff in acre-feet

	14324580 Pony Creek at Coos Bay	14324570 Diversion from Lower Pony Cr. Reservoir to City of Coos Bay	14324560 Lower Pony Creek Reservoir Change in Contents	14324550 Upper Pony Creek Reservoir Change in Contents	Pony Creek flow adjusted for Regulation and Diversion	Runoff in Inches
October	268	327	-186	-290	119	0.57
November	356	353	-36	-419	254	1.22
December	403	304	+23	+849	1,580	7.60
CAL YR 1980	3,530	3,830	-221	-310	6,830	32.84
January	56	304	+8	+300	668	3.21
February	491	320	+2	+10	823	3.96
March	483	347	+3	+10	843	4.05
April	200	359	-45	+120	634	3.05
May	1.3	329	+16	+70	416	2.00
June	6.0	391	+1	-80	318	1.53
July	2.0	527	+43	-350	222	1.07
August	8.8	363	+5	-260	117	.56
September	27	294	+5	-140	186	.89
WTR YR 1981	2,300	4,220	-161	-180	6,180	29.72

14324580 PONY CREEK AT COOS BAY, OR--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	16	.07	.03	7.5	8.8	18	.03	.02	.06	.02	.02
2	.04	17	1.9	.03	7.2	7.5	15	.02	.02	.06	.02	.03
3	.04	16	32	.03	5.1	7.5	11	.02	.02	.06	.02	.03
4	.04	14	27	.03	4.5	11	10	.02	.02	.05	.02	.03
5	.05	15	46	.02	6.7	9.4	10	.02	.02	.06	.02	.05
6	.07	22	38	.03	5.9	7.7	6.3	.02	.02	.05	.02	.06
7	.05	39	30	.03	6.7	7.5	.42	.02	.04	.05	.02	.04
8	.05	21	8.4	.02	4.4	8.2	.04	.02	.10	.05	.02	.03
9	.05	11	.03	.02	4.2	6.7	3.9	.02	.18	.05	.03	.02
10	.04	7.9	.03	.02	3.0	5.5	5.3	.02	.17	.05	1.0	.02
11	.06	.03	.03	.02	2.2	5.5	6.3	.02	.18	.03	.05	.02
12	2.8	.02	.02	.02	2.2	4.5	4.1	.02	.19	.03	.22	.02
13	5.5	.02	.02	.02	12	4.2	3.5	.02	.21	.03	2.2	.03
14	1.0	.02	.02	.02	16	3.8	1.9	.02	.22	.02	.06	.03
15	3.2	.02	.06	.02	13	7.5	2.1	.02	.24	.02	.03	.03
16	.19	.02	.08	.02	16	7.0	1.7	.03	.27	.02	.05	.04
17	8.4	.03	.09	.02	12	4.4	1.0	.03	.25	.02	.32	.04
18	18	.02	.04	.02	11	3.8	.03	.02	.24	.02	.03	.05
19	17	.02	.02	.03	12	4.2	.03	.02	.24	.02	.02	.11
20	17	.02	.04	.06	11	4.2	.03	.02	.15	.02	.05	.80
21	15	.04	.09	.06	8.8	7.9	.04	.02	.02	.02	.02	1.8
22	7.0	.02	.03	.06	9.8	8.4	.03	.02	.02	.02	.02	.85
23	.03	.02	.02	.05	9.8	8.6	.03	.02	.02	.02	.02	2.2
24	.03	.02	.80	.03	14	6.7	.02	.03	.02	.03	.03	2.8
25	.02	.02	5.5	.03	12	15	.02	.03	.02	.03	.02	.22
26	.02	.02	5.1	.04	11	13	.02	.02	.02	.03	.02	.30
27	.02	.03	3.8	.06	9.8	11	.02	.02	.02	.02	.02	2.6
28	.02	.02	3.1	4.5	9.8	9.0	.02	.02	.02	.02	.02	.63
29	8.2	.06	1.0	5.7	---	10	.02	.02	.02	.02	.02	.24
30	16	.07	.04	7.2	---	11	.02	.02	.03	.02	.02	.25
31	15	---	.03	9.9	---	14	---	.02	---	.02	.02	---
TOTAL	134.96	179.44	203.36	28.14	247.6	243.5	100.89	.67	3.01	1.02	4.45	13.39
MEAN	4.35	5.98	6.56	.91	8.84	7.85	3.36	.022	.10	.033	.14	.45
MAX	18	39	46	9.9	16	15	18	.03	.27	.06	2.2	2.8
MIN	.02	.02	.02	.02	2.2	3.8	.02	.02	.02	.02	.02	.02
AC-FT	268	356	403	56	491	483	200	1.3	6.0	2.0	8.8	27

CAL YR 1980 TOTAL 1782.17 MEAN 4.87 MAX 49 MIN .02 AC-FT 3530
WTR YR 1981 TOTAL 1160.43 MEAN 3.18 MAX 46 MIN .02 AC-FT 2300

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 (1.0 km) downstream from highway bridge at Powers, 0.9 mi (1.4 km) upstream from Woodward Creek, and at mile 64.5 (103.8 km).

DRAINAGE AREA.--169 mi^2 (438 km^2).

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 (60.274 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1938, nonrecording gage at various sites within 1 mi (2 km) of present site at different datums.

REMARKS.--Records good. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--62 years (water years 1917-26, 1930-81), 781 ft^3/s (22.12 m^3/s), 62.76 in/yr (1,594 mm/yr), 565,800 acre-ft/yr (698 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,900 ft^3/s (1,380 m^3/s) Dec. 22, 1964, gage height, 26.51 ft (8.080 m), from floodmarks, from rating curve extended above 19,000 ft^3/s (538 m^3/s) on basis of contracted-opening measurement at gage height 18.14 ft (5.529 m) and slope-area measurement of peak flow; minimum, 12 ft^3/s (0.34 m^3/s) Sept. 22-25, 27-30, 1939, Oct. 5, 1961, Oct. 16-20, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 9,300 ft^3/s (263 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 2	1630	*22,500	637	*16.01	4.880	Dec. 25	0500	14,200	402	12.32	3.755

Minimum, 16 ft^3/s (0.45 m^3/s) Oct. 5-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	107	942	657	830	787	1710	260	187	110	43	28
2	19	227	14100	557	689	678	1480	246	176	103	43	28
3	18	112	11400	491	591	626	1290	234	163	99	43	27
4	18	78	6900	434	515	1030	1080	227	155	93	42	26
5	17	65	3500	392	538	906	927	227	148	90	41	24
6	17	434	2590	356	528	752	805	224	148	90	41	23
7	17	3150	1810	330	473	668	695	203	150	93	37	22
8	17	2520	1300	308	434	606	616	203	305	88	37	22
9	17	1670	995	294	396	547	652	215	360	82	36	21
10	17	1060	798	270	364	501	581	203	277	80	35	21
11	17	652	684	253	338	464	940	192	227	78	33	21
12	22	456	615	237	316	425	1860	181	221	74	32	21
13	84	349	556	221	601	404	1510	170	364	73	32	20
14	509	312	509	212	2550	388	1140	176	451	69	33	20
15	195	287	504	201	1490	442	913	203	349	69	33	19
16	94	244	615	195	2340	817	775	291	298	69	33	20
17	66	216	583	189	2110	700	647	270	273	67	32	19
18	54	188	499	181	1600	596	566	482	237	64	32	21
19	47	172	434	173	2330	528	501	496	218	61	32	33
20	41	157	401	170	2140	528	447	425	198	60	32	31
21	38	652	535	305	1570	519	404	368	181	60	31	26
22	36	1590	1310	1210	1180	769	372	323	168	58	31	25
23	33	877	860	1560	968	689	345	291	163	55	30	23
24	32	746	3790	1360	1240	606	338	284	150	54	30	22
25	35	594	9000	940	1050	1590	319	338	141	54	30	22
26	36	474	3250	996	1030	2370	380	312	134	52	30	25
27	38	392	2690	1740	1080	2230	368	273	132	50	28	740
28	40	365	1830	2240	927	1520	330	246	123	46	28	425
29	35	546	1320	1960	---	1470	301	227	116	44	28	215
30	32	897	1010	1400	---	1530	280	218	112	43	28	136
31	29	---	799	1050	---	1610	---	201	---	43	30	---
TOTAL	1689	19589	76129	20882	30198	27296	22572	8209	6325	2171	1046	2126
MEAN	54.5	653	2456	674	1079	881	752	265	211	70.0	33.7	70.9
MAX	509	3150	14100	2240	2530	2370	1860	496	451	110	43	740
MIN	17	65	401	170	316	388	280	170	112	43	28	19
CFSM	.32	3.86	14.5	3.99	6.39	5.21	4.45	1.57	1.25	.41	.20	.42
IN.	.37	4.31	16.76	4.60	6.65	6.01	4.97	1.81	1.39	.48	.23	.47
AC-FT	3350	38850	151000	41420	59900	54140	44770	16280	12550	4310	2070	4220

CAL YR 1980 TOTAL 288774 MEAN 789 MAX 14100 MIN 17 CFSM 4.67 IN 63.56 AC-FT 572800
WTR YR 1981 TOTAL 218232 MEAN 598 MAX 14100 MIN 17 CFSM 3.54 IN 48.04 AC-FT 432900

14326800 NORTH FORK COQUILLE RIVER NEAR FAIRVIEW, OR

LOCATION.--Lat 43°11'03", long 124°04'33", in SW¼SE¼ sec.35, T.27 S., R.12 W., Coos County, Hydrologic Unit 17100305, on right bank 0.2 mi (0.3 km) downstream from Lost Creek, 2.2 mi (3.5 km) south of Fairview, and at mile 22.2 (35.7 km).

DRAINAGE AREA.--73.9 mi² (191.4 km²).

PERIOD OF RECORD.--October 1963 to September 1981 (discontinued).

REVISED RECORDS.--WRD Oreg. 1972: 1964-67, 1969-71(M,P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 79.72 ft (24.299 m) National Geodetic Vertical Datum of 1929 (from stadia survey). Prior to Aug. 17, 1978, at site 0.5 mi (0.8 km) downstream at datum 16.38 ft (4.993 m) lower with supplementary water-stage recorder and crest-stage gage at present site used during periods of backwater.

REMARKS.--Records fair. No regulation. Several diversions for irrigation above station.

AVERAGE DISCHARGE.--18 years, 281 ft³/s (7.958 m³/s), 51.57 in/yr (1,310 mm/yr), 203,600 acre-ft/yr (251 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,760 ft³/s (220 m³/s) Mar. 2, 1972; maximum gage height, 18.80 ft (5.730 m), previous site and datum, Jan. 8, 1976, backwater from ponding in valley below; maximum gage height unaffected by backwater, 18.03 ft (5.496 m), previous site and datum, Jan. 8, 1976; minimum discharge, 2.0 ft³/s (0.057 m³/s) Sept. 9, 10, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1981 reached a stage of 14.86 ft (4.529 m) from flood mark, discharge, 8,350 ft³/s (236 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	-	*5,270	149	*11.83	3.606	Dec. 25	0830	3,540	100	10.14	3.091

Minimum, 4.4 ft³/s (0.12 m³/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	12	320	295	266	301	792	90	93	54	15	13
2	5.8	23	3000	256	231	266	665	90	86	51	16	13
3	5.5	21	2200	228	206	253	544	90	79	48	17	12
4	5.3	17	1800	203	183	375	434	95	72	44	17	11
5	5.3	15	1300	183	222	307	375	100	68	44	16	9.8
6	4.8	52	1000	166	225	270	330	110	68	41	14	9.3
7	4.6	336	700	151	195	247	286	100	72	41	13	8.6
8	4.6	173	550	140	176	225	266	95	275	39	13	8.0
9	4.5	160	440	129	160	200	320	110	326	36	13	8.8
10	4.6	173	350	119	148	183	289	100	234	35	12	8.4
11	4.7	93	292	111	140	166	323	90	176	34	11	8.0
12	7.0	64	247	104	129	154	509	85	151	33	11	8.2
13	18	48	214	97	234	145	484	80	237	31	11	7.6
14	27	40	190	93	595	140	379	90	260	29	11	7.8
15	20	38	166	88	410	148	326	120	200	28	12	7.8
16	14	36	151	84	916	231	317	140	173	28	12	7.4
17	12	32	135	81	827	206	273	130	154	27	12	6.8
18	11	30	124	75	614	176	240	200	135	26	11	8.4
19	9.5	26	117	73	726	157	220	200	129	25	12	18
20	9.1	28	109	70	726	151	198	170	129	23	12	18
21	8.6	60	106	86	553	154	183	140	111	22	11	15
22	8.4	180	193	186	438	208	170	119	99	21	11	14
23	8.2	150	173	298	390	195	157	106	97	20	10	14
24	8.0	110	792	289	553	193	154	119	86	20	11	12
25	11	100	2550	231	443	476	143	276	79	20	10	12
26	16	80	1170	237	426	456	130	237	73	19	9.3	19
27	23	65	924	286	410	372	120	183	70	18	8.8	180
28	20	80	660	430	350	313	110	148	64	18	8.4	82
29	15	130	505	585	---	350	100	124	59	17	10	73
30	13	380	410	406	---	488	98	114	55	15	11	41
31	12	---	343	320	---	614	---	102	---	15	13	---
TOTAL	326.2	2752	21231	6100	10892	8120	8935	3953	3908	922	374.5	661.9
MEAN	10.5	91.7	685	197	389	262	298	128	130	29.7	12.1	22.1
MAX	27	380	3000	585	916	614	792	276	326	54	17	180
MIN	4.5	12	106	70	129	140	98	80	55	15	8.4	6.8
CFSM	.14	1.24	9.26	2.66	5.26	3.54	4.03	1.73	1.76	.40	.16	.30
IN.	.16	1.38	10.67	3.07	5.48	4.08	4.49	1.99	1.96	.46	.19	.33
AC-FT	647	5460	42110	12100	21600	16110	17720	7840	7750	1830	743	1310

CAL YR 1980 TOTAL 79764.1 MEAN 218 MAX 3000 MIN 3.9 CFSM 2.95 IN 40.10 AC-FT 158200
WTR YR 1981 TOTAL 68175.6 MEAN 187 MAX 3000 MIN 4.5 CFSM 2.53 IN 34.27 AC-FT 135200

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 (2.3 km) upstream from Pacific Power and Light Co. diversion dam, 1.8 mi (2.9 km) northwest of Prospect, and at mile 173.4 (279.0 km).

DRAINAGE AREA.--312 mi² (808 km²).

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. Altitude of gage is 2,620 ft (799 m), from river-profile map. Prior to Feb. 17, 1912, nonrecording gage at several sites within a few hundred feet upstream at various datums.

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

AVERAGE DISCHARGE.--61 years (water years 1909-11, 1924-81), 816 ft³/s (23.11 m³/s), 35.52 in/yr (902 mm/yr), 591,200 acre-ft/yr (729 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s (634 m³/s) Dec. 22, 1964, gage height, 11.55 ft (3.520 m), from floodmark, from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of slope-area measurement at 16,600 ft³/s (470 m³/s); minimum observed, 200 ft³/s (5.66 m³/s) Nov. 20, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,700 ft³/s (76.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 25	1430	2,800	79.3	3.92	1.195	Feb. 16	2030	*3,080	87.2	*4.13	1.259

Minimum, not determined, occurred during period of no gage-height record; minimum daily, 300 ft³/s (8.49 m³/s) Sept. 13-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	356	527	865	515	824	784	722	596	463	346	310
2	337	360	1420	799	509	784	752	678	583	452	342	310
3	337	356	1970	752	503	760	737	636	564	441	337	310
4	332	346	1610	715	497	799	715	616	551	436	337	310
5	332	346	1110	671	509	737	745	603	545	447	332	310
6	332	441	908	643	491	715	737	596	564	474	337	310
7	332	1030	730	623	480	693	715	576	583	480	332	310
8	332	857	671	596	480	671	700	557	1350	441	332	310
9	332	700	664	583	474	650	715	557	1050	431	328	310
10	332	564	623	564	469	636	678	545	816	420	330	310
11	332	480	589	545	491	629	664	527	730	415	330	310
12	390	441	557	533	503	623	671	521	700	415	330	310
13	436	415	545	521	583	623	657	509	776	400	330	300
14	458	415	539	509	1350	609	657	509	791	395	330	300
15	405	410	545	503	1060	629	693	545	730	390	330	300
16	375	400	603	497	2010	700	715	570	685	385	330	300
17	360	395	636	503	2130	643	737	583	657	385	330	300
18	351	390	636	503	2140	636	752	857	629	380	330	300
19	351	385	623	491	2360	629	807	998	643	380	330	300
20	346	380	616	486	1890	629	799	865	609	375	320	300
21	346	405	700	491	1560	623	784	768	576	370	310	300
22	342	807	989	539	1370	664	768	707	557	365	310	300
23	342	722	971	557	1240	643	791	671	545	365	310	300
24	346	623	952	521	1190	623	824	760	533	360	310	310
25	390	539	2270	503	1060	722	776	980	515	360	310	330
26	390	503	1950	539	989	784	799	874	503	356	310	380
27	426	474	1680	603	917	752	730	784	497	356	310	450
28	380	486	1450	629	865	715	700	730	486	356	310	400
29	365	539	1190	576	---	791	707	685	474	356	310	360
30	360	603	1060	551	---	768	730	650	469	351	310	330
31	360	---	952	527	---	768	---	623	---	351	310	---
TOTAL	11186	15168	30286	17938	28635	21472	22039	20802	19307	12351	10053	9580
MEAN	361	506	977	579	1023	693	735	671	644	398	324	319
MAX	458	1030	2270	865	2360	824	824	998	1350	480	346	450
MIN	332	346	527	486	469	609	657	509	469	351	310	300
CFSM	1.16	1.62	3.13	1.86	3.28	2.22	2.36	2.15	2.06	1.28	1.04	1.02
IN.	1.33	1.81	3.61	2.14	3.41	2.56	2.63	2.48	2.30	1.47	1.20	1.14
AC-FT	22190	30090	60070	35580	56800	42590	43710	41260	38300	24500	19940	19000

CAL YR 1980 TOTAL 268541 MEAN 734 MAX 6400 MIN 332 CFSM 2.35 IN 32.02 AC-FT 532700
WTR YR 1981 TOTAL 218817 MEAN 599 MAX 2360 MIN 300 CFSM 1.92 IN 26.09 AC-FT 434000

NOTE.--No gage-height record Aug. 20 to Sept. 30.

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 (183 m) downstream from Prospect No. 1 powerplant, 1.4 mi (2.3 km) downstream from Mill Creek, 2.0 mi (3.2 km) southwest of Prospect, 2.1 mi (3.4 km) upstream from South Fork Rogue River, and at mile 169.4 (272.6 km).

DRAINAGE AREA.--379 mi² (982 km²).

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. Datum of gage is 1,964.56 ft (598.798 m) National Geodetic Vertical Datum of 1929 (Pacific Power and Light Co. bench mark). Prior to September 1927 nonrecording gage at site 1,000 ft (305 m) upstream, above powerplants, at different datum, also concurrent nonrecording gage on headrace to obtain equivalent combined flow.

REMARKS.--Water-discharge records good. Small fluctuations caused by powerplant 600 ft (183 m) above station. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--30 years, 1,232 ft³/s (34.89 m³/s), 892,600 acre-ft/yr (1,101 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,900 ft³/s (309 m³/s) Jan. 18, 1971, gage height, 7.62 ft (2.323 m), from high-water mark; minimum, 205 ft³/s (5.81 m³/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 (3.78 m) Dec. 22, 1964, from floodmarks, discharge, 25,000 ft³/s (708 m³/s), from records for station above Prospect (see station 14328000) and for station below South Fork Rogue River near Prospect (see station 14335000) after adjusting for estimated intervening tributary inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,940 ft³/s (140 m³/s) Feb. 17, gage height, 4.97 ft (1.515 m) caused by regulation of diversion gates upstream; minimum, 355 ft³/s (10.1 m³/s) July 31, caused by regulation of diversion gates upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	719	837	1090	1420	1060	1410	1390	1340	1210	996	842	715
2	702	856	1940	1340	1060	1370	1360	1300	1200	978	837	705
3	794	831	2440	1300	1040	1360	1350	1250	1190	966	831	729
4	788	825	2080	1270	1020	1390	1320	1220	1160	955	831	774
5	794	818	1670	1250	1010	1330	1340	1210	1160	955	831	774
6	788	943	1480	1220	1010	1320	1340	1200	1180	990	821	764
7	788	1490	1310	1200	1010	1300	1330	1170	1190	1030	815	759
8	782	1400	1240	1180	1010	1270	1300	1160	1670	972	815	754
9	806	1290	1230	1150	1000	1240	1290	1160	1610	949	810	759
10	782	1120	1190	1120	1000	1240	1270	1130	1420	943	805	764
11	776	1010	1150	1100	1040	1230	1270	1120	1340	931	805	754
12	887	966	1110	1090	1040	1220	1270	1110	1300	926	805	754
13	920	940	1090	1060	1110	1230	1260	1100	1370	920	805	744
14	1010	933	1070	1050	1810	1210	1250	1090	1380	914	800	744
15	926	933	1090	1040	1660	1220	1290	1150	1340	903	800	744
16	849	913	1190	1040	2340	1310	1310	1170	1270	903	789	744
17	831	900	1210	1050	2720	1240	1340	1190	1190	892	789	744
18	794	900	1190	1050	2680	1240	1370	1460	1140	886	754	744
19	794	887	1190	1040	2890	1220	1410	1590	1240	875	720	754
20	794	881	1190	1030	2420	1230	1390	1460	1180	881	720	744
21	794	913	1270	1060	2040	1210	1370	1370	1130	870	720	754
22	782	1370	1550	1090	1880	1270	1370	1320	1120	870	720	754
23	776	1310	1520	1130	1860	1240	1410	1290	1120	864	720	749
24	788	1160	1480	1110	1840	1220	1420	1360	1110	853	715	754
25	856	1070	2790	1060	1650	1290	1370	1580	1070	853	710	754
26	868	1060	2390	1090	1590	1370	1390	1460	1040	848	710	769
27	907	1010	2120	1160	1500	1340	1330	1390	1030	837	710	972
28	843	1020	1920	1180	1460	1300	1310	1370	1020	831	715	909
29	831	1100	1740	1190	---	1380	1330	1320	1010	831	710	810
30	837	1190	1640	1120	---	1370	1340	1290	1010	821	710	739
31	837	---	1510	1090	---	1370	---	1240	---	826	710	---
TOTAL	25443	30876	47080	35280	43750	39940	40090	39570	36400	28069	23875	22931
MEAN	821	1029	1519	1138	1563	1288	1336	1276	1213	905	770	764
MAX	1010	1490	2790	1420	2890	1410	1420	1590	1670	1030	842	972
MIN	702	818	1070	1030	1000	1210	1250	1090	1010	821	710	705
AC-FT	50470	61240	93380	69980	86780	79220	79520	78490	72200	55670	47360	45480

CAL YR 1980 TOTAL 477732 MEAN 1305 MAX 7510 MIN 691 AC-FT 947600
WTR YR 1981 TOTAL 413304 MEAN 1132 MAX 2890 MIN 702 AC-FT 819800

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to September 1981 (discontinued).
pH: November 1976 to September 1981 (discontinued).
WATER TEMPERATURES: October 1968 to current year.
DISSOLVED OXYGEN: October 1979 to September 1981 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: November 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year), discontinued.

INSTRUMENTATION.--Water-quality monitor and automatic pumping sediment sampler since November 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 73 micromhos Sept. 22, 1980; minimum recorded, 28 micromhos 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, and Jan. 29, 30, 1980.
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 (16,140 tonnes) Dec. 15, 1977; minimum daily, 0 tons (0 tonnes) on many days each year. Maximum daily (period October 1979 to April 1981), 5,570 tons (5,050 tonnes) Jan. 13, 1980; minimum daily, 0 tons (0 tonnes) on several days in October and December 1979, Nov. 15-21, 28, Dec. 1, 1980, Jan. 19, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 68 micromhos Sept. 8; minimum, 37 micromhos Dec. 25, Feb. 17.
pH: Maximum recorded, 8.3 units Aug. 10, may have been higher during period of no record in July and August; minimum, 7.3 units Dec. 25, 26.
WATER TEMPERATURES: Maximum, 16.0°C Aug. 9; minimum, 0.5°C Dec. 8, 13.
DISSOLVED OXYGEN: Maximum, 13.6 mg/l Dec. 8, Feb. 21; minimum, 8.2 mg/l Aug. 6.
SEDIMENT CONCENTRATIONS: Maximum daily mean (November to April), 82 mg/l Feb. 17; minimum daily mean, 0 mg/l Nov. 15-21, 28, Dec. 1, Jan. 19.
SEDIMENT DISCHARGE: Maximum daily, 627 tons (569 tonnes) Feb. 17; minimum daily, 0 tons (0 tonnes) Nov. 15-21, 28, Dec. 1, Jan. 19.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
01...	0030	771	10	21	36
02...	0630	794	8	17	52
03...	0700	771	8	17	39
04...	0700	765	6	12	47
05...	0700	776	10	21	52
06...	0700	765	6	12	57
07...	0800	1120	8	24	41
07...	1430	1840	33	164	52
07...	1600	2250	73	443	57
07...	1730	2040	60	330	59
07...	1900	1950	71	376	61
07...	2030	1850	114	569	65
07...	2200	1630	57	251	69
07...	2330	1590	51	219	71
08...	0100	1550	38	160	75
08...	0230	1410	29	110	78
DEC					
03...	1130	2360	285	1800	92
25...	1200	3170	42	359	59
25...	1330	3270	51	450	69
25...	1500	3270	59	521	36
25...	1630	3200	62	536	71
25...	1800	3170	63	539	70
25...	1930	3140	59	500	74
25...	2100	3010	48	390	78
25...	2230	2980	42	338	79
JAN					
08...	1400	1180	12	38	96
FEB					
14...	1000	2020	26	142	81
14...	1130	2040	14	77	80
14...	1300	2040	14	77	80
14...	1600	1900	15	77	100
14...	2030	1840	11	55	94
16...	1730	2880	104	809	53
16...	1900	3250	50	439	52
16...	2030	3550	49	470	60
16...	2200	3640	46	452	59
16...	2330	3610	58	565	70
17...	0100	3470	102	956	66
17...	0230	3360	55	481	70
17...	0400	3200	61	527	55
17...	0530	3070	43	356	75
17...	0700	2910	41	322	81
17...	0830	2800	32	242	77
17...	1000	2640	27	192	67
17...	1130	2640	22	157	79
17...	1345	2600	64	449	46
17...	1350	2600	69	484	37
17...	1400	4960	409	5480	12
17...	1730	2460	47	312	37
19...	1515	2930	134	1060	23

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	64	56	50	---	52	54	51	---	59	61	65
2	63	63	51	51	---	53	55	51	---	59	62	66
3	62	64	43	52	---	54	55	51	---	59	62	66
4	62	64	45	52	---	52	56	52	---	60	62	65
5	62	63	48	52	---	53	56	52	---	60	62	65
6	62	62	49	53	57	54	55	53	---	60	63	65
7	62	56	50	53	58	54	56	54	---	59	64	67
8	62	52	52	54	58	54	56	54	---	59	64	67
9	62	55	52	54	58	55	56	54	---	60	64	66
10	62	58	53	54	58	55	57	55	---	60	64	65
11	62	59	54	54	---	54	57	55	55	60	64	65
12	61	60	55	54	---	55	57	55	55	61	64	64
13	60	59	55	55	55	55	57	56	55	61	64	64
14	60	59	55	55	49	55	57	56	54	61	64	64
15	60	59	56	55	48	54	56	55	55	61	64	64
16	61	59	56	55	46	53	56	55	56	61	64	63
17	62	60	54	55	39	54	55	55	56	61	64	63
18	62	60	54	56	42	54	55	54	56	62	63	62
19	62	61	54	57	40	54	53	51	56	62	64	63
20	62	61	55	57	42	53	52	52	56	62	63	63
21	62	61	55	57	44	53	52	54	57	62	62	62
22	62	56	51	56	46	53	52	54	58	62	62	62
23	64	55	49	56	47	53	52	54	58	61	64	61
24	64	55	50	55	47	53	50	54	58	62	63	61
25	63	56	41	56	48	54	50	52	58	62	63	61
26	62	57	40	56	50	54	50	51	58	62	64	61
27	62	58	43	58	51	54	51	53	58	62	64	59
28	63	58	43	---	52	54	52	54	58	63	64	58
29	63	57	46	---	---	54	52	55	59	63	65	59
30	64	56	48	---	---	53	51	55	59	63	64	60
31	64	---	49	---	---	54	---	55	---	62	64	---
MEAN	62	59	50	55	49	54	54	54	57	61	63	63

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.9	7.6	7.8	7.6	7.7	7.6	7.6	7.5	---	---	7.8	7.6
2	7.9	7.6	7.8	7.7	7.6	7.4	7.6	7.6	---	---	7.8	7.6
3	7.9	7.6	7.8	7.6	7.5	7.4	7.7	7.6	---	---	7.8	7.6
4	7.9	7.6	7.8	7.6	7.5	7.5	7.7	7.6	---	---	7.8	7.7
5	7.9	7.6	7.8	7.6	7.6	7.5	7.7	7.6	---	---	7.8	7.7
6	7.9	7.6	7.7	7.6	7.6	7.5	7.7	7.6	7.8	7.7	7.8	7.7
7	7.9	7.6	7.7	7.6	7.6	7.6	7.7	7.6	7.8	7.7	7.7	7.6
8	7.9	7.6	7.6	7.5	7.7	7.6	7.6	7.6	7.9	7.7	7.8	7.6
9	7.9	7.7	7.7	7.6	7.7	7.6	7.9	7.6	7.9	7.7	7.8	7.6
10	7.9	7.7	7.8	7.6	7.7	7.6	7.9	7.8	7.8	7.7	7.8	7.6
11	7.9	7.7	7.8	7.7	7.7	7.6	7.9	7.8	---	---	7.8	7.6
12	7.8	7.7	7.7	7.7	7.7	7.6	7.9	7.7	---	---	7.8	7.7
13	7.8	7.7	7.7	7.7	7.7	7.6	7.9	7.7	7.8	7.7	7.8	7.7
14	7.8	7.7	7.8	7.7	7.7	7.6	7.9	7.8	7.7	7.6	7.9	7.7
15	7.8	7.7	7.8	7.7	7.7	7.6	7.9	7.8	7.7	7.6	7.8	7.7
16	7.9	7.7	7.8	7.7	7.7	7.6	7.8	7.7	7.7	7.5	7.8	7.7
17	7.8	7.5	7.8	7.7	7.7	7.6	7.9	7.7	7.6	7.5	7.8	7.6
18	7.8	7.6	7.8	7.7	7.7	7.6	7.9	7.7	7.6	7.5	7.8	7.7
19	7.8	7.6	7.8	7.7	7.6	7.4	7.9	7.7	7.6	7.5	7.9	7.7
20	7.8	7.6	7.8	7.7	7.6	7.5	7.8	7.7	7.6	7.5	7.9	7.7
21	7.8	7.6	7.7	7.7	7.6	7.6	7.8	7.7	7.6	7.6	7.8	7.7
22	7.8	7.7	7.7	7.6	7.6	7.5	7.8	7.7	7.7	7.6	7.8	7.7
23	7.8	7.7	7.7	7.6	7.6	7.5	7.9	7.7	7.7	7.6	7.9	7.7
24	7.8	7.6	7.7	7.7	7.6	7.5	7.8	7.7	7.7	7.6	7.9	7.7
25	7.8	7.6	7.7	7.6	7.5	7.3	7.9	7.7	7.7	7.5	7.8	7.6
26	7.8	7.7	7.7	7.6	7.5	7.3	---	---	7.7	7.6	7.8	7.7
27	7.8	7.6	7.7	7.6	7.5	7.5	---	---	7.7	7.6	7.8	7.7
28	7.8	7.6	7.7	7.6	7.5	7.5	---	---	7.8	7.6	7.9	7.7
29	7.8	7.6	7.8	7.6	7.5	7.5	---	---	---	---	7.8	7.7
30	7.8	7.6	7.7	7.6	7.6	7.5	---	---	---	---	7.8	7.7
31	7.8	7.6	---	---	7.6	7.5	---	---	---	---	7.8	7.7
MONTH	7.9	7.5	7.8	7.5	7.7	7.3	7.9	7.5	7.9	7.5	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	8.0	7.7	---	---	8.1	7.8	---	---	7.9	7.5
2	7.9	7.7	8.0	7.8	---	---	8.1	7.8	---	---	7.9	7.5
3	7.9	7.7	8.0	7.7	---	---	8.1	7.7	---	---	7.9	7.5
4	7.8	7.7	8.0	7.8	---	---	8.1	7.7	---	---	7.9	7.5
5	7.9	7.7	7.9	7.8	---	---	8.1	7.7	---	---	7.9	7.5
6	7.9	7.7	8.0	7.8	---	---	8.1	7.7	---	---	7.9	7.5
7	7.9	7.7	8.0	7.8	---	---	8.1	7.8	---	---	7.9	7.5
8	7.9	7.7	8.0	7.8	---	---	8.1	7.8	---	---	7.8	7.5
9	7.9	7.7	8.0	7.7	---	---	8.1	7.8	---	---	7.9	7.5
10	7.9	7.7	8.0	7.8	---	---	8.1	7.8	8.3	7.8	7.9	7.6
11	7.9	7.7	8.0	7.7	7.9	7.7	8.1	7.8	8.0	7.7	7.9	7.5
12	7.9	7.7	8.0	7.7	7.9	7.8	8.1	7.8	8.1	7.6	7.9	7.5
13	7.9	7.7	8.0	7.7	7.9	7.7	8.2	7.8	8.0	7.6	7.9	7.5
14	7.9	7.7	8.0	7.7	7.9	7.7	8.1	7.8	8.0	7.6	7.9	7.5
15	7.8	7.7	7.9	7.8	7.9	7.7	8.1	7.7	8.0	7.5	7.8	7.5
16	7.9	7.7	7.9	7.7	8.0	7.6	8.1	7.7	8.0	7.5	7.9	7.5
17	7.9	7.7	7.9	7.7	7.9	7.7	8.1	7.7	8.0	7.5	7.9	7.5
18	7.9	7.7	7.8	7.7	7.9	7.7	8.1	7.7	8.0	7.5	7.9	7.6
19	7.8	7.7	7.8	7.7	7.9	7.6	8.1	7.7	7.9	7.5	7.9	7.6
20	7.9	7.7	7.8	7.7	8.0	7.7	8.1	7.7	7.9	7.5	7.9	7.6
21	7.9	7.7	7.9	7.7	8.0	7.7	8.1	7.7	7.9	7.5	7.9	7.6
22	7.9	7.7	7.9	7.7	8.0	7.7	8.1	7.7	7.9	7.5	7.9	7.6
23	7.9	7.7	7.9	7.7	8.0	7.7	8.1	7.7	7.9	7.5	7.8	7.6
24	7.9	7.7	7.9	7.7	8.0	7.7	8.1	7.7	7.9	7.5	7.8	7.6
25	7.9	7.7	7.8	7.7	8.0	7.7	8.2	7.7	8.0	7.5	7.8	7.6
26	7.9	7.7	7.9	7.7	8.1	7.7	8.1	7.7	7.9	7.5	7.8	7.6
27	7.9	7.7	7.9	7.6	8.1	7.8	8.1	7.7	7.9	7.5	7.7	7.5
28	7.9	7.7	7.9	7.7	8.1	7.8	---	---	7.9	7.5	7.7	7.5
29	8.0	7.7	8.0	7.7	8.1	7.7	---	---	7.9	7.5	7.8	7.5
30	8.0	7.7	8.0	7.7	8.1	7.7	---	---	8.0	7.5	7.7	7.6
31	---	---	8.0	7.7	---	---	---	---	7.9	7.5	---	---
MONTH	8.0	7.7	8.0	7.6	8.1	7.6	8.2	7.7	8.3	7.5	7.9	7.5

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.1	10.5	10.8	12.0	11.7	11.9	13.0	12.7	12.9	11.8	11.5	11.7
2	11.1	10.5	10.8	12.3	11.8	12.1	13.0	9.8	11.8	11.9	11.7	11.8
3	11.4	9.9	10.9	12.2	11.8	12.1	12.1	11.2	11.7	11.9	11.7	11.8
4	11.2	10.3	10.8	12.5	12.0	12.2	12.3	12.0	12.2	12.1	11.9	11.9
5	11.2	10.2	10.7	12.6	12.2	12.4	12.9	12.3	12.7	12.3	12.1	12.2
6	10.9	10.4	10.7	12.5	12.0	12.3	13.1	12.8	12.9	12.4	12.2	12.3
7	11.2	10.4	10.8	12.3	10.3	11.6	13.3	12.9	13.2	12.6	12.3	12.4
8	11.2	10.6	10.9	11.2	10.4	10.7	13.6	12.8	13.2	12.6	12.5	12.5
9	11.3	10.8	11.0	11.3	10.8	11.0	13.3	13.0	13.1	12.5	12.2	12.4
10	11.5	10.9	11.2	11.7	11.0	11.5	13.3	12.9	13.1	12.8	12.3	12.5
11	11.6	11.0	11.3	12.2	11.7	12.0	13.1	12.6	12.9	13.0	12.7	12.9
12	11.4	11.1	11.3	12.6	12.2	12.4	13.3	13.0	13.2	13.3	12.9	13.1
13	11.5	11.2	11.3	13.0	12.7	12.8	13.5	13.2	13.3	13.1	12.8	12.9
14	11.9	11.3	11.7	13.1	12.9	13.0	13.5	13.3	13.4	13.0	12.6	12.8
15	11.9	11.4	11.7	12.9	12.7	12.8	13.3	12.8	13.1	12.7	12.2	12.5
16	11.9	11.3	11.6	12.9	12.6	12.7	12.9	12.7	12.8	12.3	12.0	12.2
17	12.8	11.6	12.1	12.8	12.5	12.6	12.8	12.6	12.7	12.3	12.0	12.2
18	12.4	11.9	12.2	12.8	12.5	12.7	12.8	12.4	12.6	12.1	11.7	12.0
19	12.5	11.8	12.2	13.0	12.7	12.8	12.8	12.4	12.6	12.0	11.7	11.8
20	12.5	11.8	12.1	12.9	12.5	12.7	12.6	12.3	12.4	12.4	11.9	12.2
21	12.2	11.6	11.9	12.6	12.3	12.5	12.3	11.9	12.1	12.0	11.6	11.8
22	12.4	11.8	12.1	---	---	---	12.1	11.8	12.0	11.6	11.4	11.5
23	12.5	11.8	12.2	---	---	---	12.1	11.9	12.0	11.9	11.6	11.8
24	12.3	11.6	12.0	---	---	---	12.5	12.3	12.4	12.4	11.9	12.2
25	11.9	11.5	11.7	---	---	---	12.9	11.5	12.2	12.5	12.3	12.5
26	11.9	11.5	11.7	12.8	12.5	12.6	11.7	11.4	11.5	12.6	12.3	12.5
27	12.1	11.7	11.9	12.6	12.3	12.5	11.7	11.5	11.6	12.7	12.4	12.6
28	12.8	12.0	12.3	12.5	12.0	12.3	11.9	11.6	11.8	---	---	---
29	12.7	11.9	12.3	12.1	11.9	12.0	12.1	11.5	11.8	---	---	---
30	12.3	11.7	12.1	12.7	12.1	12.5	11.7	11.4	11.5	---	---	---
31	12.1	11.6	11.9	---	---	---	11.7	11.4	11.5	---	---	---
MONTH	12.8	9.9	11.6	13.1	10.3	12.3	13.6	9.8	12.5	13.3	11.4	12.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	12.8	12.4	12.6	12.5	12.1	12.3	10.8	10.4	10.6
2	---	---	---	12.9	12.4	12.6	12.6	12.0	12.3	11.3	10.7	11.0
3	---	---	---	12.8	12.4	12.6	12.4	11.9	12.2	11.6	11.1	11.3
4	---	---	---	12.7	12.4	12.6	12.6	11.7	12.2	11.7	11.2	11.4
5	---	---	---	13.1	12.6	12.8	12.3	11.9	12.1	11.8	11.4	11.7
6	13.0	12.7	12.9	13.1	12.6	12.8	12.5	11.8	12.2	12.2	11.5	11.9
7	13.2	12.8	13.0	12.9	12.6	12.7	12.5	11.9	12.2	12.0	11.3	11.7
8	13.2	12.8	13.0	12.9	12.3	12.6	12.4	12.1	12.2	11.8	11.4	11.6
9	13.1	12.7	12.9	12.7	12.1	12.4	12.5	11.9	12.2	11.6	10.6	11.2
10	13.2	12.7	12.9	12.6	12.3	12.4	12.6	11.9	12.2	11.2	10.4	10.9
11	---	---	---	12.6	12.0	12.3	12.4	12.1	12.3	11.4	10.6	11.0
12	---	---	---	12.6	12.0	12.3	12.7	12.2	12.5	11.5	10.6	11.0
13	12.8	12.5	12.6	12.3	12.1	12.2	12.7	11.7	12.3	11.2	10.7	10.9
14	12.8	12.6	12.7	12.4	11.8	12.1	12.4	11.4	11.9	11.2	10.6	10.9
15	13.0	12.6	12.7	12.4	12.0	12.2	12.0	11.7	11.8	11.5	11.0	11.3
16	12.7	8.4	12.1	12.7	12.3	12.5	12.1	11.4	11.8	12.1	11.4	11.7
17	12.5	8.9	11.8	12.8	12.2	12.5	11.9	11.2	11.6	11.7	11.3	11.5
18	12.8	12.3	12.5	12.5	12.2	12.3	11.6	10.8	11.2	11.5	11.3	11.4
19	12.6	11.8	12.2	12.2	11.6	11.9	12.0	11.0	11.5	11.5	11.3	11.4
20	13.5	12.4	13.0	12.0	11.6	11.8	12.2	11.6	11.9	11.7	11.3	11.5
21	13.6	12.7	13.2	11.8	11.6	11.7	11.8	11.7	11.7	11.8	11.4	11.6
22	13.0	12.1	12.5	12.2	11.7	11.9	12.0	11.0	11.5	11.8	11.0	11.4
23	12.2	11.8	12.1	12.2	11.8	12.0	11.4	10.7	11.1	11.5	10.6	11.1
24	12.3	12.0	12.2	12.2	11.6	11.9	11.3	10.9	11.1	10.9	10.5	10.7
25	12.6	12.3	12.4	11.7	11.3	11.5	11.8	11.3	11.6	11.0	10.7	10.8
26	12.8	12.5	12.6	11.7	11.4	11.5	12.1	11.8	11.9	11.3	10.6	11.0
27	12.9	12.5	12.7	11.9	11.4	11.6	12.3	11.4	11.8	11.2	10.5	10.9
28	12.8	12.5	12.7	12.0	11.3	11.6	11.6	10.7	11.2	11.2	10.8	11.0
29	---	---	---	11.9	11.4	11.6	11.1	10.2	10.7	11.7	10.8	11.2
30	---	---	---	12.3	11.9	12.2	10.8	10.2	10.5	11.5	10.9	11.2
31	---	---	---	12.3	12.1	12.2	---	---	---	11.8	---	---
MONTH	13.6	8.4	12.6	13.1	11.3	12.2	12.7	10.2	11.8	12.2	10.4	11.2

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	10.4	9.3	9.7	10.7	9.5	10.1	10.5	9.4	9.9
2	---	---	---	11.1	9.7	10.3	10.5	9.4	9.9	10.3	9.5	9.9
3	---	---	---	10.9	9.7	10.4	10.2	9.1	9.7	10.6	9.8	10.2
4	---	---	---	11.0	10.0	10.5	10.1	9.0	9.6	10.9	10.1	10.5
5	---	---	---	11.0	10.2	10.4	9.9	8.6	9.3	10.9	9.9	10.4
6	---	---	---	11.1	10.2	10.8	9.4	8.2	8.9	10.6	9.6	10.2
7	---	---	---	11.6	10.6	11.2	9.1	8.3	8.8	10.5	9.6	10.1
8	---	---	---	11.5	10.2	10.9	9.5	8.9	9.2	10.5	9.6	10.0
9	---	---	---	11.2	10.0	10.6	10.0	8.8	9.4	10.5	9.7	10.1
10	---	---	---	10.9	10.0	10.4	10.1	9.2	9.6	10.8	10.0	10.4
11	11.5	10.5	11.0	11.1	9.9	10.6	10.3	9.5	9.9	10.9	10.0	10.5
12	11.9	10.8	11.3	10.9	9.9	10.5	10.6	9.7	10.1	10.8	9.9	10.4
13	12.4	11.8	12.2	11.1	9.9	10.5	10.7	9.6	10.2	10.8	9.8	10.4
14	12.7	11.3	12.1	11.4	10.2	10.6	10.7	9.6	10.2	10.8	9.9	10.4
15	12.0	10.7	11.3	10.9	9.7	10.3	10.7	9.6	10.2	10.7	10.0	10.4
16	10.9	10.0	10.4	10.8	9.7	10.2	10.6	9.7	10.2	10.9	9.8	10.4
17	11.3	10.2	10.7	10.9	9.9	10.3	10.7	9.7	10.2	10.6	10.0	10.3
18	11.7	10.5	11.1	11.0	9.8	10.4	10.7	9.7	10.2	10.7	9.9	10.3
19	11.3	10.0	10.8	10.7	9.5	10.1	10.5	9.6	10.1	10.6	10.0	10.3
20	11.0	9.6	10.3	10.6	9.4	10.0	10.5	9.5	10.0	10.8	10.2	10.5
21	11.1	10.0	10.5	10.4	9.4	9.9	10.7	9.7	10.2	11.0	10.3	10.6
22	11.1	10.0	10.5	10.3	9.1	9.8	10.8	9.7	10.2	10.9	10.4	10.7
23	10.8	9.9	10.3	10.3	9.1	9.7	10.4	9.5	10.0	11.0	10.2	10.7
24	10.9	9.7	10.3	10.3	9.1	9.7	10.6	9.7	10.1	11.1	10.5	10.8
25	10.8	9.4	10.2	10.1	9.0	9.5	10.4	9.7	10.1	11.2	10.6	10.9
26	10.6	9.5	10.1	9.8	8.6	9.2	10.7	9.9	10.2	10.9	10.6	10.8
27	10.9	9.8	10.3	9.3	8.3	8.9	10.7	9.8	10.3	10.9	10.4	10.6
28	11.0	9.7	10.4	9.1	8.4	8.7	10.5	9.6	10.1	11.1	10.6	10.8
29	10.4	9.3	9.9	9.2	8.3	8.8	10.5	9.6	10.1	11.4	10.8	11.1
30	10.1	9.2	9.6	10.3	8.7	9.7	10.5	9.6	10.0	11.9	9.6	11.2
31	---	---	---	10.8	9.7	10.2	10.4	9.4	10.0	---	---	---
MONTH	12.7	9.2	10.7	11.6	8.3	10.1	10.8	8.2	9.9	11.9	9.4	10.5

14330000 ROGUE RIVER BELOW PROSPECT, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
	NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL	
1	9	20	0	.00	---	7.7	6	17	---	7.6	---	11
2	8	18	25	192	---	3.6	4	11	---	7.4	---	11
3	8	18	35	241	---	3.5	4	11	---	7.3	---	11
4	8	18	7	39	---	3.4	3	8.3	---	11	---	7.1
5	9	20	6	27	---	3.4	4	11	---	14	---	11
6	9	25	6	24	---	3.3	4	11	---	7.1	5	18
7	57	277	4	14	---	9.7	4	11	---	10	3	11
8	20	79	4	13	10	32	4	11	---	6.9	3	11
9	4	14	5	17	12	37	4	11	---	10	4	14
10	---	14	3	9.6	7	21	4	11	7	23	5	17
11	---	12	2	6.2	3	8.9	3	8.4	3	10	6	21
12	3	7.8	3	9.0	2	5.9	4	11	2	6.6	3	10
13	2	5.1	4	12	3	8.6	5	15	2	6.6	3	10
14	2	5.0	3	8.7	1	2.8	11	56	1	3.3	5	17
15	0	.00	2	5.9	1	2.8	5	22	---	3.3	3	10
16	0	.00	2	6.4	2	5.6	37	314	---	7.1	3	11
17	0	.00	2	6.5	2	5.7	82	627	---	6.7	2	7.2
18	0	.00	4	13	1	2.8	32	253	---	3.3	2	7.4
19	0	.00	4	13	0	.00	44	348	---	6.6	4	15
20	0	.00	4	13	1	2.8	12	78	---	3.3	4	15
21	0	.00	3	10	1	2.9	8	44	---	3.3	2	7.4
22	6	21	4	17	2	5.9	---	30	---	6.9	3	11
23	4	14	5	21	2	6.1	---	30	---	3.3	2	7.6
24	1	3.1	3	12	2	6.0	---	25	---	3.3	1	3.8
25	2	5.8	59	486	1	2.9	---	18	3	10	1	3.7
26	4	11	22	153	1	2.9	---	17	2	7.4	2	7.5
27	1	2.7	---	65	4	13	---	12	3	11	---	7.2
28	0	.00	---	26	6	19	---	12	4	14	---	7.1
29	1	3.0	---	9.4	7	22	---	---	4	15	2	7.2
30	1	3.2	---	8.9	7	21	---	---	4	15	1	3.6
31	---	---	---	8.2	6	18	---	---	---	11	---	---
TOTAL	---	596.70	---	1486.80	---	290.20	---	2033.7	---	261.3	---	311.8

14332001 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 (0.5 km) downstream from South Fork dam and intake of South Fork power canal, 0.31 mi (0.50 km) downstream from Imnaha Creek, 5.6 mi (9.0 km) southeast of Prospect, and at mile 10.2 (16.4 km).

DRAINAGE AREA.--83.8 mi^2 (217 km^2). Area at site above Imnaha Creek used October 1931 to September 1949, 61.3 mi^2 (158.8 km^2), and Imnaha Creek near Prospect, 22.2 mi^2 (57.5 km^2).

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.

REVISED RECORDS.--WSP 1318: 1925(M), 1927(M), 1930(M). WSP 1738: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,300 ft (1,006 m), from topographic map. Prior to Sept. 10, 1965, at site 1,000 ft (305 m) upstream at different datum.

REMARKS.--Records good. All records given herein include flow in South Fork power canal (completed in March 1932) which diverts 1,500 ft (457 m) above station and returns water to Rogue River above South Fork Rogue River; practically no storage above diversion dam.

AVERAGE DISCHARGE.--57 years (water years 1925-81), 176 ft^3/s (4.984 m^3/s), 127,500 acre-ft/yr (157 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--River only, maximum discharge, 7,010 ft^3/s (199 m^3/s) Dec. 22, 1964, gage height, 11.1 ft (3.38 m), from floodmark, from rating curve extended above 410 ft^3/s (11.6 m^3/s) on basis of measurement of flow over dam of 3,180 ft^3/s (90.1 m^3/s); no flow Jan. 31, 1950, Sept. 29, 30, 1967 (entire flow diverted to canal).

Combined flow, maximum discharge, 7,010 ft^3/s (199 m^3/s) Dec. 22, 1964 (no flow in canal); minimum daily, about 38 ft^3/s (1.08 m^3/s) Aug. 1-31, 1931.

EXTREMES FOR CURRENT YEAR.--River only, maximum discharge, 274 ft^3/s (7.76 m^3/s) June 8, gage height, 2.93 ft (0.893 m); minimum, 0.09 ft^3/s (0.003 m^3/s) Oct. 30 to Nov. 7.

Combined flow, maximum discharge, 427 ft^3/s (12.1 m^3/s) June 8; minimum daily, 50 ft^3/s (1.42 m^3/s) Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	59	83	137	82	145	160	204	170	118	71	62
2	63	61	175	125	80	144	153	193	159	114	74	62
3	63	60	231	124	83	140	150	175	152	110	75	73
4	62	60	188	118	80	150	153	163	156	118	74	58
5	62	59	146	115	81	145	153	153	148	111	72	59
6	62	59	140	110	79	135	156	153	155	110	73	58
7	59	62	110	106	76	140	151	147	148	122	70	58
8	59	113	111	105	77	135	152	148	287	106	67	54
9	59	104	105	98	77	125	152	145	271	109	73	55
10	59	77	98	95	73	127	146	144	214	102	65	56
11	59	65	97	98	76	127	148	139	186	101	67	58
12	60	69	87	92	82	124	147	136	192	102	67	54
13	70	64	86	88	87	124	144	132	211	89	69	56
14	70	62	86	91	141	126	145	133	213	92	64	55
15	81	62	72	87	133	121	151	143	193	97	66	53
16	70	64	96	88	206	130	147	142	180	94	67	54
17	65	60	100	92	267	123	150	152	173	91	66	54
18	69	62	95	86	255	120	155	184	168	91	82	52
19	61	60	94	85	291	121	171	214	158	88	65	54
20	64	60	94	77	242	121	178	203	155	88	66	55
21	59	62	97	83	215	119	184	185	147	87	66	54
22	60	110	132	89	206	146	187	168	147	85	65	58
23	62	116	150	91	189	141	197	155	145	83	65	54
24	60	99	136	93	193	137	215	193	135	83	65	50
25	61	85	249	86	168	151	205	348	130	82	65	54
26	62	74	217	88	163	151	197	281	131	78	64	56
27	70	78	238	97	153	157	187	228	132	81	64	76
28	73	68	213	93	149	153	177	208	128	78	64	60
29	63	80	184	90	---	165	192	195	124	78	64	59
30	60	105	158	87	---	157	205	185	122	77	64	58
31	60	---	146	84	---	159	---	176	---	76	63	---
TOTAL	1970	2219	4214	2998	4004	4259	5008	5525	5030	2941	2102	1719
MEAN	63.5	74.0	136	96.7	143	137	167	178	168	94.9	67.8	57.3
MAX	81	116	249	137	291	165	215	348	287	122	82	76
MIN	59	59	72	77	73	119	144	132	122	76	63	50
AC-FT	3910	4400	8360	5950	7940	8450	9930	10960	9980	5830	4170	3410

CAL YR 1980 TOTAL 52326 MEAN 143 MAX 850 MIN 59 AC-FT 103800
WTR YR 1981 TOTAL 41989 MEAN 115 MAX 348 MIN 50 AC-FT 83290

14333500 RED BLANKET CREEK NEAR PROSPECT, OR

LOCATION.--Lat 42°46'40", long 122°25'35", in NW¼NE¼ sec.23, T.32 S., R.3 E., Jackson County, Hydrologic Unit 17100307, on right bank 1.8 mi (2.9 km) downstream from Lick Creek, 3.7 mi (6.0 km) northeast of Prospect, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--45.5 mi² (117.8 km²).

PERIOD OF RECORD.--May 1925 to September 1981 (discontinued).

REVISED RECORDS.--WSP 1318: 1926-28, 1930. WSP 1348: 1943(M), 1948(M), 1953. WSP 1738: 1927(M), drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,780 ft (847 m), from river-profile map. Prior to Sept. 7, 1949, nonrecording gage at several sites within 2.5 mi (4.0 km) of present site at various datums.

REMARKS.--Records fair. No regulation. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--56 years, 115 ft³/s (3.257 m³/s), 83,320 acre-ft/yr (103 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,190 ft³/s (90.3 m³/s) Dec. 22, 1964, gage height, 7.85 ft (2.393 m), from rating curve extended above 1,500 ft³/s (42.5 m³/s); minimum observed, 34 ft³/s (0.96 m³/s) Sept. 3, 4, 25, Oct. 9, 16, 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 25	0730	320	9.06	3.34	1.018	Feb. 16	unknown	*482	13.7	*3.65	1.113a

Minimum, 38 ft³/s (1.08 m³/s) Oct. 5, 7-10.

a From peak stage indicator.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	51	72	98	66	96	91	113	94	69	56	47
2	41	51	227	93	66	92	90	105	89	67	55	47
3	41	51	177	88	65	90	90	98	87	66	55	47
4	41	49	131	84	64	92	87	94	85	64	55	47
5	41	51	105	82	65	88	90	92	85	64	56	47
6	39	63	93	80	64	82	88	89	85	67	55	46
7	39	116	80	77	63	80	86	87	89	69	55	46
8	39	82	76	74	62	80	84	87	149	63	55	46
9	39	74	76	72	62	78	84	85	115	63	55	46
10	39	65	74	70	61	76	80	85	98	61	54	46
11	49	60	70	69	63	76	78	83	94	61	54	46
12	52	57	70	68	66	74	80	81	96	61	54	46
13	58	55	68	66	86	74	78	81	103	60	54	46
14	52	58	66	65	150	73	80	81	101	60	54	45
15	45	55	72	64	130	76	82	87	94	59	54	45
16	45	54	80	64	240	84	84	83	92	58	53	45
17	44	52	78	66	250	80	87	89	92	58	52	45
18	45	52	74	66	260	75	91	110	89	57	51	45
19	49	51	72	65	270	75	90	118	89	56	50	46
20	51	51	72	64	220	74	93	108	85	56	49	46
21	51	66	88	64	180	74	98	101	83	56	49	46
22	51	88	119	67	160	80	98	96	81	56	49	45
23	51	84	98	70	150	76	105	94	81	56	49	45
24	54	68	125	68	140	74	113	121	79	57	49	45
25	54	63	269	66	125	85	108	161	77	56	49	45
26	62	60	181	69	115	92	108	132	75	56	49	47
27	60	58	185	74	110	90	101	118	73	56	49	64
28	54	58	150	80	100	86	101	110	72	56	47	50
29	52	76	128	78	---	94	105	105	70	55	47	47
30	51	68	113	71	---	90	113	101	69	54	47	46
31	51	---	105	68	---	90	---	96	---	54	47	---
TOTAL	1481	1887	3394	2250	3453	2546	2763	3091	2671	1851	1607	1400
MEAN	47.8	62.9	109	72.6	123	82.1	92.1	99.7	89.0	59.7	51.8	46.7
MAX	62	116	269	98	270	96	113	161	149	69	56	64
MIN	39	49	66	64	61	73	78	81	69	54	47	45
AC-FT	2940	3740	6730	4460	6850	5050	5480	6130	5300	3670	3190	2780

CAL YR 1980 TOTAL 34705 MEAN 94.8 MAX 720 MIN 39 AC-FT 68840
WTR YR 1981 TOTAL 28394 MEAN 77.8 MAX 270 MIN 39 AC-FT 56320

NOTE.--No gage-height record Jan. 4 to Apr. 20, July 15 to Aug. 19.

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 (61 m) upstream from unnamed tributary, 0.6 mi (1.0 km) upstream from Smith Creek, 1.2 mi (1.9 km) downstream from Beaver Creek, 2.8 mi (4.5 km) southwest of Prospect, and at mile 2.4 (3.9 km).

DRAINAGE AREA.--246 mi^2 (637 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,030 ft (619 m), from topographic map.

REMARKS.--Water-discharge records good except those for October to February, which are fair. Some regulation by South Fork canal dam upstream. Power diversions above 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.--13 years, 368 ft^3/s (10.42 m^3/s), 266,600 acre-ft/yr (329 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,880 ft^3/s (280 m^3/s) Mar. 3, 1972, gage height, 12.71 ft (3.874 m), from floodmark; minimum, 54 ft^3/s (1.53 m^3/s) Aug. 16-19, 1977; minimum daily, 54 ft^3/s (1.53 m^3/s) Sept. 24-30, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1890, 20.1 ft (6.13 m), Dec. 22, 1964, from floodmarks at gage, discharge, 28,500 ft^3/s (807 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft^3/s (35.4 m^3/s) Feb. 16, gage height, 6.49 ft (1.978 m); minimum, 57 ft^3/s (1.61 m^3/s) Sept. 9-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	82	97	225	105	244	246	345	237	112	67	124
2	135	82	501	210	105	223	232	317	214	110	67	124
3	100	82	678	201	100	201	228	265	195	109	67	110
4	90	82	503	156	100	235	216	237	179	107	67	60
5	88	86	331	143	100	208	228	205	175	107	65	60
6	88	100	244	138	100	193	219	199	181	107	65	60
7	88	213	189	131	95	187	208	185	189	120	63	59
8	86	172	154	125	95	167	203	175	557	110	62	59
9	86	120	133	120	95	154	230	177	440	100	62	58
10	86	101	121	120	95	145	191	175	309	95	62	58
11	86	95	110	115	95	140	187	169	253	90	62	58
12	90	95	106	115	93	136	189	159	256	86	62	58
13	97	95	104	115	112	133	177	148	309	84	61	64
14	109	90	103	110	302	129	173	148	315	82	60	62
15	103	90	103	110	263	136	179	173	270	90	59	61
16	97	90	110	105	630	173	171	169	256	76	59	60
17	95	88	115	100	809	143	175	181	299	75	59	59
18	90	86	112	100	737	138	189	283	283	74	84	59
19	86	86	107	95	824	136	237	369	216	80	129	59
20	84	86	107	95	668	134	265	334	212	78	129	59
21	84	90	129	95	542	131	268	275	199	76	129	60
22	84	162	209	100	487	191	265	239	185	75	129	59
23	84	150	244	100	454	173	293	219	163	74	128	58
24	84	174	239	95	440	165	357	320	154	73	128	58
25	84	112	646	95	373	201	334	724	140	73	128	58
26	84	100	560	100	326	263	334	595	134	72	128	60
27	93	90	584	104	288	241	283	447	124	71	126	100
28	88	85	495	179	258	230	253	351	120	69	126	74
29	84	86	345	113	---	235	273	309	117	68	126	65
30	82	110	283	112	---	237	328	280	113	68	126	97
31	82	---	251	110	---	235	---	258	---	67	126	---
TOTAL	2854	3180	8013	3832	8691	5657	7131	8430	6794	2678	2811	2060
MEAN	92.1	106	258	124	310	182	238	272	226	86.4	90.7	68.7
MAX	137	213	678	225	824	263	357	724	557	120	129	124
MIN	82	82	97	95	93	129	171	148	113	67	59	58
AC-FT	5660	6310	15890	7600	17240	11220	14140	16720	13480	5310	5580	4090

CAL YR 1980 TOTAL 97728 MEAN 267 MAX 2810 MIN 82 AC-FT 193800
WTR YR 1981 TOTAL 62131 MEAN 170 MAX 824 MIN 58 AC-FT 123200

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), discontinued.

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 (5,610 tonnes) Nov. 26, 1977; minimum daily, 0 tons (0 tonnes) on several days each year.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 17.5°C July 27, 28, Aug. 7-12; minimum, 1.0°C Dec. 8, 13.
SEDIMENT CONCENTRATIONS: Maximum daily, 40 mg/l Dec. 2; minimum daily, 0 mg/l several days during period.
SEDIMENT DISCHARGE: Maximum daily, 71 tons (64 tonnes) Dec. 2; minimum daily, 0 tons (0 tonnes) several days during period.

DATE	TYPE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV.						
07...	2	1045	187	14	50	7.1
07...	2	1645	329	102	52	91
07...	2	2245	259	16	49	11

14334700 SOUTH FORK ROGUE RIVER SOUTH OF PROSPECT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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

14334700 SOUTH FORK ROGUE RIVER, SOUTH OF PROSPECT, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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)
	NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		APRIL	
1	3	.66	3	.79	---	2.4	3	.85	6	4.0	3	2.0
2	2	.44	40	71	---	1.7	3	.85	8	4.8	2	1.3
3	1	.22	26	51	---	1.6	3	.81	6	3.3	3	1.8
4	3	.66	10	14	---	.84	3	.81	8	5.1	1	.58
5	2	.46	4	3.6	---	.77	1	.27	5	2.8	1	.62
6	2	.54	2	1.3	---	.74	0	.00	6	3.1	1	.59
7	29	26	---	1.0	---	.71	2	.51	5	2.5	0	.00
8	2	1.1	---	.83	---	.34	0	.00	3	1.4	1	.55
9	1	.32	---	.72	---	.32	0	.00	4	1.7	8	5.0
10	1	.27	---	.33	---	.32	0	.00	5	2.0	3	1.5
11	1	.26	1	.30	---	.31	1	.26	5	1.9	4	2.0
12	1	.26	2	.57	---	.00	2	.50	4	1.5	5	2.6
13	2	.51	2	.56	---	.00	0	.00	4	1.4	2	.96
14	1	.24	3	.83	---	.00	14	12	4	1.4	1	.47
15	0	.00	2	.56	---	.00	---	2.8	2	.73	1	.48
16	1	.24	2	.59	---	.00	---	70	7	3.3	1	.46
17	2	.48	1	.31	7	1.9	---	53	4	1.5	1	.47
18	1	.23	0	.00	9	2.4	25	54	2	.75	3	1.5
19	0	.00	0	.00	5	1.3	23	51	5	1.8	6	3.8
20	0	.00	0	.00	2	.51	16	29	7	2.5	6	4.3
21	1	.24	2	.70	4	1.0	10	15	2	.71	4	2.9
22	8	3.8	8	5.2	6	1.6	9	12	9	4.6	4	2.9
23	2	.81	2	1.3	3	.81	9	11	4	1.9	5	4.0
24	1	.47	1	.65	1	.26	8	9.5	3	1.3	7	6.7
25	0	.00	33	63	0	.00	9	9.1	8	4.3	3	2.7
26	1	.27	12	18	0	.00	10	8.8	5	3.6	3	2.7
27	3	.73	12	15	1	.28	6	4.7	8	5.2	3	2.3
28	4	.92	4	5.3	4	2.8	5	3.5	5	3.1	2	1.4
29	3	.70	4	3.7	1	.31	---	---	4	2.5	4	2.9
30	4	1.2	---	3.1	3	.91	---	---	4	2.6	5	4.4
31	---	---	---	2.7	3	.89	---	---	2	1.3	---	---
TOTAL	---	42.03	---	266.94	---	25.02	---	350.26	---	78.59	---	63.88

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 (1.6 km) northeast of McLeod and at mile 157.2 (252.9 km).

DRAINAGE AREA.--674 mi² (1,746 km²).

PERIOD OF RECORD.--February 1977 to current year.

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 (573 hm³) between elevations 1,551.0 ft (472.74 m) and 1,872.0 ft (570.59 m), maximum pool elevation. Elevation of gated spillway crest, 1,823.0 ft (555.65 m). Usable storage, 315,000 acre-ft (388 hm³) between elevation 1,751.0 ft (533.70 m) and 1,872.0 ft (570.59 m). 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 (573 hm³) May 21, 1979, May 25, 1981, elevation, 1,872.02 ft (570.592 m); minimum since first filling, 100,800 acre-ft (124 hm³) Oct. 29, 1977, elevation, 1,720.50 ft (524.408 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 465,100 acre-ft (573 hm³) May 25, elevation, 1,872.02 ft (590.592 m); minimum, 269,600 acre-ft (332 hm³) Sept. 30, elevation, 1,806.01 ft (550.472 m).

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

1,720.0	100,100	1,850.0	393,100
1,750.0	148,200	1,872.0	465,000
1,800.0	254,600		

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1817.95	1812.65	1812.18	1815.53	1821.23	1846.91	1863.74	1871.99	1871.98	1867.36	1848.71	1825.18
2	1817.74	1812.60	1813.18	1815.59	1821.60	1847.55	1864.35	1871.96	1871.98	1866.88	1847.95	1824.55
3	1817.52	1812.53	1813.95	1815.71	1821.94	1848.16	1864.89	1871.95	1871.96	1866.40	1847.18	1823.93
4	1817.33	1812.46	1813.75	1815.78	1822.27	1848.88	1865.28	1871.96	1871.93	1865.89	1846.36	1823.29
5	1817.13	1812.37	1813.25	1815.94	1822.64	1849.47	1865.67	1871.97	1871.90	1865.39	1845.55	1822.67
6	1816.92	1812.38	1812.55	1816.21	1822.98	1850.00	1866.04	1871.95	1871.87	1864.91	1844.74	1822.00
7	1816.71	1812.81	1812.12	1816.48	1823.29	1850.60	1866.40	1871.96	1871.86	1864.45	1843.97	1821.37
8	1816.50	1812.53	1812.14	1816.71	1823.60	1851.12	1866.74	1871.98	1872.01	1863.95	1843.10	1820.60
9	1816.29	1812.07	1812.14	1816.90	1823.90	1851.62	1867.09	1871.98	1871.87	1863.37	1842.25	1819.60
10	1816.08	1811.91	1812.10	1817.10	1824.20	1851.86	1867.38	1871.97	1871.88	1862.81	1841.39	1818.47
11	1815.89	1811.86	1812.09	1817.26	1824.52	1852.56	1867.71	1871.95	1871.82	1862.23	1840.54	1817.34
12	1815.78	1811.83	1812.08	1817.41	1824.87	1853.02	1868.02	1871.96	1871.77	1861.67	1839.69	1816.18
13	1815.72	1811.83	1812.07	1817.55	1825.31	1853.47	1868.31	1871.95	1871.76	1861.09	1838.83	1815.03
14	1815.75	1811.85	1812.07	1817.68	1826.48	1853.91	1868.61	1871.95	1871.75	1860.51	1837.99	1813.87
15	1815.63	1811.86	1812.07	1817.81	1827.39	1854.42	1868.92	1871.97	1871.51	1859.92	1837.15	1812.69
16	1815.47	1811.84	1812.09	1817.95	1829.34	1854.99	1869.23	1871.93	1871.42	1859.33	1836.22	1811.50
17	1815.31	1811.81	1812.07	1818.10	1831.60	1855.46	1869.55	1871.96	1871.27	1858.74	1835.34	1810.29
18	1815.14	1811.77	1812.04	1818.23	1833.62	1855.93	1869.82	1871.98	1871.17	1858.09	1834.45	1809.28
19	1814.97	1811.74	1812.04	1818.34	1835.94	1856.40	1870.32	1871.92	1870.99	1857.48	1833.55	1808.57
20	1814.78	1811.70	1812.03	1818.45	1837.65	1856.86	1870.70	1871.89	1870.78	1856.84	1832.63	1808.07
21	1814.52	1811.76	1812.10	1818.58	1839.08	1857.31	1871.00	1871.91	1870.54	1856.21	1831.93	1807.78
22	1814.27	1812.13	1812.36	1818.75	1840.60	1857.83	1871.19	1871.93	1870.31	1855.56	1831.33	1807.53
23	1814.00	1812.24	1812.64	1818.94	1841.76	1858.32	1871.35	1871.92	1870.05	1854.92	1830.74	1807.26
24	1813.78	1812.20	1812.93	1819.09	1842.90	1858.79	1871.56	1871.97	1869.78	1854.26	1830.13	1807.00
25	1813.64	1812.12	1814.42	1819.22	1843.86	1859.36	1871.73	1872.01	1869.49	1853.62	1829.52	1806.77
26	1813.52	1812.10	1815.06	1819.41	1844.72	1859.99	1871.88	1871.94	1869.17	1852.94	1828.91	1806.53
27	1813.43	1812.07	1815.51	1819.67	1845.50	1860.60	1871.92	1871.97	1868.86	1852.26	1828.28	1806.54
28	1813.26	1812.07	1815.69	1820.09	1846.23	1861.17	1871.93	1871.96	1868.53	1851.57	1827.68	1806.45
29	1813.09	1812.13	1815.61	1820.42	---	1861.81	1872.00	1871.96	1868.19	1850.88	1827.00	1806.25
30	1812.91	1812.19	1815.61	1820.66	---	1862.43	1872.00	1871.97	1867.83	1850.20	1826.43	1806.01
31	1812.73	---	1815.59	1820.86	---	1863.08	---	1871.96	---	1849.47	1825.80	---
MEAN	1815.28	1812.11	1813.08	1817.95	1831.04	1854.96	1868.84	1871.96	1870.87	1859.01	1836.62	1813.75
MAX	1817.95	1812.81	1815.69	1820.86	1846.23	1863.08	1872.00	1872.01	1872.01	1867.36	1848.71	1825.18
MIN	1812.73	1811.70	1812.03	1815.53	1821.23	1846.91	1863.74	1871.89	1867.83	1849.47	1825.80	1806.01
(†)	286900	285500	294400	308500	381500	435000	465000	464900	450800	391400	322100	269600
(‡)	-14400	-1400	+8900	+14100	+73000	+53500	+30000	-100	-14100	-59400	-69300	-52500

CAL YR 1980 MEAN 1839.74 MAX 1871.98 MIN 1811.70 AC-FT‡ +8500
WTR YR 1981 MEAN 1838.83 MAX 1872.01 MIN 1806.01 AC-FT‡ -31700

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

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 (0.5 km) upstream from Big Butte Creek, 0.1 (0.2 km) southwest of McLeod, and at mile 155.6 (250.4 km).

DRAINAGE AREA.--690 mi² (1,787 km²), approximately.

PERIOD OF RECORD.--May 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1976 to September 1981 (discontinued).
pH: November 1976 to September 1981 (discontinued).
WATER TEMPERATURES: November 1976 to current year.
DISSOLVED OXYGEN: November 1976 to September 1981 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1976 to September 1981 (October to April only, 1980 water year, November to April only, 1981 water year), discontinued.

INSTRUMENTATION.--Water-quality monitor and automatic pumping sediment sampler since November 1976.

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 micromhos Nov. 11, 1977; minimum, 45 micromhos 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, 15.0°C June 22, July 3, 1981; minimum, 0.5°C Jan. 9, 1977 (prior to storage in Lost Creek Reservoir).
DISSOLVED OXYGEN: Maximum, 15.7 mg/l Jan. 8, 1977; minimum, 6.8 mg/l Aug. 20, 1977.
SEDIMENT CONCENTRATIONS: Maximum recorded daily mean, 73 mg/l Dec. 14, 1977; minimum daily, 0 mg/l many days.
SEDIMENT DISCHARGE: Maximum recorded daily, 1,570 tons (1,420 tonnes) Dec. 14, 1977; minimum daily, 0 tons (0 tonnes) many days.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 68 micromhos Mar. 11; minimum recorded, 59 micromhos Oct. 1-3, Mar. 24, Apr. 8, June 2, 23, July 23, 24, 27, 30.
pH: Maximum, 9.2 units May 8, 9, 11, 12; minimum recorded, 7.0 units Oct. 29-31.
WATER TEMPERATURES: Maximum, 15.0°C June 22, July 3; minimum, 5.0°C many days January through April.
DISSOLVED OXYGEN: Maximum, 13.7 mg/l Mar. 8; minimum, 8.8 mg/l Nov. 10.
SEDIMENT CONCENTRATIONS: Maximum daily mean (November to April), 17 mg/l Dec. 15; minimum daily mean, 0 mg/l Nov. 13 and many days in January and February.
SEDIMENT DISCHARGE: Maximum daily (November to April), 62 tons (56 tonnes) Dec. 4, 18; minimum daily, 0 tons (0 tonnes) Nov. 13 and many days in January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
MAY									
28...	1200	13.0	--	62	8.8	1	<1	<100	2
AUG									
20...	1200	12.5	2190	63	7.9	<1	<1	<100	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)
MAY									
28...	10	<1	7	10	23	<10	<.1	.1	<1
AUG									
20...	<10	<1	7	90	12	10	<.1	.1	<1

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	60	66	64	64	64	62	61	61	61	61	62
2	59	61	66	64	64	65	62	61	60	61	61	62
3	60	61	66	64	64	64	62	61	61	61	61	62
4	60	61	66	63	64	64	61	62	62	61	61	62
5	61	62	66	64	64	65	61	62	61	62	61	63
6	61	62	65	64	64	64	61	62	61	61	61	63
7	61	63	65	63	64	63	60	62	62	61	62	63
8	60	64	63	62	64	64	60	62	62	61	62	62
9	61	65	---	62	64	64	60	62	61	61	62	61
10	62	64	---	62	65	64	60	62	61	60	62	61
11	62	64	---	63	65	64	60	62	61	61	62	61
12	62	64	---	63	64	63	60	62	61	61	62	62
13	62	64	---	63	64	63	60	62	61	60	62	62
14	62	64	---	63	65	63	61	62	61	61	62	---
15	62	64	---	63	65	62	61	62	61	61	63	---
16	62	64	---	63	65	63	61	62	61	61	62	---
17	---	64	---	64	65	63	60	62	61	61	62	---
18	---	65	---	64	65	61	60	61	61	61	63	---
19	---	65	---	64	65	62	60	61	60	61	62	---
20	---	66	63	64	65	61	61	61	60	60	62	---
21	---	66	64	63	64	61	60	61	61	61	62	---
22	---	67	64	63	65	61	61	61	60	60	62	66
23	---	67	64	64	63	61	61	61	60	60	62	66
24	---	67	64	64	65	60	61	61	61	60	62	66
25	---	67	64	63	65	61	61	61	61	60	62	66
26	---	67	64	63	65	62	61	61	61	60	62	67
27	---	67	64	63	65	62	61	61	61	59	62	67
28	---	67	64	63	64	62	61	61	60	60	62	67
29	60	66	64	63	---	62	62	61	61	60	62	67
30	60	63	64	64	---	62	62	61	61	60	63	67
31	60	---	64	63	---	62	---	61	---	61	63	---
MEAN	61	64	65	63	65	63	61	61	61	61	62	64

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.4	7.1	7.2	7.1	7.5	7.3	7.5	7.3	7.7	7.4	7.9	7.4
2	7.3	7.1	7.3	7.1	7.4	7.3	7.5	7.3	7.7	7.4	7.9	7.4
3	7.4	7.1	7.3	7.1	7.4	7.3	7.5	7.3	7.7	7.4	7.9	7.4
4	7.4	7.1	7.3	7.1	7.4	7.3	7.5	7.4	7.7	7.4	7.9	7.5
5	7.4	7.1	7.3	7.1	7.4	7.3	7.6	7.4	7.7	7.4	7.9	7.5
6	7.4	7.2	7.2	7.1	7.4	7.3	7.5	7.4	7.7	7.4	7.9	7.4
7	7.4	7.1	7.3	7.1	7.5	7.4	7.6	7.4	7.7	7.4	7.7	7.4
8	7.4	7.1	7.2	7.1	7.5	7.4	7.6	7.4	7.7	7.4	7.9	7.4
9	7.3	7.1	7.3	7.1	---	---	7.6	7.4	7.7	7.4	7.9	7.3
10	7.4	7.1	7.3	7.1	---	---	7.6	7.4	7.7	7.4	7.8	7.4
11	7.3	7.1	7.3	7.1	---	---	7.5	7.4	7.7	7.4	8.1	7.5
12	7.3	7.1	7.3	7.2	---	---	7.5	7.3	7.8	7.4	8.0	7.5
13	7.3	7.1	7.4	7.2	---	---	7.5	7.3	7.6	7.4	7.7	7.5
14	7.3	7.1	7.3	7.2	---	---	7.6	7.3	7.7	7.4	8.0	7.5
15	7.3	7.1	7.3	7.2	---	---	7.6	7.3	7.7	7.4	7.7	7.5
16	7.3	7.1	7.3	7.2	---	---	7.5	7.3	7.6	7.4	7.9	7.4
17	---	---	7.3	7.2	---	---	7.6	7.3	7.7	7.4	7.9	7.5
18	---	---	7.4	7.2	---	---	7.6	7.3	7.7	7.4	7.8	7.4
19	---	---	7.4	7.2	---	---	7.5	7.3	7.7	7.4	8.0	7.4
20	---	---	7.4	7.2	7.4	7.3	7.5	7.4	7.8	7.4	8.0	7.4
21	---	---	7.3	7.2	7.3	7.2	7.5	7.4	7.8	7.4	7.9	7.4
22	---	---	7.4	7.3	7.4	7.2	7.5	7.4	7.8	7.4	8.0	7.4
23	---	---	7.4	7.2	7.3	7.2	7.5	7.3	7.8	7.4	8.0	7.4
24	---	---	7.5	7.3	7.3	7.2	7.6	7.4	7.7	7.4	7.9	7.4
25	---	---	7.5	7.3	7.3	7.2	7.6	7.4	7.7	7.4	7.8	7.4
26	---	---	7.5	7.3	7.3	7.3	7.5	7.3	7.8	7.4	7.9	7.4
27	---	---	7.5	7.3	7.4	7.3	7.6	7.3	7.8	7.4	7.9	7.4
28	---	---	7.5	7.3	7.4	7.3	7.6	7.4	7.9	7.4	7.9	7.4
29	7.2	7.0	7.6	7.3	7.4	7.3	7.6	7.4	---	---	7.8	7.4
30	7.2	7.0	7.5	7.3	7.5	7.3	7.6	7.4	---	---	7.8	7.4
31	7.2	7.0	---	---	7.5	7.3	7.6	7.4	---	---	7.8	7.4
MONTH	7.4	7.0	7.6	7.1	7.5	7.2	7.6	7.3	7.9	7.4	8.1	7.3

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.8	7.4	7.9	7.5	8.9	8.1	8.0	7.5	7.5	7.2	7.5	7.3
2	8.0	7.4	8.0	7.5	8.8	8.1	8.1	7.5	7.5	7.2	7.5	7.3
3	7.8	7.4	8.0	7.5	8.8	8.1	8.2	7.6	7.5	7.2	7.5	7.3
4	7.7	7.4	9.0	7.6	8.8	8.0	8.0	7.5	7.5	7.3	7.5	7.3
5	7.7	7.4	9.0	8.7	8.7	7.8	7.9	7.5	7.5	7.3	7.5	7.3
6	7.8	7.4	9.0	8.6	8.7	7.9	7.9	7.6	7.6	7.3	7.5	7.3
7	7.8	7.4	9.1	8.7	8.5	7.8	8.0	7.6	7.6	7.3	7.5	7.3
8	7.7	7.4	9.2	8.7	8.0	7.6	8.0	7.5	7.6	7.3	7.4	7.2
9	7.8	7.4	9.2	8.9	7.9	7.5	8.0	7.5	7.6	7.3	7.3	7.2
10	7.8	7.4	9.0	8.5	8.4	7.6	8.0	7.6	7.7	7.3	7.3	7.2
11	7.7	7.4	9.2	8.5	8.5	7.8	7.9	7.5	7.6	7.3	7.3	7.2
12	7.8	7.4	9.2	8.8	8.3	7.7	7.9	7.5	7.7	7.4	7.3	7.2
13	7.8	7.4	9.1	8.9	8.4	7.8	7.9	7.5	7.6	7.3	7.3	7.2
14	7.8	7.4	9.1	8.8	8.4	7.8	7.8	7.5	7.6	7.3	---	---
15	7.7	7.4	9.0	8.6	8.5	7.8	7.6	7.4	7.6	7.3	---	---
16	7.9	7.4	9.1	8.7	8.4	7.7	7.7	7.4	7.6	7.3	---	---
17	7.9	7.4	9.1	8.8	8.5	7.6	7.7	7.4	7.6	7.3	---	---
18	7.9	7.4	9.0	8.4	8.4	7.6	7.6	7.3	7.6	7.3	---	---
19	7.5	7.4	8.8	8.2	8.4	7.8	7.6	7.3	7.6	7.3	---	---
20	7.9	7.4	8.9	8.4	8.4	7.7	7.6	7.3	7.5	7.3	---	---
21	7.7	7.4	9.0	8.5	8.3	7.5	7.6	7.3	7.6	7.4	---	---
22	7.8	7.4	9.1	8.7	8.1	7.5	7.6	7.3	7.6	7.4	7.4	7.2
23	7.8	7.4	9.1	8.4	8.1	7.5	7.6	7.3	7.6	7.4	7.4	7.2
24	7.8	7.4	9.1	8.2	8.1	7.5	7.6	7.3	7.6	7.3	7.4	7.2
25	7.7	7.4	8.7	7.9	8.1	7.5	7.6	7.3	7.6	7.3	7.4	7.2
26	7.7	7.4	8.7	7.8	8.1	7.5	7.6	7.3	7.6	7.3	7.3	7.2
27	7.8	7.4	8.9	8.0	8.1	7.5	7.6	7.3	7.6	7.3	7.4	7.2
28	7.9	7.5	8.8	8.4	8.1	7.5	7.6	7.3	7.6	7.3	7.4	7.2
29	7.9	7.5	8.9	8.4	8.1	7.5	7.6	7.3	7.5	7.3	7.4	7.2
30	7.8	7.5	8.9	8.2	8.1	7.5	7.6	7.3	7.6	7.3	7.4	7.2
31	---	---	8.9	8.3	---	---	7.6	7.2	7.6	7.3	---	---
MONTH	8.0	7.4	9.2	7.5	8.9	7.5	8.2	7.2	7.7	7.2	7.5	7.2

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.5	8.5	7.0	6.5	7.0	6.5	6.0	6.0	6.0	5.0	6.5	5.0
2	9.5	8.5	7.5	6.5	7.5	6.5	6.0	5.5	6.0	5.0	6.5	5.0
3	9.5	8.5	7.5	6.5	7.5	7.0	6.0	5.5	6.0	5.0	6.0	5.0
4	9.5	8.5	7.5	6.5	8.0	7.5	6.0	5.5	6.0	5.0	6.0	5.0
5	9.5	8.5	7.5	6.5	7.5	7.5	6.0	5.5	5.5	5.0	6.5	5.0
6	9.5	9.0	7.0	6.5	7.5	7.5	6.0	5.5	6.0	5.0	6.5	5.0
7	9.0	8.0	9.0	7.0	7.5	7.0	6.0	5.5	6.0	5.0	6.0	5.5
8	9.0	8.0	8.0	7.5	7.0	6.5	5.5	5.5	5.5	5.0	6.5	5.0
9	9.0	8.0	8.0	7.5	---	---	6.0	5.5	6.0	5.0	6.5	5.0
10	9.0	8.0	8.0	7.0	---	---	5.5	5.5	5.5	5.0	6.0	5.0
11	8.5	8.0	7.5	6.5	---	---	6.0	5.0	6.0	5.0	6.5	5.0
12	8.5	8.0	7.5	7.0	---	---	5.5	5.0	6.0	5.5	7.0	5.5
13	8.5	8.0	7.5	6.5	---	---	5.5	5.0	5.5	5.5	5.5	5.5
14	8.5	8.0	7.0	6.5	---	---	5.5	5.0	6.0	5.5	7.0	5.5
15	8.5	7.5	7.5	7.0	---	---	6.0	5.0	5.5	5.5	6.0	5.5
16	8.0	7.5	7.0	7.0	---	---	5.5	5.0	6.0	5.5	6.5	5.0
17	---	---	7.5	6.5	---	---	5.5	5.0	6.0	5.0	6.5	5.0
18	---	---	7.0	6.5	---	---	5.5	5.5	6.0	5.5	6.0	5.5
19	---	---	7.0	6.5	---	---	6.0	5.0	6.0	5.0	7.0	5.5
20	---	---	7.0	6.5	6.0	5.5	5.5	5.0	6.0	5.0	6.5	5.5
21	---	---	7.0	6.5	5.5	5.5	5.5	5.5	6.5	5.0	6.5	5.5
22	---	---	7.0	7.0	6.0	5.5	6.0	5.5	6.5	5.0	6.5	5.5
23	---	---	7.0	7.0	5.5	5.5	5.5	5.5	6.5	5.0	6.5	5.5
24	---	---	7.5	6.5	5.5	5.5	6.0	5.5	6.0	5.0	6.5	5.5
25	---	---	7.0	6.5	6.0	5.5	6.0	5.5	6.0	5.0	6.0	5.5
26	---	---	7.0	7.0	6.0	6.0	6.0	5.5	6.0	5.0	6.5	5.5
27	---	---	7.0	6.5	6.5	6.0	5.5	5.5	6.0	5.0	6.5	5.5
28	7.0	---	7.0	7.0	6.0	6.0	5.5	5.5	6.0	5.0	7.0	5.0
29	7.0	6.5	7.0	6.5	6.5	6.0	5.5	5.5	---	---	6.5	5.5
30	7.0	6.5	7.0	6.5	6.0	6.0	5.5	5.5	---	---	6.0	5.5
31	7.0	6.5	---	---	6.0	6.0	6.0	5.0	---	---	6.0	5.5
MONTH	9.5	6.5	9.0	6.5	8.0	5.5	6.0	5.0	6.5	5.0	7.0	5.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.5	8.5	7.5	14.0	11.0	14.5	13.0	11.0	9.5	10.0	9.0
2	7.0	5.5	9.0	7.5	13.0	11.5	14.5	13.0	11.0	8.0	10.0	9.0
3	6.5	5.5	9.0	7.0	13.5	12.5	15.0	12.5	11.0	8.5	10.0	9.0
4	6.5	5.0	12.5	7.5	13.5	12.5	13.5	12.0	11.0	9.0	10.0	9.5
5	6.5	5.5	12.0	10.5	14.5	12.0	13.5	12.5	11.0	9.0	10.0	9.0
6	7.5	5.5	12.0	10.5	13.5	12.5	13.5	12.0	11.0	9.0	10.0	9.0
7	7.0	5.5	12.5	10.5	13.5	12.0	13.0	12.0	11.0	9.5	10.5	9.5
8	6.5	6.0	12.0	11.0	13.0	10.5	13.5	12.5	11.5	9.5	10.0	6.5
9	7.0	6.0	13.0	11.5	11.0	10.0	13.5	12.0	11.5	9.5	7.0	6.5
10	7.0	6.0	12.5	10.0	13.5	10.5	13.5	12.5	12.0	10.0	7.0	6.5
11	6.5	6.0	12.5	10.0	14.5	12.5	13.5	12.5	12.0	10.0	7.0	6.5
12	7.0	6.0	13.0	11.0	13.0	11.5	13.5	12.5	12.0	10.5	7.0	6.5
13	7.0	6.0	12.5	11.5	13.0	12.0	13.5	12.0	12.0	9.5	7.5	6.5
14	8.0	6.5	12.5	11.0	13.0	12.0	13.0	11.5	11.0	9.5	7.5	---
15	7.0	6.5	12.0	10.5	14.0	12.5	13.0	9.5	11.5	9.5	---	---
16	7.5	6.5	12.5	10.5	14.0	12.0	11.0	9.5	11.0	9.0	---	---
17	8.0	6.5	12.0	11.0	14.0	11.5	11.0	9.5	10.5	9.0	---	---
18	8.0	6.5	11.5	9.5	13.5	11.5	11.0	9.5	10.5	9.5	---	---
19	7.5	6.5	10.5	9.5	13.5	13.0	11.0	9.5	10.5	9.5	---	---
20	8.0	7.0	10.5	9.5	14.5	12.5	11.0	9.5	10.5	10.0	---	---
21	7.5	6.5	11.5	9.5	14.0	11.5	11.0	9.5	11.0	10.0	---	---
22	8.0	7.5	12.0	11.0	15.0	11.5	11.0	10.0	11.0	10.0	10.5	9.5
23	8.5	7.0	12.0	10.5	13.0	11.5	11.5	9.5	11.5	10.0	10.5	9.5
24	8.5	7.0	12.0	10.0	13.0	11.5	11.0	9.5	11.0	10.0	10.0	9.5
25	8.0	7.0	11.0	9.5	13.5	12.0	11.0	10.0	11.0	10.0	10.5	9.5
26	7.5	7.0	11.5	9.0	14.5	12.0	11.0	10.0	11.0	10.0	10.0	10.0
27	8.0	7.0	13.0	10.0	13.5	12.0	11.5	10.0	11.0	10.0	10.5	10.0
28	8.5	7.5	13.0	11.5	14.0	12.0	11.5	9.5	11.0	10.0	10.5	10.0
29	9.0	7.5	13.5	11.5	14.5	12.5	11.5	9.5	11.0	9.5	10.5	9.5
30	9.0	8.0	13.5	11.0	14.5	12.5	11.0	10.0	11.0	10.0	10.5	9.5
31	---	---	13.5	11.5	---	---	11.0	9.5	11.5	9.0	---	---
MONTH	9.0	5.0	13.5	7.0	15.0	10.0	15.0	9.5	12.0	8.0	10.5	6.5

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.6	9.7	10.1	11.3	10.5	11.1	11.1	10.6	10.7	10.7	10.3	10.4
2	10.7	9.9	10.2	11.6	11.1	11.3	10.8	10.6	10.7	10.6	10.1	10.2
3	10.8	9.8	10.2	11.6	11.1	11.3	11.6	10.6	11.0	10.5	10.0	10.2
4	10.7	9.9	10.2	12.4	11.1	11.4	12.3	11.7	12.0	10.6	10.1	10.2
5	10.7	9.9	10.2	11.6	11.1	11.4	12.1	11.8	11.9	12.3	9.9	11.2
6	10.9	9.9	10.3	12.6	11.1	11.4	12.2	11.9	12.0	12.6	12.2	12.3
7	10.9	10.1	10.4	11.6	9.0	10.5	12.1	11.0	11.5	12.5	12.0	12.2
8	10.9	10.1	10.4	9.3	8.9	9.1	11.5	11.1	11.2	12.3	11.9	12.1
9	11.1	10.2	10.5	9.3	8.9	9.1	---	---	---	12.2	11.7	12.0
10	11.2	10.1	10.6	10.4	8.8	9.7	---	---	---	12.1	11.6	11.8
11	10.9	10.2	10.4	10.8	10.0	10.4	---	---	---	12.0	11.6	11.7
12	11.0	10.2	10.5	---	---	---	---	---	---	12.5	11.5	12.0
13	11.0	10.2	10.4	---	---	---	---	---	---	12.8	12.3	12.5
14	10.9	10.1	10.4	---	---	---	---	---	---	12.4	12.1	12.2
15	10.8	10.0	10.3	11.1	10.5	10.7	---	---	---	12.3	12.0	12.1
16	11.0	10.1	10.5	---	---	---	---	---	---	12.2	11.9	12.1
17	11.1	---	---	---	---	---	---	---	---	12.3	12.0	12.1
18	---	---	---	---	---	---	---	---	---	12.2	12.0	12.1
19	---	---	---	---	---	---	---	---	---	12.1	11.9	12.0
20	---	---	---	---	---	---	12.9	11.3	12.1	12.1	11.9	12.0
21	---	---	---	---	---	---	12.6	10.9	11.6	12.1	11.8	11.9
22	---	---	---	---	---	---	11.5	10.9	11.1	12.1	11.9	12.0
23	---	---	---	---	---	---	11.3	10.8	10.9	12.2	11.9	12.0
24	---	---	---	---	---	---	11.1	10.7	10.8	12.3	12.1	12.2
25	---	---	---	---	---	---	11.1	10.7	10.8	12.4	11.8	12.0
26	---	---	---	11.0	10.4	10.6	11.0	10.7	10.8	12.0	11.1	11.6
27	---	---	---	11.0	10.5	10.6	11.1	10.7	10.9	11.6	11.1	11.3
28	---	---	---	11.1	10.5	10.7	11.1	10.8	10.9	11.8	11.1	11.4
29	11.1	10.2	10.6	11.1	10.5	10.6	11.0	10.7	10.8	11.9	11.3	11.5
30	10.6	9.9	10.2	11.1	10.6	10.7	10.8	10.5	10.6	12.2	11.4	11.7
31	10.5	9.6	10.0	---	---	---	10.7	10.3	10.4	12.3	11.6	11.9
MONTH	11.2	9.6	10.3	12.6	8.8	10.6	12.9	10.3	11.1	12.8	9.9	11.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.5	11.7	12.0	13.0	11.6	12.2	13.1	12.1	12.6	12.5	11.6	12.1
2	12.5	11.7	12.0	13.2	11.6	12.4	13.3	12.1	12.6	12.7	11.9	12.3
3	13.0	11.7	12.0	13.2	11.5	12.4	13.3	12.3	12.7	12.5	11.7	12.2
4	12.6	11.7	12.1	12.8	11.5	12.1	13.2	12.2	12.7	12.5	11.3	11.9
5	12.4	11.6	12.0	13.2	11.8	12.6	13.0	12.2	12.6	12.3	11.4	11.8
6	12.5	11.8	12.0	13.4	12.2	12.9	13.0	12.0	12.4	12.2	11.4	11.8
7	12.5	11.7	12.0	13.4	12.8	13.1	12.9	11.8	12.3	12.1	11.2	11.7
8	12.4	11.7	12.0	13.7	13.0	13.3	12.7	11.8	12.2	12.0	11.1	11.6
9	12.6	11.7	12.0	13.4	12.8	13.1	12.5	11.5	12.1	11.7	10.9	11.4
10	12.5	11.7	12.0	13.4	11.8	12.6	12.4	11.5	11.9	11.8	10.8	11.4
11	12.3	10.5	11.4	13.1	12.0	12.7	12.3	11.6	11.8	11.8	11.0	11.3
12	11.3	10.4	10.8	13.5	12.2	13.0	12.4	11.6	12.0	11.7	10.7	11.2
13	11.1	10.4	10.7	13.5	12.3	13.0	12.5	11.5	12.0	11.3	10.4	10.9
14	11.4	10.6	10.9	13.5	12.7	13.1	12.4	11.5	11.9	11.5	10.5	11.0
15	11.5	10.8	11.0	13.1	11.7	12.7	12.9	11.8	12.4	11.6	10.7	11.1
16	11.4	10.9	11.1	13.4	11.6	12.7	13.2	12.0	12.6	11.7	10.7	11.3
17	11.8	11.0	11.4	13.2	11.4	12.6	12.9	11.9	12.4	11.3	10.6	10.9
18	11.8	11.0	11.3	12.6	12.0	12.3	13.0	11.9	12.4	11.5	11.0	11.2
19	11.8	11.1	11.4	12.6	11.7	12.2	12.8	12.1	12.4	11.5	10.7	11.2
20	12.4	11.4	11.8	12.6	11.8	12.1	13.1	12.1	12.5	11.2	10.6	10.9
21	12.3	11.5	11.8	12.6	11.1	12.0	13.0	12.1	12.5	11.2	10.1	10.7
22	12.9	11.6	12.0	12.5	11.4	12.1	12.9	12.0	12.4	10.8	9.8	10.4
23	12.3	11.4	11.8	12.8	11.9	12.3	12.7	11.9	12.2	11.6	10.1	10.8
24	12.3	11.5	11.8	12.5	11.9	12.2	12.7	11.7	12.2	12.3	11.4	11.8
25	12.2	11.6	11.8	12.5	11.5	12.0	12.3	11.8	12.0	12.6	12.0	12.3
26	12.8	11.6	12.0	12.7	11.6	12.0	12.5	11.8	12.1	12.9	11.2	12.1
27	12.9	11.8	12.3	12.9	11.8	12.3	12.4	11.6	12.0	12.1	10.6	11.6
28	13.0	11.8	12.4	12.9	11.7	12.2	12.3	11.4	11.9	11.4	10.5	11.1
29	---	---	---	12.9	11.7	12.2	12.0	11.5	11.7	11.4	10.3	10.9
30	---	---	---	13.0	12.0	12.4	12.2	11.6	12.0	11.5	10.6	11.0
31	---	---	---	13.0	12.0	12.3	---	---	---	11.5	10.1	10.8
MONTH	13.0	10.4	11.7	13.7	11.1	12.5	13.3	11.4	12.3	12.9	9.8	11.4

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.3	9.9	10.7	10.2	9.4	9.8	11.3	10.5	10.9	10.8	10.1	10.3
2	11.4	10.1	10.7	10.2	9.4	9.8	11.4	10.6	11.0	10.8	10.0	10.3
3	11.1	9.9	10.5	10.2	9.5	9.8	11.4	10.6	10.9	10.7	10.0	10.3
4	10.8	9.5	10.2	10.3	9.6	9.9	11.4	10.6	11.0	10.6	9.9	10.2
5	10.8	9.5	10.0	10.2	9.6	9.8	11.4	10.7	11.0	10.7	9.9	10.2
6	10.8	9.3	10.1	10.1	9.5	9.8	11.4	10.6	11.0	10.7	9.9	10.2
7	10.1	9.4	9.7	10.4	9.6	10.0	11.3	10.5	10.9	10.6	9.9	10.2
8	11.4	9.3	10.2	10.2	9.4	9.8	11.2	10.4	10.8	10.8	9.9	10.4
9	11.7	11.3	11.6	10.3	9.6	9.8	11.0	10.2	10.6	11.1	10.5	10.7
10	11.1	9.9	10.6	10.3	9.6	9.9	10.9	10.1	10.5	11.1	10.5	10.7
11	11.0	9.7	10.3	10.4	9.6	9.9	10.8	10.1	10.5	11.1	10.5	10.7
12	11.2	10.1	10.6	10.3	9.6	10.0	10.9	10.0	10.4	11.0	10.5	10.7
13	11.2	10.2	10.6	10.4	9.7	10.0	10.9	10.0	10.4	11.0	10.4	10.6
14	11.2	10.1	10.7	10.5	9.7	10.1	11.0	10.2	10.6	---	---	---
15	10.9	9.9	10.4	10.8	9.8	10.3	11.0	10.3	10.6	---	---	---
16	10.9	9.5	10.1	10.7	10.1	10.4	11.2	10.3	10.7	---	---	---
17	10.6	9.5	10.1	10.8	10.1	10.4	11.1	10.4	10.7	---	---	---
18	10.3	9.6	9.9	10.8	10.1	10.4	11.1	10.4	10.7	---	---	---
19	10.3	9.4	9.9	10.8	10.1	10.5	11.1	10.4	10.7	---	---	---
20	10.4	9.3	9.9	10.8	10.1	10.4	11.2	10.5	10.8	---	---	---
21	10.7	9.4	10.0	10.8	10.1	10.4	11.0	10.3	10.7	---	---	---
22	10.9	9.6	10.1	10.8	10.1	10.4	11.0	10.2	10.5	10.6	9.7	10.0
23	11.0	10.1	10.5	10.8	10.1	10.4	11.0	10.1	10.5	10.5	9.6	9.9
24	11.0	10.0	10.5	10.9	10.1	10.5	11.0	10.1	10.5	10.4	9.6	9.9
25	11.0	9.9	10.4	10.9	10.1	10.5	11.0	10.2	10.5	10.4	9.5	9.9
26	10.9	9.9	10.4	10.9	10.0	10.4	10.9	10.1	10.4	11.0	10.3	10.5
27	10.7	9.6	10.2	10.8	10.1	10.5	10.8	10.0	10.3	11.2	10.0	10.7
28	10.3	9.3	9.9	11.1	10.3	10.7	10.7	9.9	10.2	10.9	9.8	10.4
29	10.0	9.1	9.6	11.1	10.4	10.7	10.9	9.9	10.3	11.0	9.4	10.0
30	9.9	9.1	9.4	11.2	10.4	10.8	10.7	9.9	10.2	10.2	9.3	9.6
31	---	---	---	11.2	10.4	10.8	10.6	9.9	10.2	---	---	---
MONTH	11.7	9.1	10.3	11.2	9.4	10.2	11.4	9.9	10.6	11.2	9.3	10.3

14335075 ROGUE RIVER AT MCLEOD, OR--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		NOVEMBER			DECEMBER			JANUARY	
1	1000	2	5.4	1290	1	3.5	1810	2	9.8
2	996	3	8.1	1810	10	49	1510	3	12
3	989	4	11	2610	7	49	1360	3	11
4	989	3	8.0	3300	7	62	1360	6	22
5	996	3	8.1	2910	2	16	1190	4	13
6	992	1	2.7	2880	3	23	950	7	18
7	1360	1	3.7	2210	2	12	933	7	18
8	2110	2	11	1380	4	15	932	6	15
9	2060	10	56	1410	3	11	950	9	23
10	1470	4	16	1380	5	19	943	8	20
11	1150	10	31	1280	4	14	937	10	25
12	1040	5	14	1240	4	13	939	4	10
13	992	0	.00	1180	2	6.4	939	1	2.5
14	993	1	2.7	1170	2	6.3	940	1	2.5
15	993	2	5.4	1160	2	6.3	932	1	2.5
16	986	1	2.7	1210	4	13	931	2	5.0
17	986	1	2.7	1350	8	29	929	1	2.5
18	995	2	5.4	1360	17	62	925	0	.00
19	995	2	5.4	1310	4	14	926	1	2.5
20	989	1	2.7	1260	2	6.8	926	1	2.5
21	987	1	2.7	1320	3	11	928	1	2.5
22	1120	6	18	1460	2	7.9	942	1	2.5
23	1300	6	21	1460	2	7.9	945	0	.00
24	1430	6	23	1450	2	7.8	950	1	2.6
25	1310	4	14	1840	2	9.9	943	0	.00
26	1180	2	6.4	2470	1	6.7	937	0	.00
27	1120	1	3.0	2500	1	6.8	947	1	2.6
28	1080	1	2.9	2520	1	6.8	969	0	.00
29	1110	1	3.0	2420	1	6.5	958	0	.00
30	1250	2	6.8	2030	1	5.5	935	0	.00
31	---	---	---	1900	1	5.1	928	1	2.5
TOTAL	34968	---	302.80	55070	---	512.2	31644	---	229.50

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		FEBRUARY			MARCH			APRIL	
1	693	0	.00	659	3	5.3	645	2	3.5
2	657	0	.00	646	3	5.2	648	3	5.2
3	663	0	.00	685	2	3.7	807	5	11
4	648	1	1.7	657	2	3.5	946	6	15
5	653	0	.00	646	4	7.0	972	8	21
6	651	0	.00	647	3	5.2	969	7	18
7	653	0	.00	641	3	5.2	980	8	21
8	656	0	.00	643	4	6.9	979	5	13
9	658	---	.00	646	4	7.0	963	6	16
10	654	---	.00	652	4	7.0	968	8	21
11	650	0	.00	675	3	5.5	966	8	21
12	652	1	1.8	654	2	3.5	968	6	16
13	657	1	1.8	646	2	3.5	938	6	15
14	711	2	3.8	648	4	7.0	939	4	10
15	682	2	3.7	693	6	11	929	10	25
16	710	1	1.9	639	6	10	935	13	33
17	692	3	5.6	653	5	8.8	947	8	20
18	683	3	5.5	647	4	7.0	949	7	18
19	675	3	5.5	649	2	3.5	955	9	23
20	688	4	7.4	649	2	3.5	998	9	24
21	667	4	7.2	655	2	3.5	1170	4	13
22	658	4	7.1	661	2	3.6	1320	2	7.1
23	654	6	11	650	4	7.0	1450	4	16
24	660	10	18	650	5	8.8	1460	5	20
25	651	7	12	662	3	5.4	1480	6	24
26	657	3	5.3	649	4	7.0	1520	11	45
27	658	3	5.3	637	3	5.2	1630	5	22
28	656	2	3.5	644	2	3.5	1540	6	25
29	---	---	---	683	2	3.7	1540	2	8.3
30	---	---	---	639	3	5.2	1740	2	9.4
31	---	---	---	679	3	5.5	---	---	---
TOTAL	18647	---	108.10	20284	---	177.7	33251	---	539.5

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 (3 m) downstream from Ginger Creek, 0.6 mi (1.0 km) east of town of Butte Falls, and at mile 14.0 (22.5 km).

DRAINAGE AREA.--138 mi² (357 km²).

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. Altitude of gage is 2,360 ft (719 m), from river-profile map. Sept. 21, 1910, to Sept. 30, 1922, nonrecording gage at site 300 ft (91 m) upstream at different datums.

REMARKS.--Records good. Flow slightly regulated since 1952 by Willow Creek Reservoir, capacity, 7,320 acre-ft (9.03 hm³). Diversions for irrigation above station and for municipal water supply for Medford (since 1927) and Butte Falls.

AVERAGE DISCHARGE.--62 years (water years 1911, 1918-22, 1926-81), 155 ft³/s (4.390 m³/s), 112,300 acre-ft/yr (138 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft³/s (357 m³/s) Dec. 22, 1964, gage height, 7.65 ft (2.332 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s) on basis of slope-area measurement of peak flow; minimum, 29 ft³/s (0.82 m³/s) Sept. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 164 ft³/s (4.64 m³/s) May 25, gage height, 1.48 ft (0.451 m), no peak above base of 450 ft³/s (12.7 m³/s); minimum, 29 ft³/s (0.82 m³/s) Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	41	62	63	53	72	126	71	84	56	52	49
2	39	41	131	61	52	69	120	67	80	55	51	49
3	38	41	116	59	52	68	115	65	75	54	53	49
4	40	40	106	58	51	85	106	64	69	55	52	50
5	40	47	86	56	54	75	101	63	67	61	53	51
6	40	42	78	55	53	72	97	63	70	64	53	50
7	40	75	68	54	51	71	93	60	67	68	53	50
8	40	56	63	54	51	69	90	60	102	61	61	49
9	40	51	62	53	50	67	90	60	100	58	61	50
10	40	47	58	54	49	66	85	57	84	60	61	50
11	41	43	57	53	51	65	82	54	77	59	58	50
12	45	42	55	52	51	63	80	47	80	59	61	50
13	48	41	53	51	53	64	77	54	85	57	61	50
14	71	41	52	51	84	63	75	55	87	56	62	50
15	53	42	52	51	71	64	74	59	80	56	61	50
16	47	40	53	51	95	75	72	60	75	56	61	51
17	46	40	55	51	98	67	71	59	69	55	60	50
18	45	40	56	50	91	66	71	72	66	55	62	50
19	44	40	61	49	108	66	76	104	66	53	61	51
20	44	40	64	49	110	66	81	104	65	53	62	52
21	44	44	59	49	97	65	77	104	60	55	64	51
22	43	75	72	49	91	86	75	98	58	52	65	40
23	42	64	83	50	86	76	73	92	64	54	62	31
24	43	63	73	52	95	74	72	108	63	54	62	31
25	45	55	86	50	88	83	74	152	60	54	64	31
26	45	52	76	52	81	96	84	142	62	54	65	31
27	46	50	72	52	78	94	79	126	60	53	65	34
28	44	49	72	62	74	94	75	114	60	53	64	40
29	43	55	71	61	---	109	73	105	59	53	55	36
30	43	70	68	56	---	113	72	97	56	53	52	34
31	42	---	66	54	---	116	---	92	---	52	48	---
TOTAL	1361	1467	2186	1662	2018	2379	2536	2528	2148	1738	1819	1360
MEAN	43.9	48.9	70.5	53.6	72.1	76.7	84.5	81.5	71.6	56.1	58.7	45.3
MAX	71	75	131	63	110	116	126	152	102	68	64	52
MIN	38	40	52	49	49	63	71	47	56	52	48	31
AC-FT	2700	2910	4340	3300	4000	4720	5030	5010	4260	3450	3610	2700

CAL YR 1980 TOTAL 33467 MEAN 91.4 MAX 390 MIN 38 AC-FT 66380
WTR YR 1981 TOTAL 23202 MEAN 63.6 MAX 152 MIN 31 AC-FT 46020

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 (69 m) upstream from county road bridge, 0.9 mi (1.4 km) south of McLeod, and at mile 0.64 (1.03 km).

DRAINAGE AREA.--245 mi² (635 km²).

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 (465.110 m) National Geodetic Vertical Datum of 1929. Oct. 9, 1945, to Sept. 30, 1957, nonrecording gage at site 260 ft (79 m) downstream at datum 0.53 ft (0.162 m) higher.

REMARKS.--Water-discharge records good. Slight regulation by fish hatchery 600 ft (183 m) above 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.--26 years, 280 ft³/s (7.930 m³/s), 202,900 acre-ft/yr (250 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,950 ft³/s (253 m³/s) Dec. 22, 1955, gage height, 12.75 ft (3.886 m), site and datum then in use, from rating curve extended above 3,300 ft³/s (93.5 m³/s) on basis of slope-area measurement of peak flow; minimum, 6.4 ft³/s (0.18 m³/s) June 23, 24, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 18.6 ft (5.67 m), present site, from floodmark by local resident, discharge, 16,800 ft³/s (476 m³/s), from rating curve, at former site, extended above 9,000 ft³/s (255 m³/s) and field estimate of overflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Dec. 2, gage height, 5.54 ft (1.689 m), no peak above base of 1,800 ft³/s (51.0 m³/s); minimum, 36 ft³/s (1.02 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	61	109	103	97	197	282	78	103	55	48	42
2	46	61	719	95	91	186	250	78	99	52	46	43
3	46	61	357	91	85	183	225	74	89	55	46	48
4	85	61	376	87	82	288	200	74	80	48	47	40
5	88	61	206	83	95	228	183	74	78	50	46	43
6	90	65	166	82	91	203	169	74	80	54	43	42
7	90	131	130	83	83	197	158	73	78	58	43	42
8	94	101	103	76	80	189	150	71	125	54	44	42
9	95	87	89	74	78	180	150	69	150	52	44	39
10	97	101	85	73	76	174	137	68	99	52	44	40
11	99	68	82	71	80	169	130	66	87	52	44	40
12	109	67	78	69	78	166	128	66	95	51	44	40
13	116	65	73	69	85	174	118	66	105	51	51	40
14	166	64	71	68	361	166	109	66	105	51	42	40
15	134	64	71	68	180	169	103	68	93	51	42	40
16	120	64	73	69	395	253	97	73	83	51	42	40
17	116	64	76	71	308	203	93	68	74	50	43	42
18	116	62	74	69	250	191	91	95	69	48	42	40
19	114	62	73	68	295	189	93	222	69	48	43	47
20	114	61	74	68	288	183	107	189	66	46	44	42
21	114	70	83	66	219	177	97	163	64	46	46	43
22	114	163	93	74	228	213	91	140	63	46	52	44
23	111	97	91	71	244	200	85	125	64	46	42	60
24	92	97	107	74	322	194	82	153	64	48	43	61
25	64	81	312	73	282	200	82	278	64	50	44	64
26	64	75	172	87	241	225	101	219	64	50	44	66
27	65	72	209	101	222	189	95	183	64	48	43	85
28	72	70	169	228	206	158	87	158	63	46	43	83
29	85	73	137	222	---	197	82	140	61	44	43	82
30	61	109	121	137	---	235	80	128	60	50	42	80
31	61	---	109	112	---	225	---	114	---	50	42	---
TOTAL	2888	2338	4688	2782	5142	6101	3855	3513	2458	1553	1372	1500
MEAN	93.2	77.9	151	89.7	184	197	129	113	81.9	50.1	44.3	50.0
MAX	166	163	719	228	395	288	282	278	150	58	52	85
MIN	46	61	71	66	76	158	80	66	60	44	42	39
AC-FT	5730	4640	9300	5520	10200	12100	7650	6970	4880	3080	2720	2980

CAL YR 1980 TOTAL 60835 MEAN 166 MAX 1790 MIN 40 AC-FT 120700
WTR YR 1981 TOTAL 38190 MEAN 105 MAX 719 MIN 39 AC-FT 75750

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1970 to current year.

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, 24.0°C Aug. 9; minimum, 1.5°C Dec. 8, 12-14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14337500 BIG BUTTE CREEK NEAR MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	6.0	18.0	14.0	16.5	12.0	20.5	14.0	21.0	14.5	18.5	13.0
2	9.0	6.0	15.5	11.5	17.0	12.5	22.5	14.5	20.5	14.5	19.0	13.0
3	9.5	7.0	14.5	10.0	18.5	12.5	22.5	15.5	20.0	13.5	18.0	12.5
4	11.0	6.0	15.0	10.5	20.5	14.5	23.0	16.5	20.5	13.5	16.5	12.5
5	10.5	7.0	12.0	9.0	18.0	14.5	20.0	17.5	21.5	14.5	18.0	11.5
6	11.0	6.0	14.5	8.5	18.0	14.5	17.5	13.5	22.5	15.5	18.5	12.5
7	10.5	5.5	13.5	8.5	16.0	13.5	18.0	11.5	23.5	16.5	19.0	12.5
8	8.5	7.0	12.5	10.0	13.5	11.5	20.0	12.0	23.5	17.0	19.5	13.5
9	10.5	7.5	17.5	11.0	15.0	11.0	20.0	13.5	24.0	17.0	19.0	13.5
10	11.0	6.0	17.0	11.5	16.5	12.0	20.0	14.0	23.5	17.0	18.5	12.5
11	8.5	7.0	16.5	10.5	17.0	11.5	19.5	12.5	23.5	17.0	18.5	12.5
12	11.0	7.0	17.0	10.0	14.0	12.0	20.0	13.0	23.0	17.0	19.0	13.0
13	13.0	6.0	15.0	11.0	13.5	10.5	20.0	13.0	22.0	16.0	18.5	13.0
14	14.5	7.5	14.0	11.5	17.0	10.0	21.0	13.0	22.5	16.0	19.0	13.5
15	11.5	9.5	13.5	10.5	19.0	11.5	22.0	15.0	22.0	16.0	19.0	13.0
16	14.5	10.5	15.0	9.0	18.5	14.0	22.5	15.5	21.5	15.0	19.0	14.0
17	15.5	9.5	13.5	11.0	18.0	11.0	22.0	15.5	21.5	14.5	19.5	14.0
18	16.5	10.5	13.5	11.5	15.0	12.5	21.5	14.5	21.0	15.5	18.5	14.0
19	14.0	10.0	12.0	10.5	19.5	13.5	22.0	15.0	21.0	15.5	17.5	14.0
20	14.0	9.5	12.5	10.0	20.5	14.5	22.0	15.0	20.5	14.5	14.5	11.5
21	13.0	10.5	12.0	9.0	20.5	14.0	22.0	15.0	20.0	13.5	13.5	10.5
22	17.0	10.0	14.0	9.5	19.0	14.0	21.5	15.0	20.0	14.0	14.5	10.0
23	18.0	12.0	17.5	11.5	20.0	13.5	21.5	14.5	20.5	14.5	13.0	9.0
24	15.0	12.0	17.0	13.5	21.5	13.5	21.0	14.5	19.5	14.0	11.0	8.5
25	12.0	10.0	17.0	13.5	21.5	15.0	21.5	14.5	19.5	14.5	12.5	8.0
26	11.5	9.0	16.5	12.0	21.0	15.0	22.5	16.0	18.5	12.5	11.5	10.0
27	14.5	8.0	17.0	12.0	20.0	14.0	23.0	16.0	18.5	12.5	14.0	11.0
28	18.0	11.0	18.5	12.0	20.0	13.0	22.5	16.5	19.0	13.0	13.5	11.5
29	19.5	13.0	18.0	13.0	21.0	14.0	21.5	15.5	18.5	13.0	13.0	10.5
30	20.0	14.0	17.0	13.0	20.5	15.0	21.0	14.0	18.5	13.5	12.5	8.0
31	---	---	18.0	11.0	---	---	21.0	14.0	19.0	12.5	---	---
MONTH	20.0	5.5	18.5	8.5	21.5	10.0	23.0	11.5	24.0	12.5	19.5	8.0

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 (2.1 km) downstream from Big Butte Creek, 1.6 mi (2.6 km) southwest of McLeod, and at mile 154.0 (247.8 km).

DRAINAGE AREA.--938 mi^2 (2,429 km^2).

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,489.08 ft (453.872 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Diversions for irrigation above station; most of low flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--16 years, 2,062 ft^3/s (58.40 m^3/s), 1,494,000 acre-ft/yr (1.84 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s (850 m^3/s) Mar. 3, 1972, gage height, 12.24 ft (3.731 m); minimum, 468 ft^3/s (13.3 m^3/s) Feb. 18, 1977, result of closure of Lost Creek Dam, minimum prior to that time, 604 ft^3/s (17.1 m^3/s) Sept. 5, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1928, 20.35 ft (6.203 m) Dec. 22, 1964, from floodmarks, discharge, 74,300 ft^3/s (2,100 m^3/s) from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,370 ft^3/s (124 m^3/s) Dec. 4, gage height, 4.15 ft (1.265 m); minimum, 718 ft^3/s (20.3 m^3/s) Feb. 3, 4, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1200	1060	1400	1920	790	856	927	1830	1580	2020	2160	1690
2	1200	1060	2530	1610	748	832	898	1800	1570	2030	2160	1690
3	1210	1050	2970	1450	748	868	1030	1610	1570	2020	2160	1710
4	1240	1050	3680	1450	730	945	1150	1550	1540	2030	2210	1700
5	1240	1060	3110	1280	748	874	1150	1510	1550	2030	2220	1700
6	1240	1060	3040	1030	742	850	1140	1570	1540	2030	2210	1700
7	1240	1490	2340	1020	736	838	1140	1380	1540	2050	2210	1700
8	1240	2210	1480	1010	736	832	1130	1400	2170	2080	2210	1870
9	1240	2150	1500	1020	736	826	1110	1470	2730	2070	2220	2210
10	1240	1570	1470	1020	730	826	1100	1440	1930	2070	2220	2410
11	1240	1220	1370	1010	730	844	1100	1400	1860	2070	2210	2390
12	1270	1100	1320	1010	730	820	1100	1340	1940	2070	2210	2410
13	1280	1060	1250	1010	742	820	1060	1340	1910	2060	2200	2410
14	1330	1060	1240	1010	1070	814	1050	1340	1910	2060	2200	2410
15	1290	1060	1230	1000	862	862	1030	1480	1870	2060	2200	2410
16	1280	1050	1280	1000	1100	892	1030	1540	1850	2070	2200	2410
17	1260	1050	1430	1000	1000	856	1040	1420	1840	2060	2190	2410
18	1270	1060	1430	994	933	838	1040	2030	1840	2060	2190	2210
19	1270	1060	1380	994	970	838	1050	2590	1830	2060	2200	1820
20	1270	1050	1340	994	976	832	1100	2220	1840	2060	2210	1390
21	1370	1060	1400	994	886	832	1270	1880	1840	2060	1860	1110
22	1370	1280	1560	1020	886	874	1410	1790	1830	2060	1700	1100
23	1370	1400	1550	1020	898	850	1540	1760	1830	2060	1700	1130
24	1350	1530	1560	1020	982	844	1540	1930	1830	2070	1700	1130
25	1220	1390	2150	1020	933	862	1560	2730	1820	2070	1700	1130
26	1210	1260	2640	1020	898	874	1620	2630	1830	2060	1700	1130
27	1220	1200	2710	1050	880	826	1720	2080	1840	2060	1700	1160
28	1230	1150	2690	1200	862	802	1630	1990	1830	2060	1700	1160
29	1240	1190	2560	1180	---	880	1620	1870	1830	2060	1700	1150
30	1210	1360	2150	1070	---	874	1820	1740	1830	2060	1690	1150
31	1240	---	2010	1040	---	904	---	1710	---	2060	1690	---
TOTAL	39080	37350	59770	34466	23782	26385	37105	54370	54720	63740	62830	52000
MEAN	1261	1245	1928	1112	849	851	1237	1754	1824	2056	2027	1733
MAX	1370	2210	3680	1920	1100	945	1820	2730	2730	2080	2220	2410
MIN	1200	1050	1230	994	730	802	898	1340	1540	2020	1690	1100
AC-FT	77520	74080	118600	68360	47170	52330	73600	107800	108500	126400	124600	103100

CAL YR 1980 TOTAL 654491 MEAN 1788 MAX 10200 MIN 878 AC-FT 1298000
WTR YR 1981 TOTAL 545598 MEAN 1495 MAX 3680 MIN 730 AC-FT 1082000

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1970 to current year.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 14.5°C June 4; minimum recorded, 4.0°C Feb. 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14337600 ROGUE RIVER NEAR MCLEOD, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	9.0	7.5	---	---	13.5	13.0	11.0	10.5	11.0	10.5
2	---	---	9.0	7.0	---	---	14.0	13.5	---	---	10.5	10.0
3	---	---	---	7.0	14.0	---	14.0	13.5	---	---	10.5	10.0
4	---	---	---	---	14.5	12.5	13.5	13.0	---	---	10.5	10.0
5	---	---	---	---	14.0	12.5	13.5	13.0	---	---	10.5	10.0
6	---	---	---	---	13.5	13.0	13.0	12.5	---	---	10.5	10.0
7	---	---	---	---	13.0	13.0	13.0	12.5	---	---	10.5	10.0
8	---	---	---	---	13.0	11.5	13.0	12.5	---	---	10.5	9.0
9	---	---	---	---	11.5	11.0	13.0	12.5	---	---	9.0	8.0
10	---	---	---	---	12.5	11.0	13.0	13.0	---	---	8.0	8.0
11	---	---	---	---	13.0	12.5	13.5	13.0	11.5	---	8.0	7.5
12	---	---	---	---	13.0	12.5	13.5	13.0	12.0	11.5	8.0	7.5
13	---	---	---	---	12.5	12.5	13.0	13.0	11.5	11.5	8.0	7.5
14	---	---	---	---	13.0	12.5	13.0	12.5	11.5	11.0	8.0	7.5
15	---	---	---	---	13.0	12.5	12.5	11.5	11.5	11.0	8.0	7.5
16	8.0	---	---	---	13.0	13.0	11.5	11.0	11.0	11.0	8.0	8.0
17	8.5	6.5	---	---	13.0	12.5	11.5	11.0	11.0	10.5	8.0	8.0
18	9.0	6.5	---	---	13.0	13.0	11.5	11.0	11.0	10.5	9.0	8.0
19	7.5	6.5	---	---	13.5	12.5	11.5	11.0	11.0	10.5	10.5	9.0
20	8.5	6.5	---	---	13.5	13.0	11.5	11.0	11.0	10.5	10.5	10.0
21	7.5	6.5	---	---	13.5	13.0	11.5	11.0	11.0	10.5	10.5	10.0
22	8.5	7.0	---	---	13.5	13.0	11.0	11.0	11.5	11.0	10.5	10.0
23	9.0	7.0	---	---	13.0	12.5	11.0	11.0	11.5	11.0	10.5	10.0
24	8.0	7.0	---	---	13.0	12.5	11.0	11.0	11,0	11.0	10.0	10.0
25	7.5	6.5	---	---	13.0	12.5	11.0	11.0	11.0	10.5	10.5	10.0
26	7.5	6.5	---	---	13.5	12.5	11.0	11.0	11.0	10.5	10.5	10.0
27	8.0	6.5	---	---	13.0	12.5	11.5	11.0	11.0	10.5	10.5	10.0
28	9.0	7.0	---	---	13.5	12.5	11.5	11.0	11.0	11.0	10.5	10.5
29	9.5	7.0	---	---	13.5	13.0	11.5	11.0	11.0	10.5	10.5	10.5
30	9.0	7.5	---	---	13.5	13.0	11.0	10.5	11.0	10.5	10.5	10.0
31	---	---	---	---	---	---	11.0	10.5	11.5	11.0	---	---
MONTH	9.5	6.5	9.0	7.0	14.5	11.0	14.0	10.5	12.0	10.5	11.0	7.5

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 (0.2 km) downstream from Sugarpine Creek, 6.5 mi (10.5 km) northwest of town of Cascade Gorge, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--78.8 mi² (204.1 km²).

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 (552.855 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Water-discharge records good. No regulation. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--8 years, 139 ft³/s (3.936 m³/s), 25.95 in/yr (608 mm/yr), 100,700 acre-ft/yr (124 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,780 ft³/s (192 m³/s) Jan. 15, 1974, gage height, 8.9 ft (2.71 m), from floodmark; minimum daily, 0.72 ft³/s (0.020 m³/s) Aug. 24, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft³/s (45.0 m³/s) Dec. 2, gage height, 5.61 ft (1.710 m), no peak above base of 1,600 ft³/s (45.3 m³/s); minimum, 1.6 ft³/s (0.045 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	8.8	58	68	73	90	195	38	47	17	6.3	3.6
2	2.9	11	1010	61	65	81	188	36	44	16	6.0	3.6
3	2.7	10	599	54	61	76	168	36	40	16	5.5	3.4
4	2.7	8.8	414	48	59	109	147	35	37	15	4.7	3.2
5	2.7	8.4	220	45	61	98	138	33	36	14	4.7	3.4
6	2.9	8.8	150	41	61	92	130	35	37	15	4.4	3.4
7	2.7	90	109	39	55	85	117	33	36	17	4.1	2.9
8	2.7	60	83	37	52	78	104	32	58	16	4.1	2.5
9	2.9	56	68	35	50	71	98	32	52	15	4.7	2.5
10	2.9	40	62	33	45	65	88	30	45	14	3.9	2.4
11	2.9	27	61	31	46	62	85	28	40	13	3.4	2.5
12	5.8	20	61	29	48	59	81	26	38	12	3.4	2.2
13	8.8	16	59	28	59	56	74	24	44	12	3.4	1.9
14	17	17	54	27	389	54	71	23	50	12	3.4	2.2
15	12	21	55	26	256	56	70	32	46	11	3.4	2.2
16	10	18	67	27	449	88	70	38	41	11	3.2	2.2
17	9.2	16	67	28	454	83	65	39	38	10	3.1	2.2
18	8.1	15	59	26	363	76	64	92	36	9.6	2.9	2.2
19	7.7	14	55	25	373	73	62	162	35	10	2.9	2.4
20	7.1	13	55	24	352	70	58	125	32	9.6	3.6	2.7
21	7.1	17	59	24	281	67	55	96	28	8.8	3.4	2.7
22	6.9	120	81	25	224	65	52	78	27	8.8	3.4	3.1
23	6.9	68	94	30	178	61	50	68	25	8.5	3.4	3.1
24	6.9	68	102	29	181	58	47	76	25	8.1	3.2	3.2
25	9.6	49	414	29	153	74	46	122	23	7.4	3.2	3.4
26	12	36	299	39	130	94	48	102	21	7.4	3.6	4.1
27	18	28	205	71	115	100	47	87	19	7.0	3.4	19
28	12	25	153	178	102	94	45	73	17	6.3	3.4	13
29	10	31	115	178	---	113	43	64	18	6.3	3.4	7.4
30	9.6	53	94	122	---	135	40	56	17	6.7	3.4	5.7
31	8.4	---	79	90	---	156	---	51	---	6.3	3.2	---
TOTAL	224.2	973.8	5061	1547	4735	2539	2546	1802	1052	346.8	118.1	118.3
MEAN	7.23	32.5	163	49.9	169	81.9	84.9	58.1	35.1	11.2	3.81	3.94
MAX	18	120	1010	178	454	156	195	162	58	17	6.3	19
MIN	2.7	8.4	54	24	45	54	40	23	17	6.3	2.9	1.9
CFSM	.09	.41	2.07	.63	2.15	1.04	1.08	.74	.45	.14	.05	.05
IN.	.11	.46	2.39	.73	2.24	1.20	1.20	.85	.50	.16	.06	.06
AC-FT	445	1930	10040	3070	9390	5040	5050	3570	2090	688	234	235

CAL YR 1980 TOTAL 47395.7 MEAN 129 MAX 3120 MIN 2.7 CFSM 1.64 IN 22.37 AC-FT 94010
WTR YR 1981 TOTAL 21063.2 MEAN 57.7 MAX 1010 MIN 1.9 CFSM .73 IN 9.94 AC-FT 41780

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.

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 Nov. 20-22, 1977, many days during November 1978 through February 1979, Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 28.5°C Aug. 9-11; minimum, 1.0°C Dec. 13.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	10.5	8.5	7.0	5.5	4.5	7.0	5.5	5.5	3.0	8.0	4.0
2	18.0	10.5	9.0	6.5	7.5	4.5	6.0	4.5	5.5	3.0	8.5	4.0
3	18.0	11.0	11.5	8.5	8.5	7.0	8.0	5.5	5.5	2.0	7.0	4.0
4	17.0	10.0	10.5	7.0	7.0	6.0	7.5	6.0	5.0	2.0	7.0	4.5
5	17.5	10.5	10.5	6.5	6.5	5.5	6.5	4.5	5.5	4.0	7.5	3.0
6	17.0	10.5	10.5	9.5	5.5	4.5	5.5	3.5	5.5	3.0	7.0	2.5
7	17.0	10.5	11.0	10.0	4.5	3.0	6.0	3.5	5.0	1.5	6.0	4.0
8	16.5	10.5	10.0	9.0	4.0	2.0	6.0	4.0	5.0	1.5	8.5	3.5
9	15.0	8.5	9.5	7.0	3.5	2.0	7.0	5.0	5.5	1.5	9.0	3.5
10	14.0	8.5	7.5	5.5	4.0	2.0	6.0	4.0	5.0	1.5	8.5	4.0
11	11.0	8.5	7.5	5.5	4.0	2.5	5.0	3.0	7.0	4.0	10.0	4.5
12	11.5	10.0	6.5	3.5	3.0	1.5	4.5	2.5	7.5	4.0	10.5	4.0
13	11.5	9.5	5.0	2.0	3.0	1.0	4.5	2.0	7.0	5.0	8.0	6.0
14	9.5	7.0	4.5	3.0	3.5	1.5	4.5	2.5	7.5	6.0	10.0	5.5
15	10.0	7.5	6.5	4.0	4.5	2.5	6.0	2.5	7.0	6.0	7.0	5.5
16	10.0	6.5	5.5	3.0	5.0	3.5	6.5	4.5	8.0	6.5	9.0	4.5
17	10.0	6.0	7.0	4.0	5.0	3.5	6.5	5.0	7.5	6.0	8.5	3.0
18	10.0	5.5	6.0	3.0	5.5	3.5	7.5	5.5	7.5	6.5	6.5	3.5
19	10.0	5.0	6.0	3.5	5.5	4.0	8.0	6.0	7.5	5.5	10.5	5.0
20	10.5	6.0	6.0	3.5	7.0	5.5	7.5	4.5	6.5	5.0	9.5	5.0
21	11.5	7.5	6.0	4.0	7.5	6.0	9.0	7.5	7.0	4.5	9.0	5.5
22	10.5	6.0	8.0	6.0	8.0	6.5	9.0	8.0	8.0	5.0	10.5	6.5
23	9.5	5.0	8.0	6.0	6.5	5.0	8.5	7.0	8.0	5.0	9.0	5.0
24	10.5	6.5	6.5	5.5	7.0	6.0	7.0	5.5	7.0	5.5	9.0	4.5
25	9.5	8.5	7.5	5.0	8.5	7.5	6.0	4.5	7.0	5.0	9.0	6.5
26	8.5	7.5	6.5	4.5	9.0	8.0	6.5	5.0	6.5	5.0	9.0	6.0
27	9.5	6.5	6.5	4.0	9.0	7.5	6.5	5.5	7.0	4.0	10.5	5.5
28	8.5	5.0	8.5	6.5	7.5	6.0	6.0	5.0	7.5	4.0	10.5	4.5
29	8.5	4.5	7.5	6.5	7.5	6.0	6.0	5.0	---	---	7.5	5.5
30	8.0	5.5	6.5	5.0	8.0	7.0	6.0	4.5	---	---	6.5	5.0
31	9.5	6.5	---	---	7.5	6.0	6.0	3.5	---	---	7.0	5.0
MONTH	18.0	4.5	11.5	2.0	9.0	1.0	9.0	2.0	8.0	1.5	10.5	2.5

14337800 ELK CREEK NEAR CASCADE GORGE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	5.0	17.5	11.0	16.0	10.5	21.5	13.5	24.5	15.0	22.5	14.5
2	7.5	4.5	13.5	8.5	17.5	12.0	23.0	14.0	24.0	15.5	22.0	13.0
3	8.0	5.0	14.0	7.5	18.5	11.0	24.0	15.5	23.5	14.0	22.0	13.0
4	10.0	4.0	13.0	7.5	20.0	13.5	23.5	16.5	24.0	14.0	20.5	13.5
5	8.0	5.0	10.0	6.5	17.5	13.0	21.0	18.0	25.0	15.0	21.0	12.5
6	9.5	4.0	13.0	6.0	17.5	13.5	18.0	14.0	26.5	16.5	22.0	13.0
7	9.5	3.5	12.0	5.5	14.0	12.5	19.0	12.0	27.5	17.5	23.0	13.0
8	6.5	5.0	11.0	7.5	12.5	11.0	20.5	11.5	28.0	18.5	24.0	14.5
9	9.0	5.0	17.0	8.5	15.0	10.5	21.0	13.0	28.5	19.0	23.0	14.0
10	10.0	3.5	16.5	8.5	16.5	11.0	21.0	13.5	28.5	18.0	22.5	13.0
11	6.5	5.0	16.5	8.0	17.0	10.0	20.5	12.0	28.5	18.5	23.0	13.5
12	9.0	5.0	16.5	7.5	13.0	10.5	20.5	12.5	28.0	18.5	23.5	14.0
13	12.0	3.5	14.0	9.0	12.0	9.5	21.0	12.5	27.5	18.0	23.0	14.5
14	13.5	5.0	14.5	10.5	16.5	8.5	22.0	12.5	27.0	17.5	24.0	14.0
15	10.5	6.5	12.5	7.5	18.0	9.5	24.0	14.5	26.5	18.0	24.5	14.5
16	14.0	8.0	14.0	7.0	17.0	12.0	24.0	15.5	26.5	16.5	24.5	15.5
17	15.0	7.0	11.5	8.5	17.5	9.0	24.0	15.5	26.5	15.5	24.5	16.0
18	16.0	7.5	11.0	9.0	14.5	11.0	23.5	14.5	26.5	17.0	23.0	15.0
19	11.0	8.0	10.5	8.5	18.5	12.5	24.0	15.0	25.5	17.5	21.0	15.0
20	14.5	7.5	10.0	8.0	20.5	13.0	24.0	15.0	24.5	15.5	18.0	12.5
21	11.0	9.0	10.5	7.5	20.5	12.5	24.5	15.0	24.5	15.0	17.0	11.5
22	17.0	7.5	13.0	7.5	19.5	13.0	24.0	15.0	25.0	15.0	17.0	10.5
23	18.0	9.0	16.0	9.5	20.5	12.0	24.0	15.0	25.0	16.0	16.5	9.5
24	14.0	9.0	15.5	11.5	22.0	12.5	23.5	14.5	23.5	15.5	15.0	10.0
25	9.5	7.5	15.0	10.5	22.5	14.0	24.5	15.0	23.5	16.5	16.0	9.0
26	10.5	7.0	16.0	9.5	21.5	14.5	25.5	16.0	22.5	14.0	14.0	11.0
27	13.5	5.5	16.5	9.5	20.5	12.5	26.5	17.0	22.5	13.0	15.0	13.0
28	17.5	8.5	17.5	10.0	21.0	12.5	26.0	17.5	22.5	13.5	15.0	12.5
29	19.0	10.5	17.5	11.5	22.0	13.5	24.0	16.0	21.0	13.5	15.0	10.5
30	20.0	12.0	17.0	11.5	21.5	14.5	24.0	14.5	22.0	14.5	15.0	8.5
31	---	---	18.0	9.5	---	---	24.5	14.5	22.5	13.5	---	---
MONTH	20.0	3.5	18.0	5.5	22.5	8.5	26.5	11.5	28.5	13.0	24.5	8.5

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 (91 m) upstream from Spot Creek and 5.3 mi (8.5 km) northeast of Trail.

DRAINAGE AREA.--14.2 mi² (36.8 km²).

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 (540.484 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. No regulation or diversions above station.

AVERAGE DISCHARGE.--7 years, 23.1 ft³/s (0.654 m³/s), 22.09 in/yr (561 mm/yr), 16,740 acre-ft/yr (20.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s (39.9 m³/s) Jan. 15, 1974, gage height, 5.30 ft (1.615 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.26 ft³/s (0.007 m³/s) Sept. 16, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 281 ft³/s (7.96 m³/s) Dec. 2, gage height, 2.52 ft (0.768 m), no peak above base of 300 ft³/s (8.50 m³/s); minimum, 0.26 ft³/s (0.007 m³/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.5	8.7	9.3	12	11	32	4.9	4.4	1.8	.81	.49
2	1.1	1.7	170	8.1	11	10	34	4.7	4.4	1.7	.81	.54
3	1.1	1.2	89	7.2	11	9.3	30	4.2	4.0	1.5	.81	.54
4	1.1	1.1	63	6.1	11	16	25	4.0	3.8	1.4	.81	.54
5	1.1	1.1	29	5.9	11	15	22	3.6	4.0	1.5	.73	.54
6	1.1	1.2	19	5.4	10	14	20	3.6	4.0	1.8	.73	.44
7	.98	17	14	5.1	9.0	13	17	3.4	3.6	2.1	.73	.36
8	1.1	11	11	4.9	8.4	12	14	3.2	6.9	1.8	.59	.36
9	1.3	8.7	9.3	4.4	8.1	11	12	3.0	5.1	1.7	.54	.36
10	1.3	6.9	9.0	4.2	7.2	9.3	11	2.8	4.2	1.5	.44	.36
11	1.3	5.1	9.0	4.0	6.9	8.7	10	2.6	3.8	1.4	.40	.40
12	2.8	4.2	9.7	3.8	6.9	8.4	9.3	2.6	4.7	1.4	.49	.36
13	3.2	3.6	9.3	3.6	8.4	8.7	9.0	2.6	5.9	1.4	.54	.36
14	5.4	4.2	8.4	3.6	62	7.8	8.4	2.6	5.6	1.4	.59	.36
15	2.1	5.1	8.4	3.6	40	8.4	8.1	4.7	4.9	1.2	.54	.33
16	.98	4.4	12	3.4	50	11	7.5	5.4	4.2	1.2	.54	.29
17	.81	3.8	10	3.8	63	11	6.9	6.9	3.6	1.2	.54	.29
18	.73	3.4	8.1	3.6	40	11	6.4	16	3.2	1.1	.49	.33
19	.73	3.2	6.7	3.2	32	10	6.4	30	3.2	1.1	.49	.40
20	.73	3.0	5.9	3.2	29	9.0	6.1	19	2.8	.98	.59	.49
21	.66	6.1	7.5	3.2	26	8.1	5.9	14	2.4	.98	.59	.54
22	.66	17	10	3.8	20	7.2	5.9	10	2.3	.98	.54	.54
23	.66	11	12	4.4	17	6.7	5.4	8.7	2.3	.98	.49	.59
24	.81	11	15	5.1	18	6.4	5.1	8.4	2.1	.98	.49	.54
25	1.3	8.7	93	4.9	17	9.0	4.9	11	2.0	.90	.49	.81
26	1.5	6.7	59	7.5	16	12	5.4	9.7	2.0	.90	.54	1.4
27	1.7	5.4	34	16	14	16	5.4	8.4	2.0	.73	.54	4.2
28	1.2	4.7	25	31	13	16	5.1	6.9	1.8	.73	.54	2.4
29	1.1	5.4	18	11	---	17	4.9	6.1	1.8	.81	.49	1.5
30	.98	7.8	14	10	---	19	5.1	4.9	1.8	.90	.54	1.3
31	.98	---	11	15	---	25	---	4.4	---	.81	.54	---
TOTAL	41.61	175.2	808.0	208.3	577.9	357.0	348.2	222.3	106.8	38.88	18.00	21.96
MEAN	1.34	5.84	26.1	6.72	20.6	11.5	11.6	7.17	3.56	1.25	.58	.73
MAX	5.4	17	170	31	63	25	34	30	6.9	2.1	.81	4.2
MIN	.66	1.1	5.9	3.2	6.9	6.4	4.9	2.6	1.8	.73	.40	.29
CFSM	.09	.41	1.84	.47	1.45	.81	.82	.51	.25	.09	.04	.05
IN.	.11	.46	2.12	.55	1.51	.94	.91	.58	.28	.10	.05	.06
AC-FT	83	348	1600	413	1150	708	691	441	212	77	36	44

CAL YR 1980 TOTAL 6854.68 MEAN 18.7 MAX 510 MIN .66 CFSM 1.32 IN 17.96 AC-FT 13600
WTR YR 1981 TOTAL 2924.15 MEAN 8.01 MAX 170 MIN .29 CFSM .56 IN 7.66 AC-FT 5800

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 25.5°C Aug. 8, 1978; minimum, 0.0°C Nov. 20-22, 1977, many days during November 1978 to February 1979, and Jan. 28-31, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 9-11; minimum recorded, 1.0°C Dec. 8-10, 12.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	10.0	9.0	7.0	5.0	4.0	5.5	4.0	---	---	7.5	3.5
2	15.5	10.5	9.5	6.5	7.5	4.5	---	---	---	---	8.0	3.5
3	15.5	11.0	10.5	8.5	8.0	6.5	---	---	---	---	6.5	3.5
4	14.5	10.0	9.5	7.5	6.5	5.5	---	---	---	---	6.0	4.0
5	15.0	10.5	9.5	7.0	6.0	5.0	---	---	---	---	6.5	3.0
6	15.0	10.5	10.0	9.0	5.0	3.5	---	---	---	---	6.0	2.5
7	15.0	10.5	11.0	10.0	3.5	2.0	---	---	---	---	6.0	4.5
8	14.5	10.5	10.0	9.0	2.5	1.0	---	---	---	---	8.0	3.5
9	13.0	9.0	9.0	7.0	2.5	1.0	---	---	---	---	8.5	3.5
10	12.5	9.0	7.0	5.5	3.0	1.0	---	---	---	---	8.0	4.5
11	11.0	9.0	7.0	6.0	2.5	1.5	---	---	---	---	9.5	4.5
12	11.0	10.0	6.0	4.0	2.0	1.0	---	---	---	---	9.5	4.0
13	10.5	9.0	4.5	3.0	---	---	---	---	---	---	7.5	6.0
14	9.5	7.5	5.0	3.0	---	---	---	---	---	---	10.0	5.5
15	10.0	8.0	5.0	3.5	---	---	---	---	---	---	7.0	5.5
16	9.5	6.5	5.5	3.5	---	---	---	---	---	---	8.5	4.5
17	9.0	6.0	6.5	4.0	---	---	---	---	7.0	---	8.0	3.0
18	9.0	6.0	6.0	4.0	---	---	---	---	7.5	6.5	6.5	4.0
19	9.0	6.0	5.0	4.0	---	---	---	---	7.5	5.0	8.5	5.0
20	9.5	6.5	5.5	3.5	---	---	---	---	6.0	4.5	9.5	5.5
21	10.5	7.5	6.0	4.5	---	---	---	---	6.5	4.0	8.5	5.5
22	9.5	7.0	8.0	6.5	---	---	---	---	7.5	4.0	9.5	6.0
23	9.0	6.0	7.5	6.0	---	---	---	---	7.5	5.0	8.5	5.0
24	10.0	7.0	6.0	5.0	---	---	---	---	6.0	5.0	9.0	4.5
25	9.5	8.0	6.5	5.0	---	---	---	---	6.0	4.5	9.0	6.5
26	8.5	7.5	5.5	4.0	---	---	---	---	6.0	4.0	8.5	6.0
27	8.5	6.5	6.0	4.0	---	---	---	---	6.5	3.5	10.0	6.0
28	7.5	5.0	7.0	6.0	---	---	---	---	7.0	3.5	10.0	4.5
29	7.5	5.0	7.0	6.0	---	---	---	---	---	---	8.0	5.5
30	8.0	6.0	6.0	5.0	6.5	5.5	---	---	---	---	6.5	5.0
31	8.5	7.0	---	---	6.0	5.0	---	---	---	---	7.0	5.0
MONTH	15.5	5.0	11.0	3.0	8.0	1.0	5.5	4.0	7.5	3.5	10.0	2.5

14337870 WEST BRANCH ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	4.5	16.5	11.5	15.5	11.0	20.0	12.5	20.5	13.5	19.0	13.5
2	7.0	4.5	12.5	8.5	16.5	11.5	21.0	13.0	20.5	14.0	19.0	12.5
3	8.0	5.0	13.0	8.0	17.0	11.0	22.0	14.5	19.5	13.5	18.5	12.5
4	9.5	4.0	12.0	7.5	18.5	13.5	22.0	15.5	20.0	13.0	17.0	12.5
5	8.0	5.0	9.5	6.5	17.0	13.0	19.5	17.0	21.0	14.0	18.0	12.0
6	9.0	4.0	12.0	6.0	16.5	13.0	17.0	13.0	22.5	15.0	19.0	12.5
7	9.5	4.0	11.5	5.5	14.0	12.5	16.5	11.0	23.5	16.5	20.0	12.5
8	7.0	5.5	10.5	7.5	12.5	11.5	18.5	10.0	24.0	17.0	20.5	14.0
9	8.5	5.5	15.5	8.5	14.0	10.5	18.0	12.0	24.5	17.5	20.0	14.0
10	9.0	4.0	15.0	8.0	15.5	11.5	18.0	12.5	24.5	17.0	19.5	13.0
11	6.5	5.0	14.5	7.5	15.5	10.5	18.0	10.5	24.5	17.5	20.0	13.5
12	8.5	5.0	15.0	7.0	13.0	10.5	18.0	11.5	24.0	18.0	20.0	14.0
13	12.0	3.5	13.0	9.0	12.0	9.0	18.0	11.0	23.5	17.0	20.0	14.0
14	13.5	5.5	13.5	10.0	14.5	8.5	19.5	11.5	23.5	16.5	20.0	14.0
15	10.5	7.5	11.5	8.0	16.5	9.5	20.5	13.0	23.5	17.0	20.5	14.0
16	13.0	8.5	12.5	7.0	16.0	12.0	21.0	14.0	23.0	16.0	21.0	15.0
17	14.0	7.5	11.0	9.0	16.5	9.5	21.0	14.0	22.5	15.5	21.0	15.5
18	16.0	8.0	11.5	9.5	14.0	11.0	20.5	13.5	22.5	16.0	20.0	15.0
19	11.5	8.5	10.5	8.5	17.0	12.5	21.0	13.5	22.5	16.5	18.0	14.0
20	13.0	8.0	10.5	8.5	19.0	12.5	21.0	14.0	21.0	15.0	15.5	12.0
21	11.5	9.0	10.5	8.0	19.0	11.5	21.0	14.0	20.5	14.0	14.0	11.0
22	16.0	8.5	12.0	8.0	18.0	12.5	20.5	13.5	21.0	14.0	13.0	10.0
23	17.5	9.5	15.5	10.0	19.0	11.5	20.5	13.5	21.5	15.0	13.5	9.0
24	12.5	9.0	14.5	11.5	20.0	12.0	20.0	13.5	20.5	15.0	12.0	9.5
25	9.5	7.5	14.5	11.5	20.5	13.5	20.5	13.5	20.5	15.5	13.0	8.5
26	10.0	7.5	15.5	10.0	19.5	14.0	21.5	15.0	19.5	13.0	12.0	10.5
27	13.0	6.0	16.0	10.0	18.5	11.5	22.5	15.5	19.0	12.5	14.0	12.0
28	16.5	9.0	17.0	10.5	19.0	11.5	22.5	16.5	19.0	13.0	13.5	11.0
29	18.5	10.5	16.5	11.5	20.0	12.5	21.0	15.0	18.5	13.0	12.5	9.5
30	19.0	12.0	17.0	12.0	20.0	13.5	20.5	13.5	18.5	13.5	12.5	8.0
31	---	---	17.0	10.0	---	---	20.5	13.0	19.0	12.5	---	---
MONTH	19.0	3.5	17.0	5.5	20.5	8.5	22.5	10.0	24.5	12.5	21.0	8.0

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 (5.3 km) northeast of Trail and at mile 0.4 (0.6 km).

DRAINAGE AREA.--133 mi^2 (344 km^2).

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 (443.959 m) National Geodetic Vertical Datum of 1929. Prior to July 5, 1946, nonrecording gage at various sites within 1.0 mi (1.6 km) 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 (0.5 km) upstream at datum 12.14 ft (3.700 m) higher.

REMARKS.--Water-discharge records good. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--36 years, 227 ft^3/s (6.429 m^3/s), 164,500 acre-ft/yr (203 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,200 ft^3/s (544 m^3/s) Dec. 22, 1964, gage height, 18.84 ft (5.742 m), from rating curve extended above 4,700 ft^3/s (133 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.40 ft^3/s (0.011 m^3/s) Aug. 16, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,690 ft^3/s (76.2 m^3/s) Dec. 2, gage height, 7.15 ft (2.179 m), no peak above base of 2,700 ft^3/s (76.5 m^3/s); minimum, 0.58 ft^3/s (0.016 m^3/s) Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	93	117	138	139	328	53	65	19	4.7	3.4
2	4.2	16	1390	101	119	127	319	51	60	17	4.7	2.6
3	3.7	16	1070	91	108	117	283	50	55	16	4.7	3.7
4	3.4	13	730	80	103	175	245	47	50	14	5.7	3.7
5	3.4	12	388	73	100	162	225	46	47	13	4.7	3.4
6	3.2	13	269	67	100	150	206	50	50	13	4.7	3.4
7	2.9	103	194	62	93	139	180	45	47	18	4.2	3.2
8	2.9	99	143	57	87	127	155	44	79	16	3.7	2.9
9	2.9	87	119	54	81	115	141	43	78	13	3.4	1.6
10	3.2	69	105	50	75	105	129	40	62	13	3.2	2.2
11	3.2	47	104	47	70	99	124	38	54	12	3.2	2.0
12	6.2	33	105	44	75	93	117	36	53	11	3.2	1.4
13	9.0	27	100	41	84	93	107	28	61	11	2.9	2.0
14	27	26	91	39	570	87	101	27	73	11	3.4	1.9
15	23	34	87	37	447	89	99	43	67	10	3.2	1.4
16	18	31	110	38	667	134	96	67	57	9.6	2.6	1.3
17	16	27	104	41	772	134	91	65	52	9.0	3.2	.99
18	13	22	92	38	565	125	87	136	46	7.9	2.6	.92
19	11	20	80	35	542	115	85	276	44	8.4	2.6	1.0
20	9.6	18	73	33	548	110	81	216	40	7.3	3.2	1.2
21	9.0	21	81	32	442	101	78	157	35	6.7	3.2	1.6
22	9.0	152	122	33	346	97	74	125	26	6.7	3.2	2.0
23	8.4	112	148	42	272	91	70	104	27	6.7	2.9	2.2
24	9.0	112	150	43	279	87	67	108	27	4.7	3.2	2.3
25	12	87	772	44	245	105	65	162	24	4.2	3.4	3.2
26	14	64	565	59	209	138	71	145	23	5.2	3.2	3.4
27	26	50	383	117	180	150	68	124	22	5.7	3.4	8.4
28	18	41	287	302	157	143	63	104	18	5.2	3.2	16
29	13	42	212	379	---	165	60	92	18	5.2	3.2	10
30	12	83	167	248	---	225	56	81	22	5.7	3.2	7.9
31	11	---	136	175	---	258	---	73	---	5.2	3.4	---
TOTAL	311.4	1488	8470	2619	7474	3995	3871	2676	1382	310.4	109.3	101.21
MEAN	10.0	49.6	273	84.5	267	129	129	86.3	46.1	10.0	3.53	3.37
MAX	27	152	1390	379	772	258	328	276	79	19	5.7	16
MIN	2.9	11	73	32	70	87	56	27	18	4.2	2.6	.92
AC-FT	618	2950	16800	5190	14820	7920	7680	5310	2740	616	217	201

CAL YR 1980 TOTAL 69937.60 MEAN 191 MAX 5220 MIN 2.9 AC-FT 138700
WTR YR 1981 TOTAL 32807.31 MEAN 89.9 MAX 1390 MIN .92 AC-FT 65070

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.--Enviro-Lab temperature unit since June 1973.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C July 17, 1979; minimum, 0.0°C many days during December 1976 to February 1977, Nov. 20-22, 1977, Nov. 13-15, Dec. 8, 19, 20, 1978, Jan. 28-31, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 30.0°C Aug. 9; minimum, 0.5°C Dec. 13, 14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	14.0	9.5	8.0	5.5	5.0	7.0	6.0	5.5	3.0	8.5	4.5
2	20.0	14.0	10.5	8.0	7.5	5.0	6.0	5.0	5.5	3.5	9.0	4.5
3	19.5	14.5	12.5	9.5	8.5	7.5	7.0	5.0	5.0	2.5	7.0	5.0
4	19.0	13.5	12.0	8.5	7.5	6.0	7.5	6.0	5.0	2.5	7.5	6.0
5	19.0	14.0	11.5	8.5	7.0	6.0	7.0	5.5	6.0	4.0	8.0	4.0
6	19.0	14.0	11.5	10.5	6.0	5.0	5.5	3.5	6.5	4.5	7.5	3.0
7	18.5	13.5	12.0	10.5	5.0	3.0	5.5	3.5	5.0	2.0	6.5	5.0
8	17.5	13.5	10.5	10.0	3.5	2.0	5.5	4.0	4.0	2.0	9.0	4.5
9	16.0	12.0	10.0	8.5	3.5	1.5	7.0	5.5	5.0	1.5	9.5	5.0
10	15.5	11.5	8.5	7.0	3.5	1.5	6.0	4.0	5.0	2.5	8.5	5.5
11	14.0	11.0	7.5	7.0	3.5	2.0	4.5	3.0	6.5	4.5	10.5	6.0
12	13.5	12.0	7.5	6.0	2.5	1.0	4.0	2.0	8.5	5.5	10.5	5.5
13	14.0	10.5	6.0	3.5	1.5	.5	3.5	2.0	7.5	6.5	9.0	7.5
14	12.0	10.0	5.5	3.5	2.0	.5	3.5	2.0	8.0	6.5	11.0	7.0
15	12.0	10.0	6.5	4.5	3.5	1.5	5.0	2.0	7.5	6.5	9.5	7.0
16	12.5	9.0	6.0	4.0	4.5	2.5	6.0	4.5	8.0	7.5	9.5	6.5
17	13.0	8.5	6.5	4.5	4.5	3.0	7.0	5.0	7.5	6.5	9.0	4.0
18	12.5	8.0	6.5	4.0	5.0	3.5	7.5	6.0	8.0	7.0	7.0	5.0
19	12.5	7.5	6.5	4.5	5.0	4.0	8.5	6.5	8.5	6.5	10.5	6.0
20	12.5	8.0	7.0	4.5	6.0	5.0	7.5	5.0	7.5	5.5	10.5	7.0
21	13.5	9.5	6.0	5.0	7.0	6.0	8.5	7.5	8.0	4.5	9.5	7.5
22	13.0	8.5	8.0	6.0	8.0	7.0	9.5	8.5	8.5	5.0	11.5	8.0
23	12.0	7.5	8.5	7.0	7.0	5.0	9.0	8.0	8.5	5.5	10.0	7.0
24	11.5	8.5	7.0	5.5	7.0	5.5	8.0	6.5	7.5	6.5	9.5	6.5
25	11.0	10.0	7.0	5.5	8.5	7.0	7.0	5.5	7.5	5.5	10.0	8.5
26	10.0	9.0	7.0	5.5	9.0	8.0	7.0	5.5	7.5	5.5	10.0	7.0
27	11.0	8.0	6.5	5.0	9.0	7.5	7.0	6.0	7.5	4.5	11.5	7.0
28	10.0	6.5	8.0	6.0	7.5	6.5	6.5	5.5	7.5	4.5	11.5	6.0
29	10.0	6.0	8.0	7.5	7.5	6.0	6.5	5.0	---	---	9.5	7.0
30	9.5	7.0	7.5	5.5	8.0	7.0	6.5	5.0	---	---	7.5	5.5
31	9.5	7.5	---	---	7.5	6.5	6.0	4.5	---	---	7.5	6.0
MONTH	20.0	6.0	12.5	3.5	9.0	.5	9.5	2.0	8.5	1.5	11.5	3.0

14338000 ELK CREEK NEAR TRAIL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	5.5			---	---	25.0	17.0	26.5	18.0	22.0	17.0
2	8.5	5.0			---	---	27.0	17.5	26.0	18.5	22.0	17.0
3	10.0	6.0			---	---	28.5	19.5	25.5	17.5	21.5	16.5
4	10.5	4.5			---	---	28.5	20.5	26.0	18.0	20.0	16.5
5	9.0	6.0			---	---	25.0	22.0	27.0	18.5	20.5	15.5
6	10.5	4.5			---	---	22.0	17.0	28.5	20.0	21.5	16.5
7	10.0	4.5			---	---	21.5	14.5	29.0	21.0	22.0	16.5
8	8.0	6.5			---	---	24.0	14.5	29.5	21.5	22.5	17.5
9	10.0	6.5			---	---	24.5	16.0	30.0	22.0	23.0	18.0
10	10.5	5.0			---	---	24.5	16.5	29.0	22.0	21.0	16.5
11	8.5	6.5			19.5	---	24.0	15.0	28.0	21.5	22.0	17.0
12	10.0	6.0			16.5	14.0	24.0	16.0	28.0	22.0	22.0	17.0
13	12.5	5.0			15.5	12.0	24.5	16.0	27.0	21.0	22.0	17.5
14	14.0	7.5			18.0	11.0	26.0	16.0	26.5	21.0	22.0	17.5
15	11.5	9.5			20.0	13.0	27.5	18.0	26.5	21.0	22.5	18.0
16	15.0	9.5			20.0	16.0	28.0	19.0	26.0	20.5	23.0	18.5
17	16.0	10.0			20.0	13.0	28.0	19.0	25.0	19.5	24.0	18.5
18	17.0	10.5			17.5	14.5	27.5	18.5	26.0	20.5	23.0	18.0
19	14.0	10.0			22.0	15.5	28.0	18.5	25.5	21.0	21.0	17.0
20	14.0	9.5			23.0	16.5	28.0	18.5	24.0	19.0	17.5	15.0
21	13.5	11.5			23.5	16.0	28.0	19.0	24.0	18.5	16.5	13.5
22	17.5	10.0			23.5	17.0	27.5	18.0	24.0	18.5	16.5	13.0
23	19.0	12.5			24.0	16.0	27.0	18.0	24.5	19.0	15.5	12.0
24	16.0	12.0			25.0	16.5	26.5	17.5	23.5	19.0	14.5	12.0
25	12.0	10.0			26.0	18.0	26.5	18.0	24.0	19.5	14.5	11.0
26	12.5	9.5			25.0	18.5	28.5	19.5	22.5	17.5	14.5	12.5
27	14.0	8.5			24.0	16.5	29.0	20.0	22.0	17.0	17.0	14.0
28	18.5	11.5			25.0	16.0	28.5	21.0	22.0	17.0	17.0	13.5
29	---	---			26.0	17.0	26.5	19.0	21.0	17.0	17.5	12.5
30	---	---			25.5	18.5	26.5	17.5	22.0	17.5	16.5	10.5
31	---	---			---	---	27.0	17.5	22.0	17.0	---	---
MONTH	19.0	4.5			26.0	11.0	29.0	14.5	30.0	17.0	24.0	10.5

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 (15 m) upstream from Dodge Bridge, 0.7 mi (1.1 km) downstream from Reese Creek, 4.3 mi (6.9 km) northwest of Eagle Point, and at mile 138.61 (223.02 km).

DRAINAGE AREA.--1,215 mi² (3,147 km²).

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 (387.520 m) 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 (0.692 m) higher, Aug. 16, 1968, to Sept. 30, 1976, water-stage recorder, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Water-discharge records excellent. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040). Diversions for irrigation above station; most of low flow of Big Butte Creek is diverted near Butte Falls.

AVERAGE DISCHARGE.--43 years, 2,578 ft³/s (73.01 m³/s), 1,868,000 acre-ft/yr (2.30 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87,600 ft³/s (2,480 m³/s) Dec. 22, 1964, gage height, 12.78 ft (3.895 m), datum then in use, from rating curve extended above 23,000 ft³/s (651 m³/s); minimum, 567 ft³/s (16.1 m³/s) Feb. 18, 1977, result of closure of Lost Creek dam, minimum prior to that time 611 ft³/s (17.3 m³/s) Aug. 6, 14, 29, Sept. 9, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,500 ft³/s (241 m³/s) Dec. 2, gage height, 5.51 ft (1.679 m); minimum, 816 ft³/s (23.1 m³/s) Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	1070	1440	2030	1060	1070	1330	1770	1560	1920	2100	1720
2	1180	1020	4770	1770	970	1030	1290	1740	1550	1950	2110	1720
3	1180	1010	4770	1590	940	1000	1250	1600	1530	1950	2100	1740
4	1190	1010	5000	1560	920	1340	1430	1520	1500	1950	2150	1720
5	1200	1010	3590	1420	901	1180	1400	1500	1510	1950	2150	1730
6	1200	1010	3330	1150	893	1100	1380	1520	1500	1960	2150	1730
7	1200	1200	2770	1120	869	1050	1340	1410	1490	1970	2150	1730
8	1200	2220	1730	1110	854	1020	1300	1340	1870	2000	2150	1840
9	1210	2140	1660	1110	846	991	1270	1430	2600	1980	2150	2150
10	1200	1790	1630	1110	831	975	1240	1400	1960	1980	2150	2360
11	1210	1240	1520	1090	831	975	1220	1370	1810	2000	2150	2370
12	1230	1140	1480	1090	823	941	1210	1300	1840	2000	2150	2370
13	1240	1040	1390	1080	838	975	1180	1290	1870	1980	2150	2370
14	1360	1040	1370	1070	2090	941	1150	1290	1860	2000	2150	2370
15	1270	1040	1360	1070	1600	941	1130	1380	1840	2000	2140	2370
16	1240	1030	1430	1060	2230	1100	1120	1560	1800	1980	2140	2370
17	1230	1030	1550	1050	2310	1040	1130	1360	1790	1980	2120	2370
18	1230	1030	1540	1040	1790	1010	1110	1860	1780	2000	2140	2230
19	1220	1010	1480	1030	1750	983	1120	2660	1780	2000	2160	1900
20	1220	1010	1430	1020	1850	975	1150	2340	1780	2000	2160	1510
21	1280	1030	1480	1030	1550	958	1270	1980	1780	2000	1920	1190
22	1300	1420	1710	1050	1390	975	1380	1800	1750	2010	1720	1150
23	1290	1460	1720	1080	1300	958	1530	1750	1750	2000	1730	1190
24	1300	1600	1750	1090	1470	941	1530	1820	1750	2010	1720	1190
25	1220	1460	3510	1090	1490	966	1550	2560	1750	2000	1730	1190
26	1180	1300	3370	1150	1270	1060	1610	2620	1750	2010	1730	1190
27	1190	1200	3260	1400	1190	1040	1650	2100	1770	2000	1730	1240
28	1180	1150	3030	1900	1120	983	1650	1970	1770	2000	1730	1240
29	1210	1160	2800	1970	---	1020	1570	1850	1750	2010	1730	1220
30	1170	1330	2360	1530	---	1150	1740	1720	1770	2020	1720	1220
31	1170	---	2160	1270	---	1150	---	1690	---	2010	1720	---
TOTAL	37880	37200	72390	39130	35976	31838	40230	53500	52810	61620	62000	52690
MEAN	1222	1240	2335	1262	1285	1027	1341	1726	1760	1988	2000	1756
MAX	1360	2220	5000	2030	2310	1340	1740	2660	2600	2020	2160	2370
MIN	1170	1010	1360	1020	823	941	1110	1290	1490	1920	1720	1150
AC-FT	75130	73790	143600	77610	71360	63150	79800	106100	104700	122200	123000	104500

CAL YR 1980 TOTAL 778950 MEAN 2128 MAX 14000 MIN 1010 AC-FT 1545000
WTR YR 1981 TOTAL 577264 MEAN 1582 MAX 5000 MIN 823 AC-FT 1145000

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.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 19.5°C July 3; minimum recorded, 3.0°C Dec. 14, Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14339000 ROGUE RIVER AT DODGE BRIDGE, NEAR EAGLE POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14341500 SOUTH FORK LITTLE BUTTE CREEK NEAR LAKECREEK, OR

LOCATION.--Lat 42°24'30", long 122°36'00", in SE¼ sec.29, T.36 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on left bank 0.5 mi (0.8 km) upstream from intake of Rogue River Valley Canal, 1.4 mi (2.3 km) southeast of Lakecreek, and at mile 18.1 (29.1 km).

DRAINAGE AREA.--138 mi² (357 km²).

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 934: 1925(M). WSP 1398: 1922, 1927(M), 1937, 1941-42.

GAGE.--Water-stage recorder. Altitude of gage is 1,725 ft (526 m), by barometer. Supplementary nonrecording gage at site 25 ft (8 m) upstream used Jan. 12 to Sept. 6, 1965. Apr. 15 to June 17, 1921, nonrecording gage, and June 18, 1921, to Sept. 6, 1965, water-stage recorder at site 75 ft (23 m) upstream at datum 4.97 ft (1.515 m) higher.

REMARKS.--Records good except those for May to September, which are fair. No regulation. Diversions for irrigation above station; also, in December 1958 Dead Indian collection canal began diverting above station from Code Creek and Dead Indian Creek and in December 1959 South Fork Little Butte collection canal began diverting above station from South Fork Little Butte Creek, Daley Creek, and Beaver Dam Creek. These are transbasin diversions to Howard Prairie Reservoir in Klamath River basin, but eventually this water is diverted back to Rogue River basin for irrigation of lands in the Ashland-Medford area and power development enroute.

AVERAGE DISCHARGE.--60 years, 103 ft³/s (2.917 m³/s), 74,620 acre-ft/yr (92.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,660 ft³/s (217 m³/s) Dec. 2, 1962, gage height, 8.35 ft (2.545 m), site and datum then in use; minimum, 2.0 ft³/s (0.057 m³/s) Aug. 10, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft³/s (9.35 m³/s) Feb. 19, gage height, 6.04 ft (1.841 m), no peak above base of 500 ft³/s (14.2 m³/s); minimum, 6.4 ft³/s (0.18 m³/s) Aug. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	31	44	41	68	158	57	51	23	9.9	12
2	8.4	15	197	39	39	61	162	54	48	21	12	11
3	8.0	15	220	37	35	55	140	52	42	19	12	11
4	7.6	15	202	35	33	108	117	51	39	26	11	11
5	8.0	15	121	35	35	88	105	50	39	28	10	10
6	8.0	15	95	33	31	82	100	48	40	22	9.7	9.4
7	8.0	33	72	31	30	75	91	46	49	22	8.7	8.9
8	8.4	30	59	30	30	71	90	45	44	21	7.8	10
9	8.4	23	50	30	30	65	104	44	37	20	8.5	9.9
10	8.4	21	46	27	28	60	92	43	35	19	8.7	9.7
11	8.8	18	41	27	30	56	83	42	38	17	9.0	8.8
12	12	17	37	27	35	52	76	41	39	17	8.4	10
13	16	16	37	24	44	55	69	41	39	17	8.6	11
14	24	16	35	24	143	53	65	42	31	16	8.7	12
15	21	16	33	24	108	50	60	44	30	16	9.2	11
16	17	16	44	23	157	61	57	44	26	15	9.5	11
17	16	16	41	24	197	58	52	43	27	14	9.7	9.8
18	15	16	37	24	143	54	52	50	28	15	10	13
19	14	16	35	23	210	51	58	180	30	13	11	14
20	14	16	35	23	227	50	60	200	31	14	11	17
21	14	16	39	23	167	47	57	130	29	14	11	24
22	14	31	41	24	136	56	55	100	28	15	11	19
23	14	37	37	33	115	48	53	80	28	14	11	17
24	14	41	37	46	133	45	52	90	26	14	12	16
25	17	26	50	37	114	58	60	110	27	14	12	16
26	22	22	48	33	96	98	160	140	26	13	11	15
27	24	19	62	35	84	114	100	100	24	12	12	11
28	18	18	66	55	76	96	80	80	25	11	11	9.8
29	17	22	55	69	---	117	65	70	23	11	12	9.4
30	16	44	50	59	---	138	60	60	22	12	12	16
31	15	---	48	48	---	131	---	55	---	10	12	---
TOTAL	428.0	635	2001	1046	2547	2221	2533	2232	1001	515	320.4	373.7
MEAN	13.8	21.2	64.5	33.7	91.0	71.6	84.4	72.0	33.4	16.6	10.3	12.5
MAX	24	44	220	69	227	138	162	200	51	28	12	24
MIN	7.6	14	31	23	28	45	52	41	22	10	7.8	8.8
AC-FT	849	1260	3970	2070	5050	4410	5020	4430	1990	1020	636	741

CAL YR 1980 TOTAL 33133.0 MEAN 90.5 MAX 744 MIN 7.6 AC-FT 65720
WTR YR 1981 TOTAL 15853.1 MEAN 43.4 MAX 227 MIN 7.6 AC-FT 31440

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 (0.8 km) downstream from Fish Lake dam, 14 mi (23 km) east of Lakecreek, and at mile 15.2 (24.5 km).

DRAINAGE AREA.--20.8 mi² (53.9 km²).

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 (1,393.66 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1914, to July 31, 1915, nonrecording gage at site 0.5 mi (0.8 km) 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 (0.40 km) upstream at different datums.

REMARKS.--Records good except those for March and April, which are fair. 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 (1.6 km) above Fish Lake; diversion began August 1923. No diversion from creek above station.

AVERAGE DISCHARGE.--65 years (water years 1917-81), 35.8 ft³/s (1.104 m³/s), 25,940 acre-ft/yr (32.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 940 ft³/s (26.6 m³/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, 87 ft³/s (2.46 m³/s) July 5, gage height, 1.59 ft (0.485 m); minimum, 5.0 ft³/s (0.14 m³/s) Oct. 13, 14, Sept. 7-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	7.2	10	13	12	14	16	16	16	65	69	11
2	32	7.2	11	13	12	14	16	16	16	71	52	11
3	32	7.2	11	13	12	14	16	16	16	78	9.6	11
4	32	7.2	11	13	13	14	16	16	16	76	9.8	11
5	30	7.6	11	13	13	14	16	16	16	81	11	11
6	29	7.6	11	13	13	14	16	16	16	83	11	11
7	29	8.8	11	13	13	14	16	16	16	72	11	5.8
8	28	8.4	11	13	13	14	16	16	16	67	11	5.0
9	28	8.4	11	13	13	14	16	16	16	67	11	5.0
10	28	8.4	11	14	13	14	16	16	16	67	11	5.0
11	27	8.4	10	13	13	14	16	16	16	65	11	5.0
12	27	8.4	10	13	13	14	16	16	16	65	11	5.0
13	18	8.4	10	13	13	14	16	16	16	65	11	5.0
14	5.8	8.8	10	13	13	14	16	16	16	65	11	5.0
15	5.5	8.8	11	13	13	14	16	16	16	65	11	5.0
16	5.5	8.8	12	13	14	14	16	16	16	65	11	5.0
17	5.5	8.8	12	13	13	14	16	16	16	65	11	5.0
18	5.5	8.8	12	13	13	14	16	16	16	65	11	5.0
19	5.8	8.8	12	13	14	14	16	17	15	64	11	5.0
20	5.8	8.8	12	13	14	14	16	16	15	63	11	5.0
21	5.8	9.2	13	14	14	14	16	16	15	63	11	5.0
22	5.8	9.6	12	14	14	14	16	16	15	63	11	5.0
23	5.8	10	12	14	14	14	16	16	15	63	11	5.0
24	6.4	9.6	12	14	14	14	16	16	15	63	11	5.0
25	6.4	9.6	13	13	14	14	16	16	18	63	11	5.0
26	6.8	9.6	13	13	14	14	16	16	34	63	11	5.0
27	6.8	9.6	13	13	14	14	16	16	36	62	11	5.0
28	6.8	9.6	13	13	14	15	16	16	45	61	11	5.0
29	6.8	10	13	13	---	15	16	16	45	64	11	5.0
30	6.8	10	13	13	---	16	16	16	49	67	11	5.0
31	7.2	---	13	13	---	16	---	16	---	68	11	---
TOTAL	483.8	261.6	360	408	372	440	480	497	605	2074	437.4	186.8
MEAN	15.6	8.72	11.6	13.2	13.3	14.2	16.0	16.0	20.2	66.9	14.1	6.23
MAX	33	10	13	14	14	16	16	17	49	83	69	11
MIN	5.5	7.2	10	13	12	14	16	16	15	61	9.6	5.0
AC-FT	960	519	714	809	738	873	952	986	1200	4110	868	371
(†)	3190	a3650	a3970	a4050	a4180	4280	a4860	a4460	4820	3220	a1620	836

CAL YR 1980 TOTAL 10309.8 MEAN 28.2 MAX 98 MIN 5.5 AC-FT 20450
WTR YR 1981 TOTAL 6605.6 MEAN 18.1 MAX 83 MIN 5.0 AC-FT 13100

NOTE.--No gage-height record Mar. 9 to Apr. 27.
† Monthend contents, in acre-feet, of Fish Lake.
a Interpolated.

14343000 NORTH FORK LITTLE BUTTE CREEK NEAR LAKECREEK, OR

LOCATION.--Lat 42°24'10", long 122°32'10", in NW¼ sec.36, T.36 S., R.2 E., Jackson County, Hydrologic Unit 17100307, on right bank 1.2 mi (1.9 km) upstream from Wasson Canyon, 4.9 mi (7.9 km) east of Lakecreek, and at mile 4.8 (7.7 km).

DRAINAGE AREA.--43.8 mi² (113.4 km²).

PERIOD OF RECORD.--September 1911 to March 1913, July to September 1917, May 1922 to December 1964, September 1965 to current year. Monthly discharge only for some periods, published in WSP 1318. Published as "above Medford intake, near Lakecreek" 1922-28, 1931-40. Records for April to September 1916, May 1917 to September 1919, April to September 1921, and October 1923 to September 1924 at site 3 mi (5 km) upstream not equivalent owing to diversion and difference in drainage areas.

REVISED RECORDS.--WSP 1518: 1912-13. WSP 1738: Drainage area (former site).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1968. Altitude of gage is 2,160 ft (658 m), from topographic map. Sept. 10, 1911, to Mar. 31, 1913, and July 1 to Sept. 30, 1917, nonrecording gage at site 1,000 ft (305 m) dowstream at different datums. May 26, 1922, to Dec. 31, 1964, water-stage recorder at site 1,000 ft (305 m) downstream at datum 2,125.01 ft (664.703 m) above mean sea level.

REMARKS.--Records good. Flow partly regulated since 1915 by Fish Lake (published with station 14342500). Diversions for irrigation above station; some water diverted into Fish Lake from Fourmile Lake, in Klamath River basin, since 1923.

AVERAGE DISCHARGE.--59 years (water years 1912, 1923-64, 1966-81), 71.1 ft³/s (2.014 m³/s), 51,510 acre-ft/yr (63.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s (49.6 m³/s) Dec. 22, 1964, gage height, 6.06 ft (1.847 m), present site and datum; minimum, 11 ft³/s (0.31 m³/s) Oct. 29 to Nov. 8, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 107 ft³/s (3.03 m³/s) July 5, gage height, 3.21 ft (0.978 m); minimum, 18 ft³/s (0.51 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	28	37	36	36	41	60	44	44	83	83	76
2	51	29	80	36	36	40	64	44	43	89	83	75
3	49	29	70	36	35	40	60	43	42	96	83	75
4	49	30	60	36	34	53	57	43	42	96	82	73
5	49	29	55	35	35	53	54	43	42	100	82	73
6	49	30	47	35	35	49	51	43	42	103	82	72
7	49	37	43	35	35	46	50	42	42	100	80	71
8	49	31	37	35	35	43	49	42	46	85	80	70
9	48	31	37	35	34	42	48	42	42	80	83	68
10	48	31	36	34	34	41	47	41	41	80	82	68
11	48	30	35	34	35	41	46	41	41	80	85	67
12	51	30	35	34	34	41	44	40	42	80	91	66
13	46	31	35	34	35	41	44	40	42	80	91	65
14	33	30	35	34	40	41	43	40	41	80	89	65
15	30	30	35	34	37	42	43	43	40	80	89	63
16	30	31	35	34	44	48	43	42	40	80	89	62
17	27	30	37	34	43	44	43	41	39	80	87	59
18	27	30	37	34	41	42	43	52	39	80	87	52
19	27	30	37	33	58	41	47	83	39	80	87	35
20	27	31	37	34	57	41	46	66	38	80	79	35
21	27	33	37	34	51	40	44	54	38	80	77	35
22	27	37	38	33	47	49	43	49	38	80	83	35
23	27	38	45	35	44	43	42	48	37	80	83	35
24	28	36	45	35	51	42	41	57	37	80	82	35
25	29	33	44	34	47	44	46	66	37	80	82	34
26	30	33	43	34	44	51	75	54	53	80	82	34
27	30	33	40	34	42	50	57	51	56	80	80	39
28	28	33	39	39	41	45	49	48	66	80	79	33
29	28	37	38	39	---	47	48	47	65	80	79	19
30	28	42	37	38	---	54	46	46	67	82	77	19
31	28	---	36	37	---	52	---	44	---	82	77	---
TOTAL	1148	963	1302	1084	1140	1387	1473	1479	1321	2596	2575	1608
MEAN	37.0	32.1	42.0	35.0	40.7	44.7	49.1	47.7	44.0	83.7	83.1	53.6
MAX	51	42	80	39	58	54	75	83	67	103	91	76
MIN	27	28	35	33	34	40	41	40	37	80	77	19
AC-FT	2280	1910	2580	2150	2260	2750	2920	2930	2620	5150	5110	3190

CAL YR 1980 TOTAL 22095 MEAN 60.4 MAX 126 MIN 27 AC-FT 43830
WTR YR 1981 TOTAL 18076 MEAN 49.5 MAX 103 MIN 19 AC-FT 35850

NOTE.--No gage-height record Dec. 1-31.

14350000 EMIGRANT CREEK NEAR ASHLAND, OR

LOCATION.--Lat 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 (0.2 km) downstream from Emigrant Dam, 6 mi (10 km) southeast of Ashland, and at mile 29.2 (47.0 km).

DRAINAGE AREA.--64.3 mi² (166.5 km²).

PERIOD OF RECORD.--January to June 1920, October 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 (622.645 m) 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 (3.331 m) higher. Feb. 25, 1959, to May 7, 1961, water-stage recorder at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records good. Flow regulated since 1924 by Emigrant Lake (see below). Several diversions above station for irrigation, the principal diversion canals are Ashland lateral and East lateral (see below). From June 1923 to August 1960, water diverted by Keene Creek Canal from Klamath River basin into Emigrant Creek above station. Beginning May 1960, water from Klamath River basin diverted to Emigrant Creek above station via Green Springs powerplant diversion.

AVERAGE DISCHARGE.--41 years (water years 1925, 1927-30, 1934-35, 1941-47, 1954-81), 31.0 ft³/s (0.878 m³/s), 22,460 acre-ft/yr (27.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft³/s (149 m³/s) Feb. 20, 1927, by computation of peak flow over dam; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft³/s (2.15 m³/s) July 4-6, gage height, 1.38 ft (0.421 m); maximum gage height, 1.39 ft (0.424 m) July 31 to Aug. 2, Aug. 7-9; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Oct. 14, Nov. 14-27, Nov. 29 to Dec. 1, Dec. 5-26, Dec. 28 to Jan. 16, Sept. 27-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	.14	.10	.10	.40	.50	.50	5.6	22	60	73	54
2	25	.20	.16	.10	.35	.50	.40	5.6	22	61	73	54
3	25	.20	.13	.10	.30	.50	.40	5.6	22	64	73	47
4	18	.20	.12	.10	.30	.50	.30	2.5	25	73	72	43
5	15	.20	.10	.10	.30	.50	.40	.20	33	75	70	43
6	15	.14	.10	.10	.30	.50	.30	.20	35	58	68	42
7	15	.14	.10	.10	.30	.50	.30	5.6	35	25	70	42
8	15	.20	.10	.10	.30	.50	.30	15	31	21	74	40
9	15	.20	.10	.10	.30	.50	.30	10	28	17	73	39
10	15	.20	.10	.10	.30	.50	.30	10	25	38	73	38
11	15	.20	.10	.10	.35	.50	.30	8.0	22	50	70	38
12	15	.20	.10	.10	.42	.50	.30	7.4	22	52	69	38
13	7.1	.14	.10	.10	.50	.50	.30	19	22	52	68	37
14	.10	.10	.10	.10	.50	.50	3.7	16	17	52	68	40
15	.12	.10	.10	.10	.50	.50	13	11	15	52	66	40
16	.20	.10	.10	.10	.50	.50	13	.70	20	55	64	40
17	.20	.10	.10	.13	.50	.50	16	7.4	28	61	64	40
18	.22	.10	.10	.17	.50	.50	16	3.0	27	64	65	39
19	.27	.10	.10	.21	.50	.50	14	.50	31	64	66	30
20	.21	.10	.10	.26	.50	.50	10	.50	36	62	56	30
21	.27	.10	.10	.33	.50	.50	10	.50	39	60	65	24
22	.28	.10	.10	.41	.50	.50	10	.50	38	56	65	24
23	.28	.10	.10	.44	.50	.50	10	.50	36	56	60	24
24	.25	.10	.10	.49	.50	.50	10	.50	38	57	58	24
25	.30	.10	.10	.46	.50	.50	10	.50	44	59	55	24
26	.27	.10	.10	.43	.50	.50	10	.50	50	59	54	1.0
27	.20	.10	.11	.47	.50	.50	7.4	.40	52	60	54	.10
28	.14	.11	.10	.50	.50	.50	5.0	7.4	52	64	53	.10
29	.20	.10	.10	.50	---	.50	5.6	18	52	67	56	.10
30	.20	.10	.10	.50	---	.50	5.6	22	56	66	58	.10
31	.19	---	.10	.45	---	.50	---	22	---	69	55	---
TOTAL	224.00	4.07	3.22	7.35	11.92	15.50	173.70	206.60	975	1729	2018	935.40
MEAN	7.23	.14	.10	.24	.43	.50	5.79	6.66	32.5	55.8	65.1	31.2
MAX	25	.20	.16	.50	.50	.50	16	22	56	75	74	54
MIN	.10	.10	.10	.10	.30	.50	.30	.20	15	17	53	.10
AC-FT	444	8.1	6.4	15	24	31	345	410	1930	3430	4000	1860
(†)	12610	a15670	20720	24450	30100	a34860	37530	a35100	a28950	19240	7560	a1380
(‡)	639	0	0	0	0	0	2400	5910	7120	8240	9510	7280

CAL YR 1980 TOTAL 11330.49 MEAN 31.0 MAX 201 MIN .10 AC-FT 22470
WTR YR 1981 TOTAL 6303.76 MEAN 17.3 MAX 75 MIN .10 AC-FT 12500

† Monthend contents, in acre-feet, of Emigrant Lake.
‡ Diversion, in acre-feet, by East Lateral.
a Interpolated.

14353000 WEST FORK ASHLAND CREEK NEAR ASHLAND, OR

LOCATION.--Lat 42°08'55", long 122°42'55", near line between NW¼ and SW¼ sec.28, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, in Rogue River National Forest, on left bank 0.3 mi (0.5 km) above city diversion, 2.5 mi (4.0 km) south of Ashland, and at mile 0.4 (0.6 km).

DRAINAGE AREA.--10.5 mi^2 (27.2 km^2), at diversion dam 0.3 mi (0.5 km) downstream.

PERIOD OF RECORD.--September 1924 to January 1933, water years 1954-60, 1963, annual maximum; December 1974 to current year. Monthly discharge only for some periods published in WSP 1318.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,962.75 ft (903.046 m) National Geodetic Vertical Datum of 1929. Sept. 10, 1924, to Jan. 31, 1933, water-stage recorder at site about 0.2 mi (0.3 km) upstream at different datum. Oct. 14, 1953, to Sept. 30, 1963, crest-stage gage at diversion dam 0.3 mi (0.5 km) downstream at different datum.

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

AVERAGE DISCHARGE.--14 years (water years 1925-32, 1976-81), 8.28 ft^3/s (0.234 m^3/s), 10.71 in/yr (272 mm/yr), 6,000 acre-ft/yr (7.40 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 330 ft^3/s (9.35 m^3/s) Dec. 2, 1962, gage height, 15.51 ft (4.727 m), site and datum then in use, from rating curve defined by computation of peak flow over dam; minimum, 1.3 ft^3/s (0.037 m^3/s) Aug. 29, 1931, Sept. 8, 9, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 15, 1974, is the highest since at least 1900. Discharge, 4,780 ft^3/s (135 m^3/s) by slope-area measurement of peak flow, gage height, 9.5 ft (2.90 m), from floodmarks. Peak believed to be affected by release from debris dams breaking upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft^3/s (1.25 m^3/s) Dec. 2, gage height, 2.38 ft (0.725 m), no peak above base of 50 ft^3/s (1.42 m^3/s); minimum, 1.6 ft^3/s (0.045 m^3/s) Sept. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.4	3.7	4.4	5.0	5.9	5.3	11	5.7	3.3	2.5	2.0
2	2.7	3.5	28	4.2	4.9	5.5	5.3	9.8	5.7	3.2	2.4	2.1
3	2.6	3.5	23	4.1	4.7	5.5	5.3	9.0	5.7	3.1	2.5	2.0
4	2.6	3.5	19	4.0	4.7	6.1	5.3	9.0	5.3	3.1	2.5	2.0
5	2.5	3.4	16	4.0	4.7	5.7	5.5	8.0	5.3	3.1	2.4	2.0
6	2.6	3.4	8.7	4.0	4.7	5.5	5.3	8.0	5.2	3.4	2.4	1.9
7	2.6	5.7	7.2	3.8	4.5	5.7	5.3	8.0	5.0	4.1	2.3	1.9
8	2.5	4.2	6.8	3.8	4.5	5.7	5.2	7.7	5.3	3.5	2.1	1.9
9	2.5	4.1	6.5	3.8	4.5	5.7	5.2	7.7	4.9	3.5	1.9	1.9
10	2.5	4.1	6.1	3.7	4.5	5.7	5.0	7.5	4.9	3.6	1.9	1.9
11	2.7	4.0	5.7	3.7	5.2	5.5	4.9	7.2	4.7	3.6	1.9	1.8
12	3.7	3.8	5.3	3.7	5.0	5.5	5.0	7.0	4.9	3.5	1.9	1.8
13	3.2	3.8	5.2	3.6	11	5.7	4.9	6.8	5.0	3.4	2.0	1.9
14	3.3	4.1	5.0	3.6	22	5.7	5.0	6.5	5.2	3.3	2.0	1.9
15	3.2	4.1	5.5	3.6	16	5.7	5.0	7.2	4.5	3.2	2.0	1.8
16	2.9	4.0	5.7	3.7	19	5.9	5.2	7.5	4.4	3.1	2.1	1.8
17	2.9	4.0	5.3	3.8	17	5.5	5.2	7.2	4.4	3.0	1.9	1.8
18	3.0	4.0	5.0	3.8	15	5.5	5.5	8.7	4.4	3.0	1.9	1.9
19	2.9	4.0	4.9	3.8	16	5.5	7.2	9.0	4.4	3.0	1.9	2.2
20	2.8	4.0	4.9	3.7	15	5.5	6.3	8.4	4.2	2.9	2.0	2.1
21	2.8	4.1	6.1	3.8	12	5.3	7.0	8.0	4.1	2.9	2.1	2.1
22	2.8	5.2	5.3	7.5	11	5.5	7.0	7.5	4.1	2.8	2.1	2.1
23	2.8	4.9	4.7	8.7	10	5.3	7.7	7.5	4.0	2.8	2.0	2.1
24	3.1	4.7	4.9	7.0	9.4	5.3	7.5	8.4	3.8	2.8	2.0	2.1
25	3.6	4.4	5.2	5.7	8.4	5.5	8.7	8.0	3.8	2.8	2.1	2.2
26	3.6	4.2	5.2	5.5	7.5	5.5	9.0	7.7	3.6	2.8	2.1	2.3
27	3.6	4.2	6.1	5.7	6.8	5.5	8.4	7.2	3.6	2.7	2.0	5.7
28	3.4	4.1	5.3	5.7	6.1	5.3	9.0	6.5	3.5	2.6	2.0	2.7
29	3.3	4.1	5.0	5.7	---	5.5	9.8	6.1	3.4	2.6	1.9	2.4
30	3.2	4.4	4.9	5.5	---	5.3	11	6.1	3.3	2.5	2.0	2.1
31	3.1	---	4.7	5.2	---	5.3	---	5.9	---	2.5	2.0	---
TOTAL	91.8	122.9	234.9	142.8	259.1	172.3	192.0	240.1	136.3	95.7	64.8	64.4
MEAN	2.96	4.10	7.58	4.61	9.25	5.56	6.40	7.75	4.54	3.09	2.09	2.15
MAX	3.7	5.7	28	8.7	22	6.1	11	11	5.7	4.1	2.5	5.7
MIN	2.5	3.4	3.7	3.6	4.5	5.3	4.9	5.9	3.3	2.5	1.9	1.8
CFSM	.28	.39	.72	.44	.88	.53	.61	.74	.43	.29	.20	.21
IN.	.33	.44	.83	.51	.92	.61	.68	.85	.48	.34	.23	.23
AC-FT	182	244	466	283	514	342	381	476	270	190	129	128

CAL YR 1980 TOTAL 3987.1 MEAN 10.9 MAX 61 MIN 2.5 CFSM 1.04 IN 14.12 AC-FT 7910
WTR YR 1981 TOTAL 1817.1 MEAN 4.98 MAX 28 MIN 1.8 CFSM .47 IN 6.44 AC-FT 3600

14353500 EAST FORK ASHLAND CREEK NEAR ASHLAND, OR

LOCATION.--Lat 42°09'10", long 122°42'30", near line between NE¼ and NW¼ sec.28, T.39 S., R.1 E., Jackson County, Hydrologic Unit 17100308, Rogue River National Forest, on left bank 0.1 mi (0.2 km) above city diversion dam, 2.5 mi (4.0 km) south of Ashland, and at mile 0.2 (0.3 km).

DRAINAGE AREA.--8.14 mi² (21.1 km²), at diversion dam 0.1 mi (0.2 km) downstream.

PERIOD OF RECORD.--September 1924 to January 1933, water years 1954-60, 1963, annual maximum, December 1974 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2,903.70 ft (885.048 m) National Geodetic Vertical Datum of 1929. Sept. 10, 1924, to Jan. 31, 1933, water-stage recorder at site about 200 ft (61.0 m) downstream at different datum. Oct. 19, 1953, to Sept. 30, 1963, crest-stage gage at diversion dam 0.1 mi (0.2 km) downstream at different datum.

REMARKS.--Records good. No regulation or diversion.

AVERAGE DISCHARGE.--14 years (water years 1925-32, 1976-81), 8.66 ft³/s (0.245 m³/s), 14.45 in/yr (367 mm/yr), 6,270 acre-ft/yr (7.73 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft³/s (9.49 m³/s) Dec. 2, 1962, gage height, 5.42 ft (1.652 m), site and datum then in use, from rating curve defined by computations of peak flow over dam; minimum, 0.47 ft³/s (0.013 m³/s) Mar. 14, 1977, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 15, 1974, is the highest since at least 1925. Discharge, 5,630 ft³/s (159 m³/s) by slope-area measurement of peak flow, gage height, 10.2 ft (3.11 m) from floodmarks. Peak believed to be affected by release from debris dams breaking upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 40 ft³/s (1.13 m³/s) and maximum discharge, 47 ft³/s (1.33 m³/s) Dec. 2, gage height, 2.01 ft (0.613 m); minimum, 1.8 ft³/s (0.051 m³/s) Aug. 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.3	2.9	4.5	5.1	8.5	5.8	10	8.5	4.5	2.3	2.3
2	2.9	2.4	27	4.3	5.1	8.2	5.8	9.6	8.2	4.3	2.4	2.3
3	2.8	2.3	29	4.2	5.1	7.2	5.8	9.2	8.2	4.2	2.4	2.3
4	2.8	2.2	20	4.0	4.9	8.2	5.8	9.2	7.8	4.0	2.4	2.4
5	2.8	2.2	11	4.0	4.9	7.2	6.0	8.9	7.8	4.0	2.4	2.3
6	2.8	2.2	8.2	3.7	4.9	7.0	5.8	8.9	8.2	4.3	2.4	2.3
7	2.8	4.5	7.0	3.7	4.9	7.0	5.5	8.9	7.8	4.9	2.2	2.3
8	2.9	3.2	5.0	3.7	4.9	6.7	5.3	8.9	8.5	4.7	2.1	2.2
9	2.9	2.9	5.0	3.7	4.9	6.7	5.5	8.9	7.8	4.5	2.1	2.2
10	2.9	2.8	5.5	3.4	4.7	6.7	5.3	8.9	7.8	4.3	2.1	2.2
11	3.1	2.7	5.1	3.4	5.1	6.7	5.3	8.9	7.2	4.0	2.1	2.1
12	6.5	2.6	5.1	3.4	5.3	6.5	5.1	8.5	7.5	3.7	2.1	2.1
13	4.5	2.6	4.9	3.4	11	7.0	5.1	8.2	7.5	3.5	2.1	2.1
14	3.5	2.7	4.7	3.2	24	6.7	5.3	8.5	7.8	3.5	2.2	2.1
15	3.2	2.7	5.8	3.2	15	6.7	5.5	8.2	7.0	3.4	2.1	2.1
16	2.9	2.7	6.7	3.5	20	6.7	5.5	8.5	6.5	3.2	2.1	2.0
17	3.0	2.7	6.5	3.7	18	6.2	5.8	8.5	6.2	3.2	2.1	2.1
18	2.6	2.7	6.2	3.5	16	6.2	6.5	12	6.5	3.1	2.0	2.1
19	2.4	2.7	5.5	3.4	16	6.2	9.6	12	6.2	3.1	2.0	2.3
20	2.3	2.6	5.3	3.4	14	6.0	8.2	10	6.0	2.8	2.1	2.3
21	2.3	2.9	9.6	3.7	12	6.0	8.2	9.2	5.8	2.9	2.1	2.2
22	2.2	4.2	6.7	8.9	12	6.2	8.5	9.2	5.5	2.8	2.1	2.2
23	2.2	3.8	5.5	8.9	11	6.0	9.2	8.9	5.5	2.7	2.0	2.2
24	2.3	3.4	5.1	6.7	11	6.0	8.9	10	5.1	2.6	2.1	2.2
25	2.9	3.1	6.5	5.8	10	7.5	9.2	10	5.1	2.6	2.2	2.2
26	2.8	2.9	6.0	5.5	9.6	7.0	9.2	9.6	5.1	2.6	2.1	2.4
27	2.7	2.9	6.7	5.8	9.2	6.2	8.5	8.9	5.1	2.6	2.3	5.8
28	2.3	2.9	5.5	6.0	8.5	6.0	8.9	8.5	4.9	2.4	2.2	3.1
29	2.3	2.9	5.1	5.8	---	6.2	9.6	8.5	4.7	2.4	2.2	2.7
30	2.2	3.1	4.9	5.5	---	6.0	11	8.5	4.7	2.3	2.3	2.6
31	2.2	---	4.7	5.3	---	6.0	---	8.5	---	2.3	2.3	---
TOTAL	89.1	85.8	242.7	141.2	277.1	207.4	209.7	284.5	200.5	105.4	67.6	71.7
MEAN	2.87	2.86	7.83	4.55	9.90	6.69	6.99	9.18	6.68	3.40	2.18	2.39
MAX	6.5	4.5	29	8.9	24	8.5	11	12	8.5	4.9	2.4	5.8
MIN	2.2	2.2	2.9	3.2	4.7	6.0	5.1	8.2	4.7	2.3	2.0	2.0
CFSM	.35	.35	.96	.56	1.22	.82	.86	1.13	.82	.42	.27	.29
IN.	.41	.39	1.11	.65	1.27	.95	.96	1.30	.92	.48	.31	.33
AC-FT	177	170	481	280	550	411	416	564	398	209	134	142

CAL YR 1980	TOTAL 4119.7	MEAN 11.3	MAX 71	MIN 2.2	CFSM 1.39	IN 18.82	AC-FT 8170
WTR YR 1981	TOTAL 1982.7	MEAN 5.43	MAX 29	MIN 2.0	CFSM .67	IN 9.06	AC-FT 3930

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 (12 m) upstream from Main Street Bridge in Medford and at mile 9.91 (15.95 km).

DRAINAGE AREA.--289 mi² (749 km²).

PERIOD OF RECORD.--March 1915 to June 1920 (no low-flow records), October 1920 to September 1981 (discontinued). 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 1,343.98 ft (409.645 m) National Geodetic Vertical Datum of 1929. See WSP 1738 for history of changes prior to Dec. 31, 1947.

REMARKS.--Records good. Flow partly regulated since 1924 by Emigrant Lake (published with station 14350000). Numerous diversions for irrigation above station.

AVERAGE DISCHARGE.--61 years (water years 1921-81), 114 ft³/s (3.228 m³/s), 82,590 acre-ft/yr (102 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s (411 m³/s) Dec. 2, 1962, gage height, 8.04 ft (2.451 m); maximum gage height, about 11.0 ft (3.35 m) Feb. 20, 1927, from floodmarks, present datum, site then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 674 ft³/s (19.1 m³/s) Dec. 2, gage height, 2.04 ft (0.622 m); minimum, 6.6 ft³/s (0.19 m³/s) June 24, July 29, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	29	71	51	44	63	79	35	35	19	17	51
2	67	29	475	49	42	59	79	32	36	19	24	52
3	63	30	237	49	41	58	79	38	35	19	29	50
4	67	30	251	47	39	152	67	42	32	22	22	50
5	44	29	103	47	39	94	69	30	33	32	24	47
6	27	38	81	46	38	85	54	32	38	51	23	43
7	24	105	69	46	36	83	32	32	35	38	21	36
8	23	58	61	47	35	81	30	38	44	28	25	42
9	22	47	58	46	39	77	25	38	41	24	28	46
10	22	46	58	42	39	73	23	38	42	21	25	42
11	24	44	56	41	41	71	23	38	36	21	25	38
12	33	42	52	39	44	69	16	35	29	19	28	35
13	47	42	51	39	54	73	16	27	27	24	28	42
14	75	44	49	35	164	69	15	25	44	22	30	50
15	52	44	49	35	94	67	18	30	47	18	39	37
16	39	42	52	32	150	71	24	32	28	12	42	37
17	35	41	52	32	139	67	27	39	18	15	32	40
18	32	41	51	30	96	67	32	118	17	24	32	49
19	30	39	51	29	123	59	38	152	15	29	41	58
20	30	39	51	30	136	58	46	79	17	42	41	69
21	30	49	56	30	99	59	44	69	25	35	41	52
22	29	67	56	33	88	63	42	71	21	32	46	45
23	29	56	51	44	79	65	35	63	16	23	51	50
24	32	59	54	47	92	65	38	77	10	24	38	58
25	46	44	61	39	85	73	61	83	15	23	39	64
26	49	39	54	36	71	75	123	79	15	23	35	58
27	39	39	63	41	67	83	105	69	17	18	33	52
28	33	38	63	67	67	79	81	47	19	15	38	45
29	30	42	56	73	---	83	61	41	24	12	44	41
30	30	59	52	71	---	81	41	28	19	12	52	38
31	30	---	51	49	---	79	---	25	---	12	52	---
TOTAL	1208	1351	2595	1342	2081	2301	1423	1582	830	728	1045	1417
MEAN	39.0	45.0	83.7	43.3	74.3	74.2	47.4	51.0	27.7	23.5	33.7	47.2
MAX	75	105	475	73	164	152	123	152	47	51	52	69
MIN	22	29	49	29	35	58	15	25	10	12	17	35
AC-FT	2400	2680	5150	2660	4130	4560	2820	3140	1650	1440	2070	2810

CAL YR 1980 TOTAL 42777 MEAN 117 MAX 1330 MIN 22 AC-FT 84850
WTR YR 1981 TOTAL 17903 MEAN 49.0 MAX 475 MIN 10 AC-FT 35510

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 (0.2 km) downstream from Gold Ray Dam, 1.0 mi (1.6 km) downstream from Bear Creek, 5.6 mi (9.0 km) northwest of Central Point, and at mile 125.8 (202.4 km).

DRAINAGE AREA.--2,053 mi² (5,317 km²).

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 (341.919 m) 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 (91 m) upstream at same datum.

REMARKS.--Water-discharge records excellent. 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 above station.

AVERAGE DISCHARGE.--76 years, 2,947 ft³/s (83.46 m³/s), 2,135,000 acre-ft/yr (2.63 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 131,000 ft³/s (3,710 m³/s) Dec. 23, 1964, gage height, 23.43 ft (7.141 m), from rating curve extended above 63,000 ft³/s (1,780 m³/s) on basis of slope-area measurement of 113,000 ft³/s (3,200 m³/s); minimum not determined; minimum daily, 616 ft³/s (17.4 m³/s) Sept. 6, 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 32 ft (10 m), discharge not determined, and flood in February 1890 reached a stage of about 27.5 ft (8.38 m), discharge not determined, from information by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s (297 m³/s) Dec. 2, gage height, 5.99 ft (1.826 m); minimum, 1,040 ft³/s (29.5 m³/s) Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	1290	1850	2380	1420	1370	1920	1960	1690	1860	2040	1750
2	1320	1230	6570	2150	1220	1310	1920	1940	1670	1910	2090	1740
3	1300	1210	6610	1870	1160	1250	1780	1790	1610	1940	2100	1760
4	1300	1200	6410	1830	1150	2020	1880	1690	1580	1940	2120	1740
5	1310	1200	4540	1750	1160	1760	1830	1650	1580	1970	2150	1750
6	1290	1200	4010	1430	1160	1520	1780	1650	1610	2010	2140	1760
7	1270	1720	3450	1380	1120	1410	1680	1580	1580	2080	2120	1760
8	1270	2610	2150	1360	1100	1350	1650	1460	1880	2030	2100	1790
9	1270	2470	2020	1360	1090	1300	1620	1590	2790	1990	2110	2080
10	1280	2110	1950	1350	1070	1250	1590	1530	2180	1980	2140	2330
11	1290	1520	1830	1330	1070	1230	1540	1500	1950	1990	2080	2370
12	1370	1390	1790	1330	1070	1190	1540	1440	1910	2010	2100	2350
13	1380	1270	1670	1320	1080	1230	1480	1410	2030	2020	2120	2350
14	1800	1270	1630	1310	2860	1190	1370	1410	2010	1980	2110	2370
15	1590	1280	1630	1300	2270	1160	1330	1470	1980	1970	2100	2370
16	1450	1270	1670	1300	3090	1410	1320	1750	1890	1970	2120	2380
17	1390	1270	1810	1300	3700	1390	1300	1510	1860	1960	2100	2380
18	1370	1260	1820	1280	2490	1310	1280	2040	1850	1980	2050	2320
19	1370	1240	1750	1260	2420	1270	1300	3360	1850	2010	2150	2020
20	1360	1240	1720	1260	2800	1240	1420	3220	1830	1990	2050	1670
21	1420	1270	1740	1250	2210	1210	1500	2560	1820	1990	1990	1330
22	1440	1960	1960	1260	1920	1270	1600	2180	1800	1980	1700	1250
23	1440	1830	2020	1300	1740	1250	1730	2120	1790	1970	1730	1290
24	1440	1960	2020	1340	1970	1190	1720	2170	1780	1970	1760	1280
25	1410	1780	3990	1320	2080	1230	1750	3030	1760	1970	1720	1300
26	1420	1590	4040	1330	1680	1530	2080	3220	1750	1980	1720	1330
27	1420	1460	3850	1500	1550	1610	2170	2560	1760	1970	1730	1460
28	1400	1400	3670	2100	1450	1470	2080	2290	1770	1950	1740	1420
29	1370	1390	3300	2560	---	1500	1860	2040	1750	1960	1740	1360
30	1370	1720	2760	1980	---	1750	1920	1870	1740	1980	1730	1330
31	1370	---	2530	1680	---	1660	---	1820	---	1960	1740	---
TOTAL	42810	45610	88760	47470	49100	42830	49940	61810	55050	61270	61390	54390
MEAN	1381	1520	2863	1531	1754	1382	1665	1994	1835	1976	1980	1813
MAX	1800	2610	6610	2560	3700	2020	2170	3360	2790	2080	2150	2380
MIN	1270	1200	1630	1250	1070	1160	1280	1410	1580	1860	1700	1250
AC-FT	84910	90470	176100	94160	97390	84950	99060	122600	109200	121500	121800	107900

CAL YR 1980 TOTAL 930230 MEAN 2542 MAX 19100 MIN 1200 AC-FT 1845000
WTR YR 1981 TOTAL 660430 MEAN 1809 MAX 6610 MIN 1070 AC-FT 1310000

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 22.0°C July 25, 26, 1976; minimum, 0.0°C Jan. 7, 1974.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.5°C July 3, 4; minimum, 3.5°C Dec. 13-15, Feb. 8, 9.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14359000 ROGUE RIVER AT RAYGOLD, NEAR CENTRAL POINT, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

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 (1.0 km) upstream from bridge on State Highway 99 at Grants Pass, and at mile 101.8 (163.8 km).

DRAINAGE AREA.--2,459 mi² (6,369 km²).

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 885.28 ft (269.833 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1957, at datum 3.00 ft (0.914 m) higher.

REMARKS.--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 (8.8 km) above station. Many diversions from Rogue River and tributaries above station, the largest of which is at Savage Rapids Dam of Grants Pass Irrigation District, 5.5 mi (8.8 km) above station.

AVERAGE DISCHARGE.--43 years, 3,439 ft³/s (97.39 m³/s), 2,492,000 acre-ft/yr (3.07 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 152,000 ft³/s (4,300 m³/s) Dec. 23, 1964, gage height, 34.15 ft (10.409 m), from rating curve extended above 93,000 ft³/s (2,630 m³/s); minimum, 195 ft³/s (5.52 m³/s) Jan. 30, 1961; minimum daily, 606 ft³/s (17.2 m³/s) Sept. 10, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in December 1861 reached a stage of about 42 ft (13 m), present datum (information furnished by Corps of Engineers). Flood in February 1890 reached a stage of about 35 ft (11 m), present datum, and that of Feb. 21, 1927, about 31 ft (9 m), present datum, according to local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,100 ft³/s (456 m³/s) Dec. 2, gage height, 8.35 ft (2.545 m); minimum, 859 ft³/s (24.3 m³/s) Nov. 20; minimum daily, 1,110 ft³/s (31.4 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	1470	2160	2800	1710	1610	2080	2080	1700	1690	1860	1640
2	1240	1330	9820	2580	1380	1510	2170	2050	1640	1830	1950	1640
3	1220	1320	9210	2180	1310	1410	2040	1900	1590	1850	1980	1650
4	1210	1310	8300	2120	1270	2060	2040	1650	1550	1840	1990	1680
5	1250	1300	5570	2050	1270	2210	2040	1690	1520	1910	2040	1640
6	1210	1300	4690	1680	1290	1770	1980	1640	1570	1990	2010	1660
7	1200	1900	4140	1550	1240	1610	1840	1640	1580	2090	2000	1650
8	1200	3110	2630	1510	1210	1530	1790	1340	1700	2010	1990	1650
9	1210	2960	2350	1490	1200	1450	1740	1490	3050	1910	2000	1940
10	1220	2670	2240	1490	1180	1360	1710	1460	2540	1940	2030	2310
11	1240	1810	2220	1460	1160	1310	1630	1410	1960	1830	1980	2390
12	1380	1610	2000	1440	1170	1300	1630	1330	1910	1880	1990	2400
13	1520	1410	1860	1410	1190	1330	1710	1270	2080	1890	2030	2380
14	2110	1390	1770	1400	3370	1300	1460	1290	2050	1850	2040	2390
15	1980	1390	1780	1380	3240	1260	1390	1310	2010	1830	2030	2390
16	1660	1400	1770	1380	3200	1430	1360	1650	1860	1830	2040	2400
17	1580	1380	1950	1390	5370	1530	1310	1480	1780	1790	2050	2400
18	1520	1360	2000	1380	3290	1410	1290	1860	1770	1830	2030	2400
19	1610	1330	1890	1360	3140	1360	1300	3370	1760	1850	2040	2110
20	2180	1240	1850	1330	3760	1360	1430	3580	1740	1840	2100	1740
21	1530	1390	1840	1340	3020	1310	1510	2790	1730	1810	2050	1280
22	1600	2300	2110	1360	2540	1300	1620	2310	1730	1790	1600	1110
23	1590	2220	2210	1380	2220	1340	1810	2210	1690	1790	1600	1120
24	1590	2250	2220	1440	2340	1260	1800	2160	1700	1800	1620	1150
25	1580	2100	4690	1430	2570	1270	1810	2960	1650	1800	1620	1160
26	1580	1830	5050	1410	2110	1580	2120	3490	1640	1810	1600	1200
27	1570	1650	4550	1630	1880	1790	2280	2820	1650	1800	1610	1350
28	1540	1550	4480	2230	1720	1650	1990	2430	1680	1770	1630	1400
29	1510	1520	3910	3140	---	1590	1790	2100	1680	1790	1630	1310
30	1500	1830	3390	2410	---	1910	1950	1900	1630	1800	1620	1250
31	1500	---	3050	2000	---	1860	---	1800	---	1810	1620	---
TOTAL	46080	51630	107700	53150	60350	46970	52620	62460	54140	57250	58380	52790
MEAN	1486	1721	3474	1715	2155	1515	1754	2015	1805	1847	1883	1760
MAX	2180	3110	9820	3140	5370	2210	2280	3580	3050	2090	2100	2400
MIN	1200	1240	1770	1330	1160	1260	1290	1270	1520	1690	1600	1110
AC-FT	91400	102400	213600	105400	119700	93160	104400	123900	107400	113600	115800	104700

CAL YR 1980 TOTAL 1065040 MEAN 2910 MAX 26900 MIN 1100 AC-FT 2113000
WTR YR 1981 TOTAL 703520 MEAN 1927 MAX 9820 MIN 1110 AC-FT 1395000

14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C July 4, 5; minimum, 3.0°C Dec. 14, 15.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14361500 ROGUE RIVER AT GRANTS PASS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	17.5	15.5	18.0	17.0	20.0	19.0	18.0	16.0	17.0	16.5
2	---	---	16.0	13.5	18.5	17.5	20.0	19.0	18.0	15.5	17.0	16.0
3	---	---	14.5	12.0	19.0	18.0	21.0	19.5	17.5	15.5	16.5	15.5
4	---	---	13.0	12.0	19.5	18.5	21.5	20.0	17.5	15.5	16.0	15.0
5	---	---	13.5	12.0	20.5	19.0	21.5	19.5	17.5	15.5	15.5	14.5
6	---	---	13.0	12.5	20.0	18.5	19.5	16.5	18.0	16.0	15.5	14.5
7	---	---	14.0	13.0	19.0	17.5	16.5	15.5	18.5	16.0	16.0	15.0
8	---	---	15.0	13.5	17.5	16.0	17.5	15.5	18.5	16.5	16.0	15.5
9	---	---	15.5	14.0	16.0	14.0	18.5	16.5	19.0	16.5	16.5	15.5
10	---	---	16.5	14.5	16.0	14.0	18.5	17.5	19.0	17.0	16.0	13.0
11	---	---	17.0	15.5	17.0	15.0	18.5	17.0	19.0	17.0	13.5	11.0
12	---	---	16.5	15.5	17.0	16.0	18.5	17.0	19.0	17.0	13.5	11.5
13	---	---	16.5	15.0	16.5	15.0	18.5	17.0	19.0	17.0	13.5	11.5
14	---	---	17.0	15.0	16.5	14.5	19.0	17.0	19.0	17.0	13.5	11.0
15	---	---	16.0	15.0	18.5	16.0	19.5	17.5	18.5	16.5	13.5	11.5
16	---	---	15.0	14.5	18.5	17.5	19.5	18.5	18.0	16.0	13.5	11.5
17	---	---	15.0	14.0	19.0	18.0	19.5	17.5	18.0	16.0	13.5	11.5
18	---	---	15.0	14.0	18.0	17.0	18.5	17.0	17.5	15.5	14.0	12.0
19	---	---	15.0	13.5	18.5	17.5	18.5	17.0	17.5	15.0	14.0	12.0
20	---	---	13.5	12.5	19.5	18.5	18.5	17.0	17.0	15.0	14.0	12.5
21	---	---	14.5	12.5	20.0	19.0	18.5	17.0	17.0	15.0	14.0	12.5
22	---	---	16.5	13.0	20.0	19.5	18.5	16.5	17.0	15.5	15.0	12.5
23	17.0	---	17.5	14.5	20.0	19.0	18.0	16.5	17.5	16.5	15.0	12.5
24	15.0	13.5	---	---	19.5	19.0	18.0	16.5	17.5	16.5	14.0	12.0
25	14.0	11.5	---	---	20.0	19.5	18.0	16.5	17.0	16.5	14.0	11.5
26	11.5	10.0	---	---	20.0	19.0	18.5	17.0	17.0	16.0	13.0	11.5
27	12.5	10.0	---	---	19.5	18.5	19.0	17.5	16.5	15.5	14.0	12.5
28	15.0	11.5	---	---	19.0	18.0	19.0	17.5	16.5	15.5	14.0	13.0
29	16.5	13.5	18.5	---	19.5	18.5	19.0	17.0	16.5	16.0	14.5	12.5
30	17.0	15.5	18.5	16.5	20.0	19.0	18.0	16.5	16.5	16.0	14.5	12.0
31	---	---	18.0	16.5	---	---	17.5	16.0	16.5	15.5	---	---
MONTH	17.0	10.0	18.5	12.0	20.5	14.0	21.5	15.5	19.0	15.0	17.0	11.0

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR

LOCATION.--Lat 42°00'23", long 123°09'23", in W½ 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 (0.3 km) upstream from Elliot Creek, 1.6 mi (2.6 km) southwest of former town of Copper, and at mile 51.6 (83.0 km).

DRAINAGE AREA.--50.7 mi² (131.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,001.74 ft (610.130 m) National Geodetic Vertical datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Water-discharge records good. No regulation or diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft³/s (92.9 m³/s) Jan. 12, 1980, gage height, 8.47 ft (2.582 m); minimum, 8.3 ft³/s (0.24 m³/s) Sept. 14-26, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	*1,980	56.1	*6.77	2.063	Feb. 14	0130	1,560	44.2	6.11	1.862
Dec. 25	0730	794	22.5	4.79	1.460						

Minimum, 8.3 ft³/s (0.24 m³/s) Sept. 14-26.

CORRECTIONS.--Previously unpublished peak discharges above base of 700 ft³/s (19.8 m³/s) for water year 1980 are given below:

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 25		Time and discharge unknown				Jan. 12	1100	3,280	92.9	8.47	2.582
Nov. 24		Time and discharge unknown				Feb. 18	1730	1,260	35.7	5.59	1.704
Dec. 2	1700	2,000	56.6	6.79	2.070	Feb. 27	2230	961	27.2	5.08	1.548

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	14	37	129	94	138	155	96	43	23	13	9.5
2	11	16	1170	114	89	131	148	87	43	23	12	9.5
3	10	14	896	106	86	129	138	80	41	23	12	9.5
4	10	14	584	98	82	160	131	76	39	22	12	9.5
5	10	13	277	93	80	138	131	71	38	21	12	9.5
6	10	13	175	86	77	131	131	68	38	22	12	9.5
7	10	73	129	80	74	129	124	65	38	23	12	9.1
8	10	77	106	76	73	124	120	64	60	22	11	9.1
9	10	49	89	71	73	120	118	62	53	21	11	9.1
10	10	38	82	67	70	116	112	60	46	20	10	8.7
11	11	29	76	64	74	114	110	57	42	20	10	8.7
12	23	26	73	61	80	114	106	56	40	20	10	8.7
13	21	23	68	58	420	116	102	53	40	20	10	8.7
14	25	22	64	56	1000	114	100	52	39	19	10	8.7
15	18	22	70	54	525	127	100	52	37	18	10	8.3
16	16	20	94	54	800	127	100	52	36	18	10	8.3
17	14	20	91	58	646	118	104	52	34	17	10	8.3
18	14	19	84	54	498	114	114	68	33	16	10	8.3
19	13	19	77	60	530	112	178	67	33	16	10	8.3
20	13	18	77	60	406	112	143	60	31	16	10	8.3
21	13	29	162	68	325	112	136	56	30	16	10	8.3
22	13	93	224	150	277	122	136	53	29	16	10	8.3
23	13	56	162	189	243	116	140	50	28	15	10	8.3
24	13	43	162	143	227	112	136	50	28	15	10	8.3
25	14	36	584	120	194	270	120	70	27	14	10	8.3
26	14	32	366	120	178	259	116	64	27	14	10	10
27	14	28	388	148	160	214	108	57	26	14	10	35
28	13	27	306	150	150	189	100	52	25	14	10	19
29	13	30	230	129	---	200	104	49	25	13	10	14
30	13	34	183	112	---	175	104	47	24	13	9.5	11
31	13	---	150	102	---	167	---	46	---	13	9.5	---
TOTAL	416	947	7236	2930	7531	4420	3665	1892	1073	557	326.0	308.1
MEAN	13.4	31.6	233	94.5	269	143	122	61.0	35.8	18.0	10.5	10.3
MAX	25	93	1170	189	1000	270	178	96	60	23	13	35
MIN	10	13	37	54	70	112	100	46	24	13	9.5	8.3
CFSM	.26	.62	4.60	1.86	5.31	2.82	2.41	1.20	.71	.36	.21	.20
IN.	.31	.69	5.31	2.15	5.53	3.24	2.69	1.39	.79	.41	.24	.23
AC-FT	825	1880	14350	5810	14940	8770	7270	3750	2130	1100	647	611

CAL YR 1980	TOTAL	61032.0	MEAN	167	MAX 2870	MIN 10	CFSM 3.29	IN 44.78	AC-FT	121100	
WTR YR 1981	TOTAL	31301.1	MEAN	85.8	MAX 1170	MIN 8.3	CFSM 1.69	IN 22.97	AC-FT	62090	

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1979 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 10-12, 1981; minimum, 1.5°C Jan. 29, 30, Dec. 8, 12-14, 1980.

EXTREMES CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.5°C Aug. 8, 10-12; minimum, 1.5°C Dec. 8, 12-14.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14361590 MIDDLE FORK APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	4.0	13.5	10.0	16.0	11.0	19.0	15.0	21.0	15.5	19.0	15.0
2	6.5	4.0	12.0	8.5	16.0	12.0	21.0	14.5	20.5	15.5	19.0	15.0
3	7.0	4.5	11.5	7.5	17.0	11.0	22.0	15.5	20.0	15.0	18.5	14.5
4	7.5	3.5	10.0	7.0	17.5	12.0	22.5	16.5	20.5	15.0	16.5	14.0
5	8.5	4.5	9.5	5.5	16.0	12.5	19.5	17.5	21.0	15.5	17.5	13.5
6	7.5	4.5	10.5	6.0	16.5	13.0	17.5	14.5	22.0	16.5	18.0	13.5
7	7.5	4.0	11.5	6.0	15.0	12.5	18.0	13.0	23.0	17.5	18.5	14.0
8	6.5	4.5	10.5	7.0	14.0	12.0	18.5	12.0	23.5	18.5	19.0	14.5
9	7.5	5.0	14.0	8.5	14.0	10.5	19.0	13.0	23.0	19.0	18.5	15.0
10	7.5	4.0	13.5	9.0	14.5	11.0	19.0	14.0	23.5	15.0	18.0	14.5
11	5.5	4.5	13.0	7.5	13.5	10.5	18.5	12.5	23.5	19.0	18.5	14.5
12	7.0	4.5	13.0	7.5	13.5	10.0	18.0	13.0	23.5	19.0	18.5	14.5
13	9.0	5.0	12.0	8.0	12.0	9.0	19.0	13.0	23.0	18.5	18.5	15.0
14	10.5	5.0	12.5	9.5	15.0	9.0	19.5	13.0	23.0	18.5	18.5	14.5
15	9.0	6.0	12.0	8.5	16.5	9.5	20.5	14.0	22.5	18.0	19.0	15.0
16	10.0	6.0	12.0	7.5	17.0	11.5	21.0	15.0	21.5	17.0	19.5	15.5
17	10.5	6.5	11.0	8.5	17.0	11.0	21.0	15.0	22.0	17.0	19.0	16.0
18	11.0	7.0	11.5	9.0	14.5	11.0	21.0	15.0	21.0	17.5	18.5	15.5
19	9.0	6.5	10.0	8.5	18.5	12.0	21.0	15.0	21.0	17.0	17.5	15.0
20	10.0	6.5	13.0	8.0	18.5	12.5	21.5	15.5	20.0	15.5	15.5	13.0
21	9.5	7.0	11.0	8.5	19.0	12.0	21.5	15.5	20.5	16.0	14.5	12.0
22	11.5	7.0	11.5	8.5	19.0	12.5	21.0	15.0	20.5	16.0	14.5	11.5
23	12.5	8.0	14.0	9.5	19.0	13.5	20.5	14.5	20.5	16.5	14.0	11.0
24	10.5	8.0	15.0	11.0	20.0	13.0	20.5	14.5	18.0	15.5	12.0	11.0
25	8.0	7.0	15.0	11.0	20.5	14.0	20.5	14.5	19.0	15.0	13.0	9.5
26	8.0	6.5	16.0	10.5	20.5	14.5	21.5	16.0	18.5	14.0	13.0	11.5
27	10.5	6.0	16.0	10.5	19.5	14.0	22.0	16.5	18.5	14.0	13.5	12.0
28	12.5	7.5	16.5	10.5	19.5	13.0	22.5	17.5	19.0	14.0	13.5	11.5
29	14.0	9.0	15.5	11.5	20.0	13.0	21.0	16.0	19.0	14.5	13.5	10.5
30	15.0	10.0	16.5	11.5	20.5	14.5	20.5	15.0	18.5	15.0	12.5	9.0
31	---	---	16.5	10.5	---	---	20.5	15.0	18.5	14.0	---	---
MONTH	15.0	3.5	16.5	5.5	20.5	9.0	22.5	12.0	23.5	14.0	19.5	9.0

14361600 ELLIOTT CREEK NEAR COPPER, OR

LOCATION.--Lat 42°00'16", long 123°09'00", in W½ 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 (0.5 km) upstream from Middle Fork Applegate River and 1.5 mi (2.4 km) south of former town of Copper.

DRAINAGE AREA.--51.8 mi^2 (134 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,023.56 ft (616.781 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Minor fluctuation from small power generator 0.2 mi (0.3 km) upstream. No diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,690 ft^3/s (47.9 m^3/s) Dec. 14, 1978, gage height, 5.48 ft (1.670 m); minimum, 3.9 ft^3/s (0.11 m^3/s) Sept. 10, 1980; minimum daily, 7.1 ft^3/s (0.20 m^3/s) Sept. 14-16, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 450 ft^3/s (12.7 m^3/s), revised, and maximum discharge, 891 ft^3/s (25.2 m^3/s) Dec. 2, gage height, 4.24 ft (1.292 m); minimum, 3.9 ft^3/s (0.11 m^3/s) Sept. 10; minimum daily, 7.1 ft^3/s (0.20 m^3/s) Sept. 14-16.

CORRECTIONS.--Previously unpublished peak discharges above base of 450 ft^3/s (12.7 m^3/s) for water years 1978-80 are given below:

Water year 1978:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 21	2200	523	14.8	3.43	1.045	Jan. 16	0900	780	22.1	3.98	1.213
Nov. 26	0100	1,050	29.7	4.53	1.381	Feb. 3	0900	482	13.7	3.32	1.012
Dec. 14	0600	1,690	47.9	5.48	1.670						

Water year 1979:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 11	0830	534	15.1	3.47	1.058	May 5	0830	473	13.4	3.31	1.009
Feb. 12	2400	466	13.2	3.29	1.003						

Water year 1980:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 2	1730	760	21.5	4.01	1.222	Jan. 13	1800	1,630	46.2	5.40	1.646

14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	25	60	50	80	71	108	49	24	13	8.8
2	13	19	522	56	48	76	70	97	49	24	13	9.2
3	12	16	320	55	47	75	69	88	47	22	13	9.2
4	11	15	207	52	46	81	65	83	44	22	13	8.8
5	11	15	101	49	45	75	69	78	43	22	13	8.8
6	11	15	73	47	44	72	69	75	44	23	12	8.8
7	12	49	59	46	42	73	65	72	45	26	11	8.3
8	12	37	52	45	41	71	64	69	57	23	10	7.5
9	12	27	48	43	42	70	64	70	48	21	10	7.5
10	12	23	46	42	41	70	62	69	43	20	10	7.9
11	13	20	43	41	42	68	61	66	41	20	10	7.9
12	26	19	41	40	44	69	60	64	41	20	10	7.5
13	24	18	39	38	125	72	59	63	41	20	10	7.5
14	24	19	37	37	272	68	62	63	41	19	10	7.1
15	22	19	42	37	139	75	66	63	39	18	9.6	7.1
16	19	17	56	39	194	73	64	63	36	17	9.6	7.1
17	19	17	50	41	171	68	71	64	35	17	9.2	7.5
18	17	17	46	40	146	68	78	88	34	16	9.2	7.5
19	17	17	43	39	167	65	113	81	34	16	9.2	8.3
20	16	17	43	38	133	66	94	72	33	16	9.2	8.3
21	16	26	85	42	117	65	99	66	31	15	9.6	8.3
22	15	50	88	76	111	69	105	63	30	15	9.6	8.3
23	15	33	64	81	105	64	117	62	30	15	9.2	8.8
24	15	32	65	63	102	63	114	68	29	14	8.8	8.8
25	20	26	159	55	97	95	107	75	28	14	9.2	8.8
26	17	24	108	57	91	86	104	65	27	14	9.6	9.6
27	17	22	116	69	85	78	95	61	27	13	9.6	36
28	16	20	92	69	82	76	98	57	26	13	9.2	19
29	15	21	77	61	---	80	111	55	26	13	8.8	13
30	15	24	70	56	---	73	119	53	24	13	8.8	11
31	14	---	64	52	---	72	---	51	---	13	9.2	---
TOTAL	491	690	2881	1566	2669	2256	2465	2172	1122	558	315.6	292.2
MEAN	15.8	23.0	92.9	50.5	95.3	72.8	82.2	70.1	37.4	18.0	10.2	9.74
MAX	26	50	522	81	272	95	119	108	57	26	13	36
MIN	11	15	25	37	41	63	59	51	24	13	8.8	7.1
CFSM	.31	.44	1.79	.98	1.84	1.41	1.59	1.35	.72	.35	.20	.19
IN.	.35	.50	2.07	1.12	1.92	1.62	1.77	1.56	.81	.40	.23	.21
AC-FT	974	1370	5710	3110	5290	4470	4890	4310	2230	1110	626	580

CAL YR 1980 TOTAL 36678.0 MEAN 100 MAX 1410 MIN 11 CFSM 1.93 IN 26.34 AC-FT 72750
WTR YR 1981 TOTAL 17477.8 MEAN 47.9 MAX 522 MIN 7.1 CFSM .93 IN 12.55 AC-FT 34670

14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1977 to current year.

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 Nov. 20, 21, 1977, many days November 1978 to February 1979, Jan. 28-30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 23.0°C Aug. 8, 10-12; minimum, 0.5°C Dec. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC			
02...	870	937	2200
02...	870	858	2020

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14361600 ELLIOTT CREEK NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	4.0	13.0	9.0	15.5	10.0	18.5	14.5	20.0	15.0	18.0	14.0
2	7.0	3.5	11.0	7.5	16.0	11.0	20.0	13.5	19.5	14.5	18.5	14.5
3	7.0	4.5	10.5	6.5	17.0	10.5	21.5	15.0	19.0	14.0	17.5	13.5
4	8.0	3.0	10.5	6.5	17.0	11.0	22.0	16.0	---	14.5	16.0	13.0
5	9.0	4.5	9.0	5.0	16.0	11.5	20.5	17.0	20.0	---	16.5	12.5
6	7.5	4.5	10.5	5.0	16.0	12.0	17.5	13.5	21.5	16.0	17.0	12.5
7	7.5	3.5	11.0	5.0	14.0	11.5	16.5	11.5	22.5	17.0	17.5	13.0
8	7.0	4.0	10.0	6.0	12.5	11.0	17.5	10.5	23.0	18.0	18.0	14.0
9	8.0	5.0	13.5	8.0	13.5	9.5	18.0	12.0	22.5	19.0	18.0	14.0
10	7.5	3.0	13.0	8.5	15.0	10.0	18.0	13.5	23.0	18.0	17.5	13.5
11	6.5	4.0	12.5	6.5	14.0	10.0	17.5	12.0	23.0	18.0	17.5	13.5
12	8.5	4.0	13.0	6.5	12.5	9.0	17.5	12.5	23.0	18.5	17.5	14.0
13	10.0	4.5	12.0	7.0	11.5	8.0	18.0	12.0	22.5	18.0	18.0	14.0
14	11.0	5.0	12.0	9.0	15.0	8.0	18.5	12.0	22.5	18.0	18.0	14.0
15	9.0	6.0	11.0	7.5	16.5	8.5	19.5	13.5	21.5	17.0	18.5	14.5
16	10.5	6.0	12.0	6.0	17.0	11.0	20.5	15.0	21.0	16.0	19.0	15.0
17	11.0	6.5	10.0	8.0	16.5	10.5	20.0	15.0	20.5	16.0	18.5	15.0
18	12.0	6.5	11.0	8.0	15.0	10.5	20.0	14.5	20.5	16.0	17.5	14.5
19	9.0	6.5	9.0	7.5	18.5	11.5	20.0	14.5	20.0	16.0	17.0	13.5
20	11.0	6.0	11.5	7.0	18.5	12.0	20.0	15.0	19.0	14.5	15.0	12.0
21	10.0	7.0	10.5	7.5	18.5	11.5	20.0	15.0	19.5	15.0	14.0	11.0
22	12.0	6.5	11.5	7.5	18.5	12.0	19.5	14.5	19.5	15.0	13.0	10.5
23	13.5	7.5	13.5	9.0	18.5	12.5	19.5	14.0	19.5	15.5	12.5	9.5
24	10.0	8.0	14.0	10.0	19.5	12.0	19.0	14.0	17.5	14.5	11.0	9.5
25	8.0	6.0	14.5	10.5	20.0	13.5	19.5	14.0	18.0	14.5	12.0	9.0
26	8.0	5.5	16.0	9.5	19.5	13.5	20.5	15.5	17.5	13.0	13.0	11.0
27	10.5	5.0	16.0	10.0	18.5	13.5	21.5	16.0	17.5	13.0	13.5	12.0
28	13.0	7.0	16.5	9.5	18.5	12.0	22.0	17.0	18.0	13.0	13.0	11.0
29	14.0	8.5	15.5	11.0	19.5	12.5	20.0	15.5	18.0	14.0	12.5	10.0
30	15.0	9.5	16.0	10.5	19.5	14.0	19.5	14.0	18.0	14.5	11.0	8.5
31	---	---	16.0	9.5	---	---	19.5	14.0	17.5	13.0	---	---
MONTH	15.0	3.0	16.5	5.0	20.0	8.0	22.0	10.5	23.0	13.0	19.0	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 (1.9 km) west of former town of Copper and at mile 0.9 (1.4 km).

DRAINAGE AREA.--68.9 mi^2 (178 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,990.01 ft (606.555 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good prior to July 4, fair thereafter. No regulation. Diversion for irrigation of up to 8 ft^3/s (0.2 m^3/s) from Sturgis Fork into Thompson Creek above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s (62.9 m^3/s) Jan. 13, 1980, gage height, 6.19 ft (1.887 m); minimum, 5.9 ft^3/s (0.17 m^3/s) Sept. 14-16, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peak of Dec. 14, 1977, reached a stage of 5.90 ft (1.798 m) from floodmarks, discharge, 2,600 ft^3/s (73.6 m^3/s). A discharge of 4.2 ft^3/s (0.12 m^3/s) was measured Sept. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft^3/s (19.8 m^3/s), revised, and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 2	1900	*1,770	50.1	*5.43	1.655	Feb. 14	0300	807	22.9	3.65	1.113

Minimum, 5.9 ft^3/s (0.17 m^3/s) Sept. 14-16.

CORRECTIONS.--Previously unpublished peak discharges above base of 700 ft^3/s (19.8 m^3/s) for water years 1978-80 are given below:

Water year 1978:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 16	1030	1,110	31.4	4.01	1.222	Feb. 7	1500	702	19.9	3.27	0.997
Feb. 3	1000	1,160	32.8	4.09	1.247						

Water year 1979:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 11	0930	1,170	33.1	4.54	1.384	Feb. 13	0200	1,050	29.7	4.30	1.311

Water year 1980:

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 25	0330	1,030	29.2	4.27	1.301	Jan. 13	1500	2,220	62.9	6.19	1.887
Nov. 24	0700	800	22.7	3.78	1.152	Feb. 18	1700	787	22.3	3.80	1.158
Dec. 2	1600	1,060	30.0	4.32	1.317						

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	19	28	94	87	125	121	81	35	18	9.7	7.7
2	11	20	1030	87	81	121	116	76	34	17	9.7	7.7
3	11	17	514	81	76	116	112	73	33	16	9.7	8.1
4	11	16	447	78	73	127	108	71	31	16	10	8.1
5	11	15	199	73	71	116	110	69	31	16	10	8.4
6	11	15	141	71	68	112	108	68	32	18	9.4	8.1
7	11	50	106	66	64	110	104	66	31	20	8.7	7.7
8	11	43	87	63	63	106	102	63	44	16	8.1	7.2
9	11	30	78	61	63	102	102	60	38	15	7.7	7.0
10	11	26	73	58	63	98	96	57	34	14	7.4	6.6
11	11	23	66	55	66	98	94	52	32	14	7.4	6.8
12	20	20	61	54	68	96	92	47	31	14	7.4	6.6
13	19	19	58	51	207	102	90	45	31	14	7.4	6.4
14	25	19	54	49	579	96	88	45	32	12	7.7	6.4
15	23	20	55	48	336	104	88	45	29	12	7.4	6.4
16	20	19	60	49	500	104	87	47	27	12	7.4	6.2
17	19	18	60	55	400	98	88	45	25	12	7.4	6.4
18	17	19	57	51	309	96	92	52	24	12	7.4	6.6
19	17	17	55	54	329	96	129	57	24	11	7.4	7.0
20	16	17	54	52	265	98	110	51	23	11	7.7	8.1
21	16	21	88	58	219	96	104	47	22	11	8.4	8.4
22	16	53	106	132	194	98	102	45	21	11	8.4	8.4
23	16	34	90	175	178	94	104	44	21	11	7.7	8.4
24	16	24	102	132	170	92	102	43	21	11	7.2	8.7
25	19	26	389	108	155	132	96	51	21	12	7.7	8.7
26	17	23	224	110	148	138	98	45	20	12	7.7	9.7
27	17	22	210	136	138	129	90	43	20	11	8.1	21
28	16	21	173	138	132	125	87	40	20	10	7.7	14
29	16	23	141	121	---	134	85	38	18	10	7.7	11
30	16	29	121	106	---	125	85	37	18	10	7.4	9.7
31	15	---	108	90	---	123	---	36	---	10	7.7	---
TOTAL	477	718	5035	2556	5102	3407	2990	1639	823	409	250.7	251.5
MEAN	15.4	23.9	162	82.5	182	110	99.7	52.9	27.4	13.2	8.09	8.38
MAX	25	53	1030	175	579	138	129	81	44	20	10	21
MIN	11	15	28	48	63	92	85	36	18	10	7.2	6.2
CFSM	.22	.35	2.35	1.20	2.64	1.60	1.45	.77	.40	.19	.12	.12
IN.	.26	.39	2.72	1.38	2.75	1.84	1.61	.88	.44	.22	.14	.14
AC-FT	946	1420	9990	5070	10120	6760	5930	3250	1630	811	497	499

CAL YR 1980	TOTAL	51233.0	MEAN	140	MAX	1870	MIN	11	CFSM	2.03	IN	27.66	AC-FT	101600
WTR YR 1981	TOTAL	23658.2	MEAN	64.8	MAX	1030	MIN	6.2	CFSM	.94	IN	12.77	AC-FT	46930

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1977 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1980 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 8-12, 1981; minimum, 0.0°C Nov. 20, 21, 1977, many days during November 1978 through February 1979, Jan. 29, 30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.5°C Aug. 8-12; minimum, 0.5°C Dec. 13.
SEDIMENT CONCENTRATIONS: Maximum daily, 111 mg/l Dec. 2; minimum daily, 0 mg/l on many days.
SEDIMENT DISCHARGE: Maximum daily, 358 tons (325 tonnes) Dec. 2; minimum daily, 0 tons (0 tonnes) on many days.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	12.0	10.0	8.0	4.0	3.0	5.5	4.5	4.0	2.0	6.5	3.5
2	15.0	12.0	10.0	8.5	6.0	3.5	5.0	3.5	4.5	2.5	6.5	3.5
3	15.5	12.5	10.5	8.5	7.0	6.0	6.5	5.0	4.0	2.0	6.0	3.5
4	14.5	12.0	9.5	8.0	6.0	4.5	5.0	4.0	4.0	2.0	5.5	4.0
5	15.0	12.0	9.5	7.5	5.5	4.5	4.5	3.5	4.5	3.0	6.0	3.5
6	15.0	12.0	11.5	9.5	4.5	4.0	4.0	3.0	5.0	3.0	5.5	2.5
7	15.0	12.0	11.5	9.5	4.0	2.5	4.5	3.5	4.0	2.0	6.0	4.0
8	14.5	12.0	10.0	8.5	2.5	1.5	6.0	4.0	4.0	2.0	7.0	4.5
9	14.0	11.5	9.5	8.0	2.5	1.5	6.0	5.0	5.0	3.0	7.5	3.5
10	13.5	11.0	8.0	7.0	3.0	1.5	5.0	4.0	4.0	2.0	6.0	4.5
11	12.0	11.0	7.0	6.0	3.0	2.0	4.5	3.0	6.5	4.0	8.5	5.5
12	12.5	11.0	6.0	4.0	2.0	1.0	4.0	3.0	6.0	4.0	8.0	4.5
13	12.0	11.0	4.0	2.5	2.0	.5	4.0	2.5	6.5	5.0	6.5	5.5
14	11.0	10.0	5.0	3.0	2.5	1.0	4.5	3.0	6.5	5.0	8.0	5.0
15	10.0	9.5	5.0	3.5	3.5	2.0	5.0	3.0	6.5	5.5	6.5	5.5
16	11.0	8.5	5.0	3.0	4.0	2.5	6.0	4.5	7.5	5.5	7.5	5.0
17	10.0	7.5	5.0	3.5	4.0	3.0	6.5	5.0	6.0	4.5	7.0	3.0
18	10.0	7.0	5.0	3.5	4.0	3.0	7.0	5.5	8.0	5.5	6.5	4.0
19	9.5	7.0	5.0	3.5	4.0	3.0	6.5	5.5	7.5	5.0	7.0	4.5
20	9.5	7.0	5.0	3.5	5.5	4.0	6.5	4.5	5.5	4.0	7.5	4.5
21	10.0	8.0	6.5	4.5	7.0	5.0	7.5	6.5	5.5	3.5	8.5	5.0
22	9.0	6.5	7.5	6.0	7.0	5.0	7.5	7.0	6.5	4.0	8.5	6.0
23	9.0	6.5	7.5	6.5	5.0	4.0	7.0	6.0	6.5	4.5	8.5	5.0
24	9.0	7.5	6.5	4.5	7.0	4.5	6.0	4.5	6.0	5.0	8.0	4.5
25	9.5	8.0	5.5	4.0	8.0	7.0	4.5	3.5	5.0	4.0	8.5	6.0
26	9.5	7.5	5.0	3.5	7.5	6.5	5.5	4.0	5.5	3.5	6.5	5.0
27	9.5	8.0	5.0	3.5	7.5	6.0	5.5	5.0	5.5	3.5	8.0	5.0
28	8.0	6.0	5.5	4.5	6.0	5.0	5.5	4.5	5.5	3.5	8.5	4.0
29	8.0	5.5	6.5	5.0	6.0	4.5	5.0	4.0	---	---	6.5	4.5
30	8.5	6.5	6.0	4.0	6.5	5.5	4.5	3.0	---	---	6.0	4.0
31	8.5	6.5	---	---	6.0	5.0	4.0	2.5	---	---	7.5	5.0
MONTH	15.5	5.5	11.5	2.5	8.0	.5	7.5	2.5	8.0	2.0	8.5	2.5

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	4.5	14.5	10.5	16.5	11.5	19.5	15.5	21.5	16.5	19.5	15.0
2	7.5	4.5	12.5	9.0	16.5	12.5	21.0	15.0	21.0	16.0	19.5	15.5
3	8.0	5.0	12.5	8.0	18.0	11.5	22.0	16.5	20.5	15.5	19.0	14.5
4	9.0	4.0	10.5	7.5	18.5	12.5	---	---	21.0	16.0	17.5	14.5
5	9.5	5.0	10.5	6.0	17.0	13.5	---	---	22.0	16.5	18.0	14.0
6	---	5.0	12.0	6.0	17.0	13.0	---	---	23.0	17.5	18.5	14.0
7	---	---	12.0	6.5	16.5	13.0	---	---	24.0	18.5	19.0	14.0
8	---	---	11.0	7.5	16.0	13.5	---	---	24.5	19.5	19.5	15.0
9	---	---	15.0	9.5	14.5	11.0	---	---	24.5	20.5	19.5	15.0
10	---	---	14.5	9.5	15.5	11.5	---	---	24.5	19.5	19.0	14.5
11	---	---	14.0	8.0	15.5	11.5	---	---	24.5	19.5	19.0	15.0
12	---	---	14.5	8.0	13.5	10.5	---	---	24.5	20.0	19.5	15.0
13	---	---	13.0	8.5	13.5	10.0	19.0	---	24.0	19.5	19.5	15.0
14	11.5	---	14.0	10.5	16.0	9.0	19.5	13.5	24.0	19.0	19.5	15.0
15	10.0	6.5	13.0	9.0	17.5	10.0	21.0	15.0	23.0	18.5	20.0	15.5
16	11.0	6.5	13.5	8.0	18.0	13.0	22.0	16.0	22.5	17.5	20.5	16.5
17	12.0	7.0	12.0	10.0	17.5	12.0	21.5	16.0	22.5	17.5	20.0	16.5
18	12.5	7.0	13.5	10.0	16.0	12.0	21.5	16.0	22.0	17.5	19.5	16.0
19	10.5	7.5	10.5	9.0	19.5	13.0	21.5	16.0	21.5	17.5	18.5	15.5
20	11.5	7.0	14.0	9.0	19.5	13.5	21.5	16.5	20.5	15.5	16.0	13.5
21	10.5	8.0	12.0	9.5	19.5	13.0	21.5	16.0	21.0	16.0	15.0	12.0
22	13.0	7.5	12.5	9.5	19.5	13.5	21.5	15.5	21.5	16.0	14.5	11.5
23	14.0	8.5	14.5	10.5	19.5	14.0	21.0	15.5	21.0	16.5	14.0	10.5
24	11.0	9.0	15.5	12.0	20.5	13.5	21.0	15.0	20.5	16.0	12.0	11.0
25	9.0	7.5	15.0	11.5	21.0	15.5	21.0	15.5	20.0	16.0	13.0	9.5
26	9.0	6.5	17.0	10.5	20.5	15.5	22.5	16.5	19.0	14.5	14.0	12.0
27	12.0	6.5	17.0	11.0	20.0	14.5	23.0	17.5	19.0	14.5	15.0	13.5
28	14.0	8.0	18.0	11.5	19.5	13.5	23.5	18.5	19.5	14.5	14.0	12.0
29	15.5	9.5	17.0	12.5	20.0	13.5	22.0	17.0	19.5	15.0	13.0	11.0
30	16.5	11.0	17.0	12.0	20.5	15.5	21.0	15.5	19.5	15.5	12.5	9.5
31	---	---	17.5	11.0	---	---	21.0	15.5	19.0	14.5	---	---
MONTH	16.5	4.0	18.0	6.0	21.0	9.0	23.5	13.5	24.5	14.5	20.5	9.5

14361700 CARBERRY CREEK NEAR COPPER, OR--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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	2	.06	2	.10	1	.08	---	.25	3	.70	1	.34
2	1	.03	1	.05	111	358	---	.00	3	.66	2	.65
3	1	.03	3	.14	63	95	---	.00	1	.21	---	.63
4	1	.03	2	.09	25	38	---	.00	1	.20	---	1.0
5	1	.03	1	.04	2	1.1	---	.00	1	.19	---	.63
6	---	.03	2	.08	6	2.3	---	.00	0	.00	---	.60
7	---	.03	5	.68	0	.00	0	.00	1	.17	---	.30
8	---	.03	4	.46	2	.47	1	.17	1	.17	---	.28
9	---	.00	1	.08	3	.63	2	.33	1	.17	1	.28
10	---	.00	3	.21	3	.59	3	.47	0	.00	0	.00
11	---	.03	3	.19	4	.71	2	.30	0	.00	0	.00
12	---	.11	4	.22	3	.49	0	.00	2	.37	0	.00
13	---	.10	2	.10	---	.47	0	.00	3	2.8	1	.28
14	---	.20	1	.05	---	.44	1	.13	32	55	1	.26
15	2	.12	1	.05	---	.45	1	.13	5	4.5	2	.56
16	1	.05	1	.05	---	.32	0	.00	10	13	1	.28
17	0	.00	0	.00	---	.32	1	.15	8	8.6	0	.00
18	1	.05	1	.05	---	.31	1	.14	5	4.2	0	.00
19	1	.05	0	.00	---	.30	0	.00	4	3.6	0	.00
20	1	.04	1	.05	---	.29	0	.00	2	1.4	0	.00
21	1	.04	0	.00	---	1.2	0	.00	2	1.2	0	.00
22	1	.04	3	.43	3	.86	2	.71	2	1.0	2	.53
23	2	.09	2	.18	2	.49	2	.95	1	.48	0	.00
24	2	.09	2	.13	2	.55	0	.00	1	.46	0	.00
25	4	.21	1	.07	---	10	0	.00	0	.00	0	.00
26	6	.28	0	.00	---	5.6	1	.30	0	.00	0	.00
27	6	.28	1	.06	---	4.3	3	1.1	0	.00	0	.00
28	3	.13	0	.00	---	1.9	2	.75	0	.00	0	.00
29	2	.09	1	.06	---	1.1	2	.65	---	---	0	.00
30	2	.09	2	.16	---	.65	2	.57	---	---	0	.00
31	1	.04	---	---	---	.29	3	.73	---	---	0	.00
TOTAL	---	2.40	---	3.78	---	527.21	---	7.83	---	99.08	---	6.62

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	0	.00	2	.44	1	.00	0	.00	1	.03	---	.00
2	0	.00	2	.41	0	.00	0	.00	0	.03	---	.00
3	0	.00	2	.39	0	.00	0	.00	0	.00	---	.00
4	1	.29	2	.38	0	.00	0	.00	1	.03	---	.00
5	0	.00	2	.37	0	.00	0	.00	1	.03	---	.00
6	2	.58	1	.18	1	.09	1	.05	1	.03	---	.00
7	0	.00	2	.36	0	.00	2	.11	2	.05	---	.00
8	0	.00	2	.34	0	.00	1	.04	1	.02	---	.00
9	0	.00	2	.32	0	.00	2	.08	2	.04	---	.00
10	0	.00	1	.15	2	.18	1	.04	2	.04	---	.00
11	0	.00	1	.14	1	.09	2	.08	2	.04	---	.00
12	0	.00	0	.00	0	.00	2	.08	1	.02	---	.00
13	0	.00	2	.24	0	.00	1	.04	1	.02	0	.00
14	0	.00	1	.12	0	.00	0	.00	1	.02	0	.00
15	1	.24	1	.12	0	.00	2	.06	1	.02	0	.00
16	1	.23	1	.13	0	.00	2	.06	1	.02	1	.02
17	2	.48	2	.24	0	.00	1	.03	1	.02	---	.00
18	2	.50	1	.14	1	.06	2	.06	0	.00	---	.00
19	6	2.1	1	.15	0	.00	1	.03	1	.02	---	.00
20	2	.59	1	.14	0	.00	1	.03	---	.02	---	.00
21	2	.56	0	.00	1	.06	0	.00	---	.02	---	.00
22	2	.55	1	.12	1	.06	0	.00	---	.02	---	.00
23	2	.56	0	.00	0	.00	0	.00	---	.02	---	.00
24	5	1.4	0	.00	1	.06	1	.03	---	.02	---	.00
25	3	.78	0	.00	1	.06	1	.03	---	.02	---	.00
26	2	.53	0	.00	1	.05	0	.00	---	.02	---	.03
27	2	.49	1	.12	0	.00	0	.00	---	.00	---	.28
28	3	.70	0	.00	0	.00	0	.00	---	.00	---	.08
29	2	.46	0	.00	0	.00	0	.00	---	.00	---	.06
30	4	.92	0	.00	0	.00	1	.03	---	.00	---	.03
31	---	---	0	.00	---	---	1	.03	---	.00	---	---
TOTAL	---	11.96	---	5.00	---	0.71	---	0.91	---	0.62	---	0.50

14361900 APPLEGATE 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 miles (4.0 km) northeast of former town of Copper, 13 mi (21 km) south of Ruch and at mile 46.3 (74.5 km).

DRAINAGE AREA.--223 mi^2 (578 km^2).

PERIOD OF RECORD.--December 1980 to September 1981.

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 (101 hm^3) between elevations 1,763.0 ft (537.36 m) and 1,987.0 ft (605.64 m), maximum pool elevation. Elevation of gated spillway crest, 1,943.7 ft (592.44 m). Usable contents, 75,200 acre-ft (92.7 hm^3) between elevations 1,854.0 ft (565.10 m) and 1,987.0 ft (605.64 m). Water is used for flood control, recreation, pollution abatement, irrigation, and other purposes.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 63,100 acre-ft (77.7 hm^3) May 2, 3, elevation, 1,966.02 ft (599.243 m); minimum observed, 8,760 acre-ft (10.8 hm^3) Dec. 3, elevation, 1,861.8 ft (567.48 m).

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 1980 TO SEPTEMBER 1981
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			---	1888.70	1895.40	1931.80	1951.20	1966.00	1961.44	1953.57	1936.39	1918.74
2			---	1888.70	1895.60	1932.50	1951.80	1966.02	1961.25	1953.14	1935.85	1918.09
3			1861.80	1888.70	1896.30	1933.20	1952.30	1966.00	1961.12	1952.71	1935.30	1917.44
4			1871.70	1888.80	1896.80	1934.10	1952.80	1966.00	1960.96	1952.30	1934.75	1916.80
5			1874.10	1889.00	1897.40	1934.70	1953.30	1965.90	1960.74	1951.88	1934.23	1916.13
6			1876.20	1889.50	1897.80	1935.30	1953.80	1965.80	1960.52	1951.41	1933.70	1915.45
7			1877.50	1889.90	1898.20	1935.90	1954.30	1965.60	1960.30	1950.90	1933.18	1914.77
8			1878.60	1890.30	1898.50	1936.50	1954.80	1965.47	1960.21	1950.38	1932.64	1914.03
9			1879.30	1890.60	1898.90	1937.00	1955.20	1965.28	1960.04	1949.86	1932.10	1913.23
10			1879.90	1890.90	1899.20	1937.50	1955.60	1965.08	1959.85	1949.34	1931.57	1912.43
11			1880.50	1891.10	1899.60	1938.10	1956.00	1964.84	1959.63	1948.79	1931.04	1911.66
12			1881.00	1891.30	1900.10	1938.60	1956.40	1964.50	1959.41	1948.27	1930.50	1910.85
13			1881.30	1891.50	1903.10	1939.10	1956.80	1964.30	1959.18	1947.72	1929.99	1910.02
14			1881.70	1891.60	1909.20	1939.60	1957.10	1964.14	1958.99	1947.17	1929.48	1909.18
15			1882.10	1891.70	1909.50	1940.20	1957.50	1963.99	1958.78	1946.59	1928.94	1908.37
16			1882.70	1891.90	1912.70	1940.80	1957.90	1963.81	1958.55	1946.02	1928.41	1907.55
17			1883.30	1892.10	1913.50	1941.30	1958.30	1963.68	1958.31	1945.44	1927.90	1906.71
18			1883.60	1892.30	1915.80	1941.80	1958.80	1963.66	1958.06	1944.86	1927.37	1905.88
19			1884.20	1892.40	1918.90	1942.20	1959.70	1963.64	1957.81	1944.25	1926.80	1905.06
20			1884.80	1892.70	1920.70	1942.70	1960.30	1963.57	1957.54	1943.66	1926.22	1904.20
21			1886.20	1892.90	1922.50	1943.20	1960.90	1963.45	1957.26	1943.07	1925.63	1903.35
22			1887.90	1894.20	1924.40	1943.70	1961.50	1963.32	1956.93	1942.45	1925.04	1902.51
23			1889.10	1895.60	1925.90	1944.20	1962.10	1963.17	1956.59	1941.84	1924.42	1901.66
24			1889.80	1895.90	1927.20	1944.80	1962.70	1963.03	1956.24	1941.23	1923.82	1900.81
25			1891.70	1895.70	1928.40	1945.90	1963.30	1962.95	1955.88	1940.61	1923.21	1899.95
26			1891.30	1895.40	1929.40	1946.90	1963.80	1962.81	1955.51	1939.99	1922.58	1899.14
27			1891.40	1895.50	1930.30	1947.70	1964.30	1962.63	1955.14	1939.36	1921.95	1898.76
28			1890.30	1895.70	1931.10	1948.40	1964.70	1962.42	1954.76	1938.73	1921.32	1898.09
29			1889.00	1895.70	---	1949.20	1965.20	1962.20	1954.37	1938.09	1920.69	1897.30
30			1888.90	1895.60	---	1949.90	1965.70	1961.96	1953.97	1937.45	1920.03	1896.50
31			1888.80	1895.50	---	1950.60	---	1961.70	---	1936.89	1919.39	---
MEAN			---	1892.30	1910.59	1940.88	1958.27	1964.09	1958.31	1945.74	1928.21	1907.82
MAX			---	1895.90	1931.10	1950.60	1965.70	1966.02	1961.44	1953.57	1936.39	1918.74
MIN			---	1888.70	1895.40	1931.80	1951.20	1961.70	1953.97	1936.89	1919.39	1896.50
(†)			16930	19510	37320	50690	62740	59410	53250	41010	30630	19920
(‡)			+16930	+2580	+17810	+13370	+12050	-3330	-6160	-12240	-10380	-10710

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

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 (0.2 km) downstream from Brushy Gulch, 0.6 mi (1.0 km) downstream from Applegate Dam, 3.1 mi (5.0 km) northeast of former town of Copper, and at mile 45.7 (73.5 km).

DRAINAGE AREA.--225 mi² (583 km²).

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. Datum of gage is 1,747.51 ft (532.641 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1977, at site 0.6 mi (1.0 km) upstream at datum 12.15 ft (3.703 m) higher.

REMARKS.--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 (1.36 hm³) on Squaw Creek above station. Diversions above station from Carberry Creek for irrigation in Thompson Creek basin.

AVERAGE DISCHARGE.--43 years, 438 ft³/s (12.40 m³/s), 317,300 acre-ft/yr (391 hm³/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft³/s (844 m³/s) Jan. 15, 1974, gage height, 25.38 ft (7.736 m), site and datum then in use, from high-water mark in well, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of four slope-area measurements of peak flows made in 1950, 1955, 1964, and 1974; minimum, 1.5 ft³/s (0.042 m³/s) Dec. 20, 1980, result of regulation at Applegate dam, 0.7 mi (1.1 m) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,130 ft³/s (60.3 m³/s) Dec. 2, gage height, 5.82 ft (1.774 m); minimum, 1.5 ft³/s (0.042 m³/s) Dec. 20, result of regulation at Applegate Dam; minimum daily, 28 ft³/s (0.79 m³/s) Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	44	67	325	257	120	125	145	227	217	206	213
2	41	51	734	279	173	120	125	257	199	220	206	213
3	28	44	242	250	115	123	128	254	173	213	206	206
4	39	43	102	217	107	120	128	250	176	210	213	206
5	39	41	98	173	95	120	128	254	192	213	206	210
6	36	40	100	134	100	123	128	250	199	246	206	210
7	36	148	100	123	115	120	123	261	199	261	203	210
8	37	154	95	123	115	120	115	275	199	254	203	217
9	37	95	100	120	112	120	117	272	203	254	203	231
10	37	78	100	120	105	120	117	275	196	246	203	231
11	39	65	100	120	105	123	117	272	196	250	203	231
12	71	58	100	120	107	120	117	286	199	250	206	231
13	62	54	100	120	105	117	112	250	199	246	210	231
14	71	53	100	123	261	117	110	231	199	254	210	227
15	65	53	100	123	917	117	107	231	196	254	203	224
16	54	53	102	120	663	117	107	220	196	257	206	227
17	51	49	105	120	1040	120	107	217	199	257	206	224
18	49	49	123	112	570	123	107	217	199	254	206	224
19	47	49	110	123	123	128	105	220	199	257	206	224
20	46	49	46	123	268	128	107	213	199	254	206	220
21	44	56	105	123	231	128	107	213	199	254	206	220
22	44	186	105	120	128	128	107	210	206	257	206	220
23	43	107	105	151	115	128	107	213	213	257	206	213
24	43	86	227	279	117	125	107	220	217	257	206	213
25	51	73	746	321	117	125	107	235	217	254	206	217
26	49	65	768	345	117	125	107	235	217	254	203	213
27	47	60	712	341	117	128	105	235	217	254	206	213
28	46	58	803	337	117	125	102	235	213	254	210	213
29	44	58	696	341	---	125	110	231	213	254	206	213
30	44	69	413	317	---	125	107	231	213	254	210	213
31	43	---	361	290	---	125	---	231	---	224	213	---
TOTAL	1425	2088	7765	6033	6512	3803	3396	7339	6069	7640	6395	6558
MEAN	46.0	69.6	250	195	233	123	113	237	202	246	206	219
MAX	71	186	803	345	1040	128	128	286	227	261	213	231
MIN	28	40	46	112	95	117	102	145	173	210	203	206
AC-FT	2830	4140	15400	11970	12920	7540	6740	14560	12040	15150	12680	13010
MEAN†	46.0	69.6	526	237	553	340	316	183	98.8	47.3	37.4	38.7
AC-FT†	2830	4140	32330	14550	30730	20910	18790	11230	5880	2910	2300	2300

CAL YR 1980 TOTAL 151355 MEAN 414 MAX 6820 MIN 28 AC-FT 300200 MEAN† 437 AC-FT† 317100
WTR YR 1981 TOTAL 65023 MEAN 178 MAX 1040 MIN 28 AC-FT 129000 MEAN† 206 AC-FT† 148900

† Adjusted for change in contents of Applegate Lake.

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 September 1981.
pH: September 1980 to September 1981.
WATER TEMPERATURES: January 1977 to current year.
DISSOLVED OXYGEN: September 1980 to September 1981.

INSTRUMENTATION.--Water-quality monitor since since September 1980.

REMARKS.--Storage began in Applegate Lake Dec. 2, 1980. Dam site is approximately 0.5 mi (0.8 km) upstream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 188 micromhos Sept. 13, 1980; minimum, 61 micromhos Dec. 3, 1980.
pH: Maximum, 9.0 units Sept. 4, 1980; minimum, 7.4 units Sept. 8-18, 1981.
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, 14.3 mg/l Dec. 2, 1980; minimum, 4.9 mg/l Sept. 28-30, 1981.

EXTREMES FOR PERIOD SEPT. 3-30, 1980.--
SPECIFIC CONDUCTANCE: Maximum, 188 micromhos Sept. 13; minimum, 164 micromhos Sept. 28.
pH: Maximum, 9.0 units Sept. 4; minimum, 8.1 units Sept. 3-13, 16-20, 22-30.
DISSOLVED OXYGEN: Maximum, 11.2 mg/l Sept. 22, 23; minimum, 8.0 mg/l Sept. 26.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 179 micromhos Oct. 3; minimum, 61 micromhos Dec. 3.
pH: Maximum, 8.6 units Oct. 2; minimum, 7.4 units Sept. 8-18.
WATER TEMPERATURES: Maximum, 18.0°C Oct. 2; minimum, 3.0°C Nov. 13, 14.
DISSOLVED OXYGEN: Maximum, 14.3 mg/l Dec. 2; minimum, 4.9 mg/l Sept. 28-30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	TEMPERATURE (DEG C)	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	ARSENIC DISSOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
MAY									
27...	1230	13.5	225	102	8.0	1	1	<100	1
AUG									
21...	1215	11.5	200	108	7.7	1	2	<100	<1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	SELENIUM, TOTAL (UG/L AS SE)
MAY									
27...	10	<1	7	30	7	10	<.1	.1	<1
AUG									
21...	<10	<1	6	130	1	80	<.1	<.1	<1

DATE	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT			
01...	42	38	4.3
11...	37	3	.30
27...	47	2	.25
NOV			
15...	52	4	.56
24...	86	2	.46
DEC			
02...	2040	1025	5650
08...	100	83	22
22...	102	53	15
JAN			
06...	125	8	2.7
22...	120	8	2.6
FEB			
09...	115	8	2.5
24...	117	13	4.1
MAR			
09...	120	4	1.3
23...	128	7	2.4
APR			
13...	115	6	1.9
30...	105	4	1.1
MAY			
12...	279	6	4.5
27...	255	6	3.8
27...	225	--	--
JUN			
09...	196	4	2.1
JUL			
01...	213	8	4.6
30...	254	8	5.5
AUG			
21...	200	--	--
21...	203	10	5.5
SEP			
18...	227	20	12

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	162	138	97	111	98	100	99	100	107	106	117
2	168	157	86	98	114	99	101	98	100	105	106	118
3	170	160	64	100	116	99	100	99	98	105	106	119
4	169	163	70	102	117	99	101	99	99	105	106	119
5	170	165	69	103	113	99	100	99	100	105	106	120
6	168	165	70	104	111	98	100	99	100	105	105	120
7	168	149	70	108	111	97	100	99	101	105	105	120
8	168	124	71	107	110	97	101	98	102	107	106	126
9	168	130	72	105	111	99	100	98	100	106	107	123
10	171	137	73	105	113	101	100	98	97	106	107	121
11	170	143	75	107	112	101	101	98	98	106	106	120
12	163	147	77	111	113	101	101	97	100	106	107	121
13	157	149	79	113	114	101	101	95	100	106	106	122
14	154	151	79	113	119	101	102	96	101	104	106	124
15	152	152	80	112	113	101	102	97	101	103	105	127
16	157	154	81	110	112	101	102	96	101	102	106	129
17	159	155	82	109	111	101	102	98	101	103	107	132
18	160	158	85	110	109	101	102	99	103	103	107	132
19	161	158	87	111	103	100	102	99	103	103	108	131
20	161	159	97	110	104	98	101	99	103	104	109	132
21	162	158	89	107	103	98	101	99	105	105	107	132
22	163	126	92	106	102	98	102	99	105	105	107	132
23	164	127	90	103	102	99	100	100	103	106	108	131
24	164	134	92	100	102	99	101	100	104	106	108	133
25	162	137	95	99	101	100	101	100	104	107	110	134
26	162	141	93	101	101	100	101	101	104	107	111	132
27	162	144	93	103	101	100	102	100	106	107	113	131
28	161	145	93	104	100	100	102	98	106	107	113	132
29	162	146	94	103	---	100	102	99	107	110	114	135
30	162	140	97	105	---	101	100	100	107	109	115	140
31	163	---	98	108	---	101	---	100	---	107	116	---
MEAN	164	148	85	106	109	100	101	99	102	106	108	127

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.3	8.2	8.3	8.1	8.2	8.1	7.8	7.8	8.0	7.9	8.0	7.8
2	8.6	7.9	8.3	8.1	8.1	7.7	7.8	7.8	8.1	7.9	8.0	7.8
3	8.4	8.0	8.3	8.1	7.7	7.6	7.8	7.8	8.1	8.0	8.0	7.8
4	8.4	8.1	8.3	8.1	7.7	7.7	7.8	7.8	8.1	8.0	8.0	7.9
5	8.4	8.1	8.3	8.1	7.7	7.7	7.8	7.8	8.0	7.9	8.0	7.9
6	8.4	8.1	8.3	8.1	7.7	7.7	7.9	7.7	8.0	7.9	8.0	7.9
7	8.4	8.1	8.2	8.0	7.7	7.7	7.9	7.8	8.0	7.9	8.0	7.8
8	8.5	8.0	8.1	8.0	7.7	7.6	7.9	7.9	8.0	7.9	8.0	7.8
9	8.4	8.1	8.2	8.1	7.7	7.7	7.9	7.9	8.0	7.9	7.9	7.8
10	8.4	8.1	8.2	8.1	7.7	7.7	7.9	7.9	8.1	7.9	7.9	7.8
11	8.4	8.1	8.2	8.1	7.7	7.7	7.9	7.9	8.1	7.9	8.0	7.8
12	8.3	8.1	8.2	8.1	7.7	7.7	7.9	7.9	8.1	7.9	8.0	7.9
13	8.3	8.1	8.2	8.1	7.7	7.7	8.0	7.9	8.0	7.9	8.0	7.9
14	8.3	8.1	8.2	8.1	7.7	7.7	8.0	7.9	7.9	7.9	8.0	7.8
15	8.3	8.1	8.2	8.1	7.7	7.7	8.0	7.9	7.9	7.8	8.0	7.8
16	8.4	8.1	8.2	8.1	7.7	7.7	8.0	7.9	7.9	7.8	8.0	7.8
17	8.3	8.1	8.2	8.1	7.7	7.7	8.0	7.9	7.9	7.8	8.0	7.8
18	8.3	8.1	8.2	8.1	7.7	7.6	8.0	7.9	8.0	7.9	8.0	7.8
19	8.3	8.1	8.2	8.1	7.7	7.6	8.0	7.9	8.0	7.9	8.1	7.8
20	8.3	8.1	8.2	8.1	7.7	7.7	8.0	7.9	7.9	7.9	8.1	7.9
21	8.4	8.1	8.3	8.1	7.8	7.7	8.0	7.9	7.9	7.9	8.1	7.9
22	8.3	8.1	8.1	8.0	7.7	7.7	7.9	7.8	7.9	7.9	8.1	7.9
23	8.3	8.1	8.2	8.0	7.8	7.7	7.9	7.8	8.0	7.9	8.1	7.9
24	8.3	8.1	8.2	8.1	7.7	7.7	7.8	7.8	7.9	7.8	8.1	7.9
25	8.3	8.1	8.2	8.1	7.7	7.7	7.8	7.8	8.0	7.9	8.0	7.8
26	8.3	8.1	8.2	8.1	7.8	7.7	7.8	7.8	8.0	7.9	8.0	7.8
27	8.3	8.1	8.2	8.1	7.8	7.7	7.8	7.8	7.9	7.9	8.0	7.8
28	8.3	8.1	8.3	8.1	7.8	7.8	7.8	7.8	8.0	7.9	8.0	7.8
29	8.5	8.1	8.4	8.1	7.8	7.8	7.9	7.8	---	---	8.0	7.9
30	8.3	8.1	8.3	8.1	7.8	7.8	8.0	7.9	---	---	8.0	7.8
31	8.3	8.1	---	---	7.8	7.8	8.0	7.9	---	---	8.0	7.8
MONTH	8.6	7.9	8.4	8.0	8.2	7.6	8.0	7.7	8.1	7.8	8.1	7.8

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	7.8	8.0	7.8	8.0	7.9	7.9	7.6	7.9	7.7	7.6	7.5
2	8.0	7.8	7.9	7.8	8.0	7.6	7.9	7.8	7.9	7.7	7.6	7.5
3	8.0	7.8	7.9	7.8	7.6	7.6	7.9	7.8	7.9	7.7	7.6	7.5
4	8.0	7.8	7.8	7.8	7.8	7.6	8.0	7.8	7.9	7.6	7.6	7.5
5	8.0	7.8	7.8	7.8	7.8	7.8	8.0	7.8	7.9	7.6	7.6	7.5
6	8.0	7.8	7.8	7.8	7.9	7.8	7.9	7.8	7.8	7.6	7.6	7.5
7	8.0	7.8	7.8	7.8	7.9	7.8	8.1	7.8	7.8	7.6	7.6	7.5
8	8.0	7.8	7.8	7.7	7.9	7.8	8.1	7.9	7.8	7.6	7.6	7.4
9	8.0	7.8	7.8	7.7	7.9	7.8	8.1	7.8	7.8	7.6	7.5	7.4
10	8.0	7.8	7.8	7.8	7.9	7.8	8.1	7.8	7.9	7.6	7.5	7.4
11	8.0	7.8	7.9	7.8	7.9	7.8	8.1	7.8	7.8	7.6	7.5	7.4
12	8.0	7.8	7.9	7.8	7.9	7.8	8.1	7.8	7.8	7.6	7.5	7.4
13	8.0	7.8	8.1	7.9	7.9	7.8	8.0	7.6	7.7	7.6	7.5	7.4
14	8.0	7.8	8.1	8.0	7.9	7.8	7.8	7.6	7.7	7.6	7.5	7.4
15	8.0	7.8	8.1	7.9	7.9	7.7	7.8	7.6	7.7	7.6	7.5	7.4
16	8.0	7.8	8.1	7.8	7.9	7.7	7.8	7.6	7.7	7.6	7.5	7.4
17	8.0	7.8	7.9	7.8	7.9	7.7	7.8	7.6	7.7	7.6	7.5	7.4
18	8.0	7.8	7.9	7.8	7.9	7.7	7.8	7.6	7.7	7.5	7.5	7.4
19	8.0	7.8	7.9	7.8	7.9	7.7	7.8	7.6	7.7	7.6	7.6	7.5
20	8.0	7.8	8.0	7.7	7.9	7.7	7.8	7.6	7.7	7.6	7.6	7.5
21	8.1	7.8	8.1	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.6	7.5
22	8.0	7.8	8.0	8.0	7.9	7.8	7.8	7.7	7.7	7.5	7.6	7.5
23	8.1	7.8	8.0	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.6	7.5
24	8.0	7.8	8.0	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.6	7.5
25	8.0	7.8	8.0	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.6	7.5
26	8.0	7.8	8.0	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.5	7.5
27	8.0	7.8	8.0	7.8	7.9	7.8	7.8	7.7	7.7	7.5	7.6	7.5
28	8.0	7.8	8.0	7.9	7.9	7.7	7.8	7.7	7.7	7.5	7.5	7.5
29	8.0	7.8	8.0	7.9	8.1	7.7	7.8	7.7	7.7	7.5	7.5	7.5
30	8.0	7.8	8.0	7.9	8.0	7.8	7.8	7.7	7.7	7.5	7.6	7.5
31	---	---	8.0	7.9	---	---	7.9	7.7	7.6	7.5	---	---
MONTH	8.1	7.8	8.1	7.7	8.1	7.6	8.1	7.6	7.9	7.5	7.6	7.4

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	13.5	11.0	8.5	5.0	3.5	6.0	6.0	6.0	5.5	7.0	6.0
2	18.0	13.5	11.5	9.0	6.0	4.0	6.0	6.0	6.0	5.5	7.0	6.0
3	17.5	14.0	11.5	9.5	6.5	6.5	6.0	6.0	6.0	5.0	6.5	6.0
4	17.0	13.5	11.5	8.5	7.0	6.5	6.0	6.0	6.0	5.0	6.5	6.0
5	17.5	13.5	11.5	8.0	7.0	6.5	6.0	5.5	6.5	5.0	6.5	6.0
6	17.0	14.0	13.0	10.0	6.5	6.5	6.0	5.5	6.5	5.5	7.0	6.0
7	17.0	14.0	12.5	10.0	6.5	6.0	6.0	5.5	6.0	5.5	6.5	6.0
8	17.0	14.0	10.5	9.0	6.5	6.0	6.0	5.5	6.0	5.5	7.0	6.0
9	16.5	13.0	10.0	8.5	6.5	6.0	6.0	5.0	6.5	5.5	7.0	6.0
10	16.0	12.5	9.0	7.5	6.0	6.0	5.5	5.0	6.0	5.5	6.5	6.0
11	14.5	11.5	8.5	7.0	6.0	5.5	5.5	5.0	6.5	5.5	7.0	6.0
12	13.0	11.5	7.0	5.0	6.0	5.5	5.5	5.0	6.0	5.5	7.0	6.0
13	13.0	11.0	5.5	3.0	6.0	5.5	6.0	5.0	6.0	5.5	6.5	6.0
14	12.0	10.0	6.0	3.0	5.5	5.0	6.0	5.5	5.5	5.5	7.0	6.0
15	11.5	10.0	6.5	4.5	5.5	5.0	6.0	5.5	5.5	5.5	6.5	6.0
16	12.5	9.5	5.5	3.5	6.0	5.0	5.5	5.0	6.0	5.5	6.5	6.0
17	12.0	8.0	6.0	4.0	6.0	5.0	5.5	5.0	6.0	5.5	7.0	6.0
18	11.5	8.0	6.5	4.0	5.5	5.0	6.0	5.0	7.0	6.0	6.5	6.0
19	11.5	7.5	6.5	4.0	5.5	5.0	5.5	5.0	7.5	6.5	8.0	6.0
20	11.5	8.0	6.5	4.0	7.5	5.0	5.5	5.0	6.5	6.5	8.0	7.0
21	12.0	8.5	7.0	4.5	6.0	5.0	6.5	5.5	7.5	6.5	8.0	7.0
22	11.0	7.5	8.5	7.0	5.5	5.0	6.0	5.5	7.5	6.5	8.0	7.0
23	10.5	7.0	8.5	7.5	5.0	5.0	6.0	6.0	7.5	6.5	8.0	7.0
24	10.0	8.0	7.5	5.0	5.0	5.0	6.0	6.0	7.0	6.5	8.0	7.5
25	10.0	9.0	7.0	4.5	5.0	5.0	6.5	6.0	7.0	6.5	7.5	6.5
26	10.0	8.5	6.5	4.0	5.5	5.0	6.5	6.0	7.0	6.5	7.0	6.5
27	11.0	8.5	7.0	4.0	5.5	5.5	6.5	6.0	7.5	6.5	7.5	6.0
28	10.0	7.0	7.5	4.5	5.5	5.5	6.5	6.0	7.0	6.5	7.5	6.0
29	10.0	6.5	8.0	6.0	6.0	5.5	6.0	6.0	---	---	7.0	6.5
30	9.5	7.0	7.0	5.5	6.0	5.5	6.0	6.0	---	---	7.0	6.5
31	10.5	7.0	---	---	6.0	5.5	6.0	6.0	---	---	7.5	6.5
MONTH	18.0	6.5	13.0	3.0	7.5	3.5	6.5	5.0	7.5	5.0	8.0	6.0

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

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.3	9.1	9.8	12.2	11.2	11.6	13.9	12.8	13.4	12.1	11.8	12.0
2	10.5	8.3	9.3	12.2	10.5	11.4	14.3	12.3	13.4	12.1	11.9	12.0
3	9.9	8.5	9.2	11.6	10.5	11.1	12.9	11.8	12.3	12.1	12.0	12.0
4	10.4	8.5	9.4	11.9	10.5	11.2	12.0	11.9	11.9	12.3	12.0	12.1
5	10.1	8.3	9.2	12.0	10.8	11.4	12.1	11.9	12.0	12.3	12.1	12.2
6	9.9	8.3	9.2	11.4	10.6	11.1	12.2	12.0	12.1	13.2	12.3	12.6
7	9.9	8.3	9.1	11.3	10.6	10.9	12.4	12.2	12.3	13.3	12.8	13.1
8	9.8	8.2	9.0	11.5	10.7	11.1	12.8	12.3	12.5	12.9	12.6	12.8
9	9.6	8.3	9.0	11.4	10.6	11.1	12.6	12.3	12.4	12.8	12.5	12.7
10	9.9	8.4	9.2	11.9	11.3	11.5	12.8	12.5	12.6	12.8	12.5	12.6
11	9.7	8.7	9.2	12.7	11.9	12.4	12.9	12.5	12.7	12.8	12.4	12.6
12	---	---	---	13.6	12.4	13.0	12.7	12.4	12.6	12.7	12.3	12.5
13	---	---	---	13.8	12.7	13.3	12.8	12.6	12.7	12.4	12.2	12.3
14	---	---	---	14.0	12.7	13.4	12.9	12.5	12.7	12.4	12.2	12.3
15	---	---	---	13.4	12.5	13.0	12.8	12.5	12.7	12.5	12.3	12.4
16	10.8	9.3	10.2	13.7	12.5	13.2	12.6	12.4	12.5	12.6	12.4	12.5
17	11.3	9.6	10.5	13.5	12.5	13.0	12.5	12.3	12.4	12.7	12.5	12.6
18	11.5	9.8	10.6	13.6	12.3	13.1	12.7	12.3	12.5	12.7	12.5	12.6
19	11.4	10.0	10.8	13.5	12.2	12.9	12.8	12.5	12.7	12.8	12.5	12.6
20	11.9	10.4	11.1	13.4	12.2	12.9	12.9	11.7	12.5	12.8	12.5	12.7
21	11.5	10.0	10.7	13.0	11.9	12.5	12.8	12.5	12.7	12.8	12.3	12.6
22	11.9	10.3	11.1	12.4	11.5	11.9	13.0	12.1	12.7	12.9	12.4	12.6
23	12.0	10.2	11.1	11.8	11.3	11.6	12.8	12.1	12.5	12.9	12.4	12.6
24	11.5	10.5	11.0	12.6	11.8	12.2	12.6	12.0	12.3	12.9	12.5	12.7
25	11.6	10.8	11.2	13.2	12.1	12.7	13.0	12.3	12.6	12.8	12.4	12.6
26	11.9	10.8	11.3	13.5	12.2	12.9	12.8	12.0	12.4	12.6	12.2	12.4
27	11.7	10.3	11.0	13.4	12.2	12.9	12.5	12.0	12.3	12.4	12.0	12.2
28	12.3	10.8	11.5	13.1	11.8	12.6	12.6	12.2	12.4	12.4	12.1	12.3
29	12.7	10.7	11.7	12.4	11.7	12.1	12.5	12.3	12.4	12.7	12.4	12.5
30	12.5	11.0	11.7	12.8	12.2	12.5	12.3	11.8	12.0	12.7	12.4	12.6
31	12.6	11.0	11.8	---	---	---	12.1	11.9	12.0	12.7	12.5	12.6
MONTH	12.7	8.2	10.3	14.0	10.5	12.2	14.3	11.7	12.5	13.3	11.8	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	12.8	12.5	12.6	12.2	11.8	12.0	12.6	12.2	12.4	13.0	12.3	12.5
2	12.8	12.6	12.7	12.0	11.8	11.9	12.7	12.3	12.5	12.8	12.3	12.5
3	12.9	12.5	12.7	12.2	11.8	12.0	12.7	12.3	12.5	12.7	12.1	12.4
4	13.0	12.6	12.7	12.2	11.8	12.0	12.7	12.3	12.5	12.7	12.2	12.4
5	12.9	12.4	12.6	12.2	11.6	11.8	12.7	12.4	12.5	12.7	12.3	12.5
6	12.9	12.4	12.6	12.0	11.7	11.8	12.7	12.3	12.5	12.7	12.2	12.4
7	12.9	12.5	12.7	12.3	11.8	12.0	12.6	12.3	12.5	12.5	12.1	12.3
8	12.8	12.4	12.6	12.2	11.9	12.0	12.6	12.2	12.4	12.5	12.1	12.3
9	13.4	12.4	12.9	12.7	11.9	12.3	12.7	12.2	12.4	12.5	12.1	12.3
10	13.6	13.0	13.2	12.9	12.2	12.6	12.6	12.1	12.4	12.5	12.0	12.2
11	13.0	12.4	12.7	12.8	12.3	12.5	12.5	12.1	12.3	12.4	12.0	12.2
12	12.9	12.2	12.5	12.7	12.2	12.5	12.8	12.2	12.4	12.3	11.6	12.0
13	12.7	12.2	12.4	12.7	12.2	12.5	12.8	12.2	12.5	12.2	10.6	11.6
14	13.4	12.2	12.8	12.9	12.2	12.5	13.0	12.4	12.6	11.4	10.6	11.0
15	13.5	12.8	13.2	12.8	12.4	12.6	13.1	12.5	12.7	12.0	10.6	11.2
16	13.4	12.4	12.9	13.0	12.5	12.7	12.9	12.3	12.5	12.2	10.5	11.6
17	13.4	12.6	13.1	12.8	12.3	12.6	12.7	12.1	12.4	12.0	11.3	11.7
18	12.8	11.9	12.4	12.6	12.2	12.4	12.8	11.9	12.3	11.9	11.4	11.7
19	12.3	11.6	12.0	12.4	11.7	12.0	12.5	12.1	12.3	12.2	11.6	11.9
20	12.6	12.2	12.4	12.2	11.7	11.9	12.9	12.2	12.5	12.1	11.1	11.8
21	12.3	12.0	12.2	12.1	11.7	11.9	12.8	12.2	12.5	11.5	10.9	11.3
22	12.3	11.9	12.1	12.6	11.9	12.2	12.9	12.1	12.5	11.4	10.9	11.2
23	12.2	11.8	12.0	12.6	12.1	12.3	12.8	12.0	12.3	11.5	11.0	11.3
24	12.0	11.7	11.9	13.0	12.3	12.5	12.8	12.1	12.3	11.4	11.1	11.3
25	12.2	11.9	12.1	13.1	12.3	12.5	12.6	12.0	12.2	11.6	11.0	11.3
26	12.2	11.7	11.9	12.8	12.3	12.5	12.6	12.0	12.3	11.4	10.6	11.1
27	12.1	11.7	11.9	12.8	12.3	12.6	12.8	12.0	12.4	10.7	10.0	10.5
28	12.2	11.8	12.0	12.8	12.2	12.5	12.7	11.9	12.3	10.6	10.0	10.3
29	---	---	---	12.7	12.3	12.5	12.6	11.9	12.2	10.6	10.0	10.3
30	---	---	---	12.8	12.3	12.5	12.7	11.9	12.3	10.7	10.0	10.3
31	---	---	---	12.6	12.2	12.4	---	---	---	10.6	9.9	10.2
MONTH	13.6	11.6	12.5	13.1	11.6	12.3	13.1	11.9	12.4	13.0	9.9	11.6

14362000 APPLEGATE RIVER NEAR COPPER, OR--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.7	10.0	10.3	11.4	10.5	10.9	12.0	11.1	11.5	10.3	9.3	9.8
2	11.7	10.0	10.9	11.3	10.6	10.9	12.7	11.1	11.9	10.9	9.5	10.2
3	11.9	11.4	11.6	11.2	10.5	10.9	12.6	11.7	12.1	10.9	10.0	10.5
4	11.8	11.2	11.4	11.3	10.6	11.0	12.4	11.3	11.9	10.8	9.9	10.2
5	11.8	11.4	11.5	11.5	10.8	11.0	12.4	11.3	11.8	11.3	10.1	10.6
6	11.7	11.3	11.5	11.6	10.9	11.2	12.2	11.2	11.7	11.1	10.0	10.5
7	11.5	11.1	11.3	11.5	10.5	11.1	12.2	10.8	11.4	11.1	10.1	10.6
8	11.6	11.2	11.4	10.9	10.5	10.8	11.8	10.6	11.1	11.4	10.0	10.6
9	11.8	11.2	11.5	11.3	10.5	11.0	11.5	10.5	10.9	11.7	11.2	11.4
10	11.9	11.1	11.5	11.3	10.6	10.9	11.2	10.2	10.7	11.6	11.0	11.3
11	11.8	11.2	11.5	11.4	10.6	11.0	11.5	10.3	10.8	11.7	11.2	11.4
12	11.7	11.2	11.4	11.4	10.7	11.0	11.5	10.4	10.9	12.3	11.6	11.9
13	11.7	11.2	11.5	11.6	10.7	11.1	11.9	10.5	11.0	12.4	11.5	12.0
14	11.8	11.2	11.5	12.0	11.5	11.7	12.0	10.6	11.1	12.0	11.4	11.7
15	11.6	11.1	11.4	12.4	11.4	11.7	12.0	10.6	11.1	11.9	11.2	11.6
16	11.9	11.1	11.4	12.1	11.3	11.6	12.1	10.5	11.1	11.6	10.6	11.2
17	11.8	11.0	11.4	12.0	11.4	11.7	12.0	10.4	10.9	11.0	10.3	10.6
18	11.6	10.8	11.2	12.1	11.5	11.8	11.7	10.3	10.8	10.7	9.6	10.0
19	11.4	10.8	11.1	12.2	11.6	11.9	11.7	10.3	10.8	9.8	8.5	9.4
20	11.7	10.8	11.2	12.3	11.4	11.9	11.9	10.3	10.9	8.6	7.3	8.1
21	11.6	10.7	11.1	12.2	11.4	11.8	11.1	10.3	10.6	7.4	6.7	7.1
22	11.4	10.7	11.1	11.8	11.0	11.6	11.8	10.2	11.1	6.7	6.3	6.5
23	11.9	11.2	11.6	12.0	11.1	11.4	11.0	10.2	10.6	6.6	6.1	6.4
24	11.6	10.9	11.3	12.0	11.2	11.6	11.1	10.2	10.6	7.2	5.9	6.0
25	12.0	11.3	11.6	11.7	10.8	11.3	11.1	10.1	10.5	6.0	5.6	5.8
26	11.7	11.1	11.4	11.7	11.0	11.3	11.1	10.1	10.6	5.6	5.2	5.4
27	11.7	10.9	11.3	11.7	11.1	11.4	10.9	10.0	10.4	5.3	5.0	5.2
28	11.3	10.6	11.0	11.7	10.8	11.3	10.7	9.9	10.3	5.1	4.9	5.0
29	11.1	9.5	10.3	11.8	10.9	11.4	11.6	10.1	10.6	5.1	4.9	5.0
30	11.3	10.3	10.8	11.9	11.1	11.5	11.1	10.1	10.6	5.8	4.9	5.3
31	---	---	---	12.3	11.2	11.6	10.6	9.5	10.3	---	---	---
MONTH	12.0	9.5	11.3	12.4	10.5	11.3	12.7	9.5	11.0	12.4	4.9	9.0

14366000 APPLEGATE RIVER NEAR APPLEGATE, 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 (1.4 km) downstream from Keeler Creek, 1.8 mi (2.9 km) southeast of Applegate, and at mile 26.7 (43.0 km).

DRAINAGE AREA.--483 mi² (1,251 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1938 to current year.

REVISED RECORDS.--WSP 1738: Drainage area. WSP 1935: 1953(M), 1956(M). WDR OR-76-1: 1956(M), 1965(M).

GAGE.--Water-stage recorder. Datum of gage is 1,285.33 ft (391.769 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 23, 1938, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (see station 14361900). Many diversions for irrigation above station. McDonald Creek Canal diverts from McDonald Creek above station for irrigation in Bear Creek basin. Thompson Creek Irrigation Association ditch diverts above station for irrigation in Thompson Creek basin. Fowler-Keeler and Berryman ditches divert above station for irrigation below.

AVERAGE DISCHARGE.--43 years, 540 ft³/s (15.29 m³/s), 391,200 acre-ft/yr (482 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,200 ft³/s (1,050 m³/s) Jan. 15, 1974, gage height, 20.41 ft (6.221 m), from rating curve extended above 18,000 ft³/s (510 m³/s) on basis of slope-area measurements of flow at gage heights 18.00 ft (5.486 m) and 19.57 ft (5.965 m); minimum, 4.6 ft³/s (0.13 m³/s) Sept. 22-25, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 20, 1927, reached a stage of 18.7 ft (5.70 m), from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft³/s (77.3 m³/s) Dec. 2, gage height, 5.07 ft (1.545 m); minimum, 15 ft³/s (0.42 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	64	108	384	318	191	185	157	233	194	175	170
2	26	74	1010	337	249	195	188	290	214	191	170	173
3	28	70	503	297	159	195	188	286	178	188	175	168
4	24	65	322	280	154	190	185	280	175	188	178	163
5	25	63	205	227	141	195	185	276	191	180	170	166
6	22	63	175	178	135	190	185	270	197	190	168	170
7	21	114	161	157	150	185	180	270	200	220	163	173
8	17	227	152	154	152	185	166	286	208	215	163	175
9	19	143	154	152	148	180	166	283	208	210	163	191
10	20	118	150	150	139	185	161	283	197	208	163	191
11	24	98	148	150	139	185	159	273	194	205	159	191
12	46	84	146	150	141	180	157	307	191	211	161	188
13	70	79	141	148	152	175	154	273	194	208	168	188
14	81	79	137	148	518	175	148	233	194	214	166	191
15	88	84	139	148	1030	175	148	230	194	211	166	194
16	76	79	150	148	722	175	148	224	188	220	166	191
17	68	74	148	148	1260	180	143	224	185	224	166	188
18	65	73	157	146	533	185	135	230	175	211	166	191
19	64	73	166	143	276	190	159	236	180	214	166	197
20	64	71	128	150	380	190	161	230	178	214	163	197
21	65	73	126	152	326	190	161	227	175	214	163	194
22	64	178	159	173	230	185	157	230	178	214	163	191
23	63	159	150	214	214	185	161	230	191	214	161	188
24	63	135	208	333	214	185	166	236	194	211	161	194
25	71	114	618	368	208	185	168	263	194	214	163	197
26	74	102	913	396	200	185	178	263	203	214	163	200
27	70	95	728	404	197	183	163	253	208	214	168	217
28	68	91	871	417	197	180	157	243	203	211	166	211
29	65	89	753	413	---	188	159	243	197	214	166	203
30	63	106	513	388	---	183	157	243	197	214	168	200
31	63	---	413	344	---	183	---	236	---	200	170	---
TOTAL	1605	2937	9852	7397	8682	5733	4928	7808	5814	6450	5147	5651
MEAN	51.8	97.9	318	239	310	185	164	252	194	208	166	188
MAX	88	227	1010	417	1260	195	188	307	233	224	178	217
MIN	17	63	108	143	135	175	135	157	175	180	159	163
AC-FT	3180	5830	19540	14670	17220	11370	9770	15490	11530	12790	10210	11210

CAL YR 1980 TOTAL 183249 MEAN 501 MAX 8420 MIN 17 AC-FT 363500
WTR YR 1981 TOTAL 72004 MEAN 197 MAX 1260 MIN 17 AC-FT 142800

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: August 1973 to current year.

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.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 22.0°C July 3; minimum recorded, 2.0°C Dec. 8.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	14.5	10.5	9.0	5.5	3.5	6.5	5.5	5.5	3.0	9.0	4.5
2	19.0	15.0	11.5	9.5	6.0	4.5	6.0	4.5	6.0	3.0	9.5	5.0
3	18.5	15.5	12.0	10.0	7.5	6.0	6.5	5.0	5.0	3.0	7.0	5.0
4	18.0	14.5	11.0	9.0	6.5	5.0	6.0	5.0	4.5	2.5	7.0	5.5
5	18.5	15.0	15.5	9.0	6.0	5.0	6.0	5.0	5.5	4.0	9.0	4.5
6	18.0	14.5	12.5	10.5	5.5	4.5	5.5	3.5	7.0	4.5	8.0	4.0
7	17.5	14.5	13.0	11.5	5.0	3.5	5.0	4.0	5.5	3.0	7.5	6.0
8	17.0	14.0	11.5	10.0	---	2.0	6.0	4.0	4.0	3.0	10.0	5.5
9	16.5	13.5	10.5	9.0	---	---	6.5	5.5	6.5	3.5	10.0	5.5
10	15.5	13.0	9.0	8.0	---	---	6.0	5.0	5.5	3.0	7.5	6.0
11	14.0	12.5	8.5	7.0	---	---	5.0	3.5	8.5	5.0	11.5	6.0
12	14.5	13.0	7.0	5.5	---	---	4.5	2.5	8.0	5.5	10.0	6.0
13	14.0	13.0	6.0	4.0	---	---	4.5	3.0	7.5	6.5	8.0	7.0
14	13.5	12.0	6.0	4.0	---	---	4.5	3.5	7.5	5.5	11.0	6.0
15	12.5	11.5	6.5	5.0	---	---	4.5	3.5	6.5	5.0	9.0	7.0
16	13.0	10.0	6.5	4.0	---	---	6.0	4.0	7.0	5.5	11.5	6.5
17	12.0	9.5	6.5	4.5	---	---	7.0	4.5	6.0	5.0	9.5	4.5
18	12.0	9.0	6.5	4.5	---	---	6.5	6.0	8.0	5.5	8.0	5.5
19	12.0	9.0	6.0	4.5	---	---	8.0	5.5	9.5	7.0	9.5	6.0
20	12.0	9.0	6.0	4.5	---	---	6.0	4.5	8.0	5.5	10.5	6.5
21	12.5	10.0	7.0	5.0	---	---	7.5	6.0	8.0	4.0	11.5	7.0
22	11.5	9.0	8.0	7.0	7.5	---	7.5	7.0	8.5	4.5	11.0	8.0
23	11.0	8.5	8.5	7.5	5.5	4.0	7.0	6.0	8.5	5.5	10.5	7.5
24	11.0	9.0	7.5	6.0	6.5	4.5	6.5	5.0	8.0	6.5	10.0	7.0
25	11.5	10.5	6.5	5.5	7.5	5.5	6.0	4.0	7.5	5.5	10.0	9.0
26	11.0	9.5	6.0	4.0	6.5	5.0	7.5	5.0	8.5	5.0	10.5	7.5
27	11.5	9.5	6.0	4.0	6.5	5.0	6.5	5.5	9.0	4.5	11.5	7.0
28	10.5	8.0	6.5	5.0	6.0	4.5	6.5	5.5	6.5	4.5	12.0	6.5
29	10.0	8.0	7.0	5.5	6.5	5.0	6.0	5.0	---	---	10.5	7.5
30	10.0	8.5	6.5	5.5	6.5	5.0	6.5	5.0	---	---	9.0	6.0
31	9.5	8.0	---	---	7.0	5.5	6.5	4.0	---	---	9.5	7.0
MONTH	19.0	8.0	15.5	4.0	7.5	2.0	8.0	2.5	9.5	2.5	12.0	4.0

14366000 APPLEGATE RIVER NEAR APPLEGATE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

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

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR

LOCATION.--Lat 45°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 (0.5 km) downstream from Jackson Creek, 3.6 mi (5.8 km) southeast of Wilderville, and at mile 7.6 (12.2 km).

DRAINAGE AREA.--698 mi² (1,808 km²).

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 (288.700 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Sept. 1, 1978, nonrecording gage at site 1,100 ft (335 m) upstream at datum 2.36 ft (0.719 m) higher.

REMARKS.--Water-discharge records good. Flow regulated since December 1980 by Applegate Lake (see station 14361900). Many diversions for irrigation above station. Wilderville ditch diverts up to 16 ft³/s (0.45 m³/s) 0.3 mi (0.5 km) upstream and at the mouth of Jackson Creek.

AVERAGE DISCHARGE.--20 years, 695 ft³/s (19.68 m³/s), 503,500 acre-ft/yr (621 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft³/s (1,350 m³/s) Jan. 18, 1953, gage height, 18.3 ft (5.58 m) from floodmark, site and datum then in use, from rating curve extended above 12,000 ft³/s (340 m³/s) as explained below; minimum, 0.78 ft³/s (0.022 m³/s) Aug. 22-24, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1955, reached a stage of 20.3 ft (6.19 m) from floodmark, former site and datum, discharge, 66,500 ft³/s (1,880 m³/s), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow.

Flood of February 1927 reached a stage of 22 ft (6.7 m) 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, 5,550 ft³/s (157 m³/s) Dec. 2, gage height, 6.90 ft (2.103 m); minimum, 18 ft³/s (0.51 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	111	198	574	450	380	370	206	247	167	167	140
2	30	111	2930	503	395	360	370	268	247	171	153	147
3	29	120	1750	450	295	345	365	315	202	164	150	147
4	28	114	1350	428	268	395	350	310	190	153	157	147
5	24	108	710	375	251	380	340	300	198	150	157	150
6	22	108	510	319	239	365	340	305	211	160	167	157
7	19	175	417	282	239	355	329	300	215	202	160	147
8	23	319	360	268	239	350	310	315	227	202	160	147
9	19	247	324	259	239	340	300	315	227	194	140	147
10	19	202	305	251	227	329	291	310	215	194	133	160
11	36	175	286	247	223	324	282	315	202	186	137	160
12	55	147	273	243	223	315	277	315	202	186	127	164
13	80	133	259	235	243	340	273	300	198	190	140	164
14	120	127	251	235	765	319	259	255	198	194	137	164
15	147	127	243	231	1360	324	255	255	194	198	140	167
16	143	130	247	231	1270	345	247	243	190	194	137	160
17	127	120	251	231	1710	334	247	243	178	211	137	157
18	114	114	243	227	1130	329	235	255	175	198	133	157
19	111	114	264	219	789	334	251	264	171	194	137	164
20	111	111	231	223	973	350	268	264	167	202	137	175
21	108	123	219	227	789	334	255	247	153	198	137	175
22	105	202	264	247	594	329	247	247	157	198	137	178
23	100	264	255	319	510	324	239	243	164	198	137	175
24	100	211	319	380	491	310	243	255	171	198	133	175
25	111	186	1130	433	456	324	243	277	167	198	137	178
26	123	164	1430	479	439	345	264	286	164	198	140	190
27	117	150	1180	528	411	355	255	286	171	194	140	231
28	114	143	1290	574	395	345	243	277	178	194	140	231
29	111	143	1100	574	---	350	235	264	178	190	137	219
30	108	167	822	547	---	360	231	268	175	194	137	215
31	105	---	636	473	---	355	---	255	---	190	143	---
TOTAL	2492	4666	20047	10812	15613	10644	8414	8558	5732	5860	4424	5088
MEAN	80.4	156	647	349	558	343	280	276	191	189	143	170
MAX	147	319	2930	574	1710	395	370	315	247	211	167	231
MIN	19	108	198	219	223	310	231	206	153	150	127	140
AC-FT	4940	9260	39760	21450	30970	21110	16690	16970	11370	11620	8780	10090

CAL YR 1980 TOTAL 270219.9 MEAN 738 MAX 12000 MIN 2.5 AC-FT 536000
WTR YR 1981 TOTAL 102350.0 MEAN 280 MAX 2930 MIN 19 AC-FT 203000

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: September 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 28.0°C July 20, 1979; minimum, 0.5°C Dec. 30, 31, 1978, Jan. 29, 30, 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.0°C Aug. 9; minimum recorded, 5.5°C Jan. 13-16, Feb. 21, Mar. 5, 6, but was probably lower during period of missing record in December.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	16.5	12.5	11.5			---	---	---	---	9.5	6.0
2	19.0	16.5	12.0	11.5			7.0	---	---	---	10.0	6.5
3	19.5	17.0	13.5	11.5			7.0	6.0	---	---	9.0	6.5
4	18.5	16.0	12.5	12.0			7.5	6.5	---	---	8.0	7.0
5	19.0	16.5	13.5	12.0			7.5	6.5	---	---	9.0	5.5
6	19.0	16.5	14.5	12.5			6.5	6.0	---	---	9.0	5.5
7	19.0	16.5	14.5	13.0			6.5	6.0	---	---	8.5	7.5
8	18.5	16.5	13.0	12.0			7.0	6.0	---	---	10.5	6.5
9	17.5	15.5	12.0	11.0			7.5	6.5	---	---	11.0	7.0
10	17.5	15.0	11.5	10.0			7.5	7.0	---	---	10.0	8.0
11	16.0	15.0	11.0	9.5			7.5	6.5	---	---	12.0	8.0
12	15.5	14.5	9.5	8.0			6.5	6.0	---	---	11.5	8.5
13	15.5	14.5	8.5	7.0			6.0	5.5	---	---	10.0	8.5
14	15.5	13.5	---	---			5.5	5.5	---	---	11.5	8.5
15	14.5	13.0	---	---			6.0	5.5	---	---	10.5	9.0
16	14.5	11.5	---	---			6.5	5.5	---	---	11.0	8.0
17	14.5	12.0	---	---			8.0	6.5	---	---	11.0	7.0
18	14.0	12.0	---	---			8.5	7.5	---	---	9.5	7.5
19	14.0	11.5	---	---			9.0	7.5	9.5	---	10.5	7.5
20	14.0	12.0	---	---			8.0	6.5	8.5	7.0	11.5	8.0
21	14.5	12.5	---	---			8.5	7.5	8.0	5.5	11.5	9.0
22	13.5	11.5	---	---			9.0	8.5	9.0	6.0	12.5	9.5
23	13.5	11.5	---	---			8.5	7.5	9.0	7.0	11.5	9.0
24	12.5	11.5	---	---			7.5	6.5	9.0	7.5	11.0	8.5
25	13.0	12.0	---	---			6.5	5.5	8.0	7.0	12.0	10.0
26	13.5	12.0	---	---			---	---	9.0	6.5	11.0	9.0
27	14.0	12.0	---	---			---	---	9.5	6.5	12.0	9.0
28	13.0	11.5	---	---			---	---	8.0	6.0	13.0	8.5
29	13.0	11.0	---	---			---	---	---	---	12.0	9.5
30	12.5	11.0	---	---			---	---	---	---	10.5	8.5
31	12.0	10.5	---	---			---	---	---	---	10.5	8.5
MONTH	19.5	10.5	14.5	7.0			9.0	5.5	9.5	5.5	13.0	5.5

14369500 APPLEGATE RIVER NEAR WILDERVILLE, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	8.0	19.5	16.5	20.0	16.5	23.0	18.5	23.5	18.5	22.5	18.5
2	11.5	8.0	17.5	14.5	21.0	16.5	24.0	18.5	23.0	19.0	22.0	18.0
3	12.5	8.5	15.0	12.0	22.0	17.0	25.5	20.0	23.0	18.5	21.5	17.5
4	13.0	8.0	15.5	12.0	23.0	18.5	25.0	21.5	23.5	18.5	20.5	18.0
5	12.0	9.5	14.0	11.0	21.0	19.0	23.5	21.0	24.0	19.0	21.0	17.0
6	12.5	8.0	15.5	10.0	20.5	17.5	21.0	16.5	25.0	20.0	22.0	17.5
7	12.5	8.0	15.5	11.0	20.5	17.0	20.5	15.0	26.5	21.5	22.0	18.0
8	12.0	10.0	14.5	12.0	18.5	16.0	22.0	16.0	26.5	22.0	22.5	18.5
9	13.5	9.5	18.0	12.5	16.5	14.0	22.0	17.5	27.0	22.5	22.0	18.5
10	13.0	9.0	17.5	13.0	19.5	14.5	21.5	17.5	26.5	22.0	21.5	18.0
11	12.0	9.5	17.5	12.5	20.0	16.5	22.0	17.0	26.5	22.0	21.5	18.0
12	12.0	9.0	18.0	12.5	18.0	15.5	22.0	17.5	26.0	21.5	22.0	18.0
13	14.5	9.0	16.5	13.0	17.5	14.5	22.0	17.0	25.5	21.0	21.5	18.0
14	15.5	11.0	16.5	13.5	20.0	14.0	22.5	17.5	25.5	21.0	21.5	18.0
15	15.0	11.5	16.5	13.5	21.5	16.0	23.5	18.5	24.5	20.5	22.0	18.5
16	15.5	12.0	17.5	12.5	22.0	18.0	24.0	19.5	24.5	19.5	22.0	18.5
17	16.5	12.5	16.5	14.0	21.0	15.5	23.5	19.5	25.0	20.0	22.0	18.5
18	17.5	13.0	15.5	13.5	20.0	17.0	23.5	19.0	24.5	20.0	21.0	18.0
19	16.0	12.0	14.5	13.0	23.0	17.5	23.5	19.0	22.5	20.0	21.0	18.0
20	16.0	11.0	18.0	13.0	23.5	18.5	23.5	19.5	22.5	18.0	18.5	16.5
21	15.5	13.0	17.0	14.5	24.0	18.5	23.5	19.0	23.0	18.5	17.5	15.0
22	18.5	13.0	17.0	13.5	22.0	19.0	23.0	18.5	23.5	19.0	18.0	14.5
23	19.0	15.0	18.5	15.0	23.0	18.0	23.0	18.5	23.0	19.5	17.5	14.5
24	17.0	14.0	19.5	16.5	23.5	18.0	22.5	18.5	21.5	18.5	16.0	14.5
25	14.0	12.0	20.0	16.0	24.0	19.0	23.0	18.0	22.0	17.5	16.5	13.0
26	13.0	11.0	20.5	16.0	23.5	19.5	24.0	19.0	22.0	18.0	17.0	15.5
27	16.0	11.5	21.0	15.5	22.0	17.5	24.5	20.0	22.0	17.5	18.5	16.5
28	19.0	14.0	21.5	16.5	22.0	17.0	24.5	20.5	21.5	17.5	17.0	15.5
29	20.5	16.0	20.0	17.0	23.0	17.5	22.5	19.0	22.0	18.0	17.0	15.0
30	21.5	17.5	20.5	16.0	23.5	19.5	22.5	18.0	21.5	18.5	16.5	13.5
31	---	---	21.0	15.5	---	---	22.5	18.0	22.0	17.5	---	---
MONTH	21.5	8.0	21.5	10.0	24.0	14.0	25.5	15.0	27.0	17.5	22.5	13.0

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 (5.5 km) upstream from Jumpoff Joe Creek, 3.7 mi (6.0 km) southwest of Merlin, and at mile 86.8 (139.7 km).

DRAINAGE AREA.--3,271 mi² (8,472 km²).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1974 to current year.

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, 23.5°C July 3, 4; minimum, 3.0°C Dec. 14-16, Feb. 10.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	13.5	9.0	8.0	---	---	6.5	6.0	5.0	4.5	8.0	6.5
2	16.5	14.0	9.0	8.5	---	---	6.0	6.0	4.5	4.0	9.0	6.5
3	16.0	14.5	10.0	8.5	---	---	6.0	5.5	4.5	4.0	8.5	7.0
4	15.5	13.5	10.5	9.5	---	---	6.5	5.5	4.5	4.0	8.0	7.0
5	15.5	14.0	10.5	9.5	7.0	---	6.5	6.0	5.0	4.0	8.0	6.0
6	15.5	14.0	11.5	10.0	7.0	6.0	6.0	5.5	6.0	4.5	7.5	6.0
7	15.5	13.5	12.0	10.5	6.0	5.0	5.5	5.5	5.5	4.5	8.0	7.0
8	15.5	13.5	11.0	10.0	5.0	4.0	5.5	5.0	5.0	4.0	9.0	7.0
9	14.5	13.0	10.5	9.5	4.0	3.5	6.0	5.5	5.0	3.5	9.5	7.0
10	14.0	13.0	9.5	8.5	4.0	3.5	6.0	5.5	5.0	3.0	9.5	7.5
11	13.5	12.0	8.5	8.0	4.0	4.0	6.0	5.5	6.5	4.0	11.0	8.0
12	13.0	11.5	8.0	6.5	4.0	4.0	5.5	5.0	7.5	5.5	11.5	8.5
13	12.0	11.0	6.5	6.0	4.0	3.5	5.0	4.5	8.0	6.5	10.0	8.5
14	12.0	10.0	6.5	5.5	3.5	3.0	4.5	4.0	8.5	7.5	11.0	8.5
15	11.5	9.5	6.5	5.5	3.5	3.0	4.5	4.0	8.0	7.5	10.0	8.5
16	11.5	9.0	6.5	5.5	4.0	3.0	5.0	4.0	8.5	7.5	10.5	8.0
17	11.0	9.0	7.5	6.0	4.5	4.0	6.0	4.5	8.0	7.0	10.0	8.0
18	11.0	9.0	7.0	6.0	4.5	4.5	7.0	6.0	8.0	7.0	8.5	8.0
19	11.0	8.5	7.0	6.5	5.0	4.5	8.0	6.5	8.5	7.5	10.5	7.5
20	10.5	8.5	7.0	6.5	5.5	5.0	7.0	6.5	8.0	7.0	10.5	7.5
21	11.0	9.0	7.0	6.0	7.0	5.5	7.5	6.5	7.5	6.0	11.5	9.0
22	10.5	9.0	7.5	6.5	8.0	6.5	8.0	7.0	7.5	6.0	12.5	9.5
23	10.0	9.0	8.0	7.5	7.0	6.0	8.0	7.5	8.0	7.0	12.0	9.5
24	9.0	8.5	8.0	7.5	6.5	5.5	7.5	7.0	8.5	7.5	11.0	9.5
25	10.0	8.5	7.5	6.5	7.5	6.5	7.0	6.0	7.5	7.0	11.0	10.0
26	10.0	8.5	6.5	6.0	8.0	7.5	7.0	5.5	8.0	6.5	10.5	9.0
27	10.5	8.5	6.5	6.0	8.0	7.5	7.0	6.0	8.0	7.0	12.0	9.5
28	9.5	8.5	7.0	6.0	7.5	6.5	7.0	6.5	7.5	6.5	12.0	9.5
29	9.5	8.5	8.0	6.5	7.0	6.5	6.5	6.0	---	---	11.5	10.0
30	9.0	8.0	---	---	6.5	6.5	6.0	5.5	---	---	10.5	9.0
31	9.0	7.5	---	---	6.5	6.5	5.5	5.0	---	---	10.0	8.5
MONTH	16.5	7.5	12.0	5.5	8.0	3.0	8.0	4.0	8.5	3.0	12.5	6.0

14370400 ROGUE RIVER NEAR MERLIN, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.0	18.5	15.0	19.5	16.0	22.5	17.5	20.5	16.0	19.5	15.5
2	10.0	8.0	16.5	14.0	21.0	16.0	23.0	17.5	20.0	16.5	20.0	15.5
3	10.5	8.5	15.0	12.5	21.5	16.0	23.5	18.5	19.5	16.0	19.0	15.0
4	11.5	8.5	15.0	11.5	22.0	17.5	23.5	19.5	20.0	16.0	18.5	15.0
5	11.0	9.0	14.5	11.0	21.0	18.0	22.5	20.0	20.0	16.0	18.5	14.5
6	11.0	8.5	15.5	10.5	21.0	18.0	20.0	16.0	20.5	16.5	18.5	14.0
7	11.0	8.5	15.5	11.0	19.5	17.0	18.5	15.0	21.0	17.0	19.0	14.5
8	11.0	10.0	15.0	12.0	18.0	16.0	19.5	14.0	21.5	17.5	19.5	15.0
9	12.0	9.5	17.0	13.0	16.5	14.5	20.0	16.0	21.5	18.0	19.5	15.0
10	11.0	9.0	17.5	13.0	17.0	13.5	20.5	16.5	21.5	18.0	18.0	15.5
11	11.0	9.5	18.0	13.5	17.5	14.5	20.5	16.0	21.5	17.5	15.5	13.5
12	10.5	9.0	18.5	14.0	17.5	15.0	20.0	16.0	21.5	18.0	15.5	13.0
13	12.0	8.5	17.0	14.0	17.0	14.5	20.5	16.0	21.5	17.5	15.5	13.0
14	14.0	10.5	17.0	14.0	18.0	13.5	21.0	16.0	21.5	18.0	15.5	13.0
15	14.0	11.5	16.5	14.0	20.0	14.5	22.0	17.0	20.5	17.5	15.5	13.0
16	15.5	12.0	17.0	13.5	20.0	16.5	22.5	18.0	20.0	16.0	15.0	13.5
17	15.5	12.0	16.0	13.5	21.0	16.0	22.0	18.0	20.5	16.5	15.5	13.0
18	17.0	13.0	15.5	13.0	19.0	16.0	21.5	17.0	20.0	17.0	15.5	13.0
19	14.5	12.5	14.5	13.0	21.5	16.5	21.5	17.0	19.5	16.5	16.0	14.0
20	15.0	12.0	15.0	11.5	22.0	17.0	21.5	17.0	19.0	15.0	15.0	13.0
21	14.0	12.5	15.0	12.5	22.5	17.5	21.5	17.0	19.0	15.0	16.0	12.5
22	16.0	13.0	15.0	13.0	21.5	18.0	21.0	16.0	20.0	15.5	15.5	12.5
23	17.0	14.0	16.5	13.5	22.0	17.5	21.0	16.5	20.5	16.0	15.5	13.0
24	15.5	14.0	18.0	15.5	22.5	17.5	20.5	16.5	20.5	16.0	15.0	13.0
25	14.0	11.5	19.0	16.0	22.5	18.0	20.5	16.5	19.5	15.0	15.0	12.0
26	11.5	10.5	18.5	15.0	22.0	18.0	21.5	16.5	19.5	15.0	15.0	13.0
27	13.0	9.5	18.5	14.5	21.5	17.0	22.0	17.5	19.5	15.0	15.5	13.5
28	16.0	11.5	19.0	15.0	21.5	16.5	22.0	17.5	19.0	14.5	15.0	13.0
29	17.5	14.0	18.5	16.0	22.0	16.5	21.0	17.0	19.5	15.0	15.5	12.5
30	19.5	15.0	19.5	16.5	22.0	17.5	20.5	16.5	19.5	15.0	15.5	12.5
31	---	---	20.0	16.0	---	---	20.0	16.0	19.5	15.0	---	---
MONTH	19.5	8.0	20.0	10.5	22.5	13.5	23.5	14.0	21.5	14.5	20.0	12.0

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 (0.8 km) downstream from Pease Bridge, 0.5 mi (0.8 km) upstream from Boulder Creek, 5.4 mi (8.7 km) east of Placer, and at mile 27.1 (43.6 km).

DRAINAGE AREA.--22.1 mi² (57.2 km²) at measuring site 0.5 mi (0.8 km) 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 (717.56 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Aug. 4, 1955, at sites 0.5 mi (0.8 km) upstream at datum 29.9 ft (9.11 m) higher.

REMARKS.--Records good. No regulation. One small diversion above station. Prior to 1945, Columbia upper ditch diverted water about 2 mi (3 km) above station, bypassing station. Records herein are for measuring site.

AVERAGE DISCHARGE.--36 years (water years 1946-81), 58.0 ft³/s (1.643 m³/s), 35.64 in/yr (905 mm/yr), 42,020 acre-ft/yr (51.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft³/s (177 m³/s) Dec. 22, 1964, gage height, 11.20 ft (3.414 m), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of slope-area measurement at gage height 9.66 ft (2.944 m); minimum, 0.12 ft³/s (0.003 m³/s) July 15, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 850 ft³/s (24.1 m³/s) and maximum discharge, 2,560 ft³/s (72.5 m³/s) Dec. 2, gage height, 7.33 ft (2.234 m); minimum, 0.49 ft³/s (0.014 m³/s) Sept. 15-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	2.7	28	36	35	52	66	15	9.7	5.2	1.5	.65
2	.65	3.5	1220	30	31	47	66	15	9.4	4.9	1.4	.69
3	.65	2.7	487	26	28	43	64	14	8.5	4.5	1.5	.69
4	.61	2.3	342	23	26	60	58	14	7.9	4.1	1.5	.69
5	.61	2.2	170	21	25	55	55	14	7.9	4.1	1.4	.69
6	.61	2.2	112	19	24	53	52	14	8.5	4.5	1.3	.69
7	.61	110	77	17	22	49	47	13	9.4	5.4	1.2	.65
8	.61	60	58	16	21	44	43	13	25	4.7	1.2	.61
9	.61	43	47	15	19	40	42	12	20	4.1	1.1	.58
10	.65	34	40	14	18	37	37	12	16	3.9	.95	.58
11	.69	23	35	13	17	34	35	11	14	3.7	.91	.55
12	1.6	17	31	12	17	31	37	11	14	3.7	.86	.55
13	3.2	14	29	11	42	34	37	11	15	3.7	.82	.55
14	19	13	26	11	232	31	36	13	15	3.5	.82	.52
15	7.0	13	26	10	135	34	33	14	14	3.2	.77	.52
16	3.7	12	32	10	165	39	30	13	13	3.0	.77	.52
17	2.7	11	31	10	176	41	27	18	12	2.9	.69	.52
18	2.5	9.7	27	9.7	124	39	25	60	12	2.7	.69	.52
19	2.1	9.1	24	9.1	142	37	24	50	13	2.5	.69	.52
20	1.9	8.5	23	9.1	146	40	22	35	12	2.3	.69	.52
21	1.8	15	29	10	120	40	22	26	12	2.2	.69	.55
22	1.7	81	34	17	97	39	20	21	11	2.1	.73	.58
23	1.7	49	33	18	79	36	19	19	11	2.0	.73	.65
24	1.7	43	55	19	72	34	18	18	10	1.9	.65	.69
25	1.7	34	319	18	61	48	18	20	10	2.0	.65	.69
26	1.9	26	181	25	58	63	20	17	9.7	1.9	.65	.82
27	2.1	22	118	59	56	64	20	15	9.1	1.8	.69	5.4
28	2.0	19	84	72	56	59	18	13	7.6	1.6	.69	3.4
29	1.8	20	65	67	---	60	17	12	6.7	1.4	.69	1.9
30	1.8	25	52	53	---	60	16	11	5.4	1.5	.69	1.4
31	1.7	---	45	43	---	63	---	11	---	1.5	.65	---
TOTAL	70.35	726.9	3878	722.9	2044	1406	1024	555	348.8	96.5	28.27	27.89
MEAN	2.27	24.2	125	23.3	73.0	45.4	34.1	17.9	11.6	3.11	.91	.93
MAX	19	110	1220	72	232	64	66	60	25	5.4	1.5	5.4
MIN	.61	2.2	23	9.1	17	31	16	11	5.4	1.4	.65	.52
CFSM	.10	1.10	5.66	1.05	3.30	2.05	1.54	.81	.53	.14	.04	.04
IN.	.12	1.22	6.53	1.22	3.44	2.37	1.72	.93	.59	.16	.05	.05
AC-FT	140	1440	7690	1430	4050	2790	2030	1100	692	191	56	55

CAL YR 1980	TOTAL	20403.08	MEAN	55.7	MAX	1220	MIN	.61	CFSM	2.52	IN	34.34	AC-FT	40470
WTR YR 1981	TOTAL	10928.61	MEAN	29.9	MAX	1220	MIN	.52	CFSM	1.35	IN	18.39	AC-FT	21680

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 (0.3 km) downstream from Mule Creek and at mile 48.2 (77.6 km).

DRAINAGE AREA.--3,812 mi² (9,873 km²).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1974 to current year.

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, 24.0°C Aug. 10-12; minimum, 4.0°C Dec. 14-16.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.5	16.5	10.5	10.0	8.0	7.5	8.0	7.5	6.5	5.5	8.0	7.5
2	17.5	16.5	10.5	10.0	8.5	7.5	7.5	7.0	6.0	5.5	8.5	7.5
3	17.5	16.5	10.5	10.5	9.0	8.5	7.0	7.0	5.5	5.0	9.0	8.0
4	17.5	16.5	11.0	10.5	9.0	8.0	7.0	7.0	5.5	5.0	8.5	8.0
5	17.5	16.0	11.5	11.0	8.0	7.5	7.0	7.0	5.5	5.0	8.0	7.5
6	17.5	16.0	12.0	11.5	7.5	7.5	7.0	6.5	6.0	5.5	8.0	7.0
7	17.5	16.0	12.5	12.0	7.5	6.5	7.0	6.5	6.0	5.5	8.0	7.5
8	17.0	16.0	12.5	11.5	6.5	5.5	7.0	6.5	6.0	5.5	8.5	8.0
9	16.5	15.5	12.0	11.0	5.5	5.0	7.0	6.5	5.5	5.0	9.5	8.0
10	16.0	15.0	11.0	9.5	5.0	4.5	7.0	6.5	5.5	5.0	9.5	8.5
11	15.0	14.5	9.5	9.5	5.0	4.5	7.0	6.5	6.0	5.5	10.5	9.0
12	14.5	14.0	9.5	8.5	5.0	4.5	6.5	6.5	7.5	6.0	11.0	9.5
13	14.0	13.5	8.5	7.5	4.5	4.5	6.5	6.0	8.0	7.5	11.0	10.0
14	13.5	12.5	7.5	7.0	4.5	4.0	6.0	5.5	9.0	8.0	10.5	10.0
15	13.0	12.0	7.5	7.0	4.5	4.0	5.5	5.5	9.0	8.5	10.5	10.0
16	12.5	11.5	7.0	6.5	4.5	4.0	6.0	5.5	9.0	9.0	10.0	9.0
17	12.0	11.5	7.5	7.0	5.0	4.5	6.5	6.0	9.0	8.5	10.0	9.0
18	12.0	11.5	8.0	7.5	5.5	5.0	7.5	6.5	8.5	8.0	9.5	9.0
19	12.0	11.0	8.0	7.5	6.0	5.5	8.0	7.5	9.0	8.5	9.5	8.5
20	11.5	11.0	7.5	7.5	6.5	6.0	8.5	7.5	8.5	8.0	10.5	9.0
21	12.0	11.0	8.0	7.5	7.5	6.5	8.5	8.0	8.0	7.5	10.5	9.0
22	11.5	11.0	8.5	8.0	8.0	7.0	9.0	8.5	8.0	7.5	11.0	9.5
23	11.5	11.0	9.0	8.5	8.0	7.5	9.0	8.5	8.0	7.5	11.0	10.0
24	11.5	10.5	8.5	8.5	8.0	7.5	9.0	8.0	8.5	8.0	11.0	10.0
25	11.0	10.0	8.5	8.0	9.5	8.0	8.0	7.5	8.5	8.0	11.0	10.0
26	11.0	10.5	8.0	7.5	9.5	9.0	7.5	7.0	8.0	8.0	10.5	9.5
27	11.0	10.5	7.5	7.5	9.0	9.0	8.0	7.0	8.5	7.5	10.5	9.5
28	11.0	10.5	7.5	7.5	9.0	8.5	7.5	7.5	8.5	8.0	11.0	10.0
29	11.0	10.5	8.0	7.5	8.5	8.0	7.5	7.0	---	---	11.0	10.0
30	10.5	10.0	8.0	7.5	8.0	8.0	7.0	7.0	---	---	10.5	10.0
31	10.5	10.0	---	---	8.0	8.0	7.0	6.5	---	---	10.0	9.0
MONTH	17.5	10.0	12.5	6.5	9.5	4.0	9.0	5.5	9.0	5.0	11.0	7.0

14372250 ROGUE RIVER AT MARIAL, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	18.5	17.0	19.5	17.5	---	---	21.0	19.0	19.0	18.0
2	9.5	8.5	17.5	16.0	---	---	---	---	20.5	18.5	19.0	17.5
3	10.0	9.0	16.0	14.5	---	---	---	---	20.5	18.5	19.0	17.5
4	10.5	9.0	15.0	13.5	---	---	---	---	20.5	18.5	19.0	17.5
5	11.0	10.0	14.0	13.0	---	---	---	---	21.0	18.5	18.5	17.0
6	10.5	9.5	14.5	12.5	---	---	---	---	23.0	19.0	19.0	17.0
7	11.0	9.5	15.0	12.5	---	---	---	---	23.5	19.5	18.5	17.0
8	10.5	10.0	14.5	13.0	---	---	---	---	22.5	20.5	19.0	17.0
9	11.0	10.0	15.5	13.5	---	---	---	---	22.5	21.0	19.0	16.5
10	11.0	10.0	16.5	15.0	---	---	20.0	---	24.0	20.5	19.0	17.0
11	10.5	10.0	16.5	15.0	---	---	20.5	18.0	24.0	20.5	18.5	17.0
12	10.5	9.5	17.0	15.5	---	---	20.5	18.5	24.0	20.5	17.0	15.5
13	11.0	9.5	17.0	16.5	---	---	20.5	18.5	23.5	20.0	16.5	15.0
14	12.5	10.5	17.0	16.0	---	---	21.0	18.5	22.0	20.0	16.5	15.0
15	12.5	11.5	16.5	15.0	---	---	23.0	19.0	22.0	20.0	16.5	15.0
16	13.5	12.0	16.0	15.0	---	---	22.5	20.0	23.0	19.5	16.5	15.5
17	14.5	12.5	16.0	15.0	---	---	22.5	20.5	22.5	19.0	16.5	15.5
18	15.0	13.0	16.0	15.0	---	---	22.5	20.5	21.0	19.0	16.0	15.0
19	14.5	14.0	15.5	14.5	---	---	22.5	20.0	20.5	19.0	16.5	15.0
20	14.5	13.5	15.0	14.0	---	---	22.5	20.0	20.0	18.5	15.5	15.0
21	14.5	13.5	15.0	14.0	---	---	22.5	20.0	20.0	17.5	15.0	14.0
22	15.0	13.5	15.5	14.0	---	---	22.0	19.5	21.0	18.0	14.5	14.0
23	16.5	15.0	16.0	14.5	---	---	22.0	19.5	19.5	18.5	15.0	14.0
24	16.0	15.5	17.0	15.5	---	---	21.5	19.5	19.5	18.5	15.0	14.0
25	15.5	13.5	18.5	16.5	---	---	21.5	19.0	19.5	18.5	15.0	14.0
26	13.5	12.5	18.5	17.5	---	---	23.0	19.5	19.0	17.5	14.5	14.0
27	12.5	11.5	18.5	17.0	---	---	22.5	20.0	19.0	17.5	14.5	14.0
28	14.5	12.0	17.5	16.5	---	---	22.5	20.5	19.0	17.5	15.0	14.0
29	16.5	14.0	19.0	16.5	---	---	22.0	20.0	18.5	17.5	15.0	14.5
30	18.0	16.0	19.0	17.5	---	---	21.5	19.5	18.5	17.5	14.5	14.5
31	---	---	20.0	17.5	---	---	21.5	19.0	19.0	17.5	---	---
MONTH	18.0	8.5	20.0	12.5	19.5	17.5	23.0	18.0	24.0	17.5	19.0	14.0

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 (1.3 km) upstream from Shasta Costa Creek, 1.5 mi (2.4 km) north of Agness, 2.6 mi (4.2 km) upstream from Illinois River, and at mile 29.7 (47.8 km).

DRAINAGE AREA.--3,939 mi² (10,202 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 113.81 ft (34.689 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Public Roads).

REMARKS.--Water-discharge records fair. Flow regulated since February 1977 by Lost Creek Lake (see station 14335040), slight regulation by Fish Lake and Emigrant Lake. Many diversions for irrigation and mining.

AVERAGE DISCHARGE.--21 years, 5,990 ft³/s (169.6 m³/s), 4,340,000 acre-ft/yr (5.35 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 290,000 ft³/s (8,210 m³/s) Dec. 23, 1964, from slope-area measurement; maximum gage height, 68.03 ft (20.736 m) Dec. 23, 1964, from floodmark (backwater from Illinois River); minimum discharge, 608 ft³/s (17.2 m³/s) July 9, 10, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52,400 ft³/s (1,484 m³/s) Dec. 2, gage height, 16.85 ft (5.136 m); minimum, 1,000 ft³/s (28.3 m³/s) Oct. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1100	1830	3220	5040	3760	3880	4730	2540	2200	1870	1900	1750
2	1100	1800	27000	4560	3440	3600	4940	2550	1900	1960	1920	1740
3	1100	1500	34700	4050	2890	3390	4710	2600	1900	2070	1970	1750
4	1080	1470	25700	3700	2640	3540	4290	2510	1800	2070	1980	1770
5	1060	1430	15700	3460	2610	4380	4180	2320	1800	2010	2080	1780
6	1000	1670	10600	3240	2540	3830	3920	2330	1800	2030	2120	1780
7	1000	3830	8410	2780	2420	3490	3700	2290	1900	2120	2090	1800
8	1000	4790	6630	2640	2330	3250	3500	2260	2000	2160	2070	1770
9	1000	4640	4860	2490	2270	3080	3410	2030	2800	2080	2050	1770
10	1000	4100	4330	2410	2190	2920	3270	2190	3200	2010	2040	2030
11	1100	3270	3990	2360	2110	2780	3460	2120	2600	2030	2040	2310
12	1200	2360	3670	2290	2050	2670	4060	2040	2200	1940	2000	2350
13	1300	2070	3440	2240	2440	2690	3830	1960	2400	2000	1990	2360
14	1500	1920	3180	2190	6410	2690	3650	1890	2400	2030	2030	2350
15	2600	1850	2970	2130	8680	2690	3240	1850	2400	2070	2010	2380
16	1940	1830	2970	2110	8540	3310	3030	1900	2400	2040	2030	2380
17	1720	1810	2940	2120	11200	3390	2870	2170	2200	2010	2050	2350
18	1670	1800	2980	2110	9260	3220	2730	2190	2200	2000	2040	2390
19	1660	1800	2870	2040	8090	3080	2610	2700	2200	2010	2010	2350
20	1860	1790	2760	2010	8620	3100	2580	4140	2200	2050	2040	2070
21	2210	2200	2860	2160	7830	3080	2550	3720	2000	2050	2090	1830
22	1780	3990	3270	2810	6450	3190	2470	3080	2000	1980	1990	1430
23	1720	3950	3380	3220	5560	3110	2510	2690	2000	1970	1710	1340
24	1690	3280	4810	3000	5260	3000	2580	2640	2000	1970	1700	1350
25	1680	3190	15900	2970	5220	3460	2550	2760	1980	1990	1720	1380
26	1690	2760	13500	2970	5080	4460	2630	3690	1930	1990	1720	1460
27	1710	2450	10300	3570	4580	4980	2940	3740	1920	2010	1700	1950
28	1670	2270	9070	4730	4210	4600	2860	3130	1950	1970	1720	1890
29	1660	2390	7780	5340	---	4380	2570	2860	1990	1870	1730	1750
30	1640	2550	6780	5160	---	4440	2440	2600	1930	1880	1730	1630
31	1620	---	5670	4350	---	4670	---	2400	---	1900	1740	---
TOTAL	46060	76590	256240	96250	138680	108350	98810	79890	64200	62140	60010	57240
MEAN	1486	2553	8266	3105	4953	3495	3294	2577	2140	2005	1936	1908
MAX	2600	4790	34700	5340	11200	4980	4940	4140	3200	2160	2120	2390
MIN	1000	1430	2760	2010	2050	2670	2440	1850	1800	1870	1700	1340
AC-FT	91360	151900	508300	190900	275100	214900	196000	158500	127300	123300	119000	113500

CAL YR 1980 TOTAL 1927650 MEAN 5267 MAX 62600 MIN 1000 AC-FT 3823000
WTR YR 1981 TOTAL 1144460 MEAN 3136 MAX 34700 MIN 1000 AC-FT 2270000

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.

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 recorded, 25.0°C July 3-5, Aug. 9, 10; minimum, 4.5°C Dec. 12-16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (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 NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 15...	1215	2650	119	7.8	12.0	10.6	400	82	39	.00	9.4	3.8
NOV 18...	1600	1670	132	8.0	8.0	12.5	<1	K1	46	.00	11	4.6
DEC 16...	0830	3040	126	--	4.5	12.9	<1	K13	46	.00	11	4.6
JAN 15...	0740	2160	118	7.3	5.5	12.1	--	K2	46	.00	11	4.5
FEB 04...	1400	2780	123	7.8	6.0	12.7	K42	33	50	--	12	4.9
MAR 26...	1215	4370	115	7.7	10.0	11.4	20	K3	45	.00	10	4.9
APR 21...	1000	2500	115	7.7	14.0	10.3	K9	K1	46	.00	11	4.6
MAY 21...	0900	3600	109	7.7	14.5	9.7	65	38	44	.00	11	4.1
JUN 24...	0730	2000	95	7.5	19.5	8.2	K10	82	28	.00	6.9	2.5
JUL 15...	0900	2190	94	7.6	20.0	8.6	K6	59	34	.00	8.1	3.3
AUG 26...	0745	1730	90	7.6	18.0	9.0	--	760	36	.00	8.8	3.5
SEP 24...	0940	1330	99	7.8	14.5	9.6	K5	K17	40	.00	9.4	4.0

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (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, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (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)
OCT 15...	5.7	1.7	44	1.2	4.6	.1	<.10	.030	.31	.070	.45	.63
NOV 18...	5.4	1.3	51	5.1	4.1	.1	.15	.010	.83	.010	.85	1.0
DEC 16...	4.9	.9	53	4.0	3.3	.1	.29	.050	.33	.050	.37	.67
JAN 15...	5.6	.9	54	5.1	3.4	.1	<.10	.070	.25	.050	.27	.61
FEB 04...	5.0	.8	43	4.0	3.1	.1	.17	.070	.45	.050	.75	.89
MAR 26...	4.7	.7	49	.8	2.7	.1	<.10	.030	.24	.020	2.20	2.2
APR 21...	5.1	1.1	49	1.9	3.5	.1	<.10	.040	.45	.040	.52	.55
MAY 21...	4.9	1.2	44	.8	2.5	<.1	.19	.080	.68	.090	.71	.92
JUN 24...	4.5	.8	32	.3	2.4	<.1	<.10	.080	.70	.070	.89	.90
JUL 15...	5.3	1.2	40	1.0	2.3	<.1	<.10	.050	.68	.160	.68	.76
AUG 26...	5.3	1.3	49	1.0	2.3	.1	.14	.150	.47	.140	.45	.62
SEP 24...	5.4	1.5	48	<5.0	2.5	.1	<.10	.090	.40	.080	.40	.44

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	CARBON, ORGANIC TOTAL (MG/L AS C)	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)	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...	.010	.190	4.4	--	--	22	85	75	.60	12	86	92
NOV												
18...	.080	.100	--	--	1.5	23	84	86	11	4	18	78
DEC												
16...	.060	.060	--	--	3.4	21	82	83	2.6	4	33	79
JAN												
15...	.040	.020	3.4	.1	--	21	82	86	.60	2	12	80
FEB												
04...	.050	.080	--	--	3.7	19	77	76	3.7	7	53	80
MAR												
26...	.040	.050	--	--	1.7	16	85	69	6.1	11	130	82
APR												
21...	.060	.070	2.3	.2	--	18	93	75	1.2	4	27	86
MAY												
21...	.070	.080	--	--	4.6	23	90	75	6.0	14	136	82
JUN												
24...	.040	.050	2.6	.1	--	16	58	53	1.5	14	76	39
JUL												
15...	.060	.090	--	--	1.7	24	69	69	1.9	7	41	60
AUG												
26...	.040	.030	--	--	3.4	26	72	78	2.3	16	75	61
SEP												
24...	.040	.040	--	--	2.9	24	78	81	1.1	4	14	83

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)
OCT										
15...	2	2	20	100	<1	<1	<10	<10	<1	1
JAN										
15...	1	2	20	100	2	<1	<10	<10	<3	<1
APR										
21...	2	2	30	<100	1	<1	10	20	<3	1
JUN										
24...	2	2	60	<100	<1	1	<10	10	<3	2

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
OCT									
15...	4	7	40	350	2	3	2	70	<.1
JAN									
15...	3	7	40	230	<1	4	3	10	<.1
APR									
21...	3	18	30	120	2	1	5	10	<.1
JUN									
24...	3	5	40	110	5	15	3	10	<.1

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)
OCT									
15...	.1	<1	4	<1	<1	<1	1	10	10
JAN									
15...	.1	<1	<1	<1	<1	<1	<1	20	160
APR									
21...	.1	1	1	<1	<1	<1	<1	20	10
JUN									
24...	--	<1	6	<1	<1	<1	<1	9	20

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	NOV 18,80	MAR 26,81	MAY 21,81	JUN 24,81
TIME	1600	1045	0900	0730
TOTAL CELLS/ML	620	500	3300	730
DIVERSITY: DIVISION	0.7	1.1	1.1	1.0
.CLASS	0.7	1.1	1.1	1.0
..ORDER	0.9	2.2	2.8	2.6
...FAMILY	0.9	2.3	3.2	2.7
....GENUS	1.0	2.4	3.7	2.7

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)								
.BACILLARIOPHYCEAE								
..ACHNANTHALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	200	6	26	4
....COCCONEIS	13	2	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	13	3	180	5	--	-
..BACILLARIALES								
...NITZSCHIACEAE								
....NITZSCHIA	26	4	64	13	310	10	77	11
..EUPODISCALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	26	5	110	3	270#	37
....MELOSIRA	--	-	--	-	340	10	--	-
..FRAGILARIALES								
...FRAGILARIACEAE								
....DIATOMA	26	4	26	5	130	4	--	-
....FRAGILARIA	26	4	--	-	110	3	77	11
....SYNEDRA	--	-	26	5	160	5	--	-
..NAVICULALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	13	3	430	13	--	-
...GOMPHONEMACEAE								
....GOMPHONEIS	--	-	--	-	45	1	--	-
....GOMPHONEMA	--	-	--	-	45	1	13	2
...NAVICULACEAE								
....NAVICULA	13	2	90#	18	400	12	100	14
..SURIRELLALES								
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...DICTYOSPHAERIACEAE								
....DICTYOSPHAERIUM	--	-	--	-	45	1	--	-
...OOCYSTACEAE								
....OOCYSTIS	--	-	13	3	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	270	8	52	7
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	45	1	13	2
CHRYSOPHYTA								
.CHRYSOPHYCEAE								
..OCHROMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	100	14
..NOSTOCALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	450	14	--	-
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	520#	83	230#	46	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1980 TO SEPTEMBER 1981

DATE	JUL 15,81	AUG 26,81	SEP 24,81
TIME	0900	0730	0940
TOTAL CELLS/ML	890	1500	860
DIVERSITY: DIVISION	0.4	1.5	0.0
.CLASS	0.4	1.5	0.0
..ORDER	1.8	2.2	1.4
...FAMILY	1.9	2.2	2.2
....GENUS	2.1	2.2	2.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
BACILLARIOPHYTA (DIATOMS)						
.BACILLARIOPHYCEAE						
..ACHNANTHALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	14	2
....COCCONEIS	13	1	--	-	86	10
....RHOICOSPHENIA	--	-	68	5	230#	27
..BACILLARIALES						
...NITZSCHIACEAE						
....NITZSCHIA	39	4	400#	27	43	5
..EUPODISCALES						
...COSCINODISCACEAE						
....CYCLOTELLA	210#	23	--	-	--	-
....MELOSIRA	--	-	--	-	--	-
..FRAGILARIALES						
...FRAGILARIACEAE						
....DIATOMA	--	-	--	-	--	-
....FRAGILARIA	480#	54	--	-	--	-
....SYNEDRA	26	3	--	-	29	3
..NAVICULALES						
...CYMBELLACEAE						
....CYMBELLA	13	1	150	10	140#	17
...GOMPHONEMACEAE						
....GOMPHONEIS	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	240#	28
...NAVICULACEAE						
....NAVICULA	51	6	--	-	72	8
..SURIRELLALES						
...SURIRELLACEAE						
....SURIRELLA	--	-	68	5	--	-
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....SCHROEDERIA	13	1	--	-	--	-
...DICTYOSPHAERIACEAE						
....DICTYOSPHAERIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	--	-	510#	34	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.CHRYSOPHYCEAE						
..OCHROMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	--	-	290#	19	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	51	6	--	-	--	-
..NOSTOCALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	--	-
..OSCILLATORIALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15 %
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2 %

14372300 ROGUE RIVER NEAR AGNESS, OR--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	17.0	11.0	10.5	8.0	7.5	8.0	8.0	7.0	6.5	9.0	8.0
2	18.5	17.0	11.5	10.5	9.0	8.0	8.0	7.5	6.5	6.0	9.0	8.0
3	18.5	17.0	11.5	10.5	9.0	9.0	7.5	7.0	6.0	5.5	8.5	8.5
4	18.0	16.5	12.0	11.0	9.0	8.5	7.5	7.0	5.5	5.5	9.0	8.5
5	18.5	16.5	12.0	11.0	8.5	8.0	7.5	7.0	6.0	5.5	8.5	7.5
6	18.0	16.5	12.5	12.0	8.0	7.5	7.5	7.0	6.5	5.5	8.0	7.0
7	18.0	16.5	13.0	12.0	7.5	6.5	7.0	6.5	6.5	5.5	8.5	7.5
8	18.0	16.5	12.5	12.0	6.5	6.0	7.0	6.5	6.5	6.0	9.5	8.0
9	17.5	16.0	12.0	11.5	6.0	5.5	7.0	7.0	6.5	5.5	10.0	8.0
10	16.5	15.5	11.5	10.0	5.5	5.0	7.5	7.0	6.0	5.5	10.5	9.0
11	15.5	15.0	10.0	9.5	5.5	5.0	7.0	6.5	6.5	5.5	11.0	9.5
12	15.5	14.5	9.5	9.0	5.0	4.5	7.0	6.5	7.5	6.0	11.0	10.0
13	14.5	13.5	9.0	8.0	5.0	4.5	7.0	6.0	8.0	7.0	11.0	10.0
14	14.0	13.0	8.0	7.5	5.0	4.5	6.0	5.5	9.0	8.0	11.5	10.5
15	13.0	12.0	8.0	7.0	5.0	4.5	6.0	5.5	9.5	9.0	10.5	10.0
16	13.5	12.0	7.5	7.0	5.0	4.5	6.0	5.5	9.5	9.0	11.0	9.5
17	13.0	11.5	8.0	7.0	5.5	5.0	6.5	5.5	9.0	8.5	10.0	9.0
18	13.0	11.5	8.0	7.0	6.0	5.5	7.0	6.0	9.0	8.5	9.5	9.5
19	12.5	11.5	8.5	7.5	6.5	6.0	7.5	7.0	9.5	8.5	10.0	9.0
20	12.5	11.5	8.5	7.5	6.5	6.0	8.0	7.5	9.0	8.0	10.5	9.0
21	13.0	11.5	9.0	7.5	8.0	6.5	9.0	8.0	8.5	8.0	10.0	10.0
22	12.5	11.0	9.5	9.0	8.0	7.5	9.0	8.5	8.5	7.5	11.0	10.0
23	12.0	11.0	9.5	9.0	8.5	8.0	9.0	8.5	8.5	8.0	11.5	10.0
24	11.5	11.0	9.0	8.5	9.0	8.0	9.0	8.0	8.5	8.0	11.0	10.5
25	11.5	11.0	9.0	8.5	9.5	9.0	8.0	7.5	8.5	8.0	11.0	10.0
26	11.0	10.5	8.5	8.0	9.5	9.5	8.0	7.5	8.5	8.0	10.0	10.0
27	12.0	10.5	8.5	8.0	9.5	9.0	8.0	7.5	8.5	8.0	11.0	9.5
28	12.0	10.5	8.5	8.0	9.5	8.5	8.0	7.5	8.5	8.0	12.0	10.0
29	11.5	10.5	8.5	8.0	8.5	8.0	8.0	7.0	---	---	11.0	10.5
30	11.0	10.5	8.0	7.5	8.5	8.0	7.5	7.0	---	---	10.5	10.0
31	11.0	10.0	---	---	8.5	8.0	7.0	6.5	---	---	10.0	9.0
MONTH	18.5	10.0	13.0	7.0	9.5	4.5	9.0	5.5	9.5	5.5	12.0	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	8.5	20.0	---	20.5	18.5	23.0	19.5	22.5	20.0	20.5	18.0
2	9.5	8.5	18.0	16.5	21.0	18.5	24.0	20.5	22.0	20.0	21.0	18.0
3	10.5	9.0	16.5	15.0	21.5	18.5	25.0	21.0	22.0	19.5	20.5	18.0
4	11.0	9.0	15.5	14.5	22.5	19.0	25.0	22.0	---	20.0	20.5	18.0
5	11.0	9.5	14.5	13.5	21.5	20.0	25.0	22.5	---	---	20.5	17.5
6	11.5	---	15.5	13.0	22.0	20.0	22.5	21.0	23.0	21.5	20.0	17.5
7	11.0	9.0	15.5	13.5	20.5	19.5	21.5	19.5	24.0	21.0	20.5	17.5
8	11.0	10.0	15.0	13.5	20.0	18.5	20.5	18.0	24.5	22.0	20.0	17.0
9	11.5	10.5	17.0	14.0	19.0	17.5	20.5	18.5	25.0	22.5	20.5	17.5
10	11.5	10.0	17.5	14.0	18.5	17.0	21.0	18.0	25.0	22.5	20.5	17.5
11	10.5	10.0	18.5	15.5	18.5	16.5	21.0	18.5	24.5	22.0	20.0	18.0
12	10.5	9.5	18.5	15.5	18.5	16.5	21.5	19.0	24.0	22.0	18.5	17.0
13	11.5	9.5	19.0	16.0	17.5	16.5	22.0	19.0	24.0	21.5	18.0	16.5
14	13.0	10.5	18.5	16.5	18.5	16.0	22.0	19.5	23.5	21.0	18.0	16.0
15	12.5	12.0	17.0	15.5	19.5	17.0	23.0	20.0	23.0	21.0	18.0	16.5
16	14.0	12.0	17.5	15.0	19.5	17.5	23.5	20.5	23.0	21.0	18.0	16.5
17	15.0	13.0	16.5	15.5	20.5	17.5	24.0	21.0	22.5	20.5	18.0	16.5
18	16.0	13.5	16.5	15.5	19.5	18.5	24.0	21.0	22.5	20.5	17.0	16.0
19	14.5	14.0	16.0	14.5	21.5	18.0	24.0	21.5	21.0	20.0	17.5	16.0
20	15.5	13.5	16.5	14.5	22.0	19.0	24.0	21.5	21.5	19.5	16.0	15.5
21	15.0	14.0	16.0	14.5	23.0	20.0	24.0	21.5	21.0	19.0	16.0	15.0
22	---	---	15.5	14.5	22.5	20.0	23.5	21.0	21.5	19.0	16.0	14.5
23	---	---	17.0	15.0	22.5	19.5	23.5	20.5	21.5	19.0	16.0	14.0
24	---	---	17.0	16.0	23.0	19.5	23.0	20.5	21.0	19.5	15.5	14.5
25	---	---	18.5	17.0	23.5	20.0	23.0	20.5	21.5	18.0	15.5	14.5
26	---	---	20.0	17.5	23.0	20.5	23.5	20.5	21.0	18.0	15.0	14.5
27	---	---	19.5	17.5	22.5	20.0	24.0	21.0	21.0	18.0	15.0	14.5
28	---	---	19.5	17.5	23.0	19.5	24.5	21.5	20.5	18.0	15.5	14.5
29	---	---	19.0	18.5	23.5	19.5	23.5	21.0	20.5	17.5	16.5	14.5
30	---	---	20.0	18.5	22.5	20.0	23.0	20.5	20.0	18.0	15.5	14.0
31	---	---	20.5	18.0	---	---	23.0	20.0	20.5	17.5	---	---
MONTH	16.0	8.5	20.5	13.0	23.5	16.0	25.0	18.0	25.0	17.5	21.0	14.0

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, Skskiyou National Forest, on right bank 0.3 mi (0.5 km) downstream from Dunn Creek (California-Oregon State line), 3.4 mi (5.5 km) south of Takilma, and at mile 71.2 (114.6 km).

DRAINAGE AREA.--42.3 mi² (109.6 km²).

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. Altitude of gage is 1,780 ft (543 m), from topographic map. Prior to Oct. 31, 1946, nonrecording gage at sites 0.6 mi (1.0 km) 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 (1.0 km) downstream at datum 1,746.6 ft (532.36 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Two small diversions for irrigation above station.

AVERAGE DISCHARGE.--40 years (water years 1942-81), 176 ft³/s (4.984 m³/s), 56.50 in/yr (1,435 mm/yr), 127,500 acre-ft/yr (157 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s (445 m³/s) Dec. 22, 1964, gage height, 14.90 ft (4.542 m), present site and datum, from floodmark, from rating curve extended above 4,400 ft³/s (125 m³/s) on basis of slope-area measurement of peak flow; minimum, 4.6 ft³/s (0.13 m³/s) Nov. 3, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft³/s (70.8 m³/s) and maximum discharge, 3,670 ft³/s (104 m³/s) Dec. 2, gage height, 8.15 ft (2.484 m); minimum, 7.6 ft³/s (0.22 m³/s) Sept. 12-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	25	133	136	150	145	231	79	36	19	11	9.2
2	9.5	26	2560	114	133	138	214	71	34	19	11	8.9
3	8.9	21	1380	105	120	133	195	67	33	18	11	9.2
4	8.9	19	876	93	110	167	178	63	31	17	11	8.9
5	8.9	18	402	83	108	155	173	60	31	18	11	8.9
6	8.9	18	280	76	99	148	167	57	30	18	11	8.9
7	8.6	135	202	71	93	143	153	54	35	18	10	8.6
8	8.9	79	153	67	88	136	141	53	48	17	10	8.2
9	9.2	62	125	63	85	127	136	52	43	16	9.6	8.2
10	9.2	50	107	60	79	120	125	48	37	16	9.2	8.2
11	10	39	96	56	85	114	118	47	35	16	9.2	8.2
12	27	34	91	54	93	112	118	45	35	16	9.2	7.9
13	27	30	85	51	467	112	114	44	40	16	8.9	7.9
14	44	29	81	49	1060	108	114	43	42	15	8.9	7.9
15	27	28	103	47	474	148	118	45	37	15	8.9	7.9
16	21	27	133	47	740	169	114	44	35	14	8.9	7.6
17	19	25	120	51	606	153	118	47	34	14	8.6	7.9
18	18	24	105	46	412	138	127	57	32	14	8.6	8.2
19	17	23	91	51	503	131	158	54	31	13	8.9	8.9
20	16	23	82	51	449	129	133	49	29	13	9.2	8.9
21	16	44	127	64	331	131	122	46	27	13	9.2	8.9
22	16	121	225	635	262	155	122	44	26	13	9.2	8.9
23	15	70	202	530	225	145	125	43	25	12	8.9	8.9
24	16	56	222	349	211	136	118	44	24	12	9.2	8.9
25	18	47	713	252	190	234	103	56	23	12	9.6	8.9
26	17	42	415	241	178	293	98	51	22	12	9.6	12
27	17	38	445	392	167	280	90	46	22	12	9.6	34
28	16	35	367	355	158	243	83	42	21	12	9.2	20
29	16	46	260	275	---	265	87	40	20	11	9.2	14
30	15	70	200	216	---	257	87	38	20	12	8.9	12
31	15	---	162	176	---	245	---	37	---	11	9.2	---
TOTAL	493.5	1304	10543	4856	7676	5110	3980	1566	938	454	295.9	305.0
MEAN	15.9	43.5	340	157	274	165	133	50.5	31.3	14.6	9.55	10.2
MAX	44	135	2560	635	1060	293	231	79	48	19	11	34
MIN	8.6	18	81	46	79	108	83	37	20	11	8.6	7.6
CFSM	.38	1.03	8.04	3.71	6.48	3.90	3.14	1.19	.74	.35	.23	.24
IN.	.43	1.15	9.27	4.27	6.75	4.49	3.50	1.38	.82	.40	.26	.27
AC-FT	979	2590	20910	9630	15230	10140	7890	3110	1860	901	587	605

CAL YR 1980	TOTAL	54323.1	MEAN 148	MAX 2560	MIN 8.6	CFSM 3.50	IN 47.77	AC-FT 107700			
WTR YR 1981	TOTAL	37521.4	MEAN 103	MAX 2560	MIN 7.6	CFSM 2.44	IN 33.00	AC-FT 74420			

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 (152 m) downstream from Little Grayback Creek, 2.0 mi (3.2 km) downstream from Grayback Creek, 3.7 mi (6.0 km) northeast of Holland, and at mile 9.3 (15.0 km).

DRAINAGE AREA.--83.9 mi² (217.3 km²).

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

GAGE.--Water-stage recorder. Datum of gage is 1,713.92 ft (522.403 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--Records good. Grayback Canal and 3 small diversions from Grayback and Cave Creeks divert water for domestic use and irrigation above station. Return flow from these diversions enters creek above station.

AVERAGE DISCHARGE.--16 years, 228 ft³/s (6.457 m³/s), 36.90 in/yr (937 mm/yr), 165,200 acre-ft/yr (204 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft³/s (242 m³/s) Jan. 15, 1974, gage height, 8.20 ft (2.499 m); minimum, 12 ft³/s (0.34 m³/s) Oct. 20, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1940, 10.8 ft (3.292 m) on Dec. 22, 1964, from floodmark, discharge, 19,300 ft³/s (547 m³/s), from estimate based on slope-area measurement of peak flow at site 0.7 mi (1.1 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum discharge, 2,110 ft³/s (59.8 m³/s) Dec. 2, gage height, 4.67 ft (1.423 m); minimum, 15 ft³/s (0.42 m³/s) Sept. 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	36	54	156	138	195	231	150	76	45	28	20
2	26	32	1450	138	128	184	231	138	76	43	28	21
3	25	26	910	132	122	178	223	133	72	42	28	20
4	25	25	709	119	112	201	212	127	69	41	28	20
5	25	24	359	109	115	184	209	124	69	42	28	20
6	24	25	245	101	109	178	198	119	69	43	27	19
7	24	92	182	95	101	175	188	113	72	43	25	18
8	24	41	149	89	98	168	181	111	91	41	25	17
9	25	38	125	84	95	162	178	111	78	38	24	17
10	25	31	109	79	89	156	168	103	72	37	22	17
11	27	24	101	74	95	153	165	101	67	40	22	17
12	60	22	95	71	95	153	159	98	67	38	22	16
13	43	20	89	67	229	153	156	96	74	38	22	16
14	58	22	84	64	709	147	153	94	72	37	22	16
15	35	20	92	64	400	156	153	98	64	36	21	16
16	29	20	103	64	551	159	150	94	62	35	21	16
17	27	20	95	69	527	153	150	96	60	36	21	16
18	25	19	89	62	420	150	153	113	58	33	21	17
19	25	19	81	69	521	150	205	111	58	33	21	20
20	24	18	79	64	469	153	175	101	56	33	24	20
21	23	27	115	76	389	150	171	94	55	32	22	19
22	23	71	128	249	327	159	171	91	53	32	21	19
23	23	39	112	267	287	153	178	89	53	31	21	19
24	24	35	149	221	274	150	171	98	51	31	21	19
25	30	29	522	182	242	198	165	124	50	31	22	19
26	27	25	359	168	231	223	168	103	50	31	21	25
27	26	23	364	225	216	234	159	96	48	30	21	58
28	25	23	309	233	205	223	156	89	47	28	21	36
29	23	31	249	205	---	238	159	84	47	28	20	28
30	23	44	209	173	---	227	159	82	45	30	20	25
31	23	---	177	153	---	231	---	78	---	28	21	---
TOTAL	872	921	7893	3922	7294	5494	5295	3259	1881	1106	711	626
MEAN	28.1	30.7	255	127	261	177	177	105	62.7	35.7	22.9	20.9
MAX	60	92	1450	267	709	238	231	150	91	45	28	58
MIN	23	18	54	62	89	147	150	78	45	28	20	16
CFSM	.34	.37	3.04	1.51	3.11	2.11	2.11	1.25	.75	.43	.27	.25
IN.	.39	.41	3.50	1.74	3.23	2.44	2.35	1.44	.83	.49	.32	.28
AC-FT	1730	1830	15660	7780	14470	10900	10500	6460	3730	2190	1410	1240

CAL YR 1980	TOTAL 77482	MEAN 212	MAX 2360	MIN 18	CFSM 2.53	IN 34.35	AC-FT 153700			
WTR YR 1981	TOTAL 39274	MEAN 108	MAX 1450	MIN 16	CFSM 1.29	IN 17.41	AC-FT 77900			

14375500 WEST FORK ILLINOIS RIVER BELOW ROCK CREEK, NEAR O'BRIEN, OR

LOCATION.--Lat 42°02'20", long 123°44'50", in SW¼SE¼ sec.34, T.40 S., R.9 W., Josephine County, Hydrologic Unit 17100311, Siskiyou National Forest, on left bank 0.2 mi (0.3 km) downstream from Rock Creek, 3.0 mi (4.8 km) southwest of O'Brien, and at mile 12.8 (20.6 km).

DRAINAGE AREA.--42.4 mi^2 (109.8 km^2).

PERIOD OF RECORD.--September 1954 to current year.

REVISED RECORDS.--WDR OR-80-2: 1979.

GAGE.--Water-stage recorder. Datum of gage is 1,516.14 ft (462.119 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Three small diversions from Elk Creek for irrigation above station.

AVERAGE DISCHARGE.--27 years, 210 ft^3/s (5.947 m^3/s), 67.26 in/yr (1,708 mm/yr), 152,100 acre-ft/yr (188 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s (456 m^3/s) Dec. 22, 1964, gage height, 16.05 ft (4.892 m), from rating curve extended above 6,200 ft^3/s (176 m^3/s), on basis of slope-area measurement at gage height 14.79 ft (4.508 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Sept. 2-4, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,500 ft^3/s (70.8 m^3/s) and maximum discharge, 4,350 ft^3/s (123 m^3/s) Dec. 2, gage height, 10.27 ft (3.130 m); minimum, 3.4 ft^3/s (0.096 m^3/s) Oct. 9, Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	38	415	168	201	163	307	54	31	14	5.0	4.2
2	4.2	38	3520	143	173	139	285	52	30	13	5.5	4.2
3	4.0	22	1470	131	150	129	237	50	28	13	5.5	4.4
4	3.7	18	1100	115	131	228	197	49	26	12	5.5	4.4
5	3.7	15	675	105	133	221	165	47	25	12	5.5	4.4
6	3.7	17	555	98	129	193	141	45	25	13	5.0	4.2
7	3.9	648	358	88	118	165	124	44	30	13	4.6	3.9
8	3.7	400	254	85	110	141	111	43	53	12	4.3	3.9
9	3.7	272	197	79	103	124	106	42	49	11	4.2	3.7
10	4.0	187	161	74	94	110	96	39	42	11	4.6	3.7
11	5.2	111	137	70	94	98	115	38	37	11	3.7	3.9
12	20	79	124	66	86	89	232	37	36	11	3.7	3.9
13	26	63	111	64	392	83	189	35	44	10	4.6	3.7
14	50	53	99	61	972	79	156	34	47	9.5	4.4	3.6
15	21	47	94	59	507	137	133	38	40	9.2	4.6	4.0
16	13	43	108	58	785	223	116	37	36	8.9	3.7	3.7
17	11	38	113	57	683	175	108	40	33	8.6	3.7	3.7
18	9.8	35	105	53	439	145	98	71	29	8.3	3.7	3.9
19	9.5	32	94	60	626	129	106	61	28	8.0	4.2	4.6
20	9.5	30	88	60	563	127	96	51	25	7.6	4.6	5.2
21	9.2	65	177	73	394	141	89	45	23	7.3	4.8	5.2
22	9.2	335	377	698	305	210	83	42	22	6.3	4.6	5.2
23	9.2	201	305	581	257	187	77	40	21	6.3	4.4	5.2
24	10	152	424	358	270	156	73	40	20	6.3	4.8	5.5
25	12	115	1300	267	230	315	71	59	18	6.3	5.5	5.5
26	11	89	581	305	208	581	76	54	17	6.0	5.0	11
27	13	73	611	596	206	427	68	46	16	5.8	4.8	40
28	12	63	477	555	189	305	64	42	15	5.5	4.8	27
29	11	122	330	421	---	299	60	38	15	5.5	4.0	18
30	11	221	249	315	---	310	57	36	14	5.2	4.6	15
31	10	---	203	244	---	294	---	33	---	5.2	4.4	---
TOTAL	331.4	3622	14812	6107	8548	6123	3836	1382	875	281.8	142.3	218.8
MEAN	10.7	121	478	197	305	198	128	44.6	29.2	9.09	4.59	7.29
MAX	50	648	3520	698	972	581	307	71	53	14	5.5	40
MIN	3.7	15	88	53	86	79	57	33	14	5.2	3.7	3.6
CFSM	.25	2.85	11.3	4.65	7.19	4.67	3.02	1.05	.69	.21	.11	.17
IN.	.29	3.18	13.00	5.36	7.50	5.37	3.37	1.21	.77	.25	.12	.19
AC-FT	657	7180	29380	12110	16950	12140	7610	2740	1740	559	282	434

CAL YR 1980 TOTAL 66082.2 MEAN 181 MAX 3670 MIN 3.7 CFSM 4.27 IN 57.98 AC-FT 131100
WTR YR 1981 TOTAL 46279.3 MEAN 127 MAX 3520 MIN 3.6 CFSM 3.00 IN 40.60 AC-FT 91790

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 (2.6 km) upstream from Josephine Creek, 2.5 mi (4.0 km) northwest of Kerby, and at mile 50.3 (80.9 km).

DRAINAGE AREA.--380 mi² (984 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,198.8 ft (365.175 m) 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 (213 m) downstream at datum 2.99 ft (0.911 m) lower.

REMARKS.--Records good. No regulation. Diversions for irrigation above station.

AVERAGE DISCHARGE.--20 years, 1,261 ft³/s (35.71 m³/s), 45.06 in/yr (1,145 mm/yr), 913,600 acre-ft/yr (1.13 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,200 ft³/s (2,610 m³/s) Dec. 22, 1964, gage height, 45.28 ft (13.801 m), from floodmark, site and datum then in use, from rating curve extended above 30,000 ft³/s (850 m³/s) on basis of slope-area measurement of peak flow; minimum, 14 ft³/s (0.40 m³/s) Aug. 11, 13, 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 11,000 ft³/s (312 m³/s) and maximum discharge, 23,800 ft³/s (674 m³/s) Dec. 2, gage height, 24.16 ft (7.364 m); minimum, 20 ft³/s (0.57 m³/s) Aug. 19, Sept. 10, 11, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	104	1010	1130	1210	1190	1850	481	234	63	32	24
2	32	163	17900	972	1040	1080	1730	455	223	63	31	22
3	31	148	9090	892	935	999	1540	433	194	62	31	22
4	32	125	7670	816	854	1410	1330	417	182	59	32	23
5	33	115	4160	723	831	1350	1190	396	164	59	30	25
6	34	114	3150	640	809	1210	1090	373	156	62	30	30
7	31	1520	2180	594	731	1100	996	353	159	62	30	23
8	28	1870	1620	546	680	1010	925	337	219	59	29	22
9	28	1200	1260	508	640	942	892	323	309	55	26	21
10	31	852	1050	468	594	883	838	309	263	57	23	21
11	37	576	935	433	575	841	831	298	234	55	23	21
12	59	430	863	402	568	806	1130	286	221	50	23	21
13	86	342	800	373	1470	792	1050	278	223	49	24	22
14	144	295	719	350	6050	755	952	271	240	47	24	22
15	175	266	684	332	3480	896	896	273	226	45	25	22
16	126	242	788	328	4190	1380	831	273	208	44	27	22
17	110	225	806	330	4430	1170	783	267	192	43	25	22
18	102	208	743	314	2950	1020	747	316	175	43	27	22
19	99	200	668	311	3730	965	863	353	164	42	21	21
20	95	187	609	335	3510	1030	806	323	150	41	22	22
21	95	225	844	373	2580	992	735	298	140	40	24	23
22	90	1630	1960	2760	2080	1200	699	284	125	38	23	22
23	88	954	1660	3550	1850	1150	672	273	111	37	23	23
24	88	735	2090	2300	1760	1030	660	273	101	31	23	23
25	91	578	7760	1730	1540	1470	621	307	89	32	22	23
26	93	475	3900	1770	1520	2490	640	332	84	34	23	26
27	92	401	3610	2930	1430	2260	590	304	77	34	23	36
28	92	349	3030	3040	1320	1830	543	284	74	36	24	65
29	90	397	2180	2360	---	1780	529	269	65	31	24	66
30	88	810	1690	1830	---	1800	515	256	66	31	27	58
31	86	---	1370	1460	---	1720	---	248	---	31	28	---
TOTAL	2339	15736	86799	34900	53357	38551	27474	9943	5068	1435	799	815
MEAN	75.5	525	2800	1126	1906	1244	916	321	169	46.3	25.8	27.2
MAX	175	1870	17900	3550	6050	2490	1850	481	309	63	32	66
MIN	28	104	609	311	568	755	515	248	65	31	21	21
CFSM	.20	1.38	7.37	2.96	5.02	3.27	2.41	.85	.45	.12	.07	.07
IN.	.23	1.54	8.50	3.42	5.22	3.77	2.69	.97	.50	.14	.08	.08
AC-FT	4640	31210	172200	69220	105800	76470	54490	19720	10050	2850	1580	1620

CAL YR 1980 TOTAL 457700 MEAN 1251 MAX 19500 MIN 21 CFSM 3.29 IN 44.81 AC-FT 907800
WTR YR 1981 TOTAL 277216 MEAN 759 MAX 17900 MIN 21 CFSM 2.00 IN 27.14 AC-FT 549900

14378200 ILLINOIS RIVER NEAR AGNESS, OR

LOCATION.--Lat 42°31'15", long 124°02'35", in SW¼NW¼ sec.29, T.35 S., R.11 W., Curry County, Hydrologic Unit 17100311, on right bank 0.6 mi (1.0 km) downstream from Lawson Creek, 1.4 mi (2.3 km) upstream from Fox Creek, 2.8 mi (4.5 km) southeast of Agness, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--988 mi² (2,559 km²), at cable section 2.1 mi (3.4 km) downstream where all measurements are made.

PERIOD OF RECORD.--October 1960 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 125.86 ft (38.362 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No regulation. Many diversions above station for irrigation, mining, and logpond operation. Records include flow of Fox Creek. All records given herein are for measuring site.

AVERAGE DISCHARGE.--21 years, 4,094 ft³/s (115.9 m³/s), 56.27 in/yr (1,429 mm/yr), 2,966,000 acre-ft/yr (3.66 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225,000 ft³/s (6,370 m³/s) Dec. 22, 1964, estimated on basis of runoff ratio with station near Selma; maximum gage height, 56.91 ft (17.346 m) Dec. 22, 1964, from floodmark (backwater from Rogue River); minimum discharge, 125 ft³/s (3.54 m³/s) Sept. 14-16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35,000 ft³/s (991 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 2	1700	*102,000	2,890	*21.36	6.511	Dec. 25	0900	36,200	1,030	15.40	4.694

Minimum, 137 ft³/s (3.88 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	552	2770	3900	3920	4050	6200	1510	899	478	261	190
2	152	726	63000	3390	3400	3670	5740	1440	863	462	266	172
3	152	576	38800	3040	3050	3400	5180	1400	828	452	261	165
4	140	489	28900	2760	2770	3860	4610	1370	787	436	261	162
5	140	426	13600	2510	2720	3770	4190	1320	759	431	266	158
6	140	1020	9590	2310	2600	3420	3810	1280	746	416	266	162
7	140	7560	6970	2140	2380	3190	3450	1210	759	426	257	162
8	143	6370	5350	2020	2240	2940	3140	1200	1170	416	249	165
9	140	4280	4430	1900	2110	2730	3010	1180	1260	401	245	155
10	140	3160	3790	1800	2000	2540	2770	1130	1160	387	245	152
11	143	2110	3320	1700	1920	2410	2980	1080	1030	377	232	149
12	220	1590	3020	1620	1880	2270	3990	1050	965	372	228	149
13	489	1310	2800	1550	3880	2200	3940	1030	1040	357	224	143
14	1120	1140	2570	1490	14000	2120	3570	995	1070	352	224	143
15	674	1040	2450	1440	9180	2470	3340	1030	1000	342	224	143
16	484	935	2570	1400	9510	3850	3100	1040	935	338	220	143
17	382	870	2580	1410	11300	3450	2840	1030	877	328	220	143
18	328	807	2400	1370	7980	3100	2640	1490	828	323	220	149
19	305	766	2260	1360	8990	2880	2580	1360	800	323	220	172
20	283	726	2100	1400	9430	3000	2510	1260	759	314	224	165
21	274	1660	2780	2140	7390	3320	2290	1170	720	314	216	162
22	266	4850	5120	5660	5990	4320	2150	1100	694	301	216	158
23	257	3370	4690	8180	5120	4140	2040	1060	655	301	216	158
24	257	2470	6710	5490	5020	3690	1980	1060	643	296	212	158
25	257	2000	28600	4350	4490	5270	1890	1220	624	287	200	158
26	279	1680	14200	4350	4720	8390	1890	1210	588	279	190	179
27	314	1460	10600	7320	4740	7980	1800	1140	564	274	180	1180
28	301	1310	8940	8830	4410	6460	1700	1070	535	274	170	753
29	283	1630	6760	7040	---	6070	1620	1020	517	270	170	478
30	270	2140	5370	5490	---	5990	1570	973	495	270	170	367
31	257	---	4520	4560	---	5880	---	928	---	266	180	---
TOTAL	8885	59023	301560	103920	147140	122830	92520	36356	24570	10863	6933	6893
MEAN	287	1967	9728	3352	5255	3962	3084	1173	819	350	224	230
MAX	1120	7560	63000	8830	14000	8390	6200	1510	1260	478	266	1180
MIN	140	426	2100	1360	1880	2120	1570	928	495	266	170	143
CFSM	.29	1.99	9.85	3.39	5.32	4.01	3.12	1.19	.83	.35	.23	.23
IN.	.33	2.22	11.35	3.91	5.54	4.62	3.48	1.37	.93	.41	.26	.26
AC-FT	17620	117100	598100	206100	291900	243600	183500	72110	48730	21550	13750	13670

CAL YR 1980	TOTAL	1396813	MEAN	3816	MAX	68900	MIN	140	CFSM	3.86	IN 52.59	AC-FT	2771000
WTR YR 1981	TOTAL	921493	MEAN	2525	MAX	63000	MIN	140	CFSM	2.56	IN 34.70	AC-FT	1828000

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 (5 m) upstream from bridge, 0.5 mi (0.8 km) upstream from Elk Creek, 6.8 mi (10.9 km) northeast of Brookings, and at mile 10.7 (17.2 km).

DRAINAGE AREA.--271 mi² (702 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 50 ft (15 m), from topographic map.

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

AVERAGE DISCHARGE.--12 years, 2,188 ft³/s (61.96 m³/s), 109.64 in/yr (2,785 mm/yr), 1,585,000 acre-ft/yr (1.95 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,800 ft³/s (1,860 m³/s) Jan. 16, 1971, gage height, 27.45 ft (8.367 m); minimum, 45 ft³/s (1.27 m³/s) Oct. 21-23, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 32.25 ft (9.830 m), from high-water mark on bridge pier, discharge, 85,400 ft³/s (2,420 m³/s), from rating curve extended above 45,000 ft³/s (1,270 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20,000 ft³/s (566 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 7	1030	23,300	660	14.56	4.438
Dec. 2	1530	*53,800	1,520	*23.56	7.181
Dec. 25	0800	28,700	813	16.46	5.017

Minimum, 54 ft³/s (1.53 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	430	3370	2650	2270	2270	3740	633	600	316	124	92
2	62	807	38200	2240	1960	1980	3400	600	568	297	129	90
3	60	463	26600	2040	1720	1810	2950	568	526	284	129	90
4	58	316	18100	1800	1540	2190	2540	556	496	275	127	88
5	57	246	10300	1630	1520	1910	2230	526	474	267	124	88
6	57	1170	7510	1510	1370	1650	1980	508	457	258	122	86
7	56	14400	5720	1400	1250	1520	1760	479	594	258	119	84
8	57	8950	4500	1340	1170	1350	1590	485	1720	246	117	83
9	56	5910	3690	1280	1110	1240	1510	479	2090	234	114	83
10	54	3830	3100	1200	1040	1150	1380	436	1430	227	110	83
11	58	2440	2670	1140	1010	1070	1680	415	1140	219	108	83
12	184	1730	2370	1080	996	996	2820	399	1000	212	106	81
13	457	1330	2120	1040	2690	925	2590	380	1020	208	106	79
14	941	1090	1910	996	8920	865	2230	370	1010	201	106	79
15	514	902	1770	956	5040	1180	2050	425	910	194	106	79
16	254	772	1770	925	7490	2270	1880	410	821	188	104	77
17	171	673	1680	925	7620	1810	1650	502	745	181	102	79
18	134	594	1530	880	5200	1530	1500	1680	685	181	100	81
19	117	532	1400	910	6740	1380	1420	1340	646	174	102	92
20	106	474	1360	918	5910	1370	1290	980	600	168	104	88
21	98	1960	2250	1390	4240	1610	1180	800	556	165	102	86
22	92	7510	6230	4280	3270	2910	1090	705	520	159	102	84
23	86	3880	4460	4390	2740	2730	1010	653	491	153	98	83
24	94	2850	6540	3020	2740	2290	956	712	463	151	104	81
25	119	2150	22800	2390	2340	4790	895	1190	436	148	104	79
26	134	1710	11000	2990	2770	6580	872	1180	410	145	102	129
27	191	1420	9260	5650	3020	5260	800	964	385	137	100	1680
28	174	1210	7110	6000	2650	3980	752	843	365	137	96	1280
29	151	2090	5000	4410	---	3660	718	759	345	132	94	646
30	129	3140	3880	3380	---	3320	679	698	330	129	94	360
31	117	---	3170	2730	---	3340	---	646	---	127	92	---
TOTAL	4903	74979	221370	67490	90336	70936	51142	21321	21833	6171	3347	6193
MEAN	158	2499	7141	2177	3226	2288	1705	688	728	199	108	206
MAX	941	14400	38200	6000	8920	6580	3740	1680	2090	316	129	1680
MIN	54	246	1360	880	996	865	679	370	330	127	92	77
CFSM	.58	9.22	26.4	8.03	11.9	8.44	6.29	2.54	2.69	.73	.40	.76
IN.	.67	10.29	30.39	9.26	12.40	9.74	7.02	2.93	3.00	.85	.46	.85
AC-FT	9730	148700	439100	133900	179200	140700	101400	42290	43310	12240	6640	12280

CAL YR 1980	TOTAL	801751	MEAN	2191	MAX	38200	MIN 54	CFSM 8.09	IN 110.06	AC-FT	1590000	
WTR YR 1981	TOTAL	640021	MEAN	1753	MAX	38200	MIN 54	CFSM 6.47	IN 87.85	AC-FT	1269000	

Discharge at ungaged sites

Monthly records for the following sites have been computed by routing methods described in USGS Circular 550. Circular 550 contains monthly records for these sites for water years 1928-65, including monthly flows adjusted for major upstream storage. Figures given here represent unadjusted flows, and are rated fair. Adjusted records are available from the district office, Portland, Oregon.

14144700 COLUMBIA RIVER AT VANCOUVER, WA.--Lat 45°37'15", long 122°40'20", in NE¼NW¼ sec.34, T.2 N., R.1 E., Clark County, Hydrologic Unit 17080001, 5.0 mi (8.0 km) upstream from Willamette River, and at mile 106.5 (171.4 km). Drainage area, 241,000 mi² (624,200 km²), approximately. Records available, monthly discharge October 1927 to current year. Daily discharge for October 1963 to September 1969, published in annual data reports for Oregon, 1965-67, 1969.

14222870 COLUMBIA RIVER AT SAINT HELENS, OR.--Lat 45°51'58", long 122°47'00", Columbia County, Hydrologic Unit 17080003, center of channel at intersection of Township (4/5N) line and Oregon-Washington boundary, 0.6 mi (1.0 km) east of Saint Helens and at mile 86.0 (138.3 km). Drainage area, 253,900 mi² (657,600 km²), approximately. Records available, monthly discharge October 1927 to current year.

14245300 COLUMBIA RIVER AT LONGVIEW, WA.--Lat 46°06'22", long 122°57'14", Cowlitz County, Hydrologic Unit 17080003, at Longview Bridge, 1.0 mi (1.6 km) south of Longview, 2.0 mi (3.2 km) downstream from Cowlitz River, and at mile 66.0 (106.2 km). Drainage area, 256,700 mi² (664,900 km²), approximately. Records available, monthly discharge October 1927 to current year.

14280000 COLUMBIA RIVER AT MOUTH, NEAR ASTORIA, OR.--Lat 46°15', long 124°05', Clatsop County, Hydrologic Unit 17080006, center of channel at river mouth, due north from original end of south jetty, 12.3 mi (19.8 km) northwest of Astoria, and at mile 0. Drainage area, 258,000 mi² (668,200 km²), approximately. Records available, monthly discharge October 1927 to current year.

MONTHLY AND ANNUAL MEAN DISCHARGE IN CUBIC FEET PER SECOND

WATER YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	ANNUAL
						14144700 COLUMBIA RIVER AT VANCOUVER, WA							
1981	108,700	139,800	201,000	224,600	226,300	169,000	171,100	242,300	381,200	235,600	168,800	119,100	198,600
						14222870 COLUMBIA RIVER AT SAINT HELENS, OR							
1981	121,500	171,600	304,400	264,300	280,900	196,200	212,200	265,400	414,500	247,200	178,800	134,100	232,100
						14245300 COLUMBIA RIVER AT LONGVIEW, WA							
1981	128,500	185,400	331,700	278,600	299,800	204,500	223,600	274,400	428,900	251,700	181,300	137,600	243,300
						14280000 COLUMBIA RIVER AT MOUTH, NEAR ASTORIA, OR							
1981	129,300	194,400	344,200	286,200	314,100	209,400	232,500	271,000	441,000	254,600	184,100	139,900	249,800

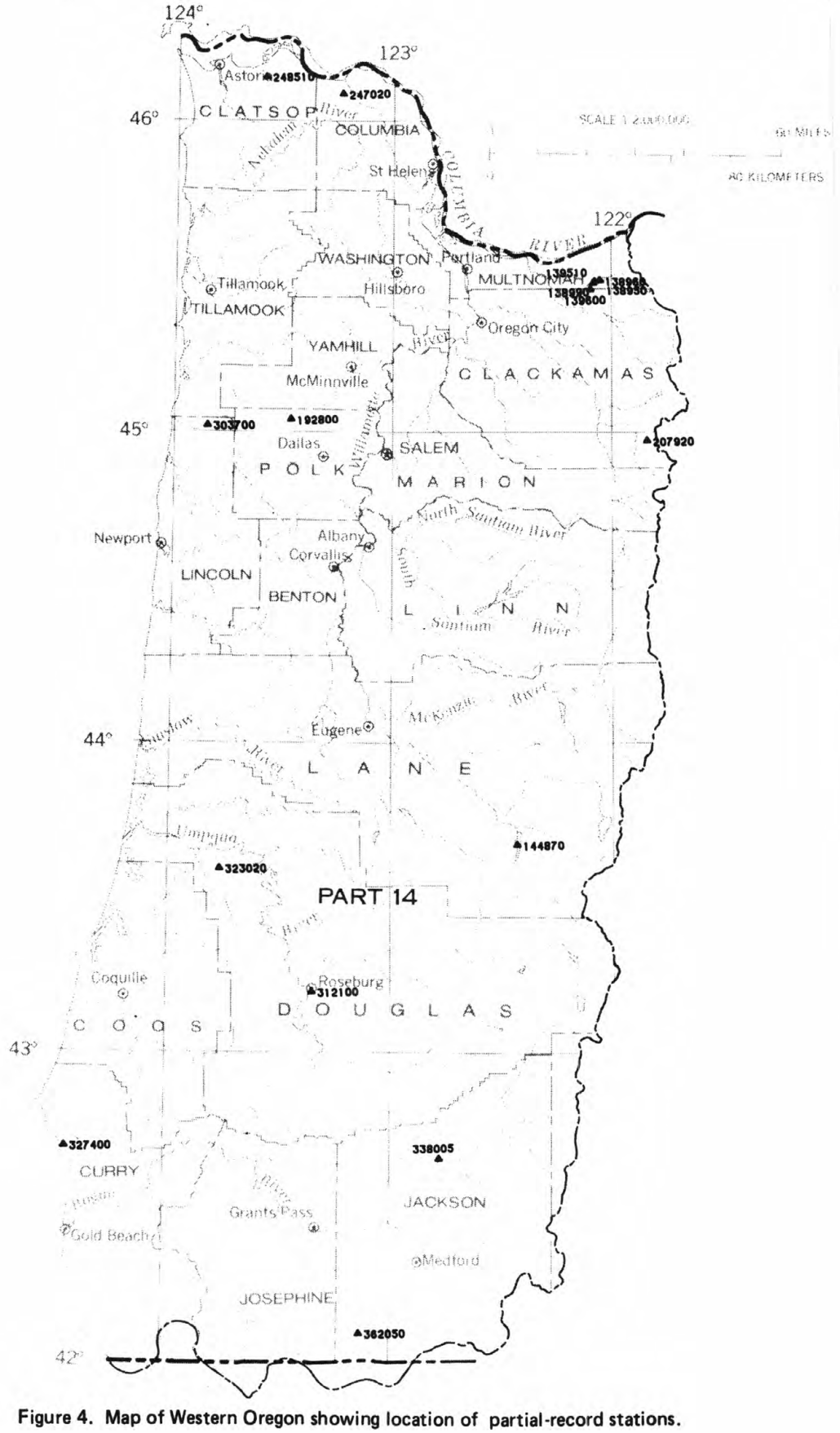


Figure 4. Map of Western Oregon showing location of partial-record stations.

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^2)	Period of record	Annual maximum Date	Gage height (ft)	Discharge (ft^3/s)
		SANDY RIVER BASIN					
14138950	DEER CREEK NEAR BULL RUN, OR	Lat 45°29'31", long 122°03'27", in SE¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.6 miles northeast of Bull Run.	1.62	1978-81	12-25-80	2.18	275
14138960	COUGAR CREEK NEAR BULL RUN, OR	Lat 45°29'28", long 122°03'40", in SW¼SW¼ sec.10, T.1 S., R.6 E., Multnomah County, at culvert on Forest Service road S10, 300 ft upstream from Bull Run Reservoir Number One, and 9.4 miles northeast of Bull Run.	3.06	1978-81	12-25-80	4.04	338
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, at culvert on Forest Service road S10, 400 ft upstream from Bull Run Reservoir Number One, and 8.3 miles northeast of Bull Run.	1.68	1978-81	12-25-80	2.70	121
14139510	FIVEMILE CREEK NEAR BULL RUN, OR	Lat 45°28'57", long 122°05'25", in SW¼NE¼ sec.17, T.1 S., R.6 E., Multnomah County, at culvert on Forest Service road S10, 800 ft upstream from Bull Run Reservoir Number Two, and 7.9 miles northeast of Bull Run.	.79	1978-81	12-25-80	3.01	91
14139600	CAMP CREEK NEAR BULL RUN, OR	Lat 45°27'41", long 122°06'13", in SW¼SW¼ sec.20, T.1 S., R.6 E., Multnomah County, 15 ft downstream from falls at confluence with West Branch of Camp Creek, 0.3 miles upstream from Bull Run Reservoir Number Two, and 6.6 miles northeast of Bull Run.	3.27	1978-81	12-25-80	3.81	403
		WILLAMETTE RIVER BASIN					
14144870	MIDDLE FORK WILLAMETTE RIVER TRIBUTARY NEAR OAKRIDGE, OR	Lat 43°40'20", long 122°26'00", in SW¼ sec.10, T.22 S., R.3 E., Lane County, at culvert on Rigdon Road, 400 ft upstream from flow line of Hills Creek Reservoir, and 5.0 miles south of Oakridge.	.50	1960-81	12- 2-80	16.16	37
14192800	SOUTH YAMHILL RIVER TRIBUTARY NEAR WILLAMINA, OR	Lat 45°02'38", long 123°28'20", in SW¼ sec.18, T.6 S., R.6 W., Polk County, at culvert on State Highway 22, 2.2 miles upstream from mouth, and 2.5 miles south of Willamina.	1.81	1954-81	12-25-80	10.53	135
14207920	POOP CREEK NEAR BIG BOTTOM, OR	Lat 44°58'35", long 121°50'35", in SW¼ sec.9 (unsurveyed), T.7 S., R.8 E., Clackamas County, in Mt. Hood National Forest, at mouth, and 3 miles southeast of Big Bottom.	1.74	1966-81	12-25-80	11.93	7.8
		CLATSKANIE RIVER BASIN					
14247020	FALL CREEK NEAR CLATSKANIE, OR	Lat 46°05'47", long 123°14'56", in NW¼ sec.13, T.7 N., R.5 W., Columbia County, at culvert on private road, 100 feet south of State Highway 47, 2.5 miles west of Clatskanie.	2.07	1972-81	12-25-80	10.53	104
		BIG CREEK BASIN					
14248510	LITTLE CREEK NEAR KNAPPA, OR	Lat 46°08'44", long 123°36'16", in SW¼ sec.30, T.8 N., R.7 W., Clatsop County, at culvert on Hillcrest Road, 3 miles south of Knappa.	1.53	1972-81	12-25-80	10.37	40
		SALMON RIVER BASIN					
14303700	ALDER BROOK NEAR ROSE LODGE, OR	Lat 45°01'20", long 123°51'10", in SE¼ sec.25, T.6 S., R.10 W., Lincoln County, at culvert on State Highway 18, 0.1 mile upstream from mouth, and 1.5 miles northeast of Rose Lodge.	1.09	1954-81	12-25-80	10.99	58

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (ft)	Annual maximum Discharge (ft^3/s)
		UMPQUA RIVER BASIN					
14312100	PARROTT CREEK AT ROSEBURG, OR	Lat 43°11'45", long 123°20'50", in NE¼ sec.25, T.27 S., R.6 W., Douglas County, at culvert on Starmer Street between Marsters and Booth Streets in Roseburg, 0.5 mile upstream from mouth.	2.42	1952-81	12- 3-80	13.63	202
14323020	BUCK CREEK TRIBUTARY NEAR SCOTTSBURG, OR (Station discontinued)	Lat 43°35'30", long 123°46'00", in NE¼NE¼ sec.9, T.23 S., R.9 W., Douglas County, at culvert on Buck Creek road, at mouth, and 5 miles south of Scottsburg.	-	1971-81	12-25-80	9.19	12
		BRUSH CREEK BASIN					
14327400	DRY RUN CREEK NEAR PORT ORFORD, OR	Lat 42°41'20", long 124°26'00", in NW¼ sec.25, T.33 S., R.15 W., Curry County, at culvert in Humbug Mountain State Park and 5 miles southeast of Port Orford.	.86	1954-81	12- 2-80	17.53	(a)
		ROGUE RIVER BASIN					
14338005	ROGUE RIVER TRIBUTARY NEAR TRAIL, OR	Lat 42°39'35", long 122°46'45", in E½ sec.35, T.33 S., R.1 W., Jackson County, at culvert on State Highway 62, 1.7 miles northeast of Trail.	.64	1980-81	12- 2-80	15.63	5.4
14362050	KINNEY CREEK NEAR MCKEE BRIDGE, OR	Lat 42°05'35", long 123°07'40", in NW¼ sec.13, T.40 S., R.4 W., Jackson County, in Rogue River National Forest, at culvert on Forest Service road 405, 1.3 miles upstream from mouth, and 4 miles southwest of McKee Bridge.	2.83	1965-81	12- 2-80	8.57	30

a Discharge not determined.

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 1981

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
Part 14		SANDY RIVER BASIN				
Zigzag River	Sandy River	SW¼NW¼ sec.15, T.3 S., R.8 E.	-	-	8-25-81	19.1
Lady Creek	Zigzag River	SW¼NW¼ sec.16, T.3 S., R.8 E.	-	-	8-28-81	5.01
Camp Creek	.....do.....	NW¼NE¼ sec.19, T.3 S., R.8 E.	-	-	8-25-81	16.0
Unnamed Spring	Still Creek	Near line between SW¼ and SE¼ sec.24, T.3 S., R.8½ E.	-	-	5-29-81	.14
.....Do.....	.....do.....	Near center NW¼ sec.25, T.3 S., R.8½ E.	-	-	5-29-81	.25
Still Creek	Zigzag River	NE¼NW¼ sec.11, T.3 S., R.7 E.	-	-	8-25-81	31.3
Deer Creek	Bull Run River	SE¼SW¼ sec.10, T.1 S., R.6 E.	1.62	1979-80	1-29-81 7-29-81	5.67 1.18
Cougar Creek	.....do.....	SW¼SW¼ sec.10, T.1 S., R.6 E.	3.06	1979-80	1-29-81 7-29-81	9.82 2.49
Bear Creek	.....do.....	NW¼NW¼ sec.16, T.1 S., R.6 E.	1.68	1979-80	1-30-81 7-29-81	3.43 1.03
Fivemile Creek	.....do.....	SW¼NE¼ sec.17, T.1 S., R.6 E.	.79	1979-80	1-30-81 7-29-81	2.18 .31
Camp Creek	.....do.....	SW¼SW¼ sec.20, T.1 S., R.6 E.	3.27	1979-80	1-29-81 7-27-81	15.1 1.90
Part 14		WILLAMETTE RIVER BASIN				
White Branch	Lost Creek	Lat 44°09'53", long 121°57'49".	46.6	-	7-20-81	4.31
Mesa Creek	Separation Creek	Lat 44°04'49", long 121°49'05".	2.45	-	7-23-81	3.43
Separation Creek	Horse Creek	Lat 44°07'29", long 122°02'08".	63.0	-	7-31-81 8-27-81	223 201
Part 14		COOS RIVER BASIN				
West Fork Millicoma River	Millicoma River	NE¼NE¼ sec.9, T.24 S., R.11 W., below Stall Falls.	-	1972-80	10-21-80	4.98
Part 14		ROGUE RIVER BASIN				
Dutton Creek	Castle Creek	Lat 42°53'40", long 122°10'00".	-	1967-68, 1977-80	10- 9-80 6- 1-81 7-28-81	.28 1.39 .37
Castle Creek	Rogue River	Lat 42°54'45", long 122°17'00".	-	1967-68, 1977-80	10- 9-80 6- 1-81 7-28-81	.64 4.22 .91
Castle Creek Tributary	Castle Creek	Lat 42°53'30", long 122°10'00".	-	1967-68, 1977-78, 1980	10- 9-80 6- 1-81 7-28-81	0 .26 0
.....Do.....	.....do.....	Lat 42°53'25", long 122°09'45".	-	1967-68, 1977-80	10- 9-80 6- 1-81 7-28-81	0 .42 0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WILLAMETTE RIVER BASIN

440449121490500 - MESA CREEK AT PACIFIC CREST TRAIL, OR (LAT 44 04 49 LONG 121 49 05)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	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 LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 23...	1340	3.4	80	9.5	13	1.8	2.1	9.6	1.8	29	3.7

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 23...	1.8	.1	.09	.33	.42	.130	.120	34	73	<10	<1

440450121484600 - MESA CREEK SPRING NR BEND, OR (LAT 44 04 50 LONG 121 48 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	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 LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 23...	1530	1.0	69	7.2	6.5	11	1.3	1.9	7.4	1.5	19	5.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 23...	1.2	<.1	.09	.53	.86	.100	.090	36	66	<10	8

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WILLAMETTE RIVER BASIN

440523121494200 - DEW LAKE, OR

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)
JUL 23...	1030	1.00	11	6.7	17.0	7.0	5	1.7	<.1	1.2	.6	8.0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
JUL 23...	7.0	.8	<.1	<.10	.08	.17	<.010	4.4	21	19	3

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WILLAMETTE RIVER BASIN

440637121483500 - SEPARATION CREEK AT PACIFIC CREST TRAIL, OR (LAT 44 06 37 LONG 121 48 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	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 LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 22...	1615	<.10	4	18.0	7	2.8	.1	.7	.3	6.0	4.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 22...	1.5	<.1	.09	.34	.43	<.010	.010	6.6	20	17	4

440953121574900 - WHITE BRANCH AT YOUTH CAMP NR MCKENZIE BRIDGE, OR (LAT 44 09 52 LONG 121 57 49)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	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 LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUL 20...	1020	4.3	52	7.5	7.5	16	4.2	1.3	3.2	1.7	17	<1.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NO2+NO3 DIS-SOLVED (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)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUL 20...	.9	<.1	<.10	.48	.57	.040	.040	34	56	13	<1

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

CLACKAMAS RIVER BASIN

450654121481000 - TIMOTHY LAKE (CLACKAMAS COUNTY) OR

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
JUL									
24...	1145	10.0	44	19.8	18	4.4	1.7	2.3	.5
24...	1200	62.0	43	7.6	18	4.4	1.7	2.4	.5

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)
JUL									
24...	1.0	.7	.1	<.10	<.010	.31	.79	.020	<.010
24...	.6	.6	.1	<.10	<.010	1.2	.88	.020	<.010

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
JUL								
24...	17	39	37	30	<10	<1	30	<3
24...	11	44	36	30	50	20	30	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
23...	1030	33.0	49	6.9	11.0	10.3	21	4.9	2.1	2.7

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT										
23...	.6	28	3.2	.8	<.1	<.10	.010	.43	.50	.010

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
23...	.020	17	42	48	10	10	3	40	9

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SANDY RIVER BASIN

451604121442600 - TRILLIUM LAKE (CLACKAMAS COUNTY) OR (LAT 45 16 04 LONG 121 44 26)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
JUL									
24...	1700	6.50	28	7.0	21.5	11	2.9	1.0	1.8
24...	1705	11.5	28	--	--	12	3.0	1.1	1.8

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
JUL									
24...	.3	1.1	.7	.1	<.10	<.010	.22	1.00	.020
24...	.3	2.8	1.6	.1	<.10	<.010	.60	.72	.030

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
JUL									
24...	.010	3.0	26	16	30	290	3	30	5
24...	.160	3.9	25	20	30	230	3	30	6

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
23...	1315	6.50	31	6.5	8.0	10.8	12	3.1	1.1	2.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT										
23...	.4	8.0	5.2	1.6	<.1	<.10	<.010	.92	.90	.010

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
23...	.040	.5	27	19	6	440	4	30	10

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SANDY RIVER BASIN

451641121413100 - UNNAMED SPRING TRIBUTARY TO EAST FORK SALMON RIVER NEAR GOVERNMENT CAMP, OR

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
AUG 06...	2000	35	7.9	6.3	9	2.5	.7	2.2	1.2	2.2	.6

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
AUG 06...	.1	.00	<.010	.22	<.010	.31	.040	.050	31	51	46

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SANDY RIVER BASIN

451714121442601 - UNNAMED SPRING TRIBUTARY TO STILL CREEK NEAR GOVERNMENT CAMP (LAT 45 17 14 LONG 121 44 26)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 24...	1930	728	8.0	12.8	40	64	4.2	110	120	95

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
JUL 24...	.2	<.060	.19	<.060	.56	.040	.020	45	460	465

451746121441901 - UNNAMED SPRING AT SWIM TRIBUTARY TO STILL CREEK (LAT 45 17 46 LONG 121 44 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
JUL 24...	2000	592	8.0	18.4	170	29	23	58	6.0	110	120	50

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
JUL 24...	.3	<.10	<.060	.36	<.060	.54	.050	.020	69	405	421

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

SANDY RIVER BASIN

452738121504000 - BULL RUN LAKE (MULTNOMAH COUNTY) OR (LAT 45 27 38 LONG 121 50 40)

DATE	TIME	SAMPLING DEPTH (FT)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT										
30...	1215	26.0	16	6.7	9.5	11.3	5	1.4	.4	1.1
30...	1230	105	16	6.3	5.0	11.6	5	1.5	.3	1.2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT										
30...	.2	10	.2	.7	<.1	<.10	<.010	.26	.62	.020
30...	.2	12	1.3	.7	<.1	<.10	<.010	.23	.36	.010

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
30...	.020	6.7	13	17	30	<10	1	10	5
30...	.030	6.9	14	19	20	<10	<1	10	7

452738121504001 - BULL RUN LAKE, SITE 1, OR

DATE	TIME	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)
OCT						
30...	1300	280	700	.1	11	11

452738121504002 - BULL RUN LAKE, SITE 2

DATE	TIME	NITROGEN, TOT IN BOTTOM MATERIAL (MG/KG AS N)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C)
OCT						
30...	1330	670	550	.2	29	29

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

HOOD RIVER BASIN

452740121392000 - LAURANCE LAKE NEAR PARKDALE, OR

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 07...	1245	23.0	42	7.4	16.0	13	3.3	1.2	3.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG 07...	.9	3.2	.6	.1	<.10	.010	.55	1.10	.010

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
AUG 07...	.020	26	52	49	20	70	4	30	8

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FEET)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
OCT 31...	1300	13.0	6.6	6.0	12.0	16	4.0	1.5	4.8	1.0

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT 31...	29	1.2	.7	<.1	<.10	.020	.26	.39	.020

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 31...	.050	35	60	66	20	160	20	40	4

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

HOOD RIVER BASIN

452949121490500 - LOST LAKE NEAR PARKDALE, OR

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG									
07...	2000	13.0	14	6.8	19.0	5	1.2	.4	.9
07...	2015	56.0	13	6.1	6.2	4	1.0	.4	1.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
AUG									
07...	.2	4.2	.6	.1	.05	.060	.45	.42	.010
07...	.1	.1	.8	.1	<.01	<.01	.38	2.50	.020

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
AUG									
07...	.020	4.6	17	13	20	<10	<1	9	<3
07...	.010	4.2	21	16	30	<10	<1	9	<3

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	SAMPLING DEPTH (FEET)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)
OCT										
31...	1015	26.0	6.2	10.0	10.8	5	1.1	.5	.9	.1
31...	1030	66.0	5.6	--	--	4	1.0	.3	.9	.1

DATE	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT									
31...	5.0	2.1	.8	<.1	<.10	.010	.22	.96	.020
31...	5.0	.7	1.0	<.1	<.10	<.010	.35	.41	.010

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, DISSOLVED (UG/L AS ZN)
OCT									
31...	.020	4.8	10	13	30	10	2	10	6
31...	.020	4.4	11	11	10	<10	<1	10	4

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

HOOD RIVER BASIN

453220121442300 - STONE SPRING OVERFLOW (LAT 45 32 20 LONG 121 44 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)
AUG 21...	1700	44	7.2	6.8	12	2.9	1.1	3.2	1.7	24	<1.0

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, TOTAL (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
AUG 21...	1.1	.1	<.10	<.060	.14	<.060	.26	.060	.060	32	32

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452634122245300 - PRECIPITATION AT GRESHAM-MCKENZIE

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
11-12	.37	5	5.1	--	.20	<.040	<.2	1.2	.01
12-13	.46	6	5.2	--	.09	<.040	.3	.20	.52
24-25	.20	39	--	--	.20	<.040	.4	.80	.69
25-26	.47	6	5.2	--	.03	<.040	<.2	<.05	.10
30-31	.27	13	4.6	--	--	--	--	--	--
NOV									
01-01	.27	13	4.6	--	--	--	--	--	--
05-07	2.07	6	5.0	--	.05	<.004	<.2	.17	.17
07-08	1.65	16	5.1	1	.08	.180	1.7	.56	3.1
08-09	.94	8	5.0	--	.05	<.004	.5	.33	.87
16-17	.11	11	4.9	--	--	--	--	--	--
17-18	.21	9	4.9	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BROMIDE DIS-SOLVED (MG/L AS BR)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT									
11-12	.01	.11	<.100	.05	<2	<1	<.05	<1	<3
12-13	.01	.02	<.100	<.01	<2	<1	<.05	<1	<3
24-25	.01	.21	<.100	.05	4	<1	<.05	<1	<3
25-26	.01	<.01	<.100	.04	<2	<1	<.05	<1	<3
30-31	--	--	--	--	--	--	--	--	--
NOV									
01-01	--	--	--	--	--	--	--	--	--
05-07	.02	<.01	<.100	.03	<2	<1	<.05	<1	<3
07-08	.02	.02	<.100	<.01	<2	<1	<.05	<1	<3
08-09	.02	.04	<.100	.02	<2	<1	<.05	<1	<3
16-17	--	--	--	--	--	--	--	--	--
17-18	--	--	--	--	--	--	--	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
11-12	<10	11	<4	<10	10	<10	<1	<6.0	6
12-13	<10	<10	<4	<10	1	<10	<1	<6.0	4
24-25	<10	17	<4	<10	10	<10	2	<6.0	8
25-26	<10	<10	<4	11	2	<10	1	<6.0	4
30-31	--	--	--	--	--	--	--	--	--
NOV									
01-01	--	--	--	--	--	--	--	--	--
05-07	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
07-08	<10	<10	<4	<10	<1	<10	1	<6.0	<3
08-09	<10	<10	<4	<10	<1	<10	<1	<6.0	4
16-17	--	--	--	--	--	--	--	--	--
17-18	--	--	--	--	--	--	--	--	--

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091800 - PRECIPITATION AT BULL RUN-SMITH

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
11-12	.48	4	5.1	1	.05	.099	<.2	<.05	.01
12-13	.42	6	5.0	1	.04	.120	<.2	.20	.21
24-25	.36	16	4.7	1	.10	.180	1.6	.30	2.6
25-26	.61	9	5.2	--	.06	<.040	<.2	<.05	.47
26-27	.20	4	5.1	<1	.05	.150	<.2	.21	.24
31-31	.38	5	5.7	<1	.20	.130	<.2	.23	.14
NOV									
01-01	.38	5	5.7	<1	.20	.130	<.2	.23	.14
02-03	.46	5	5.1	--	.03	<.004	<.2	.15	.20
05-06	1.78	6	5.0	<1	.03	.007	<.2	.23	.17
06-07	1.47	6	5.4	<1	.04	.220	.4	<.05	1.0
17-18	.32	10	5.1	--	.02	<.004	<.2	.30	--
18-19	.32	14	4.6	<1	.04	.130	<.2	.60	.21
20-21	.73	4	5.2	--	.08	<.004	<.2	<.05	.03
21-22	.40	4	5.2	--	<.02	<.004	<.2	.10	.04
22-23	.43	10	4.9	--	.04	<.004	<.2	.40	.36
23-24	.17	12	5.0	1	.03	.320	<.2	1.0	<.01
26-27	.70	4	5.2	<1	<.02	<.040	<.2	<.05	<.01
28-29	1.26	8	5.1	--	<.02	.140	.2	<.05	1.0
DEC									
01-02	2.20	3	5.4	<1	<.02	<.040	<.2	<.05	2.0
02-03	1.88	4	5.3	<1	<.02	<.040	<.2	<.05	<.01
03-04	.94	5	5.1	<1	.05	<.040	<.2	<.05	1.0
04-05	.18	8	5.5	1	.05	.200	.9	1.0	2.0
05-06	.25	8	4.9	1	.04	.200	.5	1.0	1.0
19-20	.51	5	5.1	--	.07	<.004	<.2	<.05	.15
20-21	.91	4	5.1	--	<.02	<.004	<.2	<.05	.21
21-22	1.30	5	5.1	--	<.02	<.004	<.2	<.05	.19
JAN									
16-17	.18	13	5.7	<1	.30	.004	.6	.39	.66
20-21	.48	3	5.3	<1	.10	.087	.3	.76	1.8
21-22	.11	12	4.9	--	.30	<.004	.4	1.1	.35
22-23	.29	13	4.6	--	--	--	--	.72	.14
23-24	.46	15	4.8	--	.06	<.004	1.2	.62	1.6
25-26	.43	5	5.4	--	.03	<.004	.3	.07	.16
26-27	.32	4	5.6	--	.10	<.004	.4	.13	.28
27-28	.21	5	5.3	--	--	--	--	.33	.12
28-29	.44	15	4.5	<1	.04	.024	.8	.80	.93
FEB									
04-05	.10	6	5.6	--	--	<.004	<.2	--	--
08-09	.11	16	4.8	--	.09	<.004	.4	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BROMIDE DIS-SOLVED (MG/L AS BR)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT									
11-12	.01	<.01	<.100	.02	<2	<1	<.05	<1	<3
12-13	.01	<.01	<.100	.08	<2	<1	<.05	<1	<3
24-25	.27	.10	<.100	.02	<2	<1	<.05	<1	<3
25-26	.02	<.01	<.100	.02	<2	<1	<.05	<1	<3
26-27	.08	.04	<.100	.03	<2	<1	<.05	<1	<3
31-31	.04	.02	<.100	.01	<2	<1	<.05	<1	<3
NOV									
01-01	.04	.02	<.100	.01	<2	<1	<.05	<1	<3
02-03	.02	<.01	<.100	.02	<2	<1	<.05	<1	<3
05-06	.03	.12	<.100	.01	<2	<1	<.05	3	<3
06-07	.03	.02	<.100	<.01	<2	<1	<.05	<1	<3
17-18	--	<.01	<.100	<.01	<2	<1	<.05	<1	<3
18-19	.05	.29	<.100	.03	<2	<1	<.05	<1	<3
20-21	.03	<.01	<.100	<.01	<2	<1	<.05	<1	<3
21-22	.02	.03	<.100	<.01	<2	<1	<.05	<1	<3
22-23	.04	<.01	<.100	.02	<2	<1	<.05	<1	<3
23-24	<.01	<.01	<.100	.04	<2	<1	<.05	2	3
26-27	<.01	<.01	<.100	.01	<2	<1	<.05	1	<3
28-29	<.01	<.01	<.100	<.01	<2	<1	<.05	<1	<3
DEC									
01-02	<.01	<.01	<.100	<.01	<2	<1	<.05	<1	<3
02-03	<.01	<.01	<.100	<.01	<2	<1	<.05	<1	<3
03-04	1.0	<.01	<.100	<.01	<2	<1	<.05	1	<3
04-05	<.01	<.01	<.100	<.01	2	<1	<.05	1	<3
05-06	<.01	<.01	<.100	.02	<2	<1	<.05	<1	<3
19-20	.12	<.01	<.100	<.01	<2	<1	<.05	<1	<3
20-21	.09	.03	<.100	<.01	<2	<1	<.05	<1	<3
21-22	<.01	<.01	<.100	<.01	<2	<1	<.05	<1	<3
JAN									
16-17	.02	.32	<.100	.08	<2	<1	<.05	2	<3
20-21	.16	.21	<.100	.03	<2	<1	<.05	2	<3
21-22	.04	--	<.100	.09	3	<1	<.05	2	<3
22-23	.05	1.52	<.100	--	--	--	<.05	--	--
23-24	.04	.90	<.100	.10	<2	<1	<.05	<1	<3
25-26	.02	.10	<.100	.08	<2	<1	<.05	<1	<3
26-27	.06	.10	<.100	.11	<2	<1	<.05	<1	<3
27-28	.02	.35	<.100	--	--	--	<.05	--	--
28-29	.04	--	<.100	.14	<2	<1	<.05	<1	<3
FEB									
04-05	--	--	--	<.01	<2	<1	--	<1	<3
08-09	--	--	--	<.01	<2	<1	--	<1	<3

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091800 - PRECIPITATION AT BULL RUN-SMITH--Continued

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
11-12	<10	<10	<4	<10	2	<10	1	<6.0	10
12-13	<10	<10	<4	<10	5	<10	1	<6.0	22
24-25	21	<10	<4	<10	2	<10	1	<6.0	23
25-26	<10	<10	<4	<10	<1	<10	<1	<6.0	8
26-27	<10	<10	<4	11	<1	<10	<1	<6.0	8
31-31	<10	<10	<4	<10	5	<10	<1	<6.0	<3
NOV									
01-01	<10	<10	<4	<10	5	<10	<1	<6.0	<3
02-03	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
05-06	<10	<10	<4	<10	2	<10	1	<6.0	6
06-07	<10	<10	<4	<10	<1	<10	<1	<6.0	4
17-18	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
18-19	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
20-21	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
21-22	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
22-23	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
23-24	<10	<10	<4	21	1	<10	1	7.0	5
26-27	<10	<10	<4	<10	<1	<10	1	<6.0	<3
28-29	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
DEC									
01-02	<10	<10	<4	<10	<1	<10	<1	<6.0	5
02-03	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
03-04	<10	<10	<4	<10	2	<10	1	<6.0	<3
04-05	<10	<10	<4	<10	<1	<10	1	<6.0	<3
05-06	<10	<10	<4	<10	<1	<10	1	<6.0	3
19-20	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
20-21	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
21-22	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
JAN									
16-17	<10	<10	<4	18	1	<10	<1	<6.0	13
20-21	<10	<10	<4	13	<1	<10	<1	<6.0	4
21-22	<10	12	<4	<10	8	<10	2	<6.0	11
22-23	--	--	--	--	--	--	--	--	--
23-24	<10	<10	<4	<10	<1	<10	<1	<6.0	4
25-26	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
26-27	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
27-28	--	--	--	--	--	--	--	--	--
28-29	<10	<10	<4	<10	<1	<10	<1	<6.0	4
FEB									
04-05	<10	<10	<4	<10	4	<10	2	<6.0	19
08-09	<10	<10	<4	<10	<1	<10	<1	<6.0	3

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
10-11	.20	10	5.3	--	.10	<.004	.7	.62	.91
11-12	.24	17	5.4	3	.80	.230	2.2	.75	3.2
12-13	.56	3	5.8	1	.10	.130	.4	.11	.23
13-14	.59	5	5.3	1	.40	.038	.7	.15	.59
14-15	.31	8	5.0	1	.07	.110	.8	.71	1.0
15-16	.98	3	5.1	--	<.02	<.004	.3	.10	.17
16-17	.31	22	5.6	1	.20	.230	3.0	.12	4.9
17-18	1.32	5	5.3	2	.60	.180	<.2	.16	.35
18-19	1.23	12	5.3	1	.08	.250	1.3	.51	2.5
23-24	1.21	9	5.3	--	.50	<.004	.3	.41	.51
26-27	.24	7	5.1	--	.20	<.004	.4	.48	.35
MAR									
03-04	1.00	10	4.9	1	.08	.078	.6	.75	.90
06-07	.15	9	5.4	1	.30	.088	.7	.95	.91
14-15	.19	8	5.0	2	.40	.270	<.2	2.2	.98
15-16	.87	13	4.9	1	.10	.130	.7	.87	1.6
20-21	.17	7	5.2	--	.40	<.004	<.2	.48	.15
21-22	.20	10	5.2	1	.30	.094	1.2	.57	2.2
22-23	.20	4	5.7	<1	.10	.025	<.2	.39	.15
24-25	.90	3	5.2	<1	.08	.065	<.2	<.05	.08
25-26	.17	25	4.4	3	.30	.460	.8	1.8	1.2
28-29	.16	8	6.2	1	.10	.082	.6	.55	.82
29-30	.36	8	5.2	1	.10	.073	.7	.56	1.2
30-31	.84	4	5.4	1	.10	.081	<.2	.22	.20
31-31	.15	10	5.9	1	.30	.097	1.2	.85	3.1
APR									
01-01	.15	10	5.9	1	.30	.097	1.2	.85	3.1
01-02	.32	10	4.9	1	.20	.012	.5	.77	1.1
02-03	.45	20	4.8	1	.20	.180	1.7	1.3	3.4
04-05	.16	6	5.2	<1	.05	.032	.5	.35	.55
05-06	.28	57	4.6	3	.40	.480	7.2	3.1	7.6
06-07	.28	28	4.5	2	.20	.290	1.7	2.1	2.8
07-08	.63	5	5.1	<1	.09	.015	.3	.73	.24
08-09	.47	7	5.0	--	<.02	<.004	.8	.37	.26
10-11	.91	6	5.2	1	.07	.150	<.2	.38	.38
11-12	.52	13	4.8	1	.10	.220	.9	1.1	2.0
15-16	.36	8	5.4	1	.20	.200	.6	.48	.80
20-21	.46	9	5.0	1	.20	.180	.5	.94	.33
21-22	.84	6	5.1	1	.40	.110	.3	.54	.17
23-24	.36	5	5.1	1	.10	.170	.4	.50	.32
27-28	.28	4	5.6	1	.30	.040	.6	.41	1.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091800 - PRECIPITATION AT BULL RUN-SMITH

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)	COBALT, DISSOLVED (UG/L AS CO)
FEB									
10-11	.06	.57	<.100	.02	<2	<1	<.05	<1	<3
11-12	.04	1.95	<.100	1.2	<2	<1	<.05	<1	<3
12-13	.04	.16	<.100	.46	<2	<1	<.05	<1	<3
13-14	.01	.85	<.100	.64	<2	<1	<.05	<1	<3
14-15	.01	.25	<.100	.30	<2	<1	<.05	<1	<3
15-16	.01	.03	<.100	.09	<2	<1	<.05	<1	<3
16-17	.00	.01	<.100	1.2	<2	<1	<.05	<1	<3
17-18	.06	.99	<.100	.43	<2	<1	<.05	2	<3
18-19	.02	.11	<.100	.30	<2	<1	<.05	2	<3
23-24	.14	.42	<.100	<.01	<2	<1	<.05	<1	<3
26-27	.04	.04	<.100	.02	<2	<1	<.05	<1	<3
MAR									
03-04	.03	.15	<.100	.02	<2	<1	<.05	<1	<3
06-07	.10	.21	<.100	.07	<2	<1	<.05	<1	<3
14-15	.05	.12	--	.17	<2	<1	<.05	1	<3
15-16	<.01	.17	<.100	.04	<2	<1	<.05	1	<3
20-21	.05	.32	<.100	<.01	<2	<1	<.05	<1	<3
21-22	.14	.06	<.100	<.01	<2	<1	<.05	<1	<3
22-23	<.01	.02	<.100	<.01	<2	<1	<.05	<1	<3
24-25	.01	.01	<.100	<.01	<2	<1	<.05	<1	<3
25-26	.05	.21	<.100	.05	<2	<1	<.05	<1	<3
28-29	.09	.05	<.100	.11	<2	<1	<.05	<1	<3
29-30	.03	.06	<.100	.04	<2	<1	<.05	<1	<3
30-31	.04	.03	<.100	.03	<2	<1	<.05	<1	<3
31-31	.24	.06	<.100	.13	<2	<1	<.05	<1	<3
APR									
01-01	.24	.06	<.100	.13	<2	<1	<.05	<1	<3
01-02	.20	.17	<.100	.07	<2	<1	<.05	<1	<3
02-03	.11	.14	<.100	.04	<2	<1	<.05	<1	<3
04-05	.02	.02	<.100	.04	<2	<1	<.05	<1	<3
05-06	.08	.18	<.100	.41	<2	<1	<.05	<1	<3
06-07	.05	.34	.230	.16	<2	<1	<.05	<1	<3
07-08	.03	.15	<.100	.05	<2	<1	<.05	<1	<3
08-09	.02	.08	<.100	.13	<2	<1	<.05	<1	<3
10-11	.02	.03	<.100	<.01	10	<1	<.05	<1	<3
11-12	.07	.06	<.100	<.01	7	<1	<.05	<1	<3
15-16	.05	.01	<.100	.09	<2	<1	<.05	<1	<3
20-21	.02	.24	<.100	.05	<2	<1	<.05	1	<3
21-22	.01	.17	<.100	.11	<2	<1	<.05	<1	<3
23-24	.06	.01	<.100	.06	<2	<1	<.05	<1	<3
27-28	.12	.03	<.100	.57	<2	<1	<.05	<1	<3

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
FEB									
10-11	<10	<10	<4	<10	<1	<10	<1	<6.0	3
11-12	<10	<10	<4	<10	2	<10	2	<6.0	7
12-13	<10	<10	<4	<10	<1	<10	<1	<6.0	3
13-14	<10	<10	<4	<10	1	<10	1	<6.0	<3
14-15	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
15-16	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
16-17	<10	<10	<4	<10	<1	<10	2	<6.0	<3
17-18	<10	<10	<4	11	1	<10	1	<6.0	10
18-19	<10	<10	<4	<10	<1	<10	1	<6.0	<3
23-24	<10	<10	<4	<10	<1	<10	<1	<6.0	20
26-27	<10	<10	<4	<10	<1	<10	<1	<6.0	4
MAR									
03-04	<10	<10	<4	<10	1	<10	<1	<6.0	<3
06-07	<10	<10	<4	<10	3	<10	2	<6.0	6
14-15	<10	<10	<4	<10	6	<10	2	<6.0	4
15-16	<10	<10	<4	<10	1	<10	<1	<6.0	7
20-21	<10	<10	<4	<10	2	<10	<1	<6.0	5
21-22	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
22-23	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
24-25	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
25-26	<10	<10	<4	27	5	<10	2	<6.0	8
28-29	<10	<10	<4	<10	1	<10	<1	<6.0	<3
29-30	<10	<10	<4	<10	<1	<10	<1	<6.0	4
30-31	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
31-31	<10	<10	<4	<10	<1	<10	<1	<6.0	3
APR									
01-01	<10	<10	<4	<10	<1	<10	<1	<6.0	3
01-02	<10	<10	<4	<10	1	<10	<1	<6.0	3
02-03	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
04-05	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
05-06	<10	<10	<4	<10	2	<10	6	<6.0	14
06-07	<10	<10	<4	<10	2	<10	3	<6.0	7
07-08	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
08-09	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
10-11	<10	<10	<4	13	<1	<10	<1	<6.0	<3
11-12	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
15-16	<10	<10	<4	<10	1	<10	<1	<6.0	4
20-21	<10	<10	<4	13	2	11	<1	<6.0	4
21-22	<10	<10	<4	<10	1	<10	<1	<6.0	<3
23-24	<10	<10	<4	<10	1	<10	<1	<6.0	4
27-28	<10	<10	<4	<10	<1	<10	<1	<6.0	<3

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091800 - PRECIPITATION AT BULL RUN-SMITH--Continued

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
APR									
30-30	.27	29	4.3	1	.30	.170	.9	2.8	.87
MAY									
01-01	.27	29	4.3	1	.30	.170	.9	2.8	.87
03-04	.18	14	4.6	2	.50	.290	.8	.03	.89
04-05	.69	5	5.1	1	.10	.076	.4	.54	.21
05-06	.12	44	4.0	1	.30	.010	.6	2.8	1.2
06-07	.64	13	4.7	--	.10	<.004	.6	1.0	.72
08-09	.13	13	4.8	1	.20	.018	.5	2.1	2.8
10-11	.39	16	4.5	1	.10	.087	.4	1.5	.78
14-15	1.40	6	5.0	1	.40	.090	<.2	.53	.58
17-18	.43	4	5.5	--	.20	<.004	<.2	.19	.11
18-19	.21	12	4.7	<1	.10	.030	.3	.89	.11
20-21	.43	29	4.3	1	.07	.080	.7	2.7	.47
23-24	.34	8	4.8	--	.10	<.004	<.2	.38	.55
24-25	.74	7	4.8	--	<.02	.020	.3	.52	.35
29-30	.25	35	4.2	1	.20	.130	.6	2.7	1.3
JUN									
03-04	.84	8	4.7	<1	.10	.020	.3	.89	.11
04-05	.16	9	4.7	--	.10	<.004	.3	.62	.24
05-06	.47	6	4.9	--	.07	<.004	.4	.55	.23
06-07	.81	3	5.2	--	.05	<.004	.2	.26	.17
07-08	1.97	6	4.9	<1	.07	.040	.7	.61	.84
08-09	.61	8	4.8	<1	.02	.020	.6	.43	.56
09-10	.31	9	4.9	1	.04	.110	.6	.66	.71
11-12	.17	16	4.6	1	.20	.140	1.0	1.9	.97
12-13	.36	10	4.7	--	.03	<.004	.4	.25	.16
15-16	1.35	8	4.9	<1	.04	.030	.4	.28	.32
16-17	.14	23	4.8	1	.10	.250	1.9	1.6	4.1
17-18	.38	7	5.1	1	.09	.140	.5	.81	.54
18-19	.79	4	--	--	<.02	.080	.2	.22	.12
21-22	.50	10	4.7	0	.02	.050	.3	.61	.24
JUL									
06-07	.53	11	5.8	1	.20	.022	.8	1.2	.70
07-08	.13	13	4.4	1	.10	.063	.8	.98	1.1
12-13	.24	16	4.4	1	.09	.070	<.2	1.5	.54
AUG									
31-31	.41	7	5.5	--	.10	<.004	<.2	.54	.21
SEP									
01-01	.41	7	5.5	--	.10	<.004	<.2	.54	.21
18-19	.32	16	4.4	<1	.14	.030	.4	.96	1.5
20-21	.89	17	4.9	1	.15	.130	1.6	.85	3.0
21-22	.21	--	--	1	.30	.080	.8	.75	1.8
24-25	.50	11	4.6	--	.15	<.004	.3	.75	.54
25-26	.59	5	5.0	--	<.02	<.004	<.2	.18	.16

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BROMIDE DIS-SOLVED (MG/L AS BR)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)
APR									
30-30	.25	.31	<.100	.05	3	<1	<.05	1	<3
MAY									
01-01	.25	.31	<.100	.05	3	<1	<.05	1	<3
03-04	.06	.13	<.100	.44	<2	<1	<.05	1	<3
04-05	.02	.07	<.100	.04	<2	<1	<.05	<1	<3
05-06	.11	.68	<.100	.04	2	<1	<.05	<1	<3
06-07	.09	.15	<.100	.01	<2	<1	<.05	<1	<3
08-09	.86	.33	<.100	.05	<2	<1	<.05	1	<3
10-11	.08	.17	<.100	.03	<2	<1	<.05	<1	<3
14-15	.08	.09	<.100	.04	<2	<1	<.05	1	<3
17-18	.06	.02	<.100	.05	<2	<1	<.05	<1	<3
18-19	.13	.23	<.100	.14	<2	<1	<.05	<1	<3
20-21	.16	.35	<.100	.21	<2	<1	<.05	<1	<3
23-24	.07	.12	<.100	.08	<2	<1	<.05	<1	<3
24-25	.09	.07	<.100	.16	<2	<1	<.05	<1	<3
29-30	.10	.47	<.100	.17	--	<1	<.05	<1	<3
JUN									
03-04	.06	.09	<.100	.09	--	<1	<.05	<1	<3
04-05	.08	.15	<.100	.09	--	<1	<.05	<1	<3
05-06	.08	.06	<.100	.08	--	<1	<.05	1	<3
06-07	.06	.02	<.100	.04	--	<1	<.05	<1	<3
07-08	.07	.05	<.100	.08	--	<1	<.05	<1	<3
08-09	.06	.02	<.100	.06	--	<1	<.05	<1	<3
09-10	.07	.08	<.100	.10	--	<1	<.05	<1	<3
11-12	.07	.33	<.100	.11	--	<1	<.05	<1	<3
12-13	.04	.03	<.100	.07	--	<1	<.05	<1	<3
15-16	.08	.04	<.100	.07	--	<1	<.05	<1	<3
16-17	.44	.05	<.100	.03	--	<1	<.05	<1	<3
17-18	.03	.12	.240	.04	--	<1	<.05	<1	<3
18-19	.05	.01	<.100	.02	--	<1	<.05	<1	<3
21-22	.04	.09	--	.02	20	<1	<.05	<1	<3
JUL									
06-07	.06	.17	--	.12	30	<1	<.05	<1	<3
07-08	.07	.19	--	.14	20	<1	<.05	<1	<3
12-13	.12	.25	--	.02	<2	<1	<.05	<1	<3
AUG									
31-31	.05	.09	<.100	.02	<2	1	<.05	1	<3
SEP									
01-01	.05	.09	<.100	.02	<2	1	<.05	<1	<3
18-19	.17	.21	<.100	.05	<2	<1	.25	<1	<3
20-21	.03	.05	<.100	.01	<2	<1	<.05	<1	<3
21-22	.04	.11	<.100	.10	<2	<1	<.05	<1	<3
24-25	.02	.19	<.100	<.01	<2	1	<.05	<1	<3
25-26	.03	.03	<.100	<.01	<2	<1	<.05	<1	<3

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091800 - PRECIPITATION AT BULL RUN-SMITH--Continued

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR									
30-30	<10	12	<4	14	6	<10	2	<6.0	14
MAY									
01-01	<10	12	<4	14	6	<10	2	<6.0	14
03-04	<10	12	<4	26	3	<10	1	<6.0	8
04-05	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
05-06	<10	29	<4	13	5	<10	1	<6.0	16
06-07	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
08-09	<10	<10	<4	<10	4	<10	1	<6.0	30
10-11	<10	<10	<4	<10	1	<10	<1	<6.0	12
14-15	<18	<10	<4	13	2	<10	<1	<6.0	14
17-18	<10	<10	<4	<10	<1	<10	<1	<6.0	4
18-19	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
20-21	<10	13	<4	24	3	<10	<1	<6.0	8
23-24	<10	<10	<4	10	1	<10	<1	<6.0	<3
24-25	<10	<10	<4	14	<1	<10	<1	<6.0	<3
29-30	<10	19	8	19	5	<10	3	<6.0	12
JUN									
03-04	<10	<10	<4	10	2	<10	1	<6.0	3
04-05	<10	16	<4	<10	2	<10	1	<6.0	8
05-06	<10	<10	11	<10	<1	<10	<1	<6.0	7
06-07	<10	<10	5	<10	4	<10	1	<6.0	9
07-08	<10	<10	6	<10	5	<10	1	<6.0	7
08-09	<10	<10	6	<10	1	<10	1	<6.0	4
09-10	<10	<10	8	15	1	<10	1	<6.0	3
11-12	<10	<10	5	13	7	<10	3	<6.0	30
12-13	<10	<10	6	<10	6	<10	<1	<6.0	14
15-16	<10	<10	6	<10	1	<10	<1	<6.0	10
16-17	<10	<10	8	<10	1	<10	2	<6.0	7
17-18	<10	<10	10	21	2	<10	1	<6.0	8
18-19	<10	<10	9	18	<1	<10	<1	<6.0	<3
21-22	<10	<10	11	12	1	<10	<1	<6.0	3
JUL									
06-07	<10	<10	<4	<10	3	<10	2	<6.0	4
07-08	<10	<10	5	<10	8	<10	2	<6.0	5
12-13	<10	<10	<4	<10	2	<10	2	<6.0	<3
AUG									
31-31	10	<10	<4	<10	3	<10	1	<6.0	4
SEP									
01-01	10	<10	<4	<10	3	<10	1	<6.0	4
18-19	<10	<10	<4	<10	2	<10	<1	<6.0	4
20-21	<10	<10	<4	<10	<1	<10	1	<6.0	<3
21-22	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
24-25	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
25-26	<10	<10	<4	<10	<1	<10	<1	<6.0	<3

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
26-27	1.19	8	4.8	<1	.02	.010	<.2	.15	.18

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BROMIDE DIS-SOLVED (MG/L AS BR)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)
SEP									
26-27	.03	.04	<.100	<.01	<2	<1	<.05	<1	<3

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
SEP									
26-27	<10	<10	<4	<10	<1	<10	<1	<6.0	8

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

452650122091801 - PRECIPITATION AT BULL RUN-WEEKLY COMPOSITES

DATE	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
SEP									
08-15	10	4.9	--	.12	<.004	.5	1.2	.61	.07
15-22	12	5.3	1	.17	.060	1.2	.70	2.2	.04
22-29	5	5.0	--	.03	<.004	<.2	.66	1.1	.13
29-30	4	5.1	<1	.07	.040	.3	.28	.31	.04
OCT									
01-06	4	5.1	<1	.07	.040	.3	.28	.31	.04

DATE	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	SILICA, DISSOLVED (MG/L AS SIO2)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BROMIDE DISSOLVED (MG/L AS BR)	CADMIUM DISSOLVED (UG/L AS CD)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)
SEP									
08-15	.22	<.100	.06	7	<1	<.05	8	<3	<10
15-22	.09	<.100	.13	<2	<1	<.05	<1	<3	<10
22-29	.19	<.100	.08	<2	<1	<.05	<1	<3	<10
29-30	.08	<.100	<.01	<2	<1	<.05	<1	<3	<10
OCT									
01-06	.08	<.100	<.01	<2	<1	<.05	<1	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
SEP								
08-15	11	4	<10	5	<10	<1	<6.0	18
15-22	<10	<4	<10	<1	<10	1	<6.0	<3
22-29	<10	<4	<10	<1	<10	<1	<6.0	<3
29-30	<10	<4	<10	<1	<10	<1	<6.0	<3
OCT								
01-06	<10	<4	<10	<1	<10	<1	<6.0	<3

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

454145123470300 - PRECIPITATION AT NAHALEM-GRIMES

DATE	PRECIP-ITATION DAILY (IN)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
OCT									
11-12	.68	7	--	--	.03	<.040	.2	.20	.75
12-13	.98	16	--	--	.09	<.040	.1	.50	3.0
24-24	.24	9	5.2	2	.40	.160	.7	.57	2.0
25-26	.38	17	5.0	--	.03	<.040	.3	<.05	.41
30-31	.23	8	4.9	3	.90	.270	<.2	.50	.59
31-31	1.50	11	5.1	--	.08	<.040	.6	.10	1.3
NOV									
01-01	1.50	11	5.1	--	.08	<.040	.6	.10	1.3
02-03	.58	7	5.0	--	.03	<.004	.3	.24	.60
05-05	.15	10	4.9	--	.10	<.004	.6	.87	2.7
05-06	2.53	8	5.5	<1	.07	.160	.6	.25	.97
06-07	3.27	17	5.0	2	.30	.220	1.8	.46	3.3
07-08	.92	36	5.1	2	.30	.260	4.4	1.1	8.9
08-09	.70	14	5.3	1	.08	.094	1.3	.46	2.4
14-14	.26	48	5.2	3	.50	.330	6.5	2.1	9.7
14-15	.29	60	5.8	5	.30	1.1	7.4	--	13
20-21	3.25	8	5.2	<1	.04	.150	.3	<.05	.64
22-23	.13	13	5.1	2	.20	.310	1.1	1.3	2.1

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BROMIDE DIS-SOLVED (MG/L AS BR)	CADMIUM DIS-SOLVED (UG/L AS CD)	COBALT, DIS-SOLVED (UG/L AS CO)
OCT									
11-12	.01	<.01	<.100	.01	<2	<1	<.05	<1	<3
12-13	.01	<.01	<.100	.02	<2	<1	<.05	<1	<3
24-24	.16	.07	<.100	.02	<2	<1	<.05	<1	<3
25-26	.01	<.01	<.100	<.01	<2	<1	<.05	<1	<3
30-31	.04	.07	<.100	.05	<2	<1	<.05	1	<3
31-31	.01	<.01	<.100	<.01	<2	<1	<.05	1	<3
NOV									
01-01	.01	<.01	<.100	<.01	<2	<1	<.05	1	<3
02-03	.02	.00	<.100	.02	<2	<1	<.05	<1	<3
05-05	.06	.17	<.100	.03	<2	<1	<.05	<1	<3
05-06	.04	.01	<.100	.03	<2	<1	<.05	<1	<3
06-07	.03	.01	<.100	.02	<2	<1	<.05	<1	<3
07-08	.02	.01	<.100	<.01	<2	<1	<.05	<1	<3
08-09	.03	.01	<.100	<.01	<2	<1	<.05	<1	<3
14-14	.15	.04	<.100	<.01	<2	<1	<.05	<1	<3
14-15	<.01	<.01	<.100	.02	<2	<1	<.05	2	<3
20-21	.01	1.02	<.100	.01	<2	<1	<.05	<1	<3
22-23	.11	.06	<.100	.02	<2	<1	<.05	2	<3

ANALYSES OF WETFALL SAMPLES COLLECTED AT ATMOSPHERIC DEPOSITION SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

454145123470300 - PRECIPITATION AT NAHALEM-GRIMES--Continued

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
11-12	15	<10	<4	<10	<1	<10	<1	<6.0	3
12-13	<10	<10	<4	<10	<1	<10	1	<6.0	<3
24-24	<10	<10	<4	<10	3	<10	1	<6.0	6
25-26	<10	<10	<4	<10	<1	<10	<1	<6.0	4
30-31	10	<10	<4	15	2	<10	2	<6.0	5
31-31	<10	<10	<4	15	3	<10	1	<6.0	27
NOV									
01-01	<10	<10	<4	15	3	<10	1	<6.0	27
02-03	14	<10	<4	<10	<1	<10	<1	<6.0	<3
05-05	<10	<10	<4	<10	2	<10	<1	<6.0	4
05-06	<10	<10	<4	10	<1	<10	<1	<6.0	4
06-07	<10	<10	<4	<10	<1	<10	2	<6.0	<3
07-08	<10	<10	<4	<10	<1	<10	3	<6.0	<3
08-09	<10	<10	<4	<10	<1	<10	1	<6.0	<3
14-14	<10	<10	<4	<10	<1	<10	5	<6.0	3
14-15	11	<10	<4	<10	2	<10	7	<6.0	7
20-21	<10	<10	<4	<10	<1	<10	<1	<6.0	<3
22-23	<10	<10	<4	<10	3	<10	2	<6.0	13

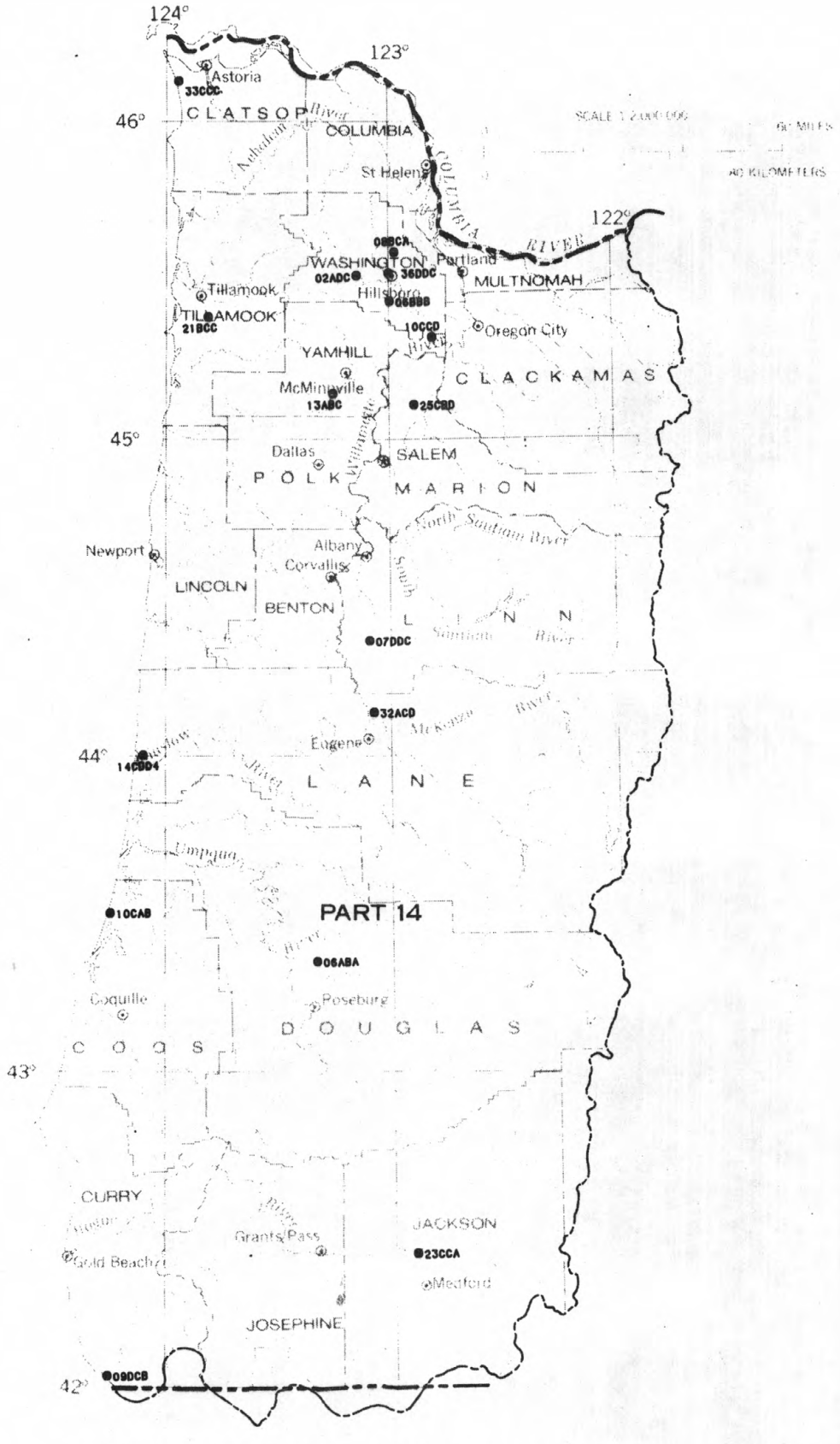


Figure 5. -- Map of Western Oregon showing location of observation wells

CLACKAMAS COUNTY

451905122475801. Local number 3S/1W-10CCD.
LOCATION.--Lat 45°19'05", long 122°47'58", Hydrologic Unit 17090007.
Owner: Pamouskis.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), reported depth 115 ft (35 m).
DATUM.--Altitude of land surface datum is 235 ft (72 m). Measuring point: Top of casing extension, 1.45 ft (0.44 m) above datum.
PERIOD OF RECORD.--1951 to 1980.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.42 ft (20.85 m) below datum, May 12, 1956; lowest measured, 91.26 ft (27.82 m) below datum, Oct. 17, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	92.64	APR 16	85.81	-	-	-	-

CLATSOP COUNTY

460733123560301. Local number 8N/10W-33CCC.
LOCATION.--Lat 46°07'33", long 123°56'03", Hydrologic Unit 17100201.
Owner: U.S. Geological Survey.
AQUIFER.--Dune sand.
WELL CHARACTERISTICS.--Drilled observation well, diam 6 in (150 mm), cased to 73 ft (22 m), screened 73 to 88 ft (22 to 27 m).
DATUM.--Land surface datum is 34.13 ft (10.40 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.5 ft (0.46 m) above datum.
REMARKS.--Continuous water-level recorder installed Aug. 4, 1977.
PERIOD OF RECORD.--1967-68, 1977 to current year.
EXTREMES FOR THE PERIOD OF RECORD.--Highest water level measured, 13.39 ft (4.08 m) below datum, Dec. 25, 1977; lowest measured, 16.29 ft (4.97 m) below datum, Oct. 20, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	15.28	JAN 5	14.59	APR 5	14.38	JUL 5	14.07
OCT 10	15.36	JAN 10	14.49	APR 10	14.33	JUL 10	14.10
OCT 15	15.48	JAN 15	14.47	APR 15	14.26	JUL 15	14.11
OCT 20	15.58	JAN 20	14.53	APR 20	14.27	JUL 20	14.16
OCT 25	15.66	JAN 25	14.57	APR 25	14.24	JUL 25	14.19
OCT 31	15.72	JAN 31	14.68	APR 30	14.23	JUL 31	14.24
NOV 5	15.73	FEB 5	14.77	MAY 5	14.25	AUG 5	14.30
NOV 10	15.64	FEB 10	14.85	MAY 10	14.31	AUG 10	14.39
NOV 15	15.72	FEB 15	14.75	MAY 15	14.34	AUG 15	14.45
NOV 20	15.78	FEB 20	14.32	MAY 20	14.33	AUG 20	14.52
NOV 25	15.62	FEB 25	14.17	MAY 25	14.30	AUG 25	14.56
NOV 30	15.59	FEB 28	14.13	MAY 31	14.28	AUG 31	14.65
DEC 5	15.39	MAR 5	14.14	JUN 5	14.25	SEP 5	14.70
DEC 10	15.33	MAR 10	14.20	JUN 10	14.17	SEP 10	14.76
DEC 15	15.32	MAR 15	14.28	JUN 15	14.13	SEP 15	14.84
DEC 20	15.30	MAR 20	14.37	JUN 20	14.08	SEP 20	14.89
DEC 25	15.16	MAR 25	14.41	JUN 25	14.06	SEP 25	14.93
DEC 31	14.82	MAR 31	14.43	JUN 30	14.06	SEP 30	14.92

COOS COUNTY

433006124141501. Local number 24S/13W-10CAB.
LOCATION.--Lat 43°30'06", long 124°14'15", Hydrologic Unit 17100304.
Owner: Coos Bay - North Bend Water Board.
AQUIFER.--Dune sand.
WELL CHARACTERISTICS.--Drilled observation well, diam 2 in (51 mm), depth 121 ft (37 m), cased to 119 ft (36 m), screened 119 to 121 ft (36 to 37 m).
DATUM.--Land surface datum is 35.26 ft (10.75 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.20 ft (0.67 m) above datum.
REMARKS.--Locally known as well 200A.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.20 ft (1.58 m) below datum, Feb. 6, 1969; lowest measured, 11.50 ft (3.51 m) below datum, Nov. 8, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

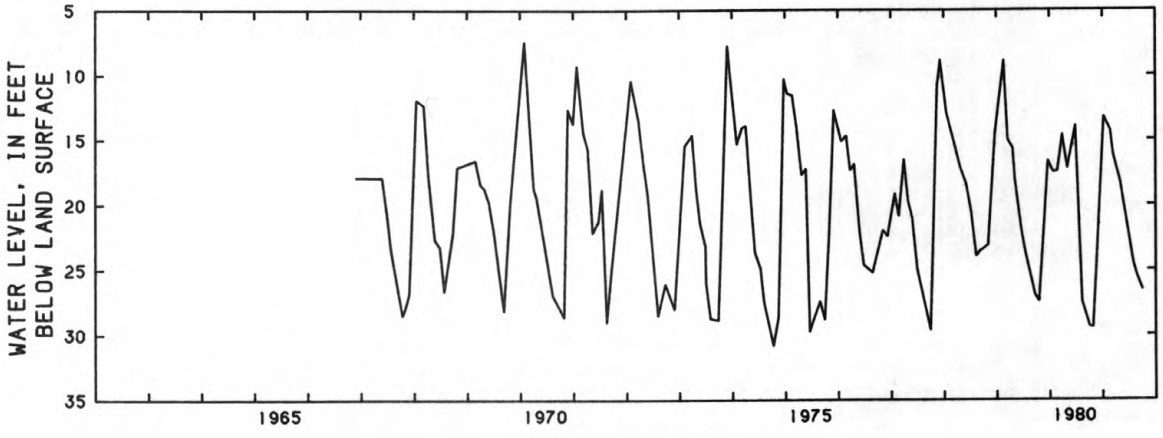
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	12.00	JAN 14	9.90	APR 15	6.10	AUG 27	11.40
NOV 12	11.60	FEB 11	9.60	MAY 20	9.60	SEP 16	12.00
DEC 13	10.30	MAR 20	9.40	JUL 15	10.40		

CURRY COUNTY

420205124145501. Local number 41S/13W-9DCB.
LOCATION.--Lat 42°02'05", long 124°14'55", Hydrologic Unit 17100312.
Owner: Minnie Clendenin.
AQUIFER.--Sandstone and gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 10 in (250 mm), depth 59 ft (18 m), cased to 45 ft (14 m), perforated 30-45 ft (9-14 m).
DATUM.--Altitude of land surface datum is about 110 ft (34 m). Measuring point: Top of casing 0.9 ft (0.3 m) above datum.
PERIOD OF RECORD.--1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.42 ft (2.26 m) below datum, Jan. 30, 1970; lowest measured, 30.52 ft (9.30 m) below datum, Sept. 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	29.41	FEB 23	14.30	APR 30	18.24	AUG 26	25.54
JAN 7	13.27	MAR 13	16.19	JUL 29	24.52	SEP 30	26.51



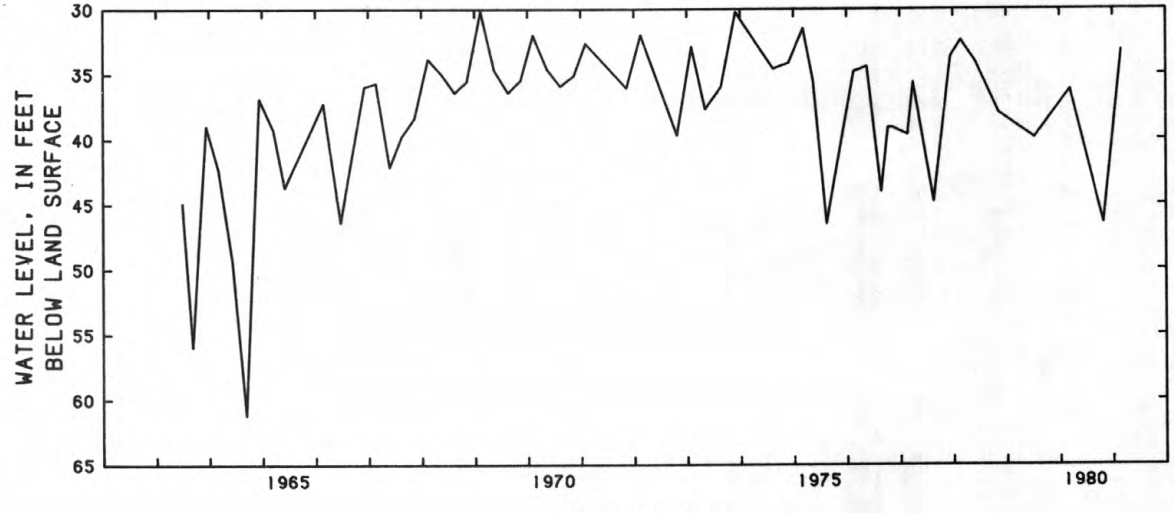
41S/13W-9DCB

DOUGLAS COUNTY

432051123195601. Local number 26S/5W-6ABA.
LOCATION.--Lat 43°20'51", long 123°19'56", Hydrologic Unit 17100301.
Owner: Stanley Mohr.
AQUIFER.--Sandstone and siltstone.
WELL CHARACTERISTICS.--Drilled domestic well, diam 8 in (200 mm), depth 225 ft (69 m), cased to 20 ft (6 m).
DATUM.--Altitude of land surface datum is 580 ft (177 m). Measuring point: Hole in casing seal, 0.7 ft (0.21 m) above datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.15 ft (9.19 m) below datum, Feb. 13, 1969; lowest measured, R/61.19 ft (18.65 m) below datum, Sept. 10, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	46.45	FEB 28	33.22	-	-	-	-



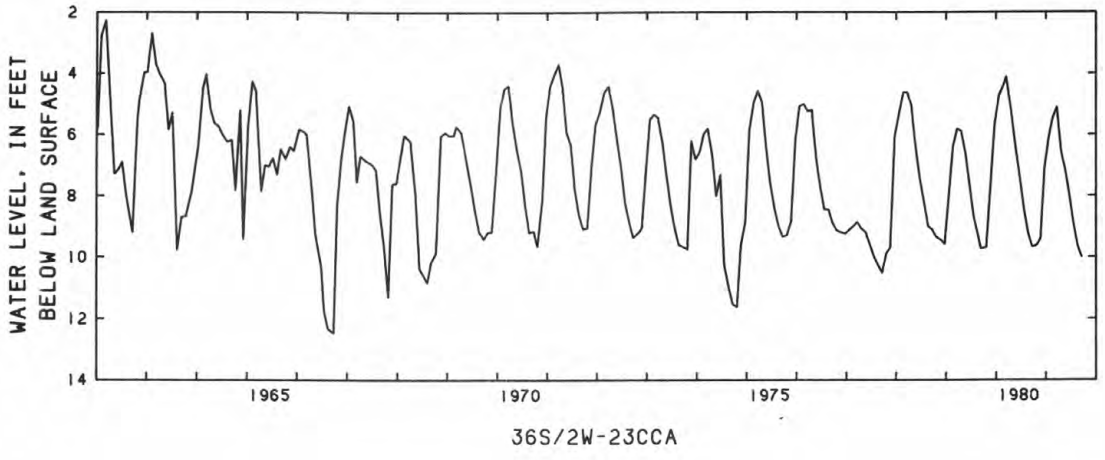
26S/5W-6ABA

JACKSON COUNTY

422517122543401. Local number 36S/2W-23CCA.
LOCATION.--Lat 42°25'17", long 122°54'34", Hydrologic Unit 17100308.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled observation well, diam 8 in (200 mm), depth 110 ft (33 m), cased to 106 ft (32 m).
DATUM.--Altitude of land surface datum is 1,230 ft (375 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above datum.
PERIOD OF RECORD.--1953-54, 1956, 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.27 ft (0.69 m) below datum, Mar. 5, 1962; lowest measured, 12.47 ft (3.80 m) below datum, Sept. 23, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	9.64	JAN 20	6.10	APR 20	6.56	JUL 20	8.95
NOV 20	9.42	FEB 20	5.44	MAY 20	7.19	AUG 20	9.67
DEC 20	7.08	MAR 20	5.11	JUN 19	7.98	SEP 17	9.99



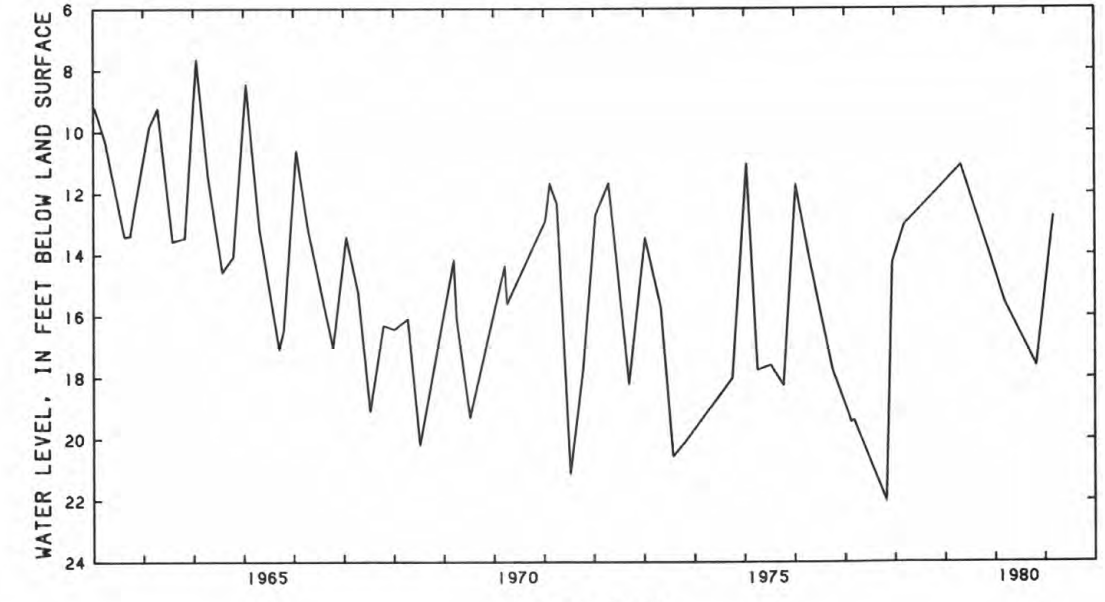
36S/2W-23CCA

LANE COUNTY

440803123042601. Local number 16S/3W-32ACD.
LOCATION.--Lat 44°08'03", long 123°04'26", Hydrologic Unit 17090004.
Owner: Peter Gutowski.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Dug and drilled irrigation well in sand and gravel, diam 8 in (200 mm), depth 40 ft (12 m).
DATUM.--Land surface datum is 388.98 ft (118.55 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 8.00 ft (2.44 m) below datum.
REMARKS.--Continuous water-level recorder installed Feb. 16, 1977.
PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year. Published every fifth day February 20 to September 20, 1977.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.53 ft (1.99 m) below datum, Jan. 16, 1936; lowest measured, 22.02 ft (6.71 m) below datum, Oct. 28, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 27	17.62	MAR 1	12.77	-	-	-	-



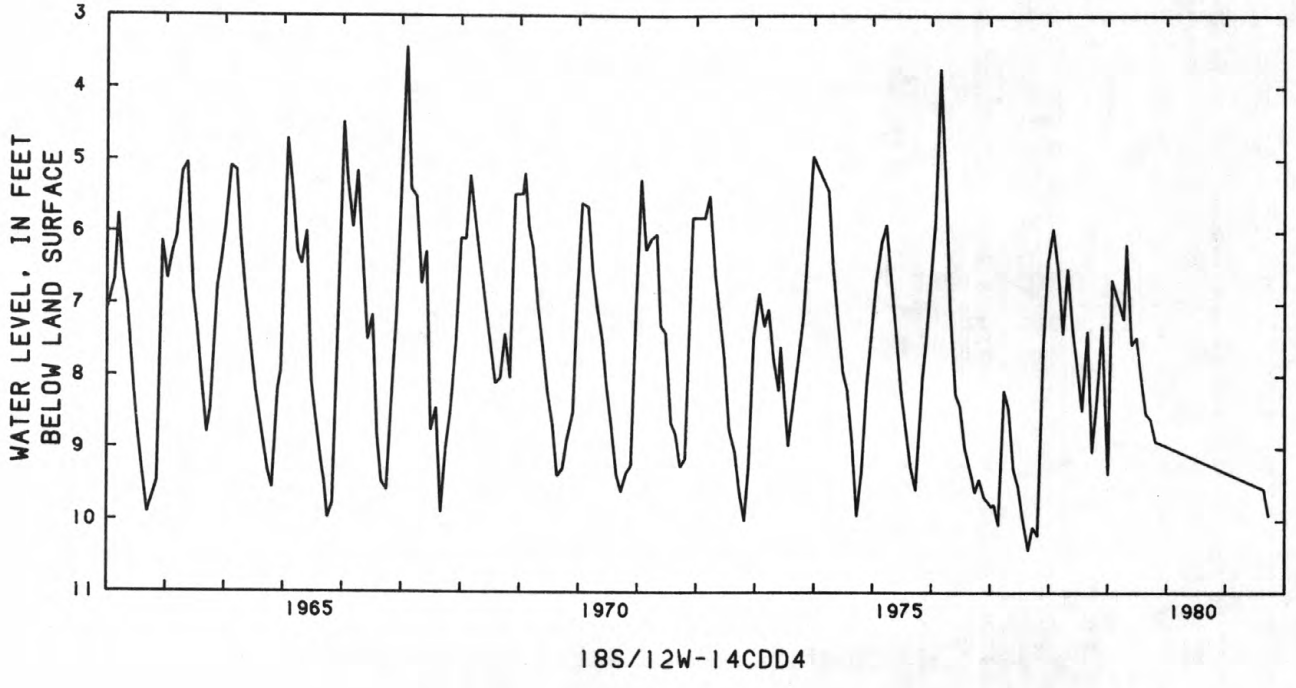
16S/3W-32ACD

LANE COUNTY--Continued

440000124054004. Local number 18S/12W-14CDD4.
LOCATION.--Lat 44°00'01", long 124°05'40", Hydrologic Unit 17100206.
Owner: U.S. Geological Survey.
AQUIFER.--Sand.
WELL CHARACTERISTICS.--Drilled observation well, diam 6 in (150 mm), depth 59 ft (18 m), cased to 59 ft (18 m), screened 44-59 ft (13-18 m).
DATUM.--Altitude of land surface datum is 70 ft (21 m). Measuring point: Top of casing at datum.
REMARKS.--No measurements in 1980.
PERIOD OF RECORD.--1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.44 ft (1.05 m) below datum, Jan. 31, 1967; lowest measured, 10.40 ft (3.17 m) below datum, Aug. 24, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
AUG 21	9.56	SEP 20	9.92	-	-	-	-



LINN COUNTY

442140123052501. Local number 14S/3W-7DCC.
LOCATION.--Lat 44°21'40", long 123°05'25", Hydrologic Unit 17090003.
Owner: H.H. Kirk
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 8 in (200 m), depth 123 ft (37 m), cased to 110 ft (34 m), perforated 35-110 ft (11-34 m).
DATUM.--Altitude of land surface datum is 288 ft (88 m). Measuring point: Top of casing, 0.55 ft (0.17 m) above datum.
PERIOD OF RECORD.--1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.20 ft (0.67 m) below datum, Mar. 21, 1980; lowest measured, 13.30 ft (4.05 m) below datum, Oct. 11, 1966.

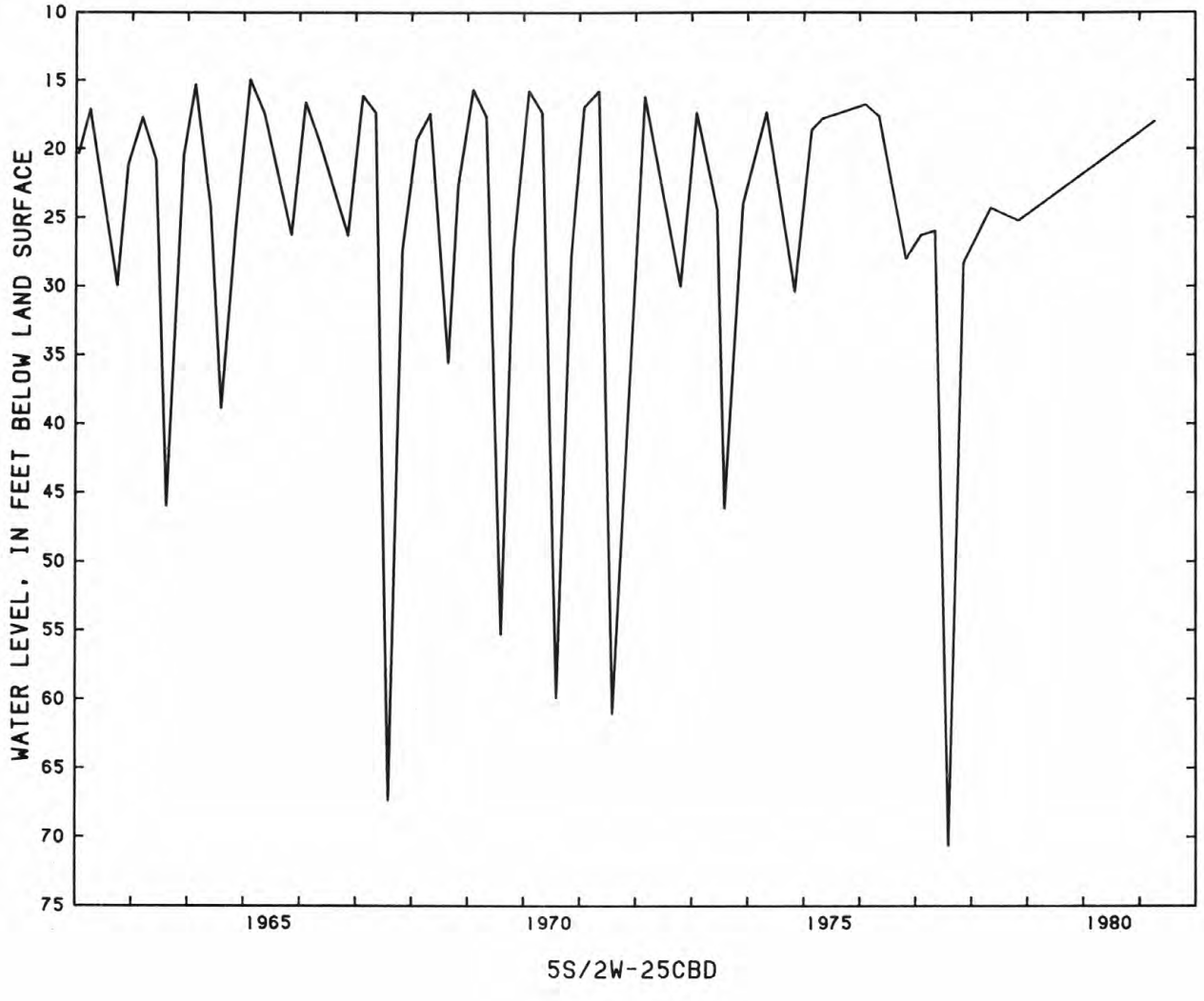
WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	10.59	JAN 26	2.67	APR 23	2.63	AUG 25	7.24
NOV 20	9.45	FEB 20	2.66	MAY 22	3.91	SEP 23	8.18
DEC 23	3.86	MAR 26	2.30	JUN 11	3.64		

450620122530501. Local number 5S/2W-25CBD.
LOCATION.--Lat 45°06'20", long 122°52'58", Hydrologic Unit 17090009.
Owner: Agricultural Research Corp. (Sam H. Brown).
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 18 to 6 in (460 to 150 mm), depth 252 ft (77 m), casing perforated 117-147 ft (36-45 m), 215-245 ft (65-75 m).
DATUM.--Land surface datum is 180.31 ft (54.96 m) National Geodetic Vertical Datum of 1929. Measuring point: Top edge of seal around pump column, 0.65 ft (0.20 m) below datum.
REMARKS.--No measurements in 1980.
PERIOD OF RECORD.--1929-30, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.74 ft (4.19 m) below datum, Mar. 11, 1948; lowest measured, R/ 61.03 ft (18.60 m) below datum, Aug. 3, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 6	18.00	-	-	-	-	-	-

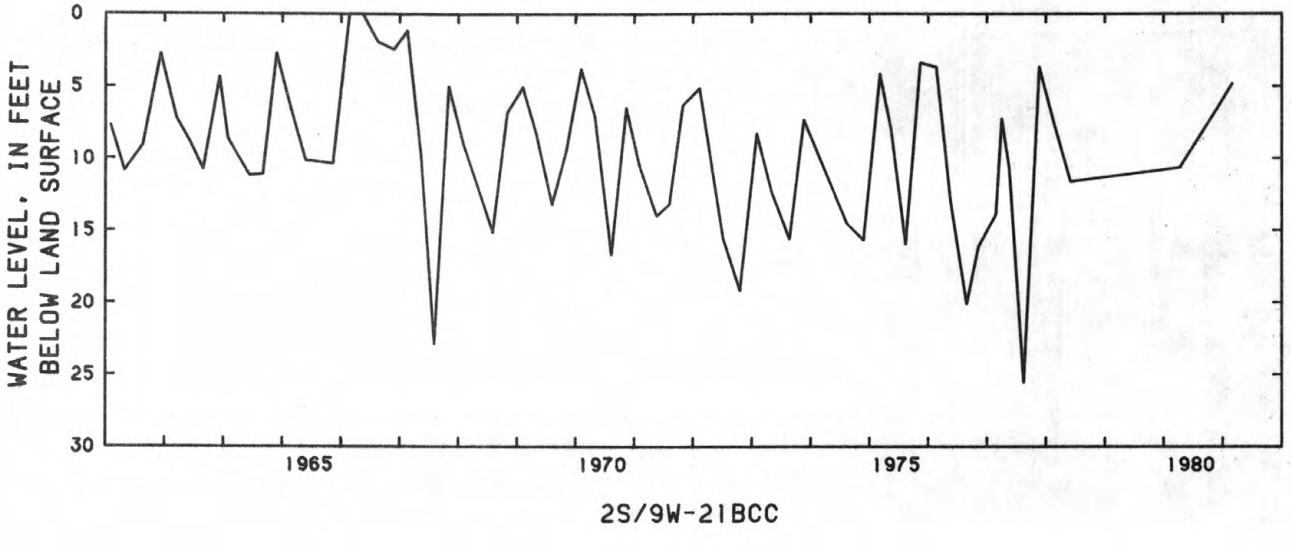


TILLAMOOK COUNTY

452300123481501. Local number 2S/9W-21BCC.
LOCATION.--Lat 45°23'03", long 123°48'08", Hydrologic Unit 17100203.
Owner: Vern Darby.
AQUIFER.--Gravel.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), depth 128 ft (39 m).
DATUM.--Altitude of land surface datum is about 120 ft (37 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing, Feb. 21, 1966; lowest measured, 22.89 ft (6.98 m) below datum, Aug. 2, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 12	6.79	FEB 27	4.85	-	-	-	-



453514122575801. Local number 1N/2W-8BCA.
LOCATION.--Lat 45°35'14", long 122°57'58", Hydrologic Unit 17090010.
Owner: Van Raden Farms.
AQUIFER.--Valley fill.
WELL CHARACTERISTICS.--Drilled domestic well, diam 6 in (150 mm), reported depth 60 ft (18 m), cased to 60 ft (18 m), perforated 28-60 ft (9-18 m).
DATUM.--Altitude of land surface datum is 200 ft (61 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.30 ft (0.01 m) above datum, Dec. 20, 1955; lowest measured, 26.91 ft (8.20 m) below datum, July 15, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 23	5.44	-	-	-	-	-	-

453117122593402. Local number 1N/3W-36DDC.
LOCATION.--Lat 45°31'17", long 122°59'34", Hydrologic Unit 17090010.
Owner: Terminal Ice. Co.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled unused well, diam 12 in (300 mm), reported depth 171 ft (52 m).
DATUM.--Altitude of land surface datum is 180 ft (55 m). Measuring point: Top of casing, at datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.02 ft (2.14 m) below datum, Jan. 28, 1970; lowest measured, 22.16 ft (6.75 m) below datum, Sept. 22, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22	16.65	APR 23	14.41	-	-	-	-

453050123081001. Local number 1S/4W-2ADC.
LOCATION.--Lat 45°30'50", long 123°08'10", Hydrologic Unit 17090010.
Owner: Myron Sheelar.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 6 in (150 mm), depth 85 ft (26 m).
DATUM.--Altitude of land surface datum is 170 ft (52 m). Measuring point: Top of casing, 0.80 ft (0.24 m) above datum.
REMARKS.--No measurements in 1980.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.81 ft (2.38 m) below datum, Jan. 13, 1959; lowest measured, 16.94 ft (5.16 m) below datum, Nov. 2, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

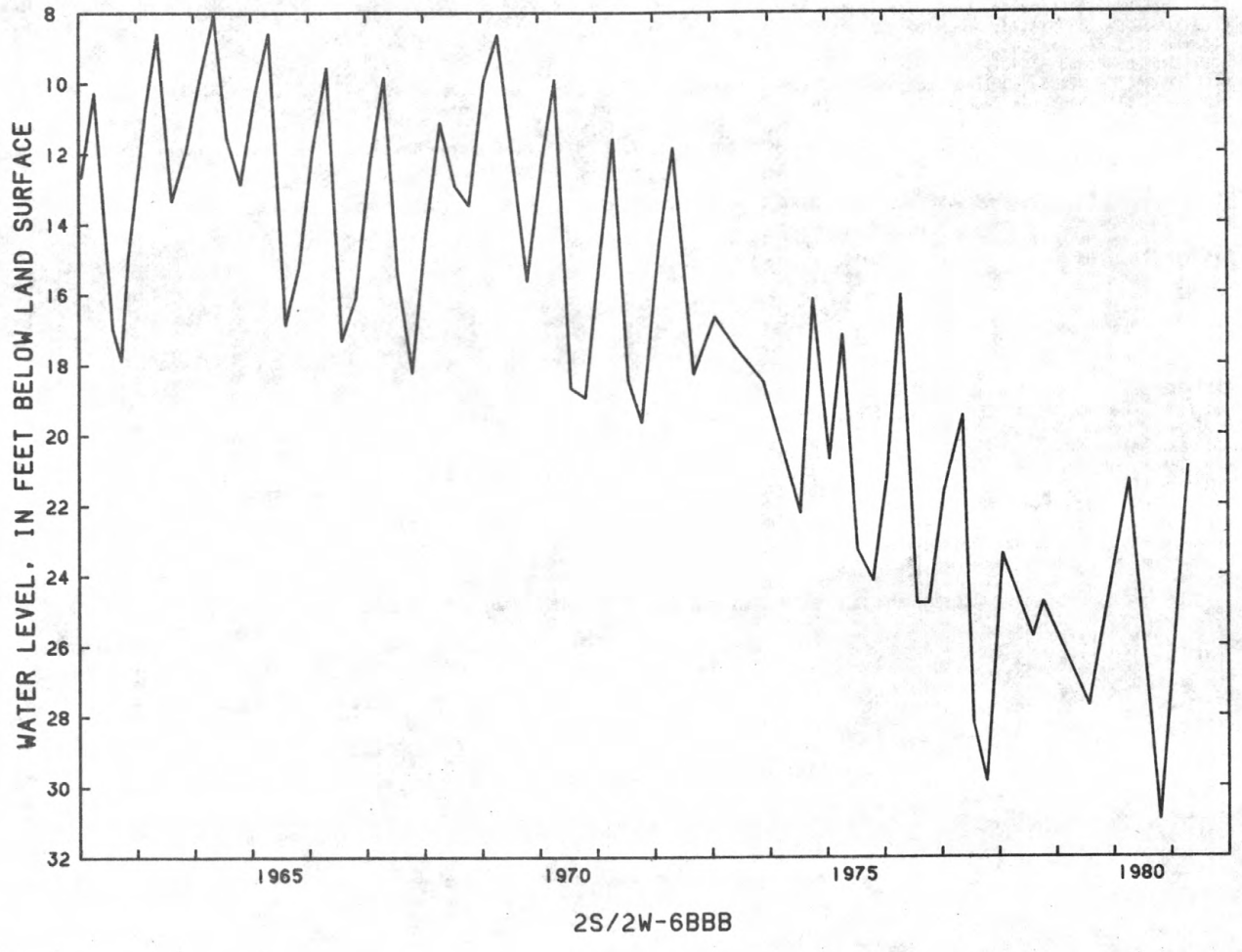
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	X/ 7.35	APR 20	X/ 7.10	-	-	-	-

WASHINGTON COUNTY--Continued

452600122592201. Local number 2S/2W-6BBB.
LOCATION.--Lat 45°25'58", long 122°59'20", Hydrologic Unit 17090010.
Owner: S.R. Rotchstrom.
AQUIFER.--Columbia River Basalt Group.
WELL CHARACTERISTICS.--Drilled irrigation well, diam 6 in (150 mm), reported depth 486 ft (148 m), cased to 250 ft (76 m).
DATUM.--Altitude of land surface datum is 190 ft (58 m). Measuring point: Hole in south side of pumpbase, 0.60 ft (0.18 m) above datum.
PERIOD OF RECORD.--1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.66 ft (1.42 m) below datum, Mar. 16, 1951; lowest measured, 29.85 ft (9.10 m) below datum, Oct. 12, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	T/ 30.95	APR 21	20.94	-	-	-	-



YAMHILL COUNTY

450829123143801. Local number 5S/5W-13ABC.
LOCATION.--Lat 45°08'29", long 123°14'38", Hydrologic Unit 17090008.
Owner: George Fuller.
AQUIFER.--Sand and gravel.
WELL CHARACTERISTICS.--Drilled domestic and stock well, diam 7 in (180 mm), depth 64 ft (20 m).
DATUM.--Land surface datum is 151.09 ft (46.03 m) National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 0.50 ft (0.15 m) above datum.
REMARKS.--No measurements in 1980.
PERIOD OF RECORD.--1928-30, 1935-36, 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.25 ft (2.52 m) below datum, Apr. 1, 1963; lowest measured, 28.67 ft (8.74 m) below datum, July 8, 1977.

R Recently pumped.
T Nearby well recently pumped.
X Surface water effects (new full pond 125 ft distant).

October 1, 1978

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
	Length	
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)
	Area	
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)
	Volume	
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)
	Flow	
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)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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